# SRI RAMACHANDRA UNIVERSITY

(Declared under Section 3 of the UGC Act, 1956)
**Accredited by NAAC with 'A' Grade**

# Self Study Report
## Cycle -2
## Volume I

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## Submitted to
## National Assessment and Accreditation Council
### Bengaluru

## January 2014

## NAAC SELF-STUDY REPORT
## Cycle -2
## Volume I

# SRI RAMACHANDRA UNIVERSITY

(Declared under Section 3 of the UGC Act, 1956)

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## PREFACE

Sri Ramachandra University was accredited by NAAC with 'A' grade and CGPA score of 3.52 on a 4 point scale in 2009. Subsequently, other accreditations such as JCI, NABH, NABL, AABB, AERB, ISO were earned. Thus, the Institution is fully involved with quality sustenance and quality enhancement efforts without any time lag, spearheaded by the dynamic IQAC which has created a quantum change in the outlook of the faculty members and students alike. Quality is enshrined in the day to day working culture of Sri Ramachandra University.

Internal Quality Assurance Cell (IQAC) was established on 9th September 2009. Since then, it has been functioning as a vibrant body, monitoring all quality related processes in the University. The annual quality assessment report (AQAR) has been submitted to NAAC on time. A vast change has been effected in interdepartmental communication, documentation in the departments and submission of reports through the newly developed e–Governance portal to IQAC. It has conducted Conferences/Workshops on Quality Assurance in 2011 &2012. It has worked efficiently in preparing for NAAC reaccreditation Self Study Report (SSR) cycle-2 as well as conducting the Academic Administrative and Audit (AAA) Committee of external experts' visit in 2013 and acting upon the recommendations of the Committee.

Now, it is my pleasure to submit the SSR for cycle 2 reaccreditation to NAAC which is a fully involved activity of IQAC, faculty members from all constituent units of the University & other staff and students. We are confident that this participatory culture of University community with full commitment will be amply justified during the visit of the NAAC peer team to SRU.
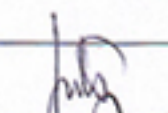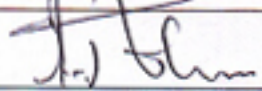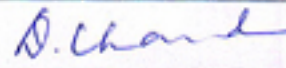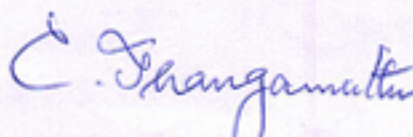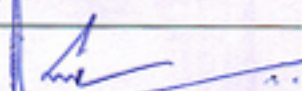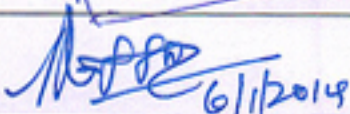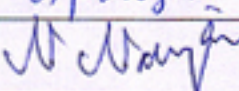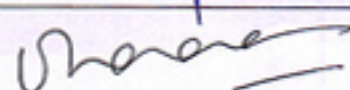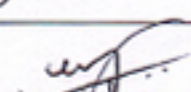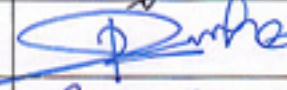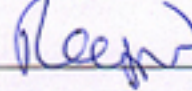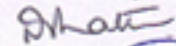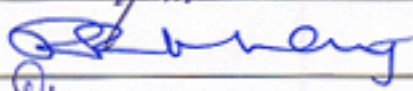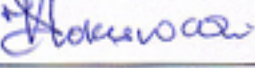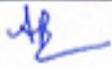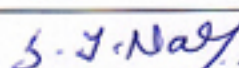
Prof. J.S.N. Murthy
Vice-Chancellor
Sri Ramachandra University

# Resolution

It is resolved that the Self Study Cycle 2 report of Sri Ramachandra University for re-accreditation, as presented to members of IQAC in the meeting held on 6th January 2014, be considered & approved for submission to National Assessment and Accreditation Council, Bengaluru.

| IQAC Members | Signature |
|---|---|
| **Chairperson :** Prof J S N Murthy, Vice Chancellor | |
| **Senior Coordinator:** Dr Lt Col A Ravikumar | |
| **Coordinator :** Prof D Chamundeeswari | D.Cham |
| **External Members** Prof C Thangamuthu, Former Vice Chancellor, Bharathidasan University, Trichy | C. Thangamuthu |
| Mr N Kanniah, General Secretary (Southern Railway Mazdoor Union) | Apologies |
| Mr V Ramesh, GM, (GA), Hyundai Motors, Chennai | |
| **Members** Prof S P Thyagarajan, Prof. of Eminence and Dean (Research) | 6/1/2014 |
| Dr K V Somasundaram, Dean of Faculties | Apologies |
| Thiru N Natarajan, Registrar | N Narayan |
| Prof P V Vijayaraghavan, Dean – Education & Director (Academic Administration) | |
| Prof K Balaji Singh | |
| Dr A Rekha | |
| Dr R Suresh | |
| Prof Roopa Nagarajan | Roopa |
| Prof D Prathiba, Professor | Prathi |
| Dr S Rajendiran | |
| Dr P Venkatachalam | |
| Dr T S Lokeswari | Lokeswari |
| Dr R Anjana | |
| Dr S J Nalini | S.J.Nal |

# LIST OF ABBREVIATIONS

| S NO | ABBREVIATION | EXPANSION |
|------|-------------|-----------|
| 1. | AAA | Academic and Administrative Audit |
| 2. | AABB | American Association of Blood Bank. |
| 3. | ABA | Applied Behavior Analysis |
| 4. | ABLLS | Assessment of Basic Language and Learning Skills |
| 5. | AC | Air Conditioner |
| 6. | AERB | Atomic Energy Regulatory Board |
| 7. | AFIH | Associate Fellow in Industrial Health |
| 8. | AICTE | All India Council for Technical Education |
| 9. | AIISH | All India Institute of Speech and Hearing |
| 10. | AIM | Advances in Internal Medicine |
| 11. | AIDS | Acquired Immunodeficiency Syndrome |
| 12. | API | Academic Performance Indicator |
| 13. | AQAR | Annual Quality Assurance Reports |
| 14. | ASRAM | Alluri Sitaraman Raju Academy of Medical Science |
| 15. | ATM | Automated Teller Machine |
| 16. | AYUSH | Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy |
| 17. | BARC | Bhaba Atomic Research Center |
| 18. | BOHS | Basic Occupational Health Services |
| 19. | BOM | Board of Management |
| 20. | BOS | Board of Studies |
| 21. | BPL | Below Poverty Line |
| 22. | BSNL | Bharath Sanchar Nigam Limited |
| 23. | CAPA | Corrective Action and Preventive Action |
| 24. | CAT | Common Admission Test |
| 25. | CBCS | Choice Based Credit System |
| 26. | CBSS | Credit Based Semester System |
| 27. | CCC | Cardiac Care Center |
| 28. | CCTV | Closed-Circuit Television |
| 29. | CCRAS | Central Council for Research in Ayurvedic Sciences |
| 30. | CD | Compact Disc |
| 31. | CDC | Curriculum Development Committee |
| 32. | CD ROM | Compact Disc Read-Only Memory |
| 33. | CEFT | Central Animal Facility for Developmental Research and Toxicology |
| 34. | CGPA | Cumulative Grade Point Average |
| 35. | CGFN | Commission on Graduates of Foreign |

| | | | Nursing Schools |
|------|--------|------|------------------|
| 36. | CHCWM | Certificate in Health Care Waste Management |
| 37. | CHL | Cited Half Life |
| 38. | CITI | Collaborative Institutional Training Initiative |
| 39. | CME | Continuing Medical Education |
| 40. | COE | Controller of Examinations |
| 41. | COMPT | Certificate Course in Orthopaedic Manual Physiotherapy |
| 42. | CPCB | Central Pollution Control Board |
| 43. | CPCSEA | Committee for the Purpose of Control and Supervision of Experiments on Animals |
| 44. | CQI | Continuous Quality Improvement |
| 45. | CRF | Central Research Facility |
| 46. | CRO | Clinical Research Organization |
| 47. | CRRI | Compulsory Rotatory Residential Internship |
| 48. | CSSD | Central Sterile Services Department |
| 49. | CTRI | Clinical Trials Research of India |
| 50. | DAE | Department of Atomic Energy |
| 51. | DBT | Department of Biotechnology |
| 52. | DCI | Dental Council of India |
| 53. | DCGI | Drug Controller General of India |
| 54. | DD | Demand Draft |
| 55. | DELNET | Developing Library Network |
| 56. | DEU | Dental Education Unit |
| 57. | DNB | Diplomate of National Board |
| 58. | DPH | Department of Public Health |
| 59. | DPIC | Drugs and Poisons Information Centre |
| 60. | DRDO | Defence Research and Development Organization |
| 61. | DST | Department of Science and Technology |
| 62. | DTP | Desktop Publishing |
| 63. | DVD | Digital Video Disc or Digital Versatile Disc |
| 64. | EDC | Entrepreneurship Development Cell |
| 65. | EDP | Department of Electronic Data Process |
| 66. | EHE | Environmental Health Engineering |
| 67. | EMP | Environment Management Plan |
| 68. | EMR | Electronic Medical Records System |
| 69. | ESI | Employees' State Insurance |
| 70. | ETCT | Emergency & Trauma Care Technology |
| 71. | EUHSC | Education Unit Health Science Colleges |
| 72. | FAIMER | Fellowship in Advancement in Medical Education and Research |

| 73. | FDC | Faculty Development Committee |
|---|---|---|
| 74. | FDP | Faculty Development Program |
| 75. | FRCP | Fellowship of the Royal College of Physicians |
| 76. | FRCS | Fellowship of the Royal College of Surgeons |
| 77. | GATE {SRU} | Growth and Advancement Towards Excellence |
| 78. | GATE | Graduate Aptitude Test in Engineering |
| 79. | GB | Giga Bytes |
| 80. | GC-MS | Gas Chromatography-Mass spectroscopy |
| 81. | GCP | Good Clinical Practices |
| 82. | GLP | Good Laboratory Practices |
| 83. | GoI | Government of India |
| 84. | Govt. | Government |
| 85. | GPAT | Graduate Pharmacy Aptitude Test |
| 86. | GRE / TOEFL | Graduate Record Examinations / Test of English as a Foreign Language |
| 87. | HAZMAT | Radiation, Laboratory and Hazardous Materials |
| 88. | HDD | Hard Disk Drive |
| 89. | HELINET | Health Science Library and Information Network |
| 90. | HIMRL | Herbal and Indian Medicine Research Laboratory |
| 91. | HIV | Human Immunodeficiency Virus |
| 92. | HMI | Harvard Medical International |
| 93. | HMIS | Hospital Management Information System |
| 94. | HoD | Head of the Department |
| 95. | HOPE | Haemato Oncology Pediatric Education |
| 96. | HPLC | High Performance Liquid Chromatography |
| 97. | HPTLC | High Performance Thin Layer Chromatography |
| 98. | HIS | Health Science Institute |
| 99. | IAEC | International Atomic Energy Commission Committee |
| 100. | IATC | Internal Assessment Test Cell |
| 101. | ICD | International Classification of Diseases |
| 102. | ICDS | Integrated Child Development Scheme |
| 103. | ICGEB | International Centre for Genetic Engineering & Biotechnology |
| 104. | ICMR | Indian Council of Medical Research |
| 105. | ICP-MS | Inductively Coupled Plasma Mass Spectrometry |

| 106. | IC-SCRT | Institutional Committee for Stem Cell Research and Therapy |
|------|---------|-----------------------------------------------------------|
| 107. | ICT | Information and Communications Technology |
| 108. | ICU | Intensive Care Unit |
| 109. | ICCU | Intensive Coronary Care Unit |
| 110. | ICGEB | International Centre for Genetic Engineering & Biotechnology |
| 111. | ICWO | Indian Community Welfare Organization |
| 112. | IEC | Institutional Ethics Committee |
| 113. | IEC-SCRT | Institutional Ethics Committee for Stem Cell Research and Therapy |
| 114. | IGNOU | Indira Gandhi National Open University |
| 115. | IGCAR | Indira Gandhi Centre for Atomic Research |
| 116. | IIIM | Indian Institute of Integrative Medicine |
| 117. | IITM | Indian Institute of Technology Madras |
| 118. | IELTS | International English Language Testing System |
| 119. | ILO | International Labour Organization |
| 120. | INC | Indian Nursing Council |
| 121. | INFLIBNET | Information and Library Network |
| 122. | INSPIRE | Innovation in Science Pursuit for Inspired Research |
| 123. | IP | In Patient |
| 124. | IPR | Intellectual Property Rights |
| 125. | IQAC | Internal Quality Assurance Cell |
| 126. | IRP | Input / output Request Packets |
| 127. | ISO | International Organization for Standardization |
| 128. | ISR | Institutional Social Responsibility |
| 129. | ISSN | International Standard Serial Number |
| 130. | ISBN | International Standard Book Number |
| 131. | ITROEH | International Training and Research on Occupational and Environmental Health |
| 132. | JCI | Joint Commission International |
| 133. | JRF | Junior Research Fellowship |
| 134. | LAN | Local Area Network |
| 135. | LCD | Liquid-Crystal Display |
| 136. | LED | Light-Emitting Diode |
| 137. | Lt. Col | Lieutenant Colonel |
| 138. | MARC | Microbiology Annual Revision Course |
| 139. | MCI | Medical Council of India |
| 140. | MCQ | Multiple Choice Questions |
| 141. | MEU | Medical Education Unit |

| 142. | MHRD | Ministry of Human Resource Development |
|------|------|------|
| 143. | MIS | Management Information Systems |
| 144. | MOEF | Ministry of Environment and Forest |
| 145. | MOES | Ministry of Earth Sciences |
| 146. | MOU | Memorandum of Understanding |
| 147. | MRCP- PACES | Membership of Royal Colleges of Physicians of the United Kingdom Part 2 Clinical Examination |
| 148. | MSCC | Medical Staff Credential Committee |
| 149. | MSEC | Medical Staff Executive Committee |
| 150. | NAAC | National Assessment and Accreditation Council |
| 151. | NABH | National Accreditation Board for Hospitals & Healthcare Providers |
| 152. | NABL | National Accreditation Board for Testing and Calibration of Laboratories |
| 153. | NACO | National Aids Control Organization |
| 154. | NBA | National Board of Accreditation |
| 155. | NCBS | National Centre for Biological Sciences |
| 156. | NCC [SRU] | Nursing Care Conference |
| 157. | NCC | National Cadet Corps |
| 158. | NCLEX | National Council Licensure Examination for Registered Nurses |
| 159. | NICU | Neonatal Intensive Care Unit |
| 160. | NEBOSH | National Examination Board for Occupational Safety and Health (UK) |
| 161. | NEERI | National Environmental Engineering Research Institute |
| 162. | NEET | National Eligibility cum Entrance Test |
| 163. | NEN | National Entrepreneurial Network |
| 164. | NET | National Eligibility Test |
| 165. | NGO | Non-Governmental Organization |
| 166. | NIC | National Institute of Cancer |
| 167. | NIH | National Institute of Health |
| 168. | NKN | National Knowledge Network |
| 169. | NMEICT | National Mission on Education through Information and Communication Technology |
| 170. | NMR | Nuclear Magnetic Resonance |
| 171. | NPCB | National Program for Control of Blindness |
| 172. | NRHM | National Rural Health Mission |
| 173. | NRI | Non-Resident Indian |
| 174. | NSS | National Service Scheme |
| 175. | NTTC | National Teacher Training Centre |
| 176. | OBC | Other Backward Class |

| | | |
|---|---|---|
| 177. | OG Quest | Obstetrics and Gynecology education program |
| 178. | OMR | Optical Mark Recognition |
| 179. | OP | Out Patient |
| 180. | OPAC | Online Public Access Catalogue |
| 181. | OSCE | Objective Structured Clinical Examination |
| 182. | OSPE | Objective Structured Practical Examination |
| 183. | PACS | Picture Archiving and Communications System |
| 184. | PACU | Post-Anesthesia Care Unit |
| 185. | PBL | Problem Based Learning |
| 186. | PCI | Pharmacy Council of India |
| 187. | PEP | Professional Enhancement Programme |
| 188. | PEU | Pharmacy Education Unit |
| 189. | P.G | Post Graduate |
| 190. | PHC | Primary Health Center |
| 191. | PI | Principal Investigator |
| 192. | PICU | Pediatric Intensive Care Unit |
| 193. | PIGA | Precise Intelligent Guiding Arm |
| 194. | PJL | Project Based Learning |
| 195. | PLAB | Professional and Linguistic Assessments Board |
| 196. | PLIS | Performance Linked Incentive System |
| 197. | POC | Publication Oversight Committee |
| 198. | PRODEV | Professional Development Program |
| 199. | QIPST | Quality Improvement and Patient Safety Team |
| 200. | PPTC | Prevention of Parent to Child Transmission |
| 201. | RACE | Ramachandra Anesthesia Continuing Education |
| 202. | RAM | Random-Access Memory |
| 203. | RARE | Ramachandra Advanced Radiology Education |
| 204. | RCA | Root Cause Analysis |
| 205. | RCI | Rehabilitation Council of India |
| 206. | RFD | Radio-Frequency Identification |
| 207. | RHTC | Rural Health Training Centre |
| 208. | RIA | Radio Immuno Assay |
| 209. | RIPE | Ramachandra – Pediatrics Postgraduate practical Exam refresher course |
| 210. | RMIS | Research Management Information System Software |
| 211. | RNTCP | Revised National Tuberculosis Control Program |

| 212. | ROME | Sri Ramachandra Oral and Maxillofacial Education |
|------|------|--------------------------------------------------|
| 213. | RRCP | Rapid Review in peridontology and implantology |
| 214. | RTPCR | Reverse Transcription-Polymerase Chain Reaction |
| 215. | SC | Scheduled Caste |
| 216. | SCORE | Sri Ramachandra Continuing Orthopedic Revision Education |
| 217. | SEIAA | State - Level Environment Impact Assessment Authority |
| 218. | SEARO | Regional Office for South-East Asia |
| 219. | SIL | Sophisticated Instrumentation Laboratory |
| 220. | SIRO | Scientific and Industrial Research Organization |
| 221. | SJR | SCImago Journal Rank |
| 222. | SLET | State Level Eligibility Test |
| 223. | SNIP | Source Normalized Impact per Paper |
| 224. | SOAP | Subjective, Objective, Assessment and Planning |
| 225. | SOP | Standard Operating Procedure |
| 226. | SPARRC | Sri Ramachandra Pathology Rapid Review Course |
| 227. | SRCHPE | Sri Ramachandra Centre for Health Professions Education |
| 228. | SREE | Sri Ramachandra Employees Education |
| 229. | SRF | Senior Research Fellowship |
| 230. | SRH | Sri Ramachandra Hospital |
| 231. | SRMC | Sri Ramachandra Medical Center |
| 232. | SRHIS | Sri Ramachandra Health Insurance Scheme |
| 233. | SRMC& RI | Sri Ramachandra Medical College and Research Institute |
| 234. | SRU | Sri Ramachandra University |
| 235. | SRUSTI | Sri Ramachandra University- Smile Train Cleft Speech Training Initiative |
| 236. | SRWAC | Sri Ramachandra Women's Advancement Centre |
| 237. | SAT | Student Assisted Teaching |
| 238. | SDL | Student Directed Learning and skills development |
| 239. | ST | Scheduled Tribes |
| 240. | STD | Subscriber Trunk Dialing |
| 241. | TEMFESS | Temporal Bone and Functional Endoscopic Sinus Surgery Cadaveric Dissection Course |

| 242. | TFW | Transforming Faces Worldwide |
|------|-----|------------------------------|
| 243. | TNHSP | Tamil Nadu Health System Project |
| 244. | TNPCB | Tamil Nadu Pollution Control Board |
| 245. | TNPCEE | Tamil Nadu Professional Common Entrance Examination |
| 246. | TNSCST | Tamil Nadu State Council for Science and Technology |
| 247. | TQM | Total Quality Management |
| 248. | TV | Television |
| 249. | UGC | University Grants Commission |
| 250. | UIIC | University Industry Interaction Center |
| 251. | UKERI | UK India Education and Research Initiative |
| 252. | UKNARIC | United Kingdom National Academic Recognition Information Centre |
| 253. | UG | Under Graduate |
| 254. | UHC | Urban Health Centres |
| 255. | UNICEF | United Nations Children and Education Fund |
| 256. | UNESCO | United Nations Educational, Scientific and Cultural Organization |
| 257. | UPS | Uninterruptible power supply |
| 258. | USFDA | United States Food and Drug Administration |
| 259. | USIC | University Science Instrumentation Centre |
| 260. | USMLE | United States Medical Licensing Examination |
| 261. | VABS | Vineland Adaptive Behavior Scale |
| 262. | VC | Vice Chancellor |
| 263. | VIT | Vellore Institute of Technology |
| 264. | WHO | World Health Organization |
| 265. | WOS | Web of Science |
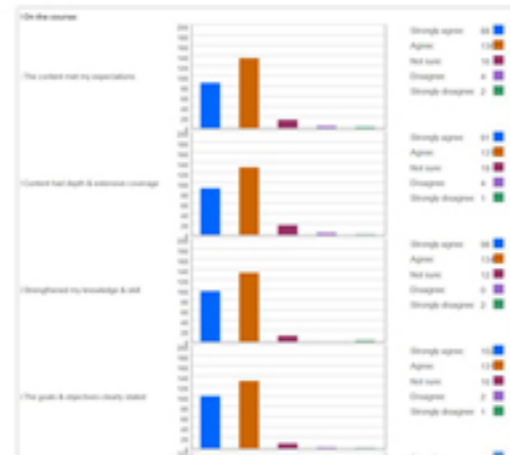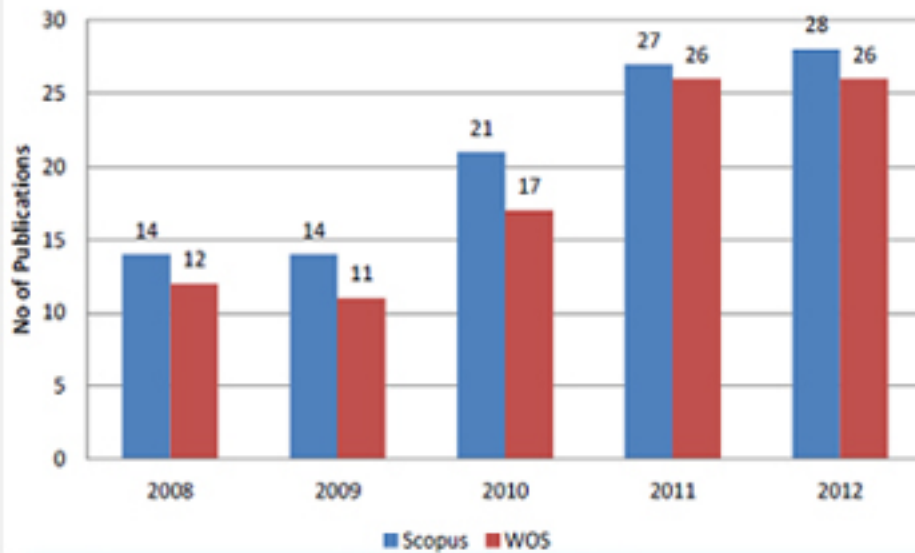
# Executive Summary - SWOC Analysis

## Year wise h-index for Scopus and WOS



## Faculty



- Young: 4
- Middle: 45
- Senior: 171


Publication Year chart: Indexed Database, Scopus, Pubmed, WOS, GS

Hand wash compliance(%)



| Amount | 2009 | 2010 | 2011 | 2012 | 2013 | Total |
|---|---|---|---|---|---|---|
| | 729.32 | 1373.48 | 249.885 | 1084.652 | 357.22 | 3794.557 |
| Number of projects | 38 | 23 | 17 | 21 | 14 | 113 |
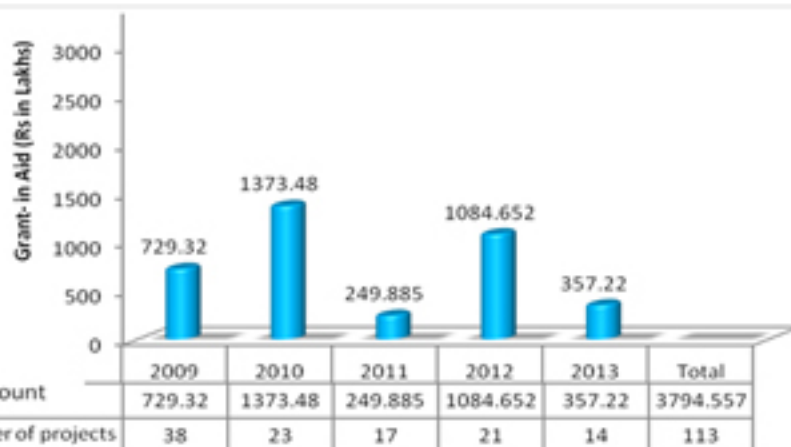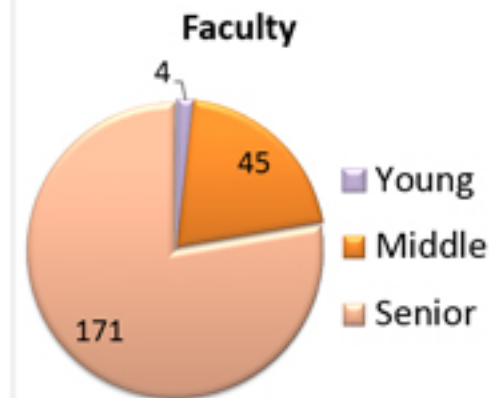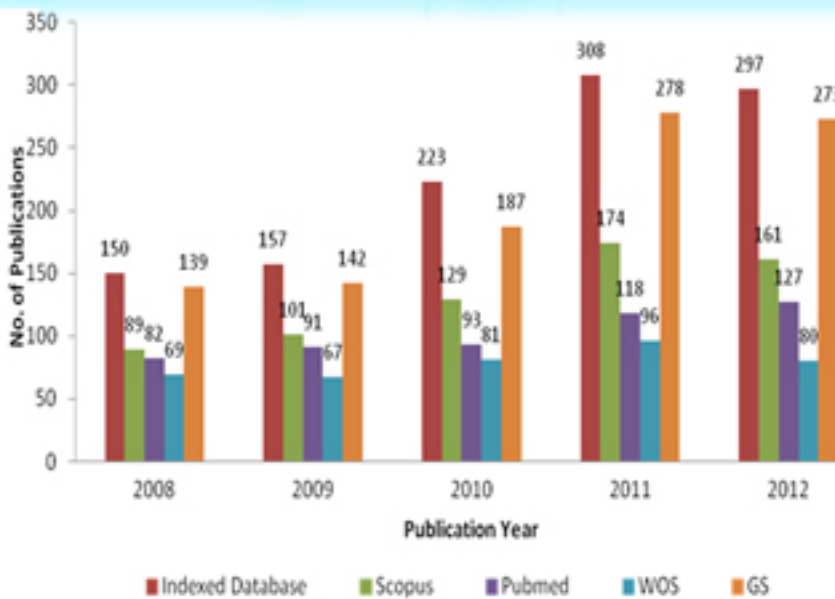
## Basic Workshop Total (510) includes SRU and outside faculty



- 2008: 32
- 2009: 46
- 2010: 69
- 2011: 89
- 2012: 129
- 145

**Executive Summary**

Sri Ramachandra University (SRU) is a unitary, Deemed to be university declared under Section 3 of the UGC Act 1956, in September 1994. SRU comprises 8 Faculties as constituent units with 71 departments including six new departments added during 2008 – 13. The total number of students has increased from 4368 in 2008 to 5168 in 2013. The Faculty strength has increased from 562 to 782. Eighty three (83) Visiting / Adjunct / Emeritus professors have been added, during the post accreditation period. The Quality of faculty and their contributions to teaching learning and research have been commendable.

After NAAC accreditation of the university at 'A' Grade level with a CGPA of 3.52 on a 4 point scale on 29.01.2009, Sri Ramachandra Medical Center was accredited by several other national and international agencies including Joint Commission International in 2009 & reaccredited in 2012, National Accreditation Board for Hospitals in 2012, Blood Bank by American Association of Blood Banks & reaccredited in 2012, Central laboratory by National Accreditation Board for Laboratories, reaccredited in 2013, B. Pharmacy course of Faculty of Pharmacy by National Board of Accreditation, reaccredited in 2011, Bio Dosimetry laboratory of Department of Human Genetics by Atomic Energy Regulatory Board, reaccredited in 2011 and authorization for the Radio Isotope Laboratory in CRF since 2007 by the Atomic Energy Regulatory Board and the Departments of Bioinformatics, Anesthesiology and Critical Care Medicine by ISO certification.

The Institutional recognitions received include WHO Collaborating Center for Research & Training in Occupational and Environmental Health (2011), Smile Train, USA partner center since 2000, MCI recognized Regional Center for Medical Education Technology since 2009, CITI-India centre for Research Ethics education with University of Miami, USA, ICMR Center for Advanced Research in Environmental health in 'Indoor air pollution' since 2010. During this period, alliances with national (7), international (18) Universities/Institutions and Industries (8) were established.

The contribution of Sri Ramachandra Medical Centre, Sri Ramachandra Hospital, the institution's community and rural health network and active participation in Tamil Nadu Government sponsored health insurance scheme, for people below poverty line (BPL) are distinguishing features of Institutional Social Responsibility.

**Criterion-wise analysis highlighting post, accreditation performance that has resulted in quality improvement, sustenance and enhancement**

**Criterion – I Curricular Aspects**

**1.1 Curriculum Design, Planning and Development**

The curricular innovations are in tune with the institutional goals and objectives with emphasis on providing academic competence, expertise in health care delivery and research. A three level process, originating at the department level and Curriculum Committee, based on need – assessment through stake holders' feedback, revision by a Committee of subject experts and approval by the Board of Studies and Academic Council is followed. During the post accreditation period, 18 new programs were introduced with approval from the respective Statutory Councils and 73 programs were revised. To inculcate global competence through curricular design, all the B.Sc programs are designed as 4 year programs with internship. The University has introduced (a) Integrated M D / M S – Ph D (five years) program sponsored by Indian Council of Medical Research (ICMR) since 2008 – 2009, (b) Integrated PG – Ph D (five years) program for the other Faculties from 2013 – 2014, (c) 6 year M Ch (Neurosurgery) and 6 year Pharm D program in Faculty of Pharmacy.

Research projects / dissertation and Research Ethics education are an integral component of all post graduate programs. Ethical clearance is mandatory. Industrial in-plant training / internship, Entrepreneurship skills training and professional development (PRODEV) are components of curriculum enrichment.

The integrated curriculum has now been extended into the Phase II and III of MBBS curriculum (2009 - 2011). An integrated module has been introduced into the BDS curriculum in 2013.

**1.2 Academic Flexibility**

SRU offers, 108 interdisciplinary programs with cafeteria type options under its 8 Faculties with 12 UG, 62 PG, 16 Super specialties PG, one Doctoral (PhD and Integrated PhD) and one certificate program. Elective option with Credit Based Semester System (CBSS) has been introduced in Faculties of Pharmacy, Biomedical Sciences and Technology, Allied Health Sciences, Nursing and Management.

Eleven Value added certificate programs across the Faculties provide opportunity for students' horizontal mobility to acquire additional life skills. Inter institutional credit transfer is provided for the split PhD program (2 candidates, one from University of Miami and one from University of Dundee).

**1.3 Curriculum Enrichment**

The Curricular reforms initiated in partnership with Harvard Medical International led to the implementation of "Integrated curriculum" for MBBS. The curricular revisions included multi disciplinary approaches with Clinical Skills Labs, specialized diagnostic laboratories, CRF, Tele-Education facilities; Active Learning Center for ICT based teaching-learning, digital

library and community oriented training which enhanced the quality of student learning environment.

New programs in emerging / interdisciplinary thrust areas like MPH in Occupational Health, B Sc (Sports and Exercise Sciences), were introduced in 2010-12.

Eleven value added programs, PRODEV (Professional Development for MBBS/BDS), English communication skills, entrepreneurship skills enable students to acquire employability and soft skills.

To inculcate research temper among UG students of all disciplines, "Summer Research Fellowship Scheme" was started in 2011 and "Research Internee" program during 2013 for BDS graduates.

## 1.4 Feedback

SRU has fine-tuned its 360° feedback mechanism on curricular aspects that involve students, peers, external experts, alumni and employers. Based on online student feedback introduced in 2012-13, "Student Satisfaction Index" has been obtained and curricular reforms have been introduced as part of quality initiative. The curricular innovations and reforms are duly internalized by the dynamic curriculum committees across the various constituent Faculties and effectively facilitated by the education units. External peer feedback is also obtained through the national and international accreditation bodies (NAAC, JCI, NABH, NABL, NBA), periodic inspections by the expert members of Statutory Councils and expert discussions during the Boards of Studies meetings and external examiners as well as from prospective employers during campus interviews and internship programs.

The reforms in the health care feedback are based on patient feedback (2009-12), and include documentation audits by the case sheet team, development of 700 structured quality indicators and assessment of their outcomes by regular audit of the processes, patient tracers, gap analysis and CAPA by QIPST.

## Criterion II. Teaching-Learning and Evaluation

## 2.1 Student Enrolment and Profile

The University conducts All India Level Entrance Examination for admission to Medical and Dental UG / PG and superspeciality courses in 5 different centers of the country followed by inter-se merit / rank-based counseling process. For some para medical and science courses, a merit cum interview based selection process is adopted from academic year 2012-2013. The programs are well advertised. The admission results are published in the website and the notice board.

The student strength has increased from 4368 in 2008-09 to 5168 in 2013-14 with the demand ratio range of 1:2 to 1:10 in 2008 - 2009 to 1:12 to 1:15 in 2012-13 for PG and UG programs respectively. The student intake for MBBS course has been increased from 150 to 250 with effect from 2011- 2012 as permitted by MCI with 15% reservation for NRI / foreign students. Although not legally bound by the reservation policy, the University has provided admission to 306 SC students, 5 ST students and 2224 OBC students during

the last four years (2009 – 2012). There is a higher ratio of women students than men, M: F being 1: 2.1.

## 2.2 Catering to student diversity

To acclimatize and orient the students from across the country and different socio-economic background, an orientation program is conducted by the University. Student Manual containing information on the code of conduct, academic calendar for the year and the complete information on "UGC Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009" is provided to every student.

The English Language laboratory established in 2011, with software 'Tense buster' for grammar and 'Connected speech' for pronunciation, provides English communication skills to needy students.

Slow and advanced learners are identified by their Mentors and receive counseling through Mentors by tutorials, assignments and practical training as remedial measures. Advanced learners are encouraged to participate in quiz competitions, debates and intercollegiate competitions and rewarded with cash awards and gold medals for their exemplary performances.

The 'Longitudinal Mentoring Program' of the University wherein a faculty member caters to 'on – campus and off – campus' mentoring of a set of 5 to 10 students per teacher from entry to exit is a novel method of 'Mentor – mentee system' implemented during post accreditation period. The health needs of both staff and students are met by insurance coverage and exclusive staff and student clinics. Student counselors help out students in need. Facilities to practice yoga and meditation are available. Bridge program within the regular teaching schedule is offered in Faculty of Pharmacy. 'Tamil Mandram" was launched in 2012, for students to pursue scholarly activities in Tamil and to provide 'spoken tamil'. Students participate in essay and poster competition during "Anti-tobacco Day", "International Day against Drug Abuse and Illicit Trafficking", "Women's day", "Environmental day" and others to foster good citizenship, moral values and cultural attributes. A number of elevators, ramps and grab bars have been added to help physically challenged students & staff. The examination rules of SRU permit scribes and extra time in the examination halls for students with specific difficulties. Exposure of students to "Vidya Sudha," the Early Intervention Centre for differently abled children has instilled ethics and voluntary service temperament in students.

## 2.3 Teaching-Learning Process

The course plan with outpatient, inpatient, community level clinical teaching and evaluation blueprint are provided to the students. Didactic lectures, experiential and participative learning methodologies are practiced through small group discussions, use of simulations through skills laboratories, seminars, journal clubs, debates, workshops; PBL through OSCE and OSPE training, PJL and computer assisted learning using ICT technologies. The Endo-surgical training lab, the Orthopedic skills lab, the ENT Temporal Bone Dissection Lab, Simulation labs in the Faculty of Nursing and multimedia

enabled lecture halls   contribute to comprehensive teaching - learning experience which are notable improvements during the post accreditation period.  The "Chancellor's Summer Research Fellowship" introduced by the University in 2011 instills the spirit of scientific inquiry among UG students. Telemedicine facility aids information, consultancy access to the community on a wider scale.  National Knowledge Network connectivity (NKN) with one GB bandwidth has given campus wide networking linking the constituent units with the University library, INFLIBNET and other MOU's signed by Universities / Institutions to facilitate web-based learning.  The Rapid Review Courses known as  RACE,  RARE, Advanced Rapid Review Course in General Surgery, AIM,  OG Quest, SCORE, RIPE, SPARRC, MARC, workshops like TEMFESS, cadaveric dissection workshop, bio-skills and emergency – trauma care workshop provide 'hands on' clinical skill training and attract a large number of post-graduate students from across the country. The feedback on the evaluation of teachers by students is inbuilt into university feedback system.  This has been quality bench- marked in 2013 with introduction of Academic Performance Indicator System and Performance Linked Incentive Scheme as per UGC Regulations, 2010.

## 2.4 Teacher quality

SRU has 782 fulltime faculty against a sanctioned strength of 650.  This is 20.3% in excess of that specified by the various statutory councils in order to ensure sustenance and promotion of teaching quality.   There are 185 professors, 129 Associate Professors / Readers and 378 Assistant professors / lecturers.  The faculty profile in 2013 shows 31.73% from SRU; 43.09% from institutions within the state of Tamil Nadu, 24.58% from institutions outside the state and 0.65% from abroad.  The attrition rate of faculty members has decreased from 18.39% in 2009 to 4.19% in 2012.

The University has a well established faculty development program.  The MCI recognized Regional centre for Medical Educational Technology conducts instructional workshops for faculty from 31 other medical colleges in the region.  It has successfully conducted 52 courses between 2009 and 2013.  The Education units of Dental, Pharmacy and Allied Health Sciences organize faculty training for all the other health science departments.   IT skill development program was organised in 2012 for all the faculty and staff to enable them to hone computer skills.  Department of community medicine organizes Seminars / Workshops on Research Methodology and Biostatistics both for faculty and newly registered PhD scholars.  The University's alliance with Harvard Medical International between 1995 and 2010 with faculty visits to Harvard University, leadership training, workshops on curriculum development helped development of an integrated organ system-based modular curriculum for the MBBS program.  Medical students attended HMI affiliated hospitals for clinical clerkships. Young faculty members are encouraged to pursue research through "Research starter grants of Rs 100,000/-.

The faculty awards and distinctions include, among others, Padma Shri (2), Hari Om Ashram Award (1), Dr. B.C. Roy National Award in Medicine (4), Honorary Doctorates (3), Honorary Fellowships of the Royal Colleges of Physicians of Glasgow (2) Honorary Fellow *qua* Surgeon of the Royal College of Physicians & Surgeons of Glasgow (1) Italian Government Chevalier award (1), Florence Nightingale Award (1), other National Awards (47), other international Awards (22), Regional & State level Awards (24), Boyscast Fellowship (4) and Fulbright Fellowship (1).  Dr A.P.J. Abdul Kalam, our former President of India is the Professor of Eminence of Medical Technology of our University.

There are 61 Visiting Professors, 13 Adjunct, 4 Emeritus and 5 Professors of Eminence of whom 41 are from foreign universities / institutions and 27 from national institutions.  Faculty mobility is promoted by providing study leave. 59 faculty members have utilized study leave and 16 have availed sabbatical leave.

## 2.5 Evaluation Process and Reforms

The evaluation process is clearly specified in syllabus book and university manual.  Rules and regulations of conduct of internal and qualifying exams are detailed in the examination manual.  The results are published within two weeks from the date of the last practical examination.  Establishment of Internal Assessment Cell for the Faculty of Medicine and Dental Sciences under the purview of the Controller of Examinations in 2011, installation of surveillance cameras and mobile jammers in examination halls, biometrically secured question paper preparation and document storage section in COE office with CCTV camera surveillance are the reforms carried during the post accreditation era.

## 2.6 Student Performance and Learning Outcomes

The rigour of the curricular, co-curricular and extracurricular learning and training processes is evident by the increase in pass percentage of 85.27% in 2008 to 95.24% in 2012 in UG; 88.16% in 2008 to  91.30 % in 2012 for  PG programs.  There is a systematic methodology of analysis of students' performance.  The placement record and recognition of the Alumni of SRU across the globe is commendable.  The feedback from external examiners and other visiting experts reaffirms the rationale of this methodology.

## Criterion III. Research, Consultancy and Extension

## 3.1 Promotion of Research

The University follows a well defined and proactive research policy as defined in the SRU Vision 2025 document, with the aim to elevate SRU as an International Center of Excellence particularly in Translational Medical Research and Biomedical Nanotechnology by 2020.  SRU follows a 'Bench to Bedside' translational approach.  The research promotion strategies in the post accreditation era are:

Support for PhD candidates by the Chancellor Research Fellowships and other incentives (223); Young Faculty Research Starter grants – GATE projects, Rs 1,00,000/- each (78); Integrated MD/MS – Ph D program with financial

support by ICMR (25); and Summer Research Fellowship for UG students - Rs 10,000/- each (92).

The positive impact of above measures have been reflected in the increase in Ph D demand (applications: admission) ratio from 1:1.5 in 2008 to 1:3.6 in 2013; Increase in UG – Summer Research Fellowship applicants from 27 in 2011 to 76 in 2013; the number of GATE projects received/applied has increased from 7/20 in 2008 to 23/42 in 2013; increase in budgetary support for recurring expenditure from Rs 1.22 crore in 2008 to 2.14 crore in 2013.

Statutory and non statutory Committees for Research Advisory role, Ethics and Publication Oversight are in place and they effectively ensure the quality of Research. IQAC analyses quality profile of Research publications every year.

The Central Research Facility (CRF) is equipped with high tech sophisticated equipment. The Central library has 40,647 books, 487 hard copy journals and 430 e-journals. SRU has conducted 45 Research related workshops, 590 conferences / Seminars in last 5 years. 52 MOU's are operational of which 24 are with foreign collaborators and 12 with industries.

## 3.2 Resource Mobilisation

During the post accreditation period, 14 Departments of SRU have been recognized as Centers of Advanced/Focused Research by National (ICMR/AYUSH/AERB/BARC/DST etc) and International agencies (WHO). Eleven Centers of Research by SRU have been created of which two have been selected for enhanced funding.

The Research budget allotted by the management registered a perceptible increase for supporting Chancellor Fellowships and other research projects (from Rs 1.22 crore in 2008 to Rs 2.14 crore in 2012). A total of 113 major funded research projects have been granted in last 5 years with a grant of 37.84 crores against 90 projects in the previous 8 years (2001 – 08) with Rs 19.91 crores grants. IPR protection through patent applications is facilitated through IPR Cell. 9 patents have been filed during the post accreditation period and 1 US patent has been awarded and commercialized.

## 3.3 Research Facilities

The CRF is a 25000 sq ft, exclusive facility with a sophisticated instrumentation laboratory containing the latest equipments. CEFT is a 15000 sq ft, CPCSEA approved, GLP compliant small animal facility. SRU has a Medicinal Herbal garden in addition to the research facilities with 14 Centers of Research recognized by National and International agencies and 11 SRU Centers of Research in focused areas

## 3.4 Research Publications and Awards

Inter disciplinary research projects have been undertaken by faculty members. There are 223 Ph D research scholars in the University at present. 44 theses have been awarded with Ph D in the past 5 years. 179 faculty members have received research awards in last 5 years. 3500 students have received Best paper awards in Conferences / Seminars.

A quantum increase in Publications, from 240 in 2008 to 459 in 2012 has been achieved by the faculty of SRU. Of these, Indexed Journal publications went up from 60% in 2008 to 76% in 2012 with Impact Factor ranging from 0.492 to 53.84 (average - 1.897), with SNIP range as per SCOPUS and WOS at 0.748 and 11.498 respectively. The SRU 'h' index in SCOPUS and WOS that was 14 & 12 in 2008 has increased to 28 & 26 in 2012.

## 3.5 Consultancy

SRU has developed Consultancy Rules and implemented the structured consultancy policy. University Industry Interaction Centre (UIIC) with IPR Cell is functioning in CRF. 43 Industry projects with grants totaling Rs249.55 lakhs and 749 consultancy projects/services with grants of Rs 254.11 lakhs were carried in last 5 years. 33 sponsored clinical trials have been carried out and 9 patents have been filed. One US patent was awarded in 2009 and commercialized to industry.

## 3.6 Extension activities and Institutional Social Responsibility

SRU has conducted several community outreach healthcare activities and cost effective schemes through participation in NRHM as a PPP program.

Awareness creation programs and health camps on safe water supply, sanitation, hygiene & nutrition (264); Population awareness programs; Rallies on special days such as, 'No tobacco day', 'World heart day', 'Breast feeding day', 'Cancer survivors day' and so forth; participation in national programmes on family welfare, mother & child welfare have been conducted. A Rural Health Centre has been set up at Vayalanallur with adoption of total health care of the population in that area. Rehabilitation services to differently abled children are provided at "Vidya Sudha" within the campus. Awareness on hygiene and healthy nutrition and prevention of communicable diseases is propagated by the NSS volunteers in partnership with EKAM foundation who also perform tasks such as maintenance of hygiene of hospitals and PHCs.

SRU discharges its Institutional Social Responsibility by participation in NRHM, Govt of Tamilnadu schemes such as "Varumun Kappom Thittam", Comprehensive Health Insurance Scheme for BPL families.

## 3.7 Collaborations

52 MoUs were formalized with 24 international, 16 national agencies and 16 industries. Of these, 33 were signed during the post accreditation period. Linkages with University of Oshkosh, Wisconsin (Nursing), California at Berkeley, Fogarty International Centre, NIH, USA (Dept of EHE), and Establishment of Clinical trial division in the Central Research facility in collaboration with Pfizer Ltd, Herbal & Indian Medicine Research Laboratory with Arvind Remedies and East India Pharmaceuticals, Kolkata and the NEBOSH training program of EHE are some of the direct outcomes of the MOUs.

## Criterion IV – Infrastructure and Learning Resources

## 4.1 Physical Facilities

Sri Ramachandra University with its 8 constituent Faculties is situated on 148.44 acres of green foliage in Chennai with a built up area of 4,33,124.29 sq

m.   The Medical College premises has 32 demonstration halls (90 seating capacity), 5 lecture halls (300 seating capacity) with multimedia and one gallery type lecture hall (650 seating capacity).   The hospital has 48 class rooms / demo rooms with 30 seating capacity.

Seven Active Learning Centers each equipped with 15 to 25 computers with internet facilities are available across Faculties.

The teaching hospitals, Sri Ramachandra Hospital and the Medical Center are the pivotal infrastructures that support innovative clinical teaching programs. The total bed strength includes 1500 in the SRH and 787 in the SRMC. There are 103 ICU beds in SRH and 154 in SRMC.  The addition of F and G blocks, enhanced outpatient and inpatient facilities, additional lecture theatres, demonstration halls, class rooms, Skills labs, upgraded, renovated Mortuary and Sports Medicine Center shows the infrastructure growth of the university in the last 5 years (2009 – 2013).  Lifts / ramps are available in all buildings of the University for differently - abled individuals.

The facilities also include a University auditorium (4 x 1500 capacity), 2 Mini auditoria (150 capacity), Seminar halls (100 – 600 capacity) and Conference halls that are available across Faculties.  A modern Telemedicine facility is located in the 8th floor of the Medical Center with links to many centers in India and abroad through the 'Pan African e- Network' program of GoI. Hostel facilities have been expanded to meet the requirements of increased student strength (1490 students).  143 Staff quarters have been added in the post accreditation period.

Other support facilities include gymnasia, fitness centers, playgrounds and indoor sports stadium for sports and extracurricular activities.

## 4.2. Clinical / Laboratory Learning Resource

Skills lab in major clinical specialties *viz*, Orthopedics, ENT, Ophthalmology, Obstetrics and Gynecology & Surgery. Bedside teaching, Sports lab with facilities for High Performance Centre and analysis, Self Learning Desk, Simulators and Mannequins help students acquire clinical and laboratory skills.

### 4.2.1 Accreditation by national / international agencies:

Fourteen different international and national agencies have accredited and recognized SRU and its constituent units for clinical and laboratory learning resource strengths: JCI, NABH, NABL & AABB accredited Medical Centre, Laboratories and Blood bank.

1.  DSIR & SIRO Certification of SRU by DST, Government of India.
2.  Biodosimetry Center of Dept of Human Genetics by AERB.
3.  WHO Collaborating Center for Research & Training in Occupational and Environmental Health Science.
4.  Prenatal Diagnosis Laboratory in Department of Human Genetics by Government of Tamil Nadu.
5.  Dept of EHE as ICMR Center for Advanced Research on Indoor Air Pollution.

6. Government Approved Hospital for PPP Model Participation in Rural Health Mission (NRHM), Government of India.
7. SRH is approved in the Health Insurance coverage of BPL families by Government of Tamil Nadu.
8. Telemedicine Center for Pan-African e-Network of Government of India, for Tele CMEs and Tele-consultation to 64 South-African countries.
9. A modern CPSCEA approved Animal Facility called Centre for Toxicology & Developmental Research (CEFT)
10. FDA audited Clinical Trial Facility.
11. Herbal and Indian Medicine Research Laboratory supported by DST and AYUSH (GoI).
12. Medical Education Unit recognized by MCI as Regional Center for Medical Education Technologies training to 31 medical colleges.
13. The infrastructure and laboratories are recognized to conduct various National and International Board examinations such as MRCP - PACES, DNB, ICMR-JRF and Tamil Nadu Professional Common Entrance Examination (TNPCEE).
14. "Sports Medicine and High Performance Fitness Centre" of 1600 sq m dedicated building with biokinetics labs, indoor stadium of sports and games, gymnasia and swimming pool.

## 4.3 Library as a Learning Resource

The Central Library, has an  area of 4000 sq m with reading carrels, lounge area for browsing & internet services, IT zone for accessing e-resources and reprographic facilities, books, journals, museum specimens, CD-ROMs and a variety of e-resources in digital library.  There are 40,647 book titles, 678 text books in Book bank, 2579 UNO-Depository volumes, 89 Competitive examination books, 8580 Back volumes and 5080 Student PG / PhD Theses. The journal section has 487 hard-copy journals and 69694 back issues. The digital library section provides 205 e-books and 501 e-journals and 2409 in PROQUEST besides 6 databases.  There are 2786 CD-ROMs as educational material for students. There are also departmental libraries.

In post accreditation period, the library facility has been augmented by increasing the height of the library racks, installation of 32 closed circuit cameras with 4 TV monitors, establishment of 252 seat "own books" reading room, separate section for new arrivals.  The library has been modernized by computerization and networking with all constituent Faculties / Departments of the University to provide internet access of library resources.  The budget has been augmented by doubling the financial support from Rs 2.29 crores in 2008 - 09 to Rs 4.09 crores in 2012 – 13.

## 4.4 IT Infrastructure

The IT facility has 450 computers in the University with one GB internet bandwidth.  Effective IT-policy has been implemented with green computing practices.

The University has subscribed to National Knowledge Network Connectivity in 2011 which facilitates access to National Mission on Education through ICT (NMECT) and other web-based resources.

There is Wi-Fi facility in hospital, library and auditoria / seminar halls. Budget provision of over Rs. 30.00 crores, is made available for purchase, up gradation and maintenance of computers and software in the University.

## 4.5 Maintenance of Campus Facilities

The University has increased allocation of funds towards Campus maintenance from Rs. 24.84 crores in 2008-2009 to Rs. 48.21 crores for 2012-2013. The Biomedical Engineering Department provides both preventive and break-down maintenance services of equipments and training of end users. General Manager (Projects) is the estate officer and his team of qualified staff, provide support for maintenance of all physical infrastructure.

## Criterion V: Student Support and Progression

## 5.1 Student Mentoring and Support

Two Associate Deans of students have been appointed to provide systematic support to students. A 'Longitudinal Mentorship Program' has been introduced to address the academic and social needs of students. Parent-Teacher meeting is held twice a year. Student welfare measures include Health insurance coverage of students which has increased from 2429 (2009 – 10) to 3361 students (2012 – 13). Waiver of tuition fee, hostel fee and subsidized mess fees are provided for students undergoing Hospital Ward Technician program and stipend is provided to nursing students belonging to BPL families. 216 students got benefited since 2008. Several fellowships for students such as Chancellor's Summer Research Fellowship (82), Chancellor's Research Fellowships for PhD scholars (46) and international clerkships for medical and dental students in Harvard University affiliated hospitals, and Hong Kong University, respectively were provided.

Personal enhancement and skill development programs provided to students include 23 skill enhancement programmes (2010-2013), PRODEV, 'Students Academic performance Improvement Committee, 'MUST KNOW' program, 'Confidential self–improvement counseling' etc. Student growth is facilitated in the areas of physical development through gymnasia, indoor and outdoor games and sports; emotional support through Humor club, Humanities club, Debate club and cultural activities; social and civil role by NSS activities, community health programs, MedHope scheme etc.

The e–learning centre is open for students from 8 a.m. to 8 p.m. on all working days. English communication skills and IT training are imparted through the Language laboratory and the EDP department respectively.

Student's participation in co–curricular and extracurricular activities is encouraged by additional academic support and academic flexibility in examinations. So far 252 [59 (2009-10), 53 (2010-11), 75 (2011-12) and 65 (2012-13)] students participated in conferences. In addition, 784 [176 (2010-11), 284 (2011-12) and 324 (2012-13) students took part in other competitive events. Students involved in sports & extracurricular activities get additional

coaching by Mentors and flexibility in examinations within the rules. Students who win medals at International, National and Regional level are recognized during University day celebration.

The Placement cell provides career guidance and organizes campus interviews. E-correspondence and e-brochures are approaches adopted to enhance placement opportunities. In the last 5 years, 976 students from paramedical and management disciplines, were facilitated by the placement cell. The E - cell in partnership with NEN, Wad wani foundation, Mumbai inculcates entrepreneurship skills to students.

The individual department based Alumni associations were merged in 2013 into University Alumni Association with 19 chapters. The alumni provide academic support through training, CMEs, donations for therapy, equipments, community support programs, student fellowships and support for conducting Conferences / Seminars / Workshops.

The Grievance Redressal Cell addresses grievances including potential and perceived ones. Grievance boxes are available at prominent places in all Faculty blocks and common places. Committee for Gender issues is functional and it considers the grievances and suggestions of students and faculty. Prevention of ragging is handled by the Anti-ragging Committee which operates through anti-ragging cells and anti-ragging squads. Anti - Ragging Helpline numbers are also available in the students' manual.

Students from SC/ ST/ OBC/ PWD and economically weaker sections are provided Book Bank facilities, scholarships / stipends and need-based "Bridge and Remedial programs", Communication skills in English, IT-skills and soft-skills.

## 5.2 Student progression

Over 500 students have progressed to PG in the last 5 years and more than 50 % of PG's to PhD. Significant, number of students have undertaken higher studies abroad and within India.

The students' dropout rate has reduced significantly due to learner-centric education, student support services and through innovative longitudinal mentoring scheme. The overall dropout percentage for last 5 years ranged from 3.77 to 0.6% (2008-13) in different Faculties of the University.

The Ph D program of the University has stipulations with higher bench mark than the UGC Regulations, 2009. These include two mandatory publications before submission, mandatory foreign examiner, six monthly Research Advisory Committee monitoring, mandatory course works & Research Methodology examination (Part–I) and synopsis approval. During the last 5 years 223 candidates have registered for Ph D and 48 candidates have been awarded. During 2012-13, eleven students secured UGC NET / GPAT / GATE / INSPIRE fellowships and 3 were successful in USMLE examination.

## 5.3 Student participation and Activities

The Student Council is a body of the University consisting of students nominated on the composite basis of their academic performance, co-curricular and extra-curricular activities. The students participate actively in

health camps, blood donation camps and other community extension activities. A notable student initiative is 'Med Hope Foundation' which provides financial support and medical assistance to children with leukemia and blood-related malignancies.

Students are represented in the academic bodies like Medical Education Unit (2) Library Advisory Committee (5), IQAC (2), Hostel Committee (14) and Anti Ragging Committee (2)

Students publish their contributions in the University Magazine "Bridges", annual student magazine "Caduceus', News letter "Fifteen Minutes" and the wall magazine "Influenz". The Student Journal Committee and Sports and Cultural Committee provide opportunities for students to demonstrate leadership roles.

The students are encouraged to participate in extra-curricular activities like sports, and cultural events within and outside the University. The University organizes sports and cultural programs annually. SRU has International, National, State level and Inter University level sports achievers in 28 different events during the last 5 years. Notable international accolades are that two of our students, Ms Aarathy Kasthuri Raj who represented India in World Roller skating championship held at Belgium and Taipei winning a bronze and Ms Niharika who represented India in Asian Yoga Championship in 2012, winning one gold and two bronze medals and one gold, two silver and two bronze in world yoga championship in Uruguay. The University supports their participation in all these events financially and also awards them.

**Criterion VI: Governance, Leadership and Management**
**6.1 Institutional Vision and Leadership**
The Vision of the University aims at developing health care professionals who are locally responsible and globally competent in areas of education, health care and research.

The organizational structure ensures smooth transition from policy making to implementation and encourages broad participation. Institutional statutory bodies *viz*., Board of Management, Academic Council, Finance Committee, Planning and Monitoring Board and Boards of Studies provide the framework for operation of all university activities. The organizational structure fulfils all the norms as stipulated by UGC and other relevant statutory councils with significant representation by external members / nominees / stakeholders including faculty, staff and students.

The effective leadership and the decentralized participatory governance involves all constituent units and is facilitated through Faculty Credential Committee, Faculty Promotions Committee, Publications Oversight Committee, Library Committee, Journal Committee, MSEC, Research Advisory Committee, Institutional Ethics Committees and others. The Heads of Departments are responsible for Academic and Administrative functioning of the individual departments and report to respective Deans / Principals. The Dean Education and Dean Research are responsible for Co-ordination and monitoring of educational and research activities.

The leadership provides support to nurture growth that includes finance, physical infrastructure and human resources. The initiation of e- governance stands as an example for transparency of procedures and monitoring. Employees are highly valued. Direct (e.g. salaries and allowances, timely promotions, loans, health insurance) and Supportive (e.g. professional development opportunities, financial assistance for research and publications) approaches have been adopted.

## 6.2 Strategy Development and Deployment

A prospective plan document, titled "VISION-2025" outlines the University's strategy for development and deployment process. This document includes action plan, schedules for overall development and timelines under the following areas:

∗  **Contributing to national development through**

(a) Participation in NRHM at primary rural health centre level in villages;

(b) Development of research based preventive health care policy guidelines for WHO, ICMR, DST in the areas of life-style diseases, health impact of indoor air pollution.

(c) Tertiary health care support for patients below poverty line (BPL) who are covered under the Government of Tamil Nadu Comprehensive Health Insurance Scheme

(d) Setting up of a Centre for Perinatal Science and Child Development Centre.

∗  **Fostering global competencies among students has been effected by**

(a) Curriculum design that introduced "Integrated curriculum for MBBS and integrated module for BDS", "Integrated MD / MS - PhD program" for medical graduates and "PG - PhD Integrated program" for all other Faculties.

(b) Research / project based learning at both UG and PG levels.

(c) Exposure to National / International institutions through Clerkships and

(d) Participation of students in Seminars, presentation of papers in Conferences.

∗  **Inculcating a sound value system among students has been facilitated through**

(a) Professional Development (PRODEV) program for all MBBS students

(b) Courses for PG / Ph D students on Research Ethics and Good Clinical Practices

(c) Opportunity to enroll in Value- added courses as elective option

∗  **Promoting use of technology was given a significant boost in the areas of**

(a) Teaching - Learning by providing e-resources, e-classroom facilities, online courses, Tele-education and e-library resources, NKN connectivity and campus- wide networking;

(b) Computerization of core areas in all spheres of university functions (academic, administrative and financial) through an e- governance software system.

(c) Technology infusion to teachers by Faculty Development Program

(d) Automation of medical records of the hospitals

(e) Hi-Tech research using sophisticated equipments and software.

**\*The Quest for excellence** is ingrained into the systems. The university has strived to achieve excellence in several spheres which are authenticated by the 9 accreditations / reaccreditations that have been achieved from International and National bodies. This is a testimony to the continuous commitment to internalization of processes for sustaining excellence. University has also set up 11 Centers of Research.

**6.3 Faculty Empowerment strategies**

The institution has been proactive in attracting and retaining quality faculty. The university has 782 faculty members as against the stipulated requirement of 650 which is 20.1% in excess. The University has a well structured and transparent system of faculty promotions through Faculty Credential Committee and Faculty Promotion Committee. The Board of Management approved API system for appointment and promotion of teacher that combines both Self-appraisal and Institutional appraisal based on the UGC Regulations 2010 has been implemented in 2013. There is equity and gender parity in all faculty appointments. As on date 24.58% of the faculty is from institutions outside the State of Tamil Nadu and 0.65% from abroad.

In addition to the statutory Provident fund and Gratuity, other welfare schemes such as health insurance, festival advance, Staff quarters, vehicle and educational loans, infant care program, children    education care program, several advances and gifts and a performance linked incentive scheme are in operation.

Women's welfare is nurtured in the university and the 'Center for Women's Advancement' oversees all issues relating to Women. There has been no case of sexual harassment of women in the institution during the last 5 years.

Faculty development programs / workshops for all teachers, the SREE program for professional development of staff and IT-training Workshops were periodically conducted during the above period as capacity building strategies.

**6.4 Financial Management and Resource Mobilization**

Adequate budgetary provisions and suitable institutional mechanisms are available to monitor effective and efficient use of financial resources. The individual faculty / departmental special needs for effective teaching- learning and research and extension programs are duly taken care of without much of budgetary constraints. The annual budget of Revenue Expenditure and Capital Expenditure is recommended by the Finance Committee and approved by the Board of Management. The recurring expenses and the capital expenditures are projected to be within the budgeted resources of the Institution, thereby deficit budgeting is avoided.

The University has a mechanism for internal and external audit, to verify and certify the entire Income and Expenditure, and Capital Expenditure each year.

The resources are mobilized through fees from students, Research grants sponsored by funding agencies, endowments created for the award of medals

and prizes and donations for specific earmarked healthcare programs. Fees are fixed as formulated by Fee fixation Committee after formal approval by the Board of Management. In addition, hostel fee, transportation charges and such other fees also mobilized as additional resources. Overhead charges are received from externally funded research projects and consultancy charges from industry-sponsored projects and clinical trials.

The University has created a corpus fund of Rs. 5.00 crore as per the requirement of University Grants Commission. This amount is kept in the form of Fixed Deposit with bank and the interest earned is renewed on a cumulative basis.

The Out-patient consultation and all routine investigations in SRH are totally free. A nominal fee is charged for sophisticated investigations only. In patient services include free bed, free consultation and free meals for all patients and the investigations and procedures are grossly subsidized.

## 6.5 Internal Quality Assurance System

The institutional commitment towards continuous improvement, bench marking and quality assurance is evidenced by initiatives for accreditation and reaccreditation (NAAC, JCI, NABH, NABL, AABB, ISO and others). The institutional quality management and enhancement has been coordinated by the IQAC established as the first post-accreditation activity in 2009.

A few quality assurance measures that were institutionalized during 2009-2013 include a) Introduction of 'online feedback system' for students; b) Template for monthly departmental report, c) Adopting API – Performance Based Appraisal System (PBAS) for faculty appointment and promotions, d) Publication analysis of all research articles published, e) Annual IQAC – National Seminars / Workshop on quality parameters f) Facilitating e-governance through training and sensitization of staff, providing feedback on the customized software.

In preparation for the second cycle of the NAAC accreditation, Academic and Administrative Audit (AAA) Committee of External experts audited the University in April 2013. SRU was selected as one of the Universities to field test the new Manual for Assessment and Accreditation of Health Sciences Institutions by NAAC. These activities were coordinated by members of the IQAC and NAAC cell. Members of IQAC have mentored IQACs of other universities in the country.

The Board of Research, co-ordinates and defines University level norms and guidelines for Research. There have been several initiatives to promote quality of research such as expansion of Research Ethics Committees, establishing Publication Oversight Committee and prevention of Plagiarism guidelines, spearheading integrated Ph D programs and Publication Analysis.

Quality of education has been foremost in the institutional objectives. The establishment of educational units in Faculties of Pharmacy and Allied Health Sciences, in addition to the Medical and Dental Education Units are initiatives to empower and mentor faculty members at all levels. Academic audit has been internalized into the system with internal and external audit mechanisms.

Quality Improvement and Patient Safety Team in SRMC is the initiative to oversee quality initiatives in healthcare. Several committees monitor quality of health care such as Medical Staff Executive Committee, Pharmacovigilance Committee, Infection Control Committee and others. Audits such as Morbidity and Mortality audit, Infection control audit, Operation room utilization audit etc are carried out regularly.

**Criterion VII – Innovations and Best Practices**

**7.1 Environment Consciousness**

The University has eco-friendly, vibrant green foliage which is landscaped with extensive gardens and lawn spaces using recycled water. The entire campus is a non-smoking zone. Green Audit of the campus has been conducted in 2013, and a voluminous report titled: Rapid Environmental Impact Assessment was submitted to *State - Level Environment Impact Assessment Authority, Tamil Nadu* (SEIAA) in May 2013. The salient initiatives implemented are (i) Energy Conservation; (ii) Compliance to energy efficiency and safety regulations. (iii) Use of renewable energy through solar systems in hostels; (iv) Rain water harvesting in all buildings and a water recycling plant operational in the campus; (v) Carbon-neutrality efforts by tree planting and tree transplantation in adherence to the green belt norms of Central Pollution Control Board.

Radiation, Laboratory and Hazardous materials Safety committee and Biomedical Waste Management Committee with certification from Government of Tamil Nadu have been functional since 2010 and 2009 respectively. Institutional Bio safety Committee for genetic recombinant research has been established in 2013. The Medical Centre has received Hospital and Patient Safety awards twice in 2012 and 2013. An e–waste management policy and its implementation are coordinated by the Bio medical Engineering Department. Between 2008 and 2012, eleven training programs have been conducted. Rallies and Quiz competitions were conducted to highlight environment consciousness to the public.

**7.2 Innovations**

The university has successfully introduced and sustained several innovations:

(a) introduction of integrated UG – PG, M D / M S – Ph D and PG – Ph D program since 2008 – 09 (b) integrated curriculum for MBBS and integrated module for BDS graduates (d) online Student feedback system (e) value – added courses since 2013 (f) simulators and clinical skills lab for experiential learning (g) MCI recognized Medical Education Technologies workshops by MEU (h) Central Research Facility as single window academic, administrative governance system (i) innovative extension programs to discharge Institutional Social Responsibilities (j) modern IT and ICT resources and e-library (k) Longitudinal mentoring system (l) introduction of Academic Performance Indicator system for faculty appointments and promotions, (m) Performance Linked Incentive scheme and (n) implementation of e-governance system across major units of SRU (o) digital photo gallery of the University.

**7.3 Best Practices**

***7.3.1 Sustained Faculty Development Centre of Sri Ramachandra University on Education Technologies***

Development of a sustained and emulatable model of teacher quality enhancement in terms of competencies, educational technologies including ICT, curricular innovation and leadership development is the goal of this program. The milestones achieved are: (i) Establishment of MEU as a need-based program in 1995; (ii) Curricular reform initiatives in association with HMI. (iii) Recognition by MCI as an essential capacity building centre (iii) Recognized as a Regional / Nodal Centre by MCI for Medical Education Technology and included 29 institutions under its programs in 2009 and now increased to 31 medical colleges under it with programs scheduled thrice a year (iv) The pivotal role of these efforts have led SRU to elevate it as Sri Ramachandra Center for Health Profession Education in 2011 – 2012 (v) Extension of these structured programs to other Faculties of our University has led to the constitution of Dental Education Unit, Pharmacy Education Unit and Education Unit for Health Sciences. Replication of a healthy practice and the creation of an administrative support system have been the hallmark of such a teacher education innovation.

***7.3.2. "A single window academic, administrative and financial governance of University Research & Consultancy through Central Research Facility".***

The objectives of this best practice are to: (i) Create a user friendly research promoting ambience, resources and practices to obtain high quality research outcome (ii) Remove the conventional bureaucratic hurdles and delays in management of sponsored research project funds and to provide timely Utilization Certificates and Audited Statement of Accounts (iii) Create a system of quality assessment and enhancement of research outputs in terms of publications / patents etc., and a performance linked incentivizing mechanism (iv) Maximize the utilization of sophisticated research infrastructure through University – Industry Interaction Centre / IPR cell, R & D projects, consultancies and clinical trials (v) Motivate undergraduates, post graduates and researchers to undertake research projects both as curricular and co-curricular components in order to nurture research temper among students (vi) Develop Research Management Information System (R-MIS) software to facilitate seamless flow of academic, administrative and financial governance of research in Sri Ramachandra University.

The evidences of success are: (a) The University has mobilized a total grant of Rs. 3794.56 lakhs during 2009-2013 through 113 major research projects funded by national and international funding agencies and industries as against Rs. 1991.56 lakhs through 90 major research projects during 2001-2008. (b) Ph D candidates demand ratio has increased from 1:1.5 in 2008 to 1:3.6 in 2013 (c) The undergraduate Summer Research Fellowships launched in 2011 with 27 applicants has increased to 76 in 2013 (d) The Research Starter grants (GATE Projects) increased from 7/20 applicants in 2008 to 23/42 in 2013 (e) Quality enhancement of manuscripts for publication through Publication

Oversight Committee established in 2011 showed steady increase in receipt of manuscripts from 23 in 2011 to 197 in 2013 (f) The quantum jump in quality of publications as shown by increase in number from 240 in 2008 to 459 in 2012; indexed journal publication from 60% in 2008 to 76% in 2012; citations of SRU publications from 320 in 2008 to 4102 by Scopus and 2375 by Web of Science in 2012. The 'h' index of publications showed significant improvement from 14 & 12 by Scopus and Web of Science in 2008 to 28 by Scopus, 26 by Web of Science and 41 by Google Scholar data bases (g) Award & applications for patents have increased from one in 2008 to 9 by 2013 including one US Patent awarded & technology transferred to an industry (7) In view of computerization of all project accounts, there has been no delay in submission of utilization certificates and audited statement of accounts to funding agencies. Till date, there are no audit objections either by the internal audit group of the university or from funding agencies.

To sum-up: In the post accreditation period (2009 to 2013), Sri Ramachandra University has shown an all round development in all the core areas of academic, curricular reforms, teaching / learning activities, students welfare, research and extension activities. It has modernised the existing infrastructure and added state-of-the-art infrastructure to enhance patient care and training capacity. Quality sustenance and enhancement has been internalized, thanks to a good and conducive campus ambience and, in particular, a committed quality faculty under an affable management. It has made significant contributions during the post accreditation period to national development in Public Private Partnership Health Care, fostered global competencies among students of Medical, Dental and Allied Health Sciences, inculcated sound value system among students and promoted technology upgradation in all academic, administrative and financial activities of the university with a quest of proving excellence. The University is poised to achieve its mission towards Advancing Education, Healthcare Innovation and Translational Research as envisaged in the Vision 2025 document.

## STRENGTHS, WEAKNESSES, OPPORTUNITIES & CHALLENGES

**Strengths**
- Sri Ramachandra University (SRU) has succeeded in establishing its brand identity based on the quality of its educational programs, patient care and safety records and commitment to research, community services and extension activities.
- The sprawling, well-maintained campus with its good landscaping, gardens, lawns, sports and play fields and spacious grounds provide a healthy environment and enhance the academic ambience.
- The massive expansion of Sri Ramachandra Hospital and its continued commitment to provide free healthcare and participation in the State Government's initiative to provide surgical care to population below poverty line (BPL) has added to the strength and stature of the institution. The modernized sophisticated operation theatres and other support services provided to economically weaker sections of society represent the importance of quality health care provided by SRU to all sections.
- The achievement and sustenance of global standards in healthcare and patient safety in Sri Ramachandra Medical Center is evidenced by recognition and accreditation of many of the services and departments by national and international agencies like NAAC, NABH, NABL, JCI, AABB, AERB and ISO creating wider global recognition for its commitment to quality.
- SRU has a team of highly qualified and dedicated faculty who value quality in education, research and healthcare who are establishing higher quality benchmarks for the institution.
- The University has achieved recognition as a Regional Centre for Health Care Professional Education & Faculty Development from Medical Council of India getting strengthened by subsequent establishment of education units by the Dental, Pharmacy and Allied Health Sciences Faculties authenticating the University's commitment to achieve excellence in education & faculty development.
- The conscious commitment to excel in research is revealed by increase in research projects, publications, patents and industry interaction in the last five years through the joint efforts of students, faculty and technical staff.
- Research recognitions by WHO and ICMR to the Department of Environmental Health Engineering for its path-breaking research in indoor air pollution and recognition of good number of departments by Governmental bodies and funding agencies prove the global research standards achieved by the university.

- University offers teaching programs in emerging areas such as Sports & Exercise Sciences, Reproductive Medicine, Perinatal Medicine and Value based add on courses in employment contributing areas.
- Introduction of participatory teaching – learning methods and tools like skills labs for students, to promote learner-centric education to all students of the University.
- Promotion of inter-institutional collaboration through MOUs, Agreements and visiting faculty scheme in all Faculties to enhance the teaching – learning & Research capacity of the faculty & students.
- Implementation of choice based credit system wherever permissible by statutory councils in Higher Education

**Weaknesses:**

- Technology infusion in education, research and information management to keep pace with current advances taking place in International medical institutions.
- Wi-Fi facilities are available in certain locations. In other areas connectivity is ensured by other technology which need to be a seamless communication.
- User - friendly facilities for differently-abled individuals are not uniform across the campus.
- Although there has been improvement in the administrative machinery for human resource management, there is expectation for more expediency.
- Inequal distribution of indexed publications and patents across the departments as well as the funded research projects secured by the faculty of these departments.

**Opportunities:**

- Global partnerships for Twinning Programs and joint degrees with foreign universities and institutions.
- Projection as a successful and sustainable "Model Healthcare Institution" for all sections of patients through cross subsidization.
- Development of more Centers of Excellence in Health Care & Research of international standards to attract global faculty and patients.
- Educational, interdisciplinary Medical and Allied Health Sciences programs to promote horizontal mobility of students and faculty and for vertical integration of knowledge.
- Effective participation in Central and State governments' Public Private Partnership Healthcare Services and Rural / Community health programs.
- Creation of R & D Research Platform for industries and incubates by creating user friendly & productive Industry-Academic Partnership system.

**Challenges:**

- Introduction of Innovative and proactive policies to retain the interest and long term commitment of faculty to the institution.
- Enhancing the SRU brand identity in Health Care Education & Research, by implementing the strategic action plans mentioned in the 'SRU 2025 Vision' document so that the benchmarks established by the University are emulated by others.
- Acceleration of Research, Consultancy and Institute-Industry collaborations in research and drug discovery to ensure larger returns from consultancy services to make the University's research initiatives self-sustainable and to justify the sizeable financial investments made through the institutional funds into research activities.
- More extensive use of IT and e-governance across the University to enable it to be a role model as "Paper-Free University" for other Health Universities.

# Action Taken Report of NAAC Peer Team (2009) and AAA Committee (2013) Recommendations

# Action Taken Report

## NAAC (2009) Peer Team Recommendations

| S. No | NAAC Peer Team Recommendations | Action Taken on the Recommendation |
|---|---|---|
| 01. | Library facilities in terms of number of books need to be augmented | The Library Facility has been augmented. New books added: – <br> a) 1747 for the year 2008 -09. <br> b) 4540 for the year 2012- 13. <br> No. of Journals – <br> a) 445 upto the year 2008 - 09 <br> b) 501 upto the year 2012-13 <br> c) 2409 journals in PROQUEST database <br> Detailed data available in criterion IV (Infrastructure & Learning Resources) and question No. 4.3.3 of SSR. |
| 02. | Orientation of teachers in basic sciences and non-clinical disciplines for application of the knowledge as relevant to the program rather than just transfer of knowledge | This program is included in the current Faculty Development schedule by making appropriate changes in the Faculty Development Program. The University conducted 12 refresher courses and 25 orientation programs besides microteaching workshop, coordinator workshop, Curricular Implementation and Support Program (CISP) workshops. Details are available in criterion II (Teaching, Learning & Evaluation) of SSR in question 2.4.7) |
| 03. | Introduction of policies for resource sharing facility and performance based awards and rewards to faculty | Resource sharing policy has been introduced in this University between departments and within faculties. The institution has centralized research facilities - CRF and CEFT under the Co-ordination of Dean Research who oversees all the research activity. Consultancy rules were introduced in 2009 Technology Business incubator of DST; 2010 |

| | | |
|---|---|---|
| | | UIIC and IPR cell established-2010 Performance –Linked Incentive Scheme-2013. |
| 04. | More outreach and extension activities targeting rural communities and their health care need to be planned and undertaken | • 781 Health camps with faculty and students; 2008 - 2013<br>• Outreach project with NGOs - TF (Canada); Smile Train (USA); EKAM, BANYAN (India 2009-2013)<br>• SRU – Rural Health center & Village adoption- Vayalanallur- 2011<br>• NSS  Activities- 2013<br>• PPP- NRHM Programs<br>• Tele-medicine services to different parts of India and 65 countries in PAN Africa E network scheme and Tele-audiology to districts of Kanchipuram and Thiruvannamalai |
| 05. | Instead of initiating undergraduate courses with micro specialization, University may think of starting 5 or 6 year integrated courses. | 1. Pharm D – 6 years course approved by Pharmacy Council of India, New Delhi from 2008- 2009<br>2. M Ch Neuro Surgery – 6 years approved by Medical Council of India, New Delhi, 2012-2013<br>3. Integrated MD / PhD, MS / PhD, MDS / PhD – Five years program as per ICMR guidelines from 2008- 2009.<br>4. Integrated PG – PhD - Five years for other faculties - 2013-14. |
| 06. | More proactive involvement of young and midlevel potential faculty in decision making, planning and managing the departments will help in sustenance of the initiatives of the senior faculty. | Wide representation of younger faculty is facilitated by rotation of headship for every three years implemented since 2011.<br>Large number of young & middle level potential faculty are members / chairpersons in various committees of the University namely Board of Management, Academic Council, Curriculum Development Committee, Ethics Committee, Hospital Committee, Medical Educational Unit. (kindly refer criterion VII – Innovative Practices, |

| | | question no. 7.1)<br>**Other actions based on the detailed report.**<br>There is a Students' Council in the University with effect from 2012-13.<br>Value based add on courses are approved by Board of Studies and implemented from 2013.<br>Student representatives in Curriculum Committee, IQAC, Anti ragging Committee and others. |
|---|---|---|
| 07. | Research projects spanning over a period of one year, integrated into the curriculum should be made mandatory for all Post graduate courses. | • All post graduate degree students are mandated to do research projects as a part of their curriculum.<br>• All post graduates have to obtain Institutional Ethical Committee clearance to conduct their Dissertations / Projects- 2011.<br>• They are encouraged to undergo Research Ethics Education online course through CITI- India, University of Miami collaboration.<br>• All post graduates are encouraged to attend Conferences / Seminars and present papers on the research conducted by them.  They are guided to publish the outcome in peer-reviewed journals after their manuscripts are scrutinized through anti plagiarism software and approved by Publications Oversight Committee. |

# Action Taken Report
## Academic & Administrative Audit Committee (2013)
### Recommendations

| S. No. | Recommendations of AAA Committee | Action Taken on the Recommendation |
|---|---|---|
| 01. | In view of the rapid infrastructure expansion of Sri Ramachandra Hospital with doubling of its bed strength, a comprehensive database that allows students to access patient information in a more efficient manner, including the facility to search by diagnosis, search by key word etc may be considered; subject to patient confidentiality. | Patient information system has been made operational-2013. Registration of patients and statistics are being compiled and shared electronically on daily basis. Diagnosis with ICD coding and retrieval system is available. MRD with electronic data transfer facility is available for students. |
| 02. | The initiatives taken for e-Governance of the University with acquisition of appropriate MIS software needs to be accelerated. The advantage of Phase I training of faculty and staff in IT technology which has already been completed is likely to be lost by further delay. | e- Governance software has been made operational – 2013. Trials and training programs for end users have been carried out. Programs have been closely monitored by senior administrators and IQAC. |
| 03. | The current practice of the University to have publications across the departments/ faculties analyzed for their quality (impact factor, h-index) is commendable.  While the top-performing departments need to be recognized and rewarded, those which trail far behind should be motivated and enabled to catch up. | Academic Performance Indicator (API) has been implemented across the University from 1st November 2013.  Suitable rewards to top performers & motivation of weak performers parallels introduced through both approved Performance Linked Incentive Scheme (PLIS). |

| 04. | A Center for Excellence is a good concept for nurturing and promoting the best research thrust and potentials. The University can identify a couple of the most promising among them and provide concerted support to enable them to emerge as Nationally/ Globally recognized centers. | Five Centers for research have been fully established<br>1. Stem Cell research & Regenerative medicine.<br>2. Centre for translational medicine. Financial and administrative support provided.<br>3. Center for Perinatal care by child development<br>4. Center for life style disease and their prevention.<br>5. Center for health care quality and patients safety. Other centers are initiated. |
|---|---|---|
| 05. | The staff strength of the Central Library needs to be increased by recruiting better qualified candidates with postgraduate / doctorate qualifications in Library Science as may be necessary as per regulations. | Mr V Bhasker Rao appointed as Chief Librarian. He is Master in Library Science and formerly Librarian of Connemara library & Central library, IIT-M. |
| 06. | More textbooks are to be added under various disciplines in the central library to overcome the difficulties students have reported in finding sufficient number of textbooks especially during examinations. Other steps like RFID for security of books may be considered at the same time. | Library Committee has taken steps to add 552 text books in last 3 months. Remote access through NKN is available in the library for e- resources, 6 data bases and DELNET. |
| 07. | Increasing library hours till late at night will be especially helpful for postgraduate students who would be occupied with clinical responsibilities till late evenings. | Library hours have been extended in 2013 as per the stakeholders feedback as 8 am- 10 pm on working days, 8 am- 8 pm on holidays. |

| 08. | Access and participation in the National Knowledge Network (NKN) assisted teaching-learning may be expedited on a larger scale. | NKN is widely used in the library, for Telemedicine, Remote login access for e resources through PC, laptop, Tablet & Mobile from 2013. |
|-----|-----|-----|
| 09. | Signage displays in the campus and in the buildings need to be more prominent and located in more strategic locations. It would be appropriate to follow international norms for color codes, signboard dimensions and visibility in darkness. | Signage displays in the campus as per international norms have been installed. |
| 10. | The University may add modular courses on the Humanities, Practice management, Communication skills, Critical thinking, and Infection control policies and on the importance of maintaining patient confidentiality. | 11 out of 22 Value based add on courses on these areas, approved by Academic Council have been introduced during 2013 - 14. Rest will be introduced during 2014-15. |
| 11. | Academic leadership of some of the departments like Medicinal Chemistry, Clinical Psychology, Bioinformatics and Clinical Nutrition need to be strengthened. The interaction between these departments and clinical departments may be strengthened. | A package program to strengthen the departments is in progress. The PG program (M Sc Medicinal Chemistry) has been discontinued due to lack of admissions. The interaction between these departments and the clinical departments has been strengthened. |
| 12. | The University may explore the avenues for more curricular reforms and innovative add-on courses besides adhering to basic curricular content prescribed by the regulatory bodies. | 11 Value based add on courses have been started from Academic year 2013 as parallel programs for any student of the University. |

| 13. | Starting of regimented group activities like National Cadet Corps (NCC) will foster a greater sense of nationalism and group discipline among the students. | NSS program has been started in 2013. |
|-----|-----|-----|
| 14. | A student website to help disseminate information among all students and to all the constituent units of the University will be welcomed by the students. | Student page in the University website is available. |
| 15. | The University may initiate steps to prepare alumni profile for various undergraduate courses as an additional instrument to indicate the success of the programs. This will add a significant outcome measure and show that the goals and objectives of the program have been successfully met with. | University Alumni Association has been registered on 19th June 2013. It has 19 chapters of the various specialties.<br>Already intellectual contributions from the alumni are in progress. |
| 16. | While the visibility of existing supportive and rehabilitative facilities in the campus needs to be increased, more facilities to help differently-abled students especially in crucial areas like the Central Library and lecture halls may be provided. | Grab bars in all toilets and elevators have been provided. Chair lift is being installed in the Central library. |
| 17. | Teachers of basic sciences like Anatomy, Physiology and Biochemistry need to pay more attention to recognize the limitations and learning needs of students other than those in the MBBS course. | Detailed discussions were held with HOD's of Anatomy, Physiology, Biochemistry and action plan has been made to address this issue. (Feedback obtained from the respective department heads is available onsite) |

| 18. | Greater efforts to pursue and strengthen more funded research projects and quality publications by faculty. | Motivational efforts initiated by Dean (Research) have resulted in increase in number of projects (10 in 2011 to 22 in 2012) and funding (211.18 lakhs in 2011 to 1442.37 lakhs in 2012). Publications in 2011 – 382 & in 2012 – 459. Indexed vs non indexed publication percentage- 60% in 2008 to 76% in 2012.   PG dissertations being converted to manuscript for publication. |
| --- | --- | --- |
| 19. | The visibility of some of the Biomedical Science departments needs to be improved by attracting more reputed faculty. | Visiting professors / Visiting faculty have been appointed from collaborating foreign Universities. |
| 20. | Wi-Fi facilities need to be extended and made more widely available in the campus. | With implementation of e-governance and availability of NKN connectivity to e - resources, it is felt that need for Wi- Fi will also be met. |

## Section B
## PREPARATION OF SELF-STUDY REPORT

## Profile of the Institution
(To provide information whichever is relevant to the HSI)

**1. Name and Address of the Institution:**

| Name: | Sri Ramachandra University | |
|---|---|---|
| Address: | No.1, Ramachandra Nagar, Porur | |
| City: Chennai | Pin: 600 116 | State: Tamil Nadu |
| Website: www.sriramachandra.edu.in | | |

**2. For communication:**

| Designation | Name | Telephone with STD code | Mobile | Fax | Email |
|---|---|---|---|---|---|
| Vice Chancellor | Dr. J.S.N. Murthy | O: 044-24768431 R: 044-22312929 | 9841023438 | 044-24767008 | vc@sriramachandra.edu.in |
| Pro Vice Chancellor | ------ | ------ | ------ | ------ | ------ |
| Registrar | Thiru. N Natarajan | O: 044-24765512 R: 9840999814 | 9840999814 | 044-24765995 | registrar@sriramachandra.edu.in |
| Principal / Dean / Director | Dr K V Somasundaram | O: 044-24765625 R:044-26211462 - | 9840150847 | 044-24767008 | deanfaculties@sriramachandra.edu.in |
| Vice Principal | ------- | Not Applicable | ------ | | |
| Steering Committee / IQAC Co-ordinator | Dr. Lt. Col. A Ravikumar | O: 044-45928514 R: 044-26473002 | 9840433002 | 044-45928530 | iqac@sriramachandra.edu.in |

**3.  Status of the Institution:**

| University under Section 3 of UGC (A Deemed to be University) | √ |
|---|---|

**4.  Type of University:**

| | |
|---|---|
| Unitary | √ |
| Affiliating | |

**5.  Type of College:**

| | |
|---|---|
| Ayurveda | |
| Dentistry | √ |
| Homoeopathy | |
| Medicine | √ |
| Nursing | √ |
| Pharmacy | √ |
| Physiotherapy | √ |
| Siddha | |
| Unani | |
| Yoga and Naturopathy | |
| Others (specify and provide details) | √ |
| • Bio Medical Sciences , Technology & Research | √ |
| • Management | √ |
| • Allied Health Sciences | √ |

**6.  Source of funding:**

| | |
|---|---|
| Self-financing | |
| Trust | √ |
| Corporate | |
| Any other (specify) | |

7.  **a. Date of establishment of the institution:** 29/09/1994
    b**. In the case of university, prior to the establishment of the university, was it a/an**

| | | Yes | No |
|---|---|---|---|
| i. | Autonomous College | | √ |
| ii. | Constituent College | | √ |
| iii. | Affiliated College | √ | |
| iv. | PG Centre | | √ |
| v. | De novo institution | | √ |

|        |                   |      |
| ------ | ----------------- | ---- |
| vi.    | Any other (specify) | None |

**c. In the case of college, university to which it is affiliated**

| From | To | Affiliated to |
| ---- | -- | ------------- |
| 11 – 09 – 1985 | 1987 | University of Madras |
| 1988 | 1994 | The Tamil Nadu Dr. MGR Medical University |

**8. State the vision and the mission of the institution.**

**VISION**

To offer diverse educational programmes that facilitate the development of competent professionals and valuable citizens, who demonstrate excellence in the respective disciplines, while being locally and globally responsive in areas of education, healthcare delivery and research.

**MISSION**

Sri Ramachandra University will actively promote and preserve the higher values and ethics in education, healthcare and research and will pursue excellence in all these areas while consciously meeting the expectations of the people it serves without prejudice and in all fairness stay socially meaningful in its propagation of the various arts and sciences to enrich humanity at large. (Ref: Vision 2025 document)

Coinciding with the silver jubilee year of SRMC & RI, the vision document was revisited and revised. Accordingly, the Vision 2025 is given below:

**VISION 2025**

Sri Ramachandra University will emerge as one of the top twenty medical and allied sciences universities in South East Asian region by contributing to high quality education, health care, biomedical translational research to the society (Ref: VISION 2025 document)

**9. a. Details of UGC recognition / subsequent recognition (if applicable):**

| Under Section | Date, Month and Year (dd/mm/yyyy) | Remarks (If any) |
| ------------- | --------------------------------- | ---------------- |
| i.   2(f)*    |                                   |                  |
| ii.  12B*     |                                   |                  |
| iii. 3*       | 29/09/1994 Sri Ramachandra Medical College & Research Institute (Deemed University) | 13/09/2006 Renamed as Sri Ramachandra University (Ref. No. F.6-1(II)/ 2006 (CPP-I) |

* Enclose the certificate of recognition, if applicable – appendix A

**b. Details of recognition/approval by statutory/regulatory bodies other than UGC (MCI, DCI, PCI, INC, RCI, AYUSH, AICTE, etc.)**

| Under Section / clause | Day, Month and Year (dd/mm/yyyy) | | Valid ity | Program/ institution | Remar ks |
|---|---|---|---|---|---|
| | First | Latest | | | |
| MCI | 27/07/1985 G.O.Ms.No11 96 13/9/1991 MCI-75 (6)/91-Med. | 15/7/2013 MCI-37(1-60) 14/9/13 | 2013 -14 | MBBS, M.Ch (Neurosurg ery, Vascular) DM Neonatolog y, Neuro Radiology) / SRMC & RI | Appro ved |
| DCI F.No.V.1201 7/2/98 | 21/9/1995 V.1.2017/46/ 96 | 9/2/2005 F.No.V.12017/2/ 98-PMS 18/10/2005 F.No.V.12017/2/98- PMS | 2013 | BDS, MDS / MDS (Pedodonti cs) Faculty of Dental Sciences | Appro ved |
| PCI | 1/12/1999 17- 1/99/PCI/1 4538-663 | 12/8/2012 17- 1/2012/PCI/103 89-723 15/05/2013 50-140/2013 | 2013 -14 2012 -17 | B. Pharm & Pharm D | Appro ved |
| INC – F.No.18- 1083/2000- INC | 12/3/2001 18/1083/20 00-INC | 27/09/2013 | 2013 - 14 | M.Sc, PBBSc, B.Sc, GNM / Faculty of Nursing | Appro ved |
| RCI | 23/4/1998 8-197/97- RCI | 17/09/2011 197/BASLP/TN/ 98-RCI | 2011 - 15 | BASLP / Faculty of AHS | Appro ved |
| AICTE – F.No.37- 3/Legal/2012 | 30/8/2001 TN-13/ET- MBA/2000 | 19/03/2013 Southern /1- 1464998612/201 3/EQA | 2013 - 14 | M.B.A.(Ho spital & Health Systems Manageme nt) / Faculty of | Appro ved |

| | | | | Manageme nt | |
|---|---|---|---|---|---|
| AICTE – F- No.37- 3/Legal2012 | 31/3/1994 2- 17/BIII/RC (M)/93/265 79 | 19/03/2013 Southern /1- 1372761432/201 3/EQA | 2013 -14 | Pharmacy Practice, Pharmacog nosy, Pharma ceutical Analysis, Pharmacolo gy, Pharmaceut ics, Quality Assurance, Pharmacy / Faculty of Pharmacy | Appro ved |

(Enclose the Certificate of recognition/approval) – appendix B

**10. Has the institution been recognized for its outstanding performance by any national / international agency such as DSIR, DBT, ICMR, UGC-SAP, AYUSH, WHO, UNESCO, etc.?**

     Yes     ☐ √     No     ☐

If yes, name of the agency
Nature of the agency: DSIR
Date of recognition: 14/09/2012 to 31/08/2017
Nature of recognition – Eligibility for grants and customs duty exemption
       (Copy enclosed as appendix C)

Nature of the agency: SIRO certification by DST
Date of recognition: 25/03/2010 to 31/03/2013 (Renewal applied)
Nature of recognition: Research & Development
    (Copy enclosed as appendix D)

Nature of the agency: ICMR
Date of recognition: 20/04/2013
       Nature of recognition:
    1. Clinical Trial Registry
    2. ICMR center for advanced research in indoor air pollution
      (Copy enclosed as appendix E)

Name of the agency: WHO Collaborating Center for Research and Training
              in Occupational Health

Date of recognition: 2005 – 2015
Nature of recognition: Research in Occupational Health and Occupational
                 & Environmental Health (Copy enclosed as appendix F)

**11. Does the institution have off-campus centres?**   **Yes** ☐    **No** √

**12. Does the institution have off-shore campuses?**   **Yes** ☐    **No** √

**13. Location of the campus and area:**

| Name of the campus | Location * | Campus area in acres | Built up area in sq mts |
|---|---|---|---|
| Main campus area | 17 km from Chennai Airport Semi urban | 148.44 | 42118.71 |

(*Urban, Semi-Urban, Rural, Tribal, Hilly Area, any other (specify) – Semi Urban)

**14. Number of affiliated / constituent institutions in the University**

| Types of institutions | Total | Permanent | Temporary |
|---|---|---|---|
| Ayurveda | - | - | - |
| Dentistry | 1 | 1 | - |
| Homoeopathy | - | - | - |
| Medicine | 1 | 1 | - |
| Nursing | 1 | 1 | - |
| Pharmacy | 1 | 1 | - |
| Physiotherapy | 1 | 1 | - |
| Siddha | - | - | - |
| Unani | - | - | - |
| Yoga and Naturopathy | - | - | - |
| Others (specify and provide details) Allied Health Sciences | 1 | 1 | - |
| Biomedical Sciences, Technology and Research | 1 | 1 | - |
| Management | 1 | 1 | - |

**15. Does the University Act provide for conferment of autonomy to its affiliated institutions? If yes, give the number of autonomous colleges under the jurisdiction of the University.**

Yes ☐    No √      Number | NA |

**16. Furnish the following information:**

| Particulars | Number |
|---|---|
| Accredited colleges by any professional bodies | - |
| Affiliated colleges | - |
| Autonomous colleges | - |
| Colleges with Postgraduate Departments | - |
| Colleges with Research Departments | - |
| Constituent colleges (accredited by NAAC & others) | 8 |
| University Departments                  Undergraduate | 1 |
| Post graduate | 71 |
| Research centres on the campus and on other campuses | 11 (on campus) |
| University recognized Research Institutes/Centres | 2 (CRF,CEFT) and all the above departments are recognized |

**17. Does the institution conform to the specification of Degrees as enlisted by the UGC?**

Yes  | √ |   No  | |

If the institution uses any other nomenclatures, specify – N.A.

**18. Academic programs offered and student enrolment: (Enclose the list of academic programs offered and approval / recognition details issued by the statutory body governing the program)**

| Programs (appendix K) | Number of Programs | Name of the Programs | Number of students enrolled |
|---|---|---|---|
| UG | 12 | appendix G | 3415 (appendix H) |
| PG | 62 | | 1109 |
| DNB | - | | - |
| Integrated Masters | 1 | | 3 |
| Integrated Ph D | 1 | | 26 |
| Pharm D. | 1 | | 194 |
| M.Phil. | 1 | | 16 |
| Ph D | 1 | | 161 |
| Certificate | 1 (Ward Technician) | | 41 |
| Diploma | 1 | | 134 |
| PG Diploma* | Nil | | -- |
| D.M. / M Ch. | 16 | | 69 |
| Sub / Super specialty Fellowship | - | | - |

| Programs (appendix K) | Number of Programs | Name of the Programs | Number of students enrolled |
|---|---|---|---|
| Any other (specify) Value added courses** | 11 | | |
| Total | 108 | | 5168 |

*Currently not offered

**Students for the value added courses are already enrolled in the regular course.

19. **Provide information on the following general facilities (campus-wise):**
    - Auditorium/seminar complex with infrastructural facilities – Yes
      Auditoriums- 07
      Seminar complex- 23
    - Sports facilities – Outdoor – 11; Indoor – 7.
    - Residential facilities for faculty and non-teaching staff -  Yes

| **Residential Facilities for Staff** | **Number of Occupancy** |
|---|---|
| Bungalows / Guest House | 18 |
| Staff Quarters | 143 |
| Single room | |
| Senior Residents | 200 |
| Junior Residents - PG | 400 |
| Others - Interns | 200 |
| Nurses hostel (dormitory type) | |
| Nurses | 948 |
| Others | 122 |

- Cafeteria               -        Yes  [√]   No [ ]      Number 5
- Health centre
  * First aid facility     -        Yes  [√]   No [ ]
  * Outpatient facility    -        Yes  [√]   No [ ]
  * Inpatient facility     -        Yes  [√]   No [ ]

  * Ambulance facility     -        Yes  [√]   No [ ]
  * Emergency care facility -       Yes  [√]   No [ ]
  * Health centre staff    -        Yes  [√]   No [ ]
  ∗ Staff and student clinic in the outpatient department

Qualified Doctor  [√]  Full time [ ]  Part-time [ ]
Qualified Nurse   [√]  Full time [ ]  Part-time [ ]

* Facilities like banking, post office, book shops, etc. Yes ☑ No ☐
* Transport facilities to cater to the needs of the students and staff
  Yes ☑            No ☐

  No. of buses - 18
  No. of vans  - 04
  No. of cars  - 30
* Facilities for persons with disabilities          Yes ☑ No ☐
* Animal house                                      Yes ☑ No ☐
* Incinerator for laboratories                      Yes ☑ No ☐
* Power house                                       Yes ☑ No ☐
* Fire safety measures                              Yes ☑ No ☐
* Waste management facility, particularly bio-hazardous waste -
  Yes ☑   No ☐
* Potable water and water treatment          Yes ☑   No ☐
* Any other facility (specify)     - ATM, Temple, Generator / Electricity
  Backup, Gift Shop, Telephone Facility (local & STD), Railway
  reservation facility, Travel booking office (Air & Railway).

## 20. Working days / teaching days during the past four academic years

| Number stipulated by the Regulatory Authority | Working days | | | | Teaching days | | | |
|---|---|---|---|---|---|---|---|---|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
| MCI & DCI | | | | | | | | |
| UG | 240 | 240 | 240 | 240 | 225 | 225 | 225 | 225 |
| PG | 300 | 300 | 300 | 300 | 286 | 286 | 286 | 286 |
| PCI & INC & AICTE | | | | | | | | |
| UG | 240 | 240 | 240 | 240 | 200 | 200 | 200 | 200 |
| PG | 280 | 280 | 280 | 280 | 240 | 240 | 240 | 240 |
| RCI | | | | | | | | |
| UG | 240 | 240 | 240 | 240 | 200 | 200 | 200 | 200 |
| PG | 280 | 280 | 280 | 280 | 300 | 300 | 300 | 300 |
| Number by the Institution | 298 | 271 | 299 | 297 | 252 | 241 | 253 | 251 |

('Teaching days' means days on which classes/clinics were held. Examination days are not to be included.)

**21. Has the institution been reviewed by any regulatory authority? If so, furnish copy of the report and action taken there upon (last four years)**

Yes

All UG & PG programs of the University have been reviewed by the Statutory Councils, namely MCI, DCI, PCI, RCI, INC, AICTE and by UGC, MHRD and compliance achieved during the period of reaccreditation (2009 – 2013). Details are appended as (appendix – I).

**22. Number of positions in the institution**

| Positions | Teaching faculty | | | | | | Non-teaching staff | Technical staff |
|---|---|---|---|---|---|---|---|---|
| | Professor | Associate Professor / Reader | Assistant Professor / Lecturer | Tutor / Clinical Instructor | Senior Resident | Junior Resident / Others | | |
| Sanctioned by the Government | No government sanctioned post since the University is a private Deemed University | | | | | | | |
| Recruited | | | | | | | | |
| Sanctioned by the Management / Society or other authorized bodies | 75 | 134 | 307 | 5 | 98 | 12/20 | | |
| Recruited | 189 | 124 | 308 | 44 | 94 | 15/8 | 3128 | 402 |
| Stipulated by the regulatory authority | | | | | | | | |
| Cadre ratio | | | | | | | | |
| MCI | 40 | 95 | 141 | 1 | 98 | 12 | 0 | 0 |
| DCI | 13 | 21 | 40 | 0 | 0 | 0 | 0 | 0 |
| PCI | 5 | 0 | 31 | 0 | 0 | 0 | 0 | 0 |
| INC | 5 | 5 | 42 | 0 | 0 | 0 | 0 | 0 |
| RCI - SLHS | 1/1 | 1/1 | 4/6 | 0 | 0 | 0/10 | 0 | 0 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Management - AICTE | 1 | 1 | 4 | 0 | 0 | 0 | 0 | |
| UGC | 9 | 10 | 39 | 4 | 0 | 0/10 | 0 | |
| Recruited | | | | | | | | |
| MCI | 146 | 81 | 149 | 4 | 94 | 15 | 0 | 0 |
| DCI | 19 | 17 | 40 | 6 | 0 | 0 | 0 | 0 |
| PCI | 9 | 0 | 31 | 0 | 0 | 0 | 0 | 0 |
| INC | 4 | 11 | 22 | 15 | 0 | 0 | 0 | 0 |
| RCI -SLHS | 0/2 | 2/3 | 3/13 | 2/1 | 0 | 0 | 0 | 0 |
| Management - AICTE | 1 | 1 | 5 | 0 | 0 | 0 | 0 | 0 |
| UGC | 8 | 9 | 45 | 16 | 0 | 0/8 | 0 | 0 |
| | 189 | 124 | 308 | 44 | 94 | 15/8 | 3128 | 402 |
| Number of persons working on contract basis | - | - | - | - | - | - | 852 | - |

## 23. Qualifications of the teaching staff

| Highest Qualification | Professor | | Associate Professor/ Reader | | Assistant Professor/ Lecturer | | Tutor / Clinical Instructor | | Senior Resident | | Junior Resident/ Others | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| Permanent teachers | | | | | | | | | | | | |
| D.M./ | 7 | 4 | 3 | -- | 7 | 2 | -- | --- | -- | -- | -- | -- |
| M.Ch. | 13 | 2 | 10 | | 9 | 0 | | | | | | |
| Ph.D./ | 15 | 15 | 8 | 6 | 5 | 8 | - | - | - | - | 1 | - |
| D.Sc./ | 2 | -- | -- | -- | -- | -- | - | -- | | | | |
| D.Litt/ | - | - | - | - | - | - | - | -- | - | - | - | -- |
| M.D./ M.S. | 34 23 | 35 7 | 26 8 | 19 2 | 45 28 | 31 7 | - | - | 21 19 | 13 6 | 1 - | - |
| PG (M. Pharm/ PharmD | -- | -- | -- | -- | 12 | 19 | - | -- | -- | -- | -- | - |
| DNB, | 7 | 3 | 7 | 3 | 7 | 6 | - | - | 6 | 8 | -- | - |
| M.Sc | - | 1 | 3 | 1 | 8 | 12 | 2 | 4 | - | - | - | - |
| MDS., | 13 | 3 | 11 | 6 | 15 | 20 | - | - | - | - | - | - |

| MPT, MPH, MHA) | 2 | -- | 1 | - | 3 | 6 | 1 | - | - | - | - | - |
| AB/ FRCS/ FRCP/ MRCP/ MRCS/ FDSRCS | 1 | 1 | - | - | - | - | - | - | - | - | - | - |
| M Phil. | - | - | 1 | - | 4 | 14 | 1 | 5 | - | - | 2 | 1 |
| UG | - | - | - | - | - | 5 | 4 | 25 | - | - | - | 2 |
| Temporary teachers | All Faculty are Permanent ||||||||||||

## 24. Emeritus, Adjunct and Visiting Professors.

|  | Emeritus || Adjunct || Visiting ||
| --- | --- | --- | --- | --- | --- | --- |
|  | M | F | M | F | M | F |
| Number | 04 | - | 11 | 2 | 50 | 11 |

## 25. Distinguished Chairs instituted:          Professor of Eminence: 5

| Department | Chairs / position |
| --- | --- |
| Medical Technology | Professor of Eminence<br>Dr. A.P.J. Abdul Kalam, Former President of India |
| Medical Administration | Professor of Eminence<br>Dr. T.K. Parthasarathy, Former VC, SRU |
| Research & Development | Professor of Eminence<br>DR. S P. Thyagarajan, Former VC, University of Madras |
| Medical Education | Professor of Eminence<br>Dr. S. Rangaswami, Former VC, SRU |
| Environmental Health Engineering | Dr. Dieter Borgers<br>Dept. of General Practice & Family Medicine, University of Dusseldorf, Germany |

## 26. Hostel

| S. No. | Name of the hostel | Number | Inmates | Facilities |
| --- | --- | --- | --- | --- |
| 1. | Boys' hostel | 6 | 766 | All* |
| 2. | Girls' hostel | 4 | 1591 | All* |
| 3. | Overseas students | 3 | 171 | All* + AC, furnished room with attached bath |
| 4. | Interns | 2 | 143 | All* |
| 5. | PG hostel | 4 | 259 | All* |

All * - Facilities - Gymnasium, Indoor Games, Meditation Hall, Recreational facilities (TV, Newspapers), Study Hall, Reading Hall, Guest Rooms, Intercom facility.

## 27. Students enrolled in the institution during the current academic year, with the following details:

| Students | UG | | PG | | | | | | Integrated Masters | | M Phil | | Ph D | | Integrated PhD | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PG | | DM | | MCH | | | | | | | | | |
| | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| From the state where the institution is located | 207 | 497 | 61 | 154 | 3 | 1 | 4 | 1 | 0 | 1 | 2 | 3 | 6 | 10 | 1 | 3 |
| From other states | 19 | 37 | 36 | 52 | 11 | 3 | 4 | 0 | 0 | 2 | 1 | 2 | 4 | 6 | 1 | - |
| NRI students | 25 | 41 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Foreign students | | | | | | | | | | | | | | | | |
| Total | 251 | 575 | 97 | 206 | 14 | 4 | 8 | 1 | 0 | 3 | 3 | 5 | 10 | 16 | 2 | 3 |

  M- Male                     F- Female

## 28. Health Professional Education Unit / Cell / Department

| Name of Health Professional Education Unit | Year of Establishment |
|---|---|
| Medical Education Unit- MEU | 1997 |
| Dental Education Unit- DEU | 2010 |
| Education Unit Health Science Colleges- EUHSC | 2005 |
| Pharmacy Education Unit – PEU | 2010 |

| Name of the Programme | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|---|---|---|---|---|---|
| Induction / Orientation | 2 | 5 | 6 | 6 | 6 |
| Refresher | 1 | 1 | 2 | 5 | 3 |
| Post Graduate (Rapid review) | 10 | 11 | 10 | 11 | 11 |

**29. Does the university offer Distance Education Programs (DEP)?**

Yes ☐          No ☐ √

**30. Is the institution applying for Accreditation or Re-Assessment?**

Accreditation ☐ √                    Re-Assessment ☐

Cycle 1 ☐          Cycle 2 ☐ √ Cycle 3 ☐          Cycle 4 ☐

**31. Date of accreditation\* (applicable for Cycle 2, Cycle 3, Cycle 4)**
     Cycle 4: NA
     Cycle 3: NA
     Cycle 2: NA
     Cycle 1: 29/01/2009
     Accreditation outcome - Accredited with 'A' grade with CGPA score of
     3.52.  Accreditation certificate and peer team report (copies enclosed as
     appendix J)

**32. Does the university provide the list of accredited institutions under its
     jurisdiction on its website? Provide details of the number of accredited
     affiliated / constituent / autonomous colleges under the university.**
     Yes, www.sriramachandra.edu.in
     Sri Ramachandra Medical College and Research Institute
     Faculty of Dental Sciences
     Faculty of Pharmacy
     Faculty of Nursing
     Faculty of Physiotherapy
     Faculty of Allied Health Sciences
     Faculty of Management
     Faculty of Biomedical Sciences, Technology and Research

**33. Date of establishment of Internal Quality Assurance Cell (IQAC) and
     dates of submission of Annual Quality Assurance Reports (AQAR).**
     IQAC                    09/09/2009
     AQAR          (i)   31/12/2010
                   (ii)  31/05/2011
                   (iii) 19/05/2012
                   (iv)  17/06/2013

**34. Any other relevant data, the institution would like to include**
     1. Modular Curriculum
     2. Integrated MD / Ph D program through ICMR funding
     3. Advanced PRODEV  program for MBBS / MDS

4.  Computer courses for Medical, Dental, Pharmacy & Physiotherapy students
5.  Chancellor's Summer Research Fellowship
6.  Founder Chancellor Shri NPV Ramaswamy Udayar Fellowships for pursuing PhD research (Full time).
7.  Young faculty Research Grant (GATE – Growth & Advancement through Excellence)
8.  Longitudinal Mentorship
9.  Well structured faculty development program
10. Innovative teaching methods
11. Feedback from examiners
12. Establishment of internal Assessment Test Cells
13. Demonstration Halls – in all clinical specialties as per MCI norms.
14. Museums in all departments
15. Mannequins
16. Ethics committee /Research Advisory Committee
17. Tamilnadu Government  approved hospital under Public Private Partnership model
18. National knowledge Network  (NKN) connectivity
19. Subscription to INFLIBNET (UGC) & Shodh Ganga e-thesis repository
20. Up-to-Date software in the hospital information management system
21. National Rural Health Mission (NRHM)  program
22. Child Development Unit
23. Expanded multi specialty ICUs
24. Expanded modernized, 'state of the art' Operation Theatres
25. Active Learning Center
26. Reprography
27. Boarding and Lodging for Parents
28. Lactation Support Room
29. Industry Institute participation Cell
30. Anti Ragging Committee
31. Student's Council
32. Humor Club/ Tamil Mandram
33. Chancellor's Cash awards for motivating meritorious students in first year of examinations
34. Student representatives in Anti ragging committee, Medical education Unit, Library committee and IQAC.
35. Alumni Association with 19 chapters
36. Participation of students in camps in rural & urban areas
37. Regular Parent Teacher interactions
38. Motivation of students for participation in curricular, co curricular and extracurricular activities by faculty interaction (Mentoring) and financial support.

39. Online student feedback System
40. 'Born to win' programme for personality development by the Faculty of Management
41. External member in various committees.
42. Implementation of  e-Governance
43. Rotation of leadership in department heads & committees.

**Criterion I
Curricular Aspects**

**Criterion – I Curricular Aspects**

| Key Aspects | Approach | Outcome |
|---|---|---|
| Curricular design planning & development | 3 – tier system<br>• Department identifies need assessment through stake holders.<br>• Curricular committee recommends the curricular changes<br>• Approval by Boards of Studies & Academic Council | • 18 new programs introduced (2009 – 13)<br>• Integrated MD / MS PhD sponsored by ICMR- 25 nos<br>• Twinning program – B Sc (Sports & Exercise Sciences) – University of Cape town, South Africa<br>• Integrated PG – PhD (5 Years) for faculties of Pharmacy, Physiotherapy, Nursing, Biomedical Sciences Technology & Research, AHS & Management Studies<br>• Integrated curriculum for MBBS extended to phase II & III & BDS |
| Academic Flexibility | • Cafeteria type program options<br>• Credit based semester system<br>• Value based education | • 108 (12 - UG , 62 - PG , 16 – Super specialty, 1 – Diploma, 1 – Integrated Masters, 1 – Pharm D, 1 – M Phil., 1 – certificate program.<br>• 11 – Inter - disciplinary Value added certificate program. [Faculty of Pharmacy, Biomedical Sciences, Physiotherapy, AHS & Management. |
| Curricular Enrichment | • Innovative curriculum<br>• Inter disciplinary thrust areas.<br>• Enhance communication skills.<br>• Entrepreneurial skills.<br>• Inculcating research | • Integrated curriculum extended to Phase II & III for MBBS & Integrated curricular module introduced for BDS.<br>• MPH in Occupational Health, B Sc – Sports & Exercise Sciences (2010 –12).<br>• Language lab to enhance communication skills<br>• Establishment of E – cell in 2011<br>• Summer research fellowships since 2011<br>• Research internship program for BDS (2013). |
| Feedback system | • 360° feedback – students, experts, alumni, employees & patient.<br>• On line student feedback system (2012 – 13)<br>• External peer feedback through accreditation<br>• Employee feedback | • 18 New courses and revision of 73 existing courses<br>• Improved Student Satisfaction Index (SSI)<br>• Development and implementation of quality indicators (through IQAC and QIPST)<br>• Significant Student Infrastructure changes<br>• 2 International , 6 National Accreditation and 10 recognitions<br>• Faculty and Curriculum development |

**CRITERION I: CURRICULAR ASPECTS**

## 1.1 Curriculum Planning, Design and Development

### 1.1.1 Does the institution have clearly stated goals and objectives for its educational program?

Yes, the vision and mission of the University form the basis of the goals and objectives of the institution and its constituent Faculties, which seek to address the societal and national needs by laying emphasis on academic competence, health care delivery, research activities, professional development and ethical values of every discipline.

**VISION**

To offer diverse educational programs that facilitate the development of competent professionals and valuable citizens, who demonstrate excellence in their respective disciplines, while being locally responsive and globally competitive in areas of education, health care delivery and research.

**Vision 2025**

Sri Ramachandra University will emerge as one of the top twenty medical and allied sciences universities in South East Asian Region by contributing high quality education, health care, biomedical translational research to the society (Ref: Vision 2025 document)

**Mission**

Sri Ramachandra University will actively promote and preserve the higher values and ethics in education, healthcare and research, will pursue excellence in all these areas while consciously meeting the expectations of the people it serves without prejudice and in all fairness stay socially meaningful in its propagation of the various arts and sciences to enrich humanity at large.

**Goals:**
- Create new teaching programs in cutting edge, employable interdisciplinary areas.
- Launching of new UG and PG programs through twinning and joint degree methodology with Indian / Foreign Universities.
- Setting up of Virtual Learning Centers in the SRU campus to facilitate learning with national / international institutions / experts.
- Curriculum models as per choice based credit system with intra and inter-institutional credit transfer facility
- Building up of UG and PG programs of international relevance and employability with students' mobility to industries and other partnering institutions.

**Objectives:**
- To enable holistic development of students through integration of technological advances, practical experiences, research involvement and interdisciplinary exposure within curricula of all academic programs.

- To foster inter-institutional collaborations allowing development of joint academic programs straddling across medical, health, engineering, basic and management sciences that allow graduates to pursue novel educational tracks and acquire global competencies.
- To create multiple industry-academia partnerships to support multiple academic programs, enhance visibility and facilitate future job placements for graduates
- To nurture growth in research and extension capacities amongst students and faculty through financial and administrative support to explore traditional and unchartered areas with courage and creativity

**1.1.2. How are the institutional goals and objectives reflected in the academic programs of the institution?**

The goals and objectives of the institution revolves around education, research and health care. The academic programs offered in the institution explores these three major areas in different dimensions. These details are summarized below:

Academic programs: Programs offered are multidisciplinary with global value and employability (refer 1.2.6). They are:-

- application oriented courses of high technical and scientific content in disciplines of health sciences, viz., MBBS, MD, MS, DM, M.Ch, BDS, MDS, B Pharm, Pharm D, BPT & MPT, MBA, M.Sc. Biotechnology & Bioinformatics, B.Sc. / M.Sc. in Allied Health Sciences, M.Sc. Neuroscience, M.Sc. Renal Sciences, etc.
- innovative interdisciplinary courses – e.g., DM Critical Care, MD Sports Medicine, MPH Occupational and Environmental Health.
- socially meaningful academic programs having integrated outreach components and humanitarian considerations like, MD Community Medicine, and M.Sc. Community Health Nursing.
- innovative employment oriented courses of learning [MD Sports Medicine, MPH program, B Sc. Allied Health Sciences, B Optom (Clinical Optometry), B Sc. Sports & Exercise Sciences]
- value-based add-on courses (numbering 11) to expand their out- of curriculum learning experience and employability

Research: to nurture growth of research temperament among students at various levels are

- UG and PG curricula have in built research methodology courses to facilitate their training in carrying out research.
- Offering co - curricular certification programs (CITI) in research methodology, biostatistics; ethical education which is mandatory for PhD program
- Mandatory research projects, dissertations for all PGs

Healthcare: having a core idea of delivering futuristic healthcare, meeting the national and global demands, the academic programs and research orientation are offered as part of curricula. The health care is delivered through a

multispecialty high-end hospital and extension programs with social responsibilities. Students learn their skills in health care set- up accredited by national (NABH) and International (JCI) agencies. Curriculum also has extension components where students offer healthcare services, education which

- creates opportunities to undertake extramural studies, extension programs and field outreach activities towards development of healthier society.
- offers ways for community-based studies, research programs and continuing education programs for dissemination of knowledge in all disciplines.

**1.1.3. Does the Institution follow a systematic process in the design, development and revision of the curriculum? If yes, give details of the process (need assessment, feedback, etc.).**

Yes, following systematic process is adopted to design, develop and revise the curriculum.

New programs:

- Faculty members engage in formal and informal needs assessment to assess the adequacy and relevance of existing and new curricula.
- Feedback is obtained from students, alumni, external examiners, and experts on existing and new curricula at department level and then in the curriculum committee where the general and specific objectives are defined, as first level of curriculum development.
- Experts opinions are sought before initiation of new programs through expert committee meeting.
- The new courses so developed are introduced after necessary approvals of syllabus, regulations and mode of administration by the Board of Studies and Academic Council of the University / Statutory councils wherever applicable as the final stage

Existing programs:

- Periodic feedback is obtained from students, faculty, internal and external experts, Board of Studies and revisions are recommended and placed before Academic council for approval / ratification.
- Medical Education and Dental Education units have curriculum committees that facilitate innovations within the framed curriculum of MCI / DCI based on periodic feedback. Innovations such as integrated curriculum, organ / case based learning, problem based learning and other learner centered approaches, formative assessment etc. have already been introduced.

**1.1.4 How does curriculum design and development meet the following requirements?**

**\*Community needs:**

- The importance of the community needs is addressed while designing and implementing the curriculum at both UG and PG level across

courses. This enables to bring socially responsible professionals ably supported by participating in medical health camps, serving in public health centers and health awareness programs / rallies (refer 3.6.12).

- MD Community Medicine Program is offered by the university to produce specialists in the field of Community Medicine.

- The Medical, Dental and Nursing courses have outreach components integrated in their UG & PG programs so as to equip them to achieve National and developmental goals. It includes participation in National health programs, preventive health services, health education initiatives and rehabilitative programs. In Pharmacy curriculum, community development and patient care is addressed in subjects like Therapeutics, Clinical Research and Community Pharmacy in Pharmacy Practice.

- The University has a Public-Private Partnership alliance as per the National Rural Health Mission (NRHM) initiative with Government of Tamil Nadu as a donor to Patient Welfare Services of 2 Primary Health Centers, namely Nemam and Mugalivakkam. These two PHCs are utilized for purpose of Community orientation training of Medical, Dental and Nursing students, besides providing state – of – the - art primary and secondary health care and referral to SRMC for tertiary care. A well planned and developed Primary Health Centre has been established at Vayalanallur by SRU and is functional from January 2013.

**\* Professional skills and competencies:**

Practical training in basic science and clinical science laboratories, clinical training through patient encounters, bed-side clinics and internship by rotations in clinical departments of the University Hospital or industries, basic and advanced skills training in Skills lab and simulation laboratories, joint degree programs with foreign universities, institutional support for summer research for UG students, advanced training programs for PG and Ph D students and study abroad programs are imparted to build global competencies.

**\*Research in thrust / Emerging areas**

- The undergraduate training incorporates introduction to basics of biostatistics and research methodology as a part of curricula in all UG courses, Community Medicine, Nursing etc.

- All PG courses have a structured course on Research Methodology and Biostatistics, mandated in the curriculum. The Ph D students do course work on Research Methodology and Biostatistics with an examination at the end of 1st year after registration.

- The entire postgraduate curriculum includes Thesis / Dissertation as a part of the curriculum with the objective of sensitizing the students to research methodology.

- Novel MD/MS/ MDS integrated PhD program introduced (SRU is one of the three ICMR approved institutions in India).

**\* Innovation**

The innovative, integrated curriculum based on organ system and disease blocks introduced in 2006-07 for MBBS course includes PRODEV, a well - structured and effectively delivered module with emphasis on communication skills, ethics and empathy in practice of medical profession needs a special mention.  The PRODEV module has been revised in 2011.  The Medical Education Unit has compared the performance and other outcomes of the current curriculum with innovations coupled learning experience and student achievements with the earlier, discipline-based traditional curriculum and has found that a larger proportion of students achieving higher performance in the former.

The Medical Education Unit is currently involved in developing integrated assessment methods for the MBBS program and has started training faculty in this regard with the help of international experts in curriculum development like Prof Raja C. Bandaranayake from Sydney, Australia.

Research Training offered additionally to PG and PhDs enhance quality of research output examples being-

- ✓ Annual research methodology workshop for post graduate students and faculty.
- ✓ Workshop on project proposal writing.
- ✓ Skills enhancement workshop

**\* Employability**

A need assessment is conducted before starting of new courses in terms of its demand and reach. The curriculum is designed for newer courses so as to meet expectations of the industry and research organizations.  Members from industry, research organizations and alumni are invariably part of the curriculum design team and provide their inputs during curriculum design and revisions.  Many courses offer subjects which has a job orientation and better employability.  Practical training, industrial training and clinical exposure are adequately provided to enable students to make them employable.

**1.1.5 To what extent does the institution use the guidelines of the regulatory bodies for developing and / or restructuring the curricula? Has the institution been instrumental in leading any curricular reform which has created a national impact?**

The CORE programs offered by the university are governed by the guidelines as stipulated by the statutory bodies namely MCI, DCI, INC, PCI, AICTE, RCI, etc, thus reflecting the national / global trends.

The institution in association with Harvard Medical International and the Medical Council of India has developed an innovative, integrated curriculum based on organ system and disease blocks for the MBBS course in 2006-2007. This also includes PRODEV (Professional Development), a well-structured and effectively delivered module with emphasis on communication skills, ethics and empathy in practice of medical profession

The efforts on curricular innovations / reforms and faculty development programs organized over past two decades in association with Harvard Medical International has led to Medical Council of India recognize SRU as a Regional Center for Medical Education Technology in 2009 for Faculty Development, with the responsibility to disseminate knowledge and skills in educational technology to teaching faculty in 31 medical colleges in the region. Many of SRU faculties from medical college have been invited to hold memberships in key committees such as curriculum development, faculty development at a national level in the MCI. Our former Vice Chancellor was a member of the academic cell of MCI from April 2009 to Feb 2012.

**1.1.6 Does the institution interact with industry, research bodies and the civil society in curriculum revision process? If so, how has the institution benefitted through interactions with the stakeholders?**

Yes. The Board of Studies draws its members with wide representation from academia, industry, health care service providers and in some international experts. They provide structured feedback to initiate, revise and redesign curricula as and when necessary. These members discuss and analyze suggestions given periodically by faculty members and external examiners. After discussion and consideration of the validity of suggestions, the changes and inclusions are placed before Academic Council. Introduction of new courses and introduction of value added courses have also been made based on feedback provided by members of BOS.

**1.1.7 How are the global trends in health science education reflected in the curriculum?**

The emphasis on curriculum is broad based. Every unit has a customized framework to ensure that the quantity and content of course work are at par with national and international universities. Global trends are reflected by

- National and international collaborations e.g., Medial College has had association with Harvard Medical international until 2010, Faculty of Nursing with University of Wisconsin, Oshkosh, USA, Faculty of Dental Sciences with the University of Hong Kong.
- Shift from teacher centered approaches to learner centered approaches e.g., Problem Based Learning has been introduced in Medical / Dental Colleges and project based learning in all PG programs.
- Integrated learning modules in many programs
- The Medical College has implemented a complete integrated curriculum for all three phases of MBBS Course. The curriculum is organ system based for phase1 and phase 2 and disease based for phase 3. In the Medical College global trends like student centered active learning, competency based learning, integrated multidisciplinary approach in learning, periodic summative assessment, professional development programs, interactive small group discussion, case based learning and a clinical skills lab have been introduced. The assessment system is patterned after global trends e.g., introduction of a formative assessment for the PG to assess the academic competencies. The

Faculty of Dental Sciences has developed an integrated curriculum and piloted a few modules.

- The Medical Centre is accredited by Joint Commission International (JCI) reflecting global trends in health care service delivery which is reflected in the curriculum for skill development on par with global trends.
- All colleges use periodic journal sessions, continuing education programs, seminars, and dissertation review sessions to supplement classroom sessions. International issues are also included in the curricula (e. g. International Health Management in MBA program).

All the above measures have enhanced standards of curricular and educational processes well above the standards prescribed by statutory councils.

**1.1.8 Give details of how the institution facilitates the introduction of new programs of studies in its affiliated colleges.**

Since Sri Ramachandra University is declared under Section 3 of the UGC Act 1956 as a Deemed University it has constituent Faculties and offer a three tier system for introduction of new program.  The feed - back on the curriculum is analyzed and discussed at the departmental level / the Curriculum committee / Medical education Unit.   The discussions and recommendations in consultation with external experts are forwarded to Board of Studies and ratified in the Academic Council before introduction of New Courses.

**1.1.9 Does the institution provide additional skill-oriented programs relevant to regional needs?**

Yes.  In addition to routine prescribed teaching, all departments also conduct review courses, CMEs, workshops; and extension activities (refer 3.1.12). Research methodology course for the Post graduate students and research scholars are mandatory.   Recently in line with UGC's recommendations several value-based add – on programs that meet 'outside the curricular' learning opportunities to students are introduced.  Details are given in 2.2.4.

**1.1.10 Explain the initiatives of the institution in the following areas:**
**Behavioral and Social Science.**

The Department of Clinical psychology offers a course in M. Phil Clinical Psychology and clinical services that integrate with several multidisciplinary health services e. g Child Developmental Unit, Adolescent health services, HIV clinics etc, which are areas of clinical training for the Health professional trainees.  A pilot, educational research project (spearheaded by MEU) has been conducted to determine reasons for under achievement among first year medical students including assessment of learning styles, study habits, emotional factors etc.,.  This study used a multifaceted tool and offered a comprehensive remedial program for students including psychological and scholastic counseling.

Behavioral and Social Science components are integrated in the curriculum of several courses and handled by clinical psychologists.  The list of courses is:

| Name of course | Components taught |
|---|---|
| First MBBS; | Foundation course |

| Physiotherapy curriculum | <u>Psychology</u> - taken by clinical psychologist. <u>Sociology</u> – by faculty from physiotherapy who teach aspects with relevance to the clinical practice |
|---|---|
| B. Pharm; second semester | given training in behavior and social science to enhance their social responsibilities |
| B Sc. Nursing (Basic) & B Sc. Nursing (Post Basic) | Psychology as a subject Sociology in second year |
| B Sc. (BMS) | Paper in Psychology - helps them to understand and appreciate how to interact with patients while doing research; ethical and emotional aspects of health care. |

**\*Medical Ethics / Bio Ethics / Nursing Ethics.**
Ethics, guidelines for GLP & GCP are part of the course curricula in UG and PG courses of the university. The other measures to promote ethics are:

- Introduction to Medical Ethics for the first MBBS students has been incorporated into their foundation course
- PRODEV for undergraduates has sessions on medical ethics
- CITI- Collaborative international training initiative (online program on research ethics education) – India (refer criterion 3)
- Orientation of postgraduates in Medical Ethics during (PG Orientation)

The constitution of ethical committees (6) in the University including two for student proposals promotes ethics education in medical and biomedical research (details in 3.1.2). In addition, Ethics is part of curriculum in programs of the faculties of Nursing, BMS, AHS, Physiotherapy; Management and others.

**\*Practice Management towards curriculum and / or services**
The faculty of management offers a PG program in MBA in Hospital and health systems management. In addition UG and PG programs of nursing, BMS and pharmacy offer a course in management. All our accredited services (Hospital and Labs) and teaching programs expose students to culture of SOPs, quality maintenance and improvement.

**\*Orientation to research**
Following measures orient students / faculties to research and promote research

- The undergraduate training incorporates introduction to basics of biostatistics and research as a part of training in all UG courses. In some, UG programs a project / dissertation is part of the curriculum prescribed.
- The Chancellor's summer research scholarship encourages undergraduate students to pursue research

- The postgraduate program has included project / dissertation as a part of the curriculum with the objective of sensitizing students to research methodology.
- ICMR funding for PG thesis through the MS/ MDS – Ph D program
- Departmental sponsorship for student research for Dental students (e.g. Department of Periodontia)
- Research is promoted in the university through a multipronged approach that is detailed in 3.1.3 and described as best practice in criterion VII.

**\* Rehabilitation:** The Faculty of Physiotherapy started rehabilitation therapy unit to prevent / control various disorders *viz*., diabetes, osteoporosis, etc., and train the students in such areas. The campus also has two units for rehabilitation - Early Intervention Centre and Karthikeyan Child Development Unit, both of which serve to orient our students towards acquiring social values and responsibilities.

*Early Intervention Centre***:** Vidya Sudha, Early Intervention Center for children with special needs provides special education, physiotherapy, occupational therapy and counseling sessions for children registered with it. Specialists with diverse backgrounds namely Pediatricians, ENT surgeons, Ophthalmologists, Orthopedic surgeons, Speech therapists, clinical psychologist and physiotherapists come together to cater to the overall development of the child with special needs. Specially trained and experienced child educator ably assisted by Montessori-trained teachers and two occupational therapists forms the team of Vidya Sudha.

The Karthikeyan child development unit provides multidisciplinary management and follow up of high risk neonates and children.

**\*Ancient scriptural practices:** Small research programs are carried out by faculty in the Department of physiology on ancient scriptures (encrypted in palm leaves).

**\*Health Economics:** The Master of Public Health Program offered by the Department of Environmental Health Engineering includes Disease Burden Studies as a part of their curriculum. The department documents health economics of the community.

**\*Medico legal issues:** Forensic course components and medico-legal case recording practices during internships is provided for many courses.

- Forensic medicine in MBBS curriculum introduces students to Medico - legal issues and PRODEV discusses issues that have Medico-legal implication. This is also extended to Dental students. Forensic Pharmacy in Pharmacy curriculum; "Legal aspects in Healthcare" offered in the curriculum of management students are some of the other courses in which knowledge is imparted on Medical Ethics and Medico legal aspects.
- The university offers a new course, MD Forensic Medicine by the department of Forensic medicine. This department is equipped with

state- of the Art mortuary and autopsy facilities that are used effectively in delivering the curricula.

- Participating in departmental Mortality and Morbidity committees is a part of post graduate training in the Medical College.
- Medico Legal cases are dealt in consultation with Additional Registrar (Law) of the University and the government recognized medico- legal consultant who is currently the Professor of the department.

**\* Enhancement of quality of services and consumer satisfaction:**

The quality sustenance is ensured in the areas of education, healthcare and research by following measures.

Establishing <u>Total Quality Management</u> for the university is by:

1. Accreditation and recognitions
   - NAAC for university
   - Recognition of the constituent colleges by the statutory bodies UGC, MCI, DCI, INC, PCI, AICTE, RCI
2. Accreditation of health care services (Medical Centre and Hospital)
   - JCI and NABH for the Medical Centre
   - NABL for the Laboratory services
   - ISO certification of Bioinformatics, Anesthesiology and Urology
   - Bio-dosimetry centre of department of Human Genetics by AERB, Govt. of India
   - Prenatal genetic testing centre approved by Govt of Tamil Nadu - Department of Human Genetics
   - Accreditation of blood bank by American Association of Blood Banks
   - Govt. of Tamilnadu Health insurance Scheme for socioeconomically weaker sections (BPL)
   - Govt. approved Hospital for Public private partnership model participation in NRHM
3. Research
   - WHO collaborating centre for research and training in occupational and environmental health sciences
   - ICMR Centre for Advanced Research in Indoor Airpollution
   - DISR and SIRO certificates by Department of Science and Technology, Govt. of India.
   - USFDA Audited ICMR registered clinical trial unit
   - PFIZER's preferred clinical research centre
4. Establishment of committees for Quality assurance
   - IQAC for the University
   - QIPST for Healthcare
   - RAC for research
5. Establishment of SRU Centers of Research: Eleven Centres of Research have been identified for research in focused areas. Details are stated in 3.3.2.

**1.1.11 How does the institution ensure that evidence based medicine and clinical practice guidelines are adopted to guide patient care wherever possible?**

- The Hospital and University Accreditation ensures that evidence based medicine and clinical practice guidelines are adopted to guide patient care.
- The monthly morbidity and mortality audits acts as a quality check.
- Clinical faculty members are provided education and training in good clinical practices through CITI India online educational program and Pfizer's preferred research center implemented by Central Research Facility.

**1.1.12 What are the newly introduced value added programs and how are they related to the internship programs?**

The 11 newly introduced value added programs (as detailed in ref 2.2.4) provides interdisciplinary internship knowledge and skills to the UG / PG students of all faculties with the provision of horizontal mobility. These programs are offered as certificate or diploma programs which enables students to earn credits as per UGC guidelines outside the regular courses.

**1.1.13 How does the institution contribute to the development of integrated learning methods and Integrated Health Care Management?**

**\* Vertical and Horizontal Integration of subjects taught**

In all programs, curriculum is designed in such a way that the subjects are vertically / horizontally integrated. A notable feature in medical college is the integrated curriculum in association with Harvard Medical International based on Block / Phase – wise curriculum. The organ system blocks in Phase 1 and 2 and disease blocks in Phase 3 are examples of vertical and horizontal integration. Following the same model, few modules have been introduced in Dental Sciences, as a pilot program.

**\* Integration of subjects taught with their clinical applications**

The University, as a Health Science institution offers Medical, Dental and Paramedical courses that contribute to Integrated Health Care Management. All the courses link learning of clinical science with basic sciences. The curriculum is designed step wise to help students to walk through their learning pyramid from knowledge to skill acquisition to practice. The basic science subjects are taught in the context of clinical application and relevance.

The clinical training for UG students in Medicine, Dentistry and the internship programs in other Faculties impart training in Clinical skills as envisaged through their curriculum.

**\* Integration of different systems of Health care (Ayurveda, Yoga, Unani, Homeopathy etc.) in the teaching hospital.**

The Dental and Medical students are introduced to the alternative systems of medicine during their Orientation program and in PRODEV. Several funded research programs investigate the quality and standardization of traditional methods either in pre-clinical testing; clinical trials or as basic science approach (refer 3.2.1).

**1.1.14 How is compatibility of programs with goals and objectives achieved with particular reference to priority of interface between Public Health, Medical Practice and Medical Education?**

The stipulations given by the statutory bodies regulate the goals and objectives of the courses such as medical, dental, nursing etc. which provide adequate interface between public health, medical practice and education. The programs offered have their objectives to promote:

- Outreach components that serve the national millennium developmental goals, National Rural Health Mission (NRHM), preventive health services, health education initiatives and rehabilitative and disaster management programs.
- Skills acquisition and professionalism for medical practice e.g. experiential learning, training in skills labs, clinical / hospital training, (PRODEV and internship).
- Integration of class room teaching with on- the job training component as in Pharm D program, Pharm D (PB), B Sc Sports & Exercise Sciences.
- The assessment system is also structured to meet the objectives of this interphase e. g. theory component for medical knowledge, Practical / clinical examination to test skills and Formative assessment / log books to assess medical practice skills and participation in public health

Delivery of such an interphase is well – supported by the institution in providing good infrastructure and facilities e.g., Lecture theatres, demonstration rooms, small group discussion rooms for classroom teaching and learning and practical demonstration; hospital services both out- patient and inpatient in the same campus for clinical / experiential training, community centers and conducting community and extension activities (NHRM); modern learning resources to meet these needs and by employing competent faculty and staff for training the students in this interphase.

**1.2 Academic Flexibility**

**1.2.1 Furnish the inventory for the following:**

**\* Programs offered on campus:** Programs taught on campus: as annexure in Institutional Data Part-I. In summary the University offers 12 UG, 62 PG programs and 34 other programs totaling to 108.

**\* Overseas programs offered on campus:** While overseas programs are not offered on campus, B Sc. Sports and Exercise Sciences is offered with twinning arrangements with University of Cape town, South Africa.

**\* Programs available for colleges / students to choose from:** SRU is a Deemed University and all above courses are offered by constituent units / faculties.

**1.2.2 Give details on the following provisions with reference to academic flexibility**

a. **Core options:** Following courses are offered with core options:

| S.No | Faculty | Core Options | Options |
|------|---------|--------------|---------|
| | Pharmacy | M Pharm has 6 options | 1. Pharmacy Practice<br>2. Pharmaceutics<br>3. Quality Assurance<br>4. Pharmacognosy<br>5.Pharmaceutical analysis<br>6.Pharmacology |
| | Nursing | MSc. Nursing has 5 options | 1. Medical surgical Nursing<br>2. Paediatric nursing<br>3. Obstetrics and Gynaecology Nursing<br>4. Community Health Nursing<br>5. Psychiatric Nursing |
| | Physiotherapy | MPT provides 3 options | 1.Orthopaedics & Traumatology<br>2. Neuro-Sciences<br>3.Cardio-Pulmonary Sciences |
| | Allied Health Science | MSc – AHS has four options | 1. Neuroscience<br>2. Medical Laboratory Technology<br>3. Medical Imaging Technology<br>4. Renal Sciences and Dialysis Technology |

b. **Elective options:** Following courses are offered with elective options:

| S. No | Faculty | Course | Options |
|-------|---------|--------|---------|
| | Nursing | M Sc (N), in Medical Surgical Nursing the II year are provided with an option to choose one out of 7 sub specialties | 1.Cardiovascular and thoracic Nursing<br>2. Critical Care Nursing<br>3. Oncology Nursing<br>4. Neurosciences Nursing<br>5. Nephro- Urology Nursing<br>6.Orthopedic Nursing<br>7.Gastroenterology Nursing |
| | Biomedical Sciences | BMS course students can opt for one year of elective in any of these three departments in 9 subjects as major specialties including a project | 1. Bioinformatics<br>2. Human Genetics<br>3. Biotechnology |
| | Allied Health Sciences | B.Sc AHS – in 2nd year of study students have options | 1. Anesthesia Technology<br>2. Perfusion Technology<br>3. Cardiac Technology<br>4. Respiratory Care |

| | | | Technology |
|---|---|---|---|
| | | | 5. Medical Laboratory Technology |
| | | | 6. Renal Dialysis Technology |
| | | | 7. Neuroscience Technology |
| | | | 8. Surgical Paramedical Technology |
| | | | 9. Urology Technology |
| | | | 10. Radiology and Imaging Science Technology |
| | | | 11. Blood Bank and Immunology Technology. |

**c. Bridge course**

The students enrolled to various programs are offered Bridge courses that will help strengthen their knowledge gap and acquiring skills in their regular UG Programs. Details are provided in 2.2.4.

**d. Enrichment courses**

- Value added courses, eleven of them, are being offered by the university to enable students to acquire skills beyond curricular expectations, to enhance employability and equip them to the needs of national and global demands. These courses are choice based and are offered as certificate programs conducted across departments and offered beyond regular teaching hours. It also facilitates horizontal mobility of students across departments (refer 2.2.4).

- Rapid revision courses are held by various medical college departments e. g., HOPE, RARE, RAIN, RIPE, SCORE, AIM, and others (refer 2.2.4).

- The American Heart Association recognized Pediatric Advanced life support Certification, Advanced Cardiac Life Support Certification is conducted by the Department of Accident and Emergency Care.

- Training beyond hours for USMLE for Medical students and GPAT training for Pharmacy students

**e. Credit accumulation and transfer facility:**

The medical and dentistry courses as per MCI / DCI norms do not have credit system. However, Credit Based Semester System (CBSS) with facility for credit accumulation has been implemented for courses offered under the Faculties of Biomedical Sciences, Technology and Research, Allied Health Sciences, Pharmacy and Management.

**f. Courses offered in modular form:**

In addition to adherence to MCI / DCI curricula for UG / PG courses, SRU has developed an innovative "integrated curriculum for MBBS which is implemented through a block based modules. Similar approach is now being introduced for BDS course.

**g. Lateral and vertical mobility within and across programs, courses and disciplines and between higher education institutions**

The courses offered are based on the guidelines of statutory councils which do not permit lateral and vertical mobility within and across programs.

**h. Twinning programs**

A twinning program at degree level is offered in B.Sc. Sports and Exercise Sciences in partnership with University of Cape town, South Africa.

**i. Dual degree programs**

The University Offers the MD-PhD, program since 2008- 09, that gives Dual Degrees after 5 years, sponsored by ICMR. From 2013-2014, PG-Ph D integrated dual degree program in Dental. Pharmacy, Physiotherapy, AHS, BMSTR has been implemented.

**1.2.3 Does the institution have an explicit policy and strategy for attracting students from other states, socially and financially backward sections and international students?**

**\* Other States**

- ✓ The admissions are open to students from other states who fulfill the eligibility criteria.
- ✓ The students are provided with all amenities for their comfortable stay e.g. hostel facilities, food courts, travel booking services, ATM, post office, bank etc.
- ✓ The campus ensures safe atmosphere and is a reassuring tobacco free and alcohol free campus for youngsters.
- ✓ Language training and interpreter services are offered to the students.

**\* Socially and Financially backward sections**

- ✓ The University offers two courses, Diploma in Nursing and Ward Technician course to economically disadvantaged students.
- ✓ Financial aid is provided for students from college and school of Nursing which includes reduction or waiver of tuition fees and / or provision of hostel facility at a concessional rate.
- ✓ The students undergoing Hospital Ward Technician certificate course are offered a stipend of Rs.500/- per month, waiver of tuition fee, subsidized food and hostel fee.

**\* International students**

All Undergraduate programs are open to International students who meet the eligibility criteria. Upto 15% of the seats are assigned to NRI / Foreign students. There is a separate NRI hostel for the international students. A Public Relations officer has been exclusively appointed to deal with the International student issues.

**1.2.4 Does the institution offer self-financing programs? If yes, list them and indicate if policies regarding admission, fee structure, teacher qualification and salary are at par with the aided programs?**

All programs offered by the Institution are self-financing as it is a private Deemed University under section 3 of UGC Act. No grants from UGC or other agencies are received for this purpose.

**1.2.5 Has the institution adopted the Choice Based Credit System (CBCS) / credit based system? If yes, for how many programs? What efforts have been made by the university to encourage the introduction of CBCS in its affiliated colleges?**

CBCS is not yet introduced across the university. However it employs Credit Based Semester System in Faculty of Pharmacy, Biomedical Sciences and Management. In the Statutory Council stipulated programs (Medical and Dental) the norms prescribed by the councils is adhered to.

**1.2.6 What percentage of programs offered by the institution follow:**

\* **Annual system**: 83% as stipulated by MCI & DCI

\* **Semester system**: 17%

\* **Trimester system**: Trimester system is not practiced

**1.2.7 How does the institution promote inter-disciplinary programs? Name a few programs and comment on their outcome.**

Interdisciplinary and value-added courses have been introduced based on needs analysis and stakeholder feedbacks. The notable addition was the introduction of the Integrated MD/MS/MDS-Ph D program, sponsored by ICMR with a view to foster the spirit of investigation and research among clinicians. SRU's efforts to enter into collaborations, exchange programs and MoUs with several national and international institutions have helped the University to stress on global competencies and universal trends in its academic programs. Several interdisciplinary courses have been introduced in the past five years in the various Faculty of Medicine, Allied Health and Biomedical Sciences.

| The inter-disciplinary component is available in the following range of courses offered by SRU | | | |
|---|---|---|---|
| | Existing courses | Newer courses introduced (2009-June 2013) | Courses under development |
| Faculty of Medicine | MBBS (Participation of 12 Departments) BDS (Participation of 8 Departments) Over 75% of the programs are interdisciplinary with appropriate departments / disciplines offering courses | DM Critical Care Medicine DM Reproductive Medicine DM Neonatology DM Neuro Radiology M.Ch Vascular Surgery M.Ch Neurosurgery (6 years) MD Tuberculosis and Pulmonary Medicine | DM Neuro Radiology PDCC in Interventional Radiology MD Emergency Medicine MD Family Medicine D. Sc. |

| | | MD Immuno Haematology and Blood Transfusion Medicine<br>MD Sports Medicine<br>MD Forensic Medicine<br>MD Emergency Medicine<br>Postgraduate Diploma course in Tuberculosis and Chest Diseases (DTCD) | |
|---|---|---|---|
| Faculty of AHS | M Sc. Neuroscience<br>M Sc. Medical Imaging laboratory technology<br>M Sc. Renal Science and dialysis technology<br>M.Sc. Audiology & Speech Language Pathology | MPH (Occupational & Environmental Health)<br>B.Sc. Sports & Exercise Sciences<br>M.Sc. Medical Radiology & Imaging Technology (5 year Integrated)<br>M.Sc. Emergency & Critical Care Technology | B.Sc. Sports Management<br>M.Sc. Medical Sociology |
| | B Optom (Clinical Optometry)y | - | |
| Faculty of Pharmacy | B Pharmacy<br>M Pharmacy | M Pharm – Pharmacology<br>M Pharm – Pharmaceutical Analysis | |
| Faculty of Biomedical Sciences, Technology and Research | B.Sc. Biomedical Sciences<br>M.Sc. Human Genetics<br>M.Sc. Biotechnology<br>M.Sc. Medical Bioinformatics | | |

Through these UG / PG / PhD programs complementarity of knowledge has been facilitated.  It has also helped in developing interdisciplinary research proposals as well as establishing SRU centers of research like SRU center for Stem Cell Research and Regenerative Medicine, SRU Center for Lifestyle Diseases and their Prevention, Centre for Biomedical Nanotechnology and others.

**1.2.8 What programs are offered for practicing health professionals for skills training and career advancement?**

Continuing Medical Education Programs conducted by various departments of the Medical College helps to enhance the skills and career advancement of practicing healthcare professionals. To mention a few:

| S. No | Name of the Program | Department |
|-------|---------------------|------------|
| 1 | TEMFESS | ENT |
| 2 | YUVAFOGSI | OBG |
| 3 | RALCON | OBG |
| 4 | Eye Donation and Corneal Transplant | Ophthalmology |
| 5 | AHA, PALS, ACLS, BLS | Accident and Emergency care |
| 6. | Quality and patient safety workshops | QIPST |
| 7. | Workshop on Quality indicators for teachers in Higher education | IQAC |

More details are given in the Evaluative Report of the departments.

**1.3 Curriculum Enrichment**

**1.3.1 How often is the curriculum of the institution reviewed and upgraded for making it socially relevant and/or skill oriented / knowledge intensive and meeting the emerging needs of students and other stakeholders?**

Major revisions of the curriculum are made only when there is revision of guidelines and regulations by the statutory bodies.  However, periodic revisions and modifications within the framework of the Statutory Councils are made based on faculty / student feedback, suggestions from external examiners / external experts, inspection by the statutory and accreditation bodies, after discussion in the respective Board of Studies.  Introduction of new curricula are effected on obtaining approvals from the statutory councils.

**1.3.2 During the last four years, how many new programs were introduced at UG and PG levels? Give details.**

* **Multi / Inter-disciplinary**

The University has introduced 18 new postgraduate courses and 1 UG course (most of which are interdisciplinary and in emerging areas) between June 2009 and June 2013.  These include:

New courses started from 2009 to 2013

| Sl. No. | Name of the course | Started In the year | No. of courses per year |
|---|---|---|---|
| | | 2009 | Nil |
| 1. | MD (TB and Pulmonary Medicine) | 2010 | |
| 2. | MD (Immuno Haematology and Blood Transfusion Medicine) | 2010 | |
| 3. | MD (Sports Medicine) | 2010 | 5 |
| 4. | Postgraduate Diploma course in Tuberculosis and Chest Diseases (DTCD) | 2010 | |
| 5. | MPH (occupational & environmental health) | 2010 | |
| 6. | MD Forensic Medicine | 2011 | 1 |
| 7. | DM Critical Care Medicine | 2012 | |
| 8. | DM Reproductive Medicine | 2012 | |
| 9. | M Pharm – Pharmacology | 2012 | 5 |
| 10. | M Pharm – Pharmaceutical Analysis | 2012 | |
| 11. | B.Sc Sports & Exercise Sciences | 2012 | |
| 12. | DM Neonatology | 2013 | |
| 13. | DM Neuro Radiology | 2013 | |
| 14. | M.Ch. Vascular Surgery | 2013 | |
| 15. | M.Ch. Neurosurgery (6 years) | 2013 | 7 |
| 16. | MD Emergency Medicine | 2013 | |
| 17. | M.Sc. Medical Radiology & Imaging Technology (5 year integrated) | 2013 | |
| 18. | M.Sc. Emergency & Critical Care Technology | 2013 | |
| | Total no. of courses | | 18 |

**\* Programs in emerging areas**
All the above programs are in the emerging areas

**1.3.3 What are the strategies adopted for the revision of the existing programs? What percentage of courses underwent a syllabus revision?**
The university has the following mechanisms towards curricular development:
1. Conceiving curriculum through interactive expert group meeting prior to placement in Board of Studies.
2. Establishment of Education Units that facilitates curricular and faculty development.
3. Establishment of various Boards of Studies for framing and revising course curriculum
4. Academic council to approve courses / revisions proposed by Board of Studies.

5. National and international collaborations to promote national and community development and reflect global trends in curriculum.
6. Periodic inspections / recognition by regulatory bodies to ensure compliance with national needs.

During the last 5 years (2008-2013), 46 Boards of Studies in different disciplines have met to update curricula in all faculties.  Of the 108 programs (courses) offered by the university, 73 have been revised / updated during the post - accreditation period.

**List of programs and the dates of revision:**

| Sl. No. | Name of the Course | Date of Revision |
|---------|--------------------|------------------|
|  | Ph D | 29.10.2011 & 21.12.2013 |
| Higher - Specialty Courses | | |
|  | D.M. Cardiology | 21.04.2008 30.04.2011 |
|  | D.M. Neurology |  |
|  | D.M. Nephrology |  |
|  | D.M. Medical Gastroenterology |  |
|  | M. Ch. Cardiovascular & Thoracic Surgery | 07.06.2008 30.04.2011 |
|  | M. Ch. Urology |  |
|  | M. Ch. Neuro Surgery |  |
|  | M. Ch. Surgical Gastroenterology |  |
|  | M. Ch. Plastic & Reconstructive Surgery |  |
|  | M. Ch. Pediatric Surgery |  |
| Postgraduate Degree Courses In Basic Medical Sciences | | |
|  | M.D.  Anatomy | 05.05.2008 03.01.2011 |
|  | M.D.  Physiology |  |
|  | M.D.  Biochemistry |  |
|  | M.D.  Pathology |  |
|  | M.D.  Microbiology |  |
|  | M.D.  Pharmacology |  |
|  | M.D.  Community Medicine |  |
| Postgraduate Degree Clinical Courses | | |
|  | M.D.  General Medicine | 21.04.2008 30.04.2011 |
|  | M.D.  Pediatrics |  |
|  | M.D.  Anesthesiology |  |
|  | M.D.  Radio-Diagnosis |  |
|  | M.D.  Dermatology, Venereology and Leprosy |  |
|  | M.D.  Psychiatry |  |
|  | M.S.  General Surgery | 07.06.2008 30.04.2011 |
|  | M.S.  Orthopedics |  |
|  | M.S.  Obstetrics & Gynecology |  |
|  | M.S.  Oto-Rhino-Laryngology |  |
|  | M.S.  Ophthalmology |  |

| | | |
|---|---|---|
| Masters Courses in Basic Medical Sciences | | |
| | M.Sc Medical Anatomy | 05.05.2008 |
| | M.Sc Medical Physiology | |
| | M.Sc Medical Biochemistry | |
| | M.Sc Medical Microbiology & Applied Molecular Biology | |
| Postgraduate Dental Courses | | |
| | M.D.S Prosthodontics and Crown & Bridge | 28.02.2009 18.11.2011 |
| | M.D.S Periodontology | |
| | M.D.S Oral and Maxillofacial Surgery | |
| | M.D.S Conservative Dentistry & Endodontics | |
| | M.D.S Orthodontics & Dentofacial Orthopedics | |
| | M.D.S Oral Medicine and Radiology | |
| | M.D.S Oral Pathology | |
| | M.D.S. Pedodontics & Preventive Dentistry | |
| Other Postgraduate Courses | | |
| | M.Phil Clinical Psychology | 26.02.2009 |
| | M.B.A. (Hospital & Health Systems Management) | 05.05.2012 |
| | M.Pharm - Pharmacy Practice | 08.12.2008 |
| | M.Pharm – Pharmaceutics | |
| | M.Pharm – Quality Assurance | |
| | M.Pharm – Pharmacognosy | |
| | Pharm – D (Post Baccalaureate) Doctor of Pharmacy | |
| | M.Sc. Human Genetics | 18.04.2008 |
| | M.Sc. Bioinformatics | 31.05.2008 25.01.2012 |
| | M.Sc. Medical Surgical Nursing | 05.05.2006 18.10.2008 |
| | M.Sc. Child Health (Paediatric) Nursing | |
| | M.Sc. Obstetrics & Gynaecological Nursing | |
| | M.Sc. Community Health Nursing, | |
| | M.Sc. Mental Health (Psychiatric) Nursing | |
| | Master of Physiotherapy (MPT) - Orthopaedics & Traumatology, | 03.05.2008 29.05.2010 12.04.2012 |
| | Master of Physiotherapy (MPT) - Neuro Sciences, | |
| | Master of Physiotherapy (MPT) - Cardio-Pulmonary Sciences | |
| | Master of Science Audiology and Speech-Language Pathology | 26.02.2010 |
| | M.Sc. Medical Imaging Technology | 15.05.2008 05.04.2011 |

| | M.Sc. Medicinal Chemistry | 03.04.2009 |
|---|---|---|
| | M.P.H. Occupational & Environmental Health | 02.05.2009 07.04.2011 |
| Undergraduate Courses | | |
| | BDS (Bachelor of Dental Surgery) | 28.02.2009 18.11.2011 |
| | Bachelor of Pharmacy | 08.12.2008 |
| | Pharm.D. (Doctor of Pharmacy ) | 01.03.2010 |
| | Bachelor of Science (Nursing) | 18.10.2008 |
| | Bachelor of Science (Post Basic Nursing) | |
| | Bachelor of Physiotherapy | 03.05.2008 12.04.2012 |
| | Bachelor of Science (Allied Health Sciences) | 15.05.2008 05.04.2011 |
| | Bachelor in Audiology and Speech-Language Pathology | 26.04.2008 26.02.2010 05.04.2011 |
| | Bachelor of Science (Emergency and Trauma Care Technology) | 15.05.2008 05.04.2011 |
| | Bachelor of Science(Biomedical Sciences) | 05.06.2009 |

**1.3.4 What are the value-added courses offered by the institution and how does the institution ensure that all students have access to them?**

Value added courses are being offered by the university to enable students to acquire skills beyond their curricular expectations and to enhance employability and equip them to the needs of the national and global demands. These courses are choice based and are offered as certificate programs conducted across departments. They are offered beyond regular hours so as to enable students undergoing a regular program to enroll for these programs without overlap (refer 2.2.4 for details).

**1.3.5 Has the institution introduced skill development programs in consonance with the national Health Programs?**

The university has programs which develop skilled personnel to meet national health needs. It has a Public-Private Partnership alliance as per the National Rural Health Mission (NRHM) initiative with Government of Tamil Nadu as a donor to Patient Welfare Services of 2 Primary Health Centers. The course curricula of UGs and PGs have training at these centers integrated into it. In collaboration with the EKAM Foundation, the Medical College participates in training of the Health care professionals in the primary Health centers in Neonatal resuscitation and care as a part of the National Rural Health mission.

The University has an Entrepreneurship development cell (EDC) along with National Entrepreneur Network [NEN] and celebrates NEN week through which students are encouraged to participate and develop their entrepreneurship skills to establish an organization / set-up to meet national health needs.

The Institution is a part of the National Knowledge Network, a Govt. of India Initiative on learning resource sharing for teaching and learning in health care. The Institution also participates in the "PAN AFRICAN NETWORK" an initiative by Govt. of India through Telelink.

All the Health sciences programs have their objectives defined in alignment with the National programs and provide avenue for student education training and participation. This curricular objective is met by the students participating in all the National Health programs including, National Health awareness propaganda such as World AIDS day, Asthma day, World Heart Day, Breast feeding week, Children's day, Pulse Polio program, No Tobacco day and others.

Few departmental initiatives are listed below:

- Department of Ophthalmology conducts camps and performs cataract surgery as part of the National Program for Control of Blindness (NPCB)
- Several departments of the Institution participate in the National nutritional survey training as a part of the ICDS, an initiative of the UNICEF, State Govt. programs like Varummun Kappom Camp and the Chief Ministers' Health Insurance Scheme.
- The Medical faculty and students participate in the training conducted by the National AIDS control organization (NACO) and also in PPTC program for prevention of Mother to child transmission of HIV.
- The Lactation Support program by Department of Pediatrics is a first of its kind initiated to support Breast feeding.
- The Department of Public Health Dentistry conducts camps on oral hygiene.
- The Department Environmental Health Engineering has a project with ICMR for impact of indoor air pollution on Health. The Department also conducts Community awareness program for sanitation and cleanliness.
- The faculty and students of Physiotherapy participated in camp organised by Ministry of Education, Govt. of Tamilnadu in 2011. They have also organised posture evaluation camps in schools during World Physiotherapy day.

**1.3.6 How does the institution incorporate the aspects of overall personality development addressing physical, mental, emotional and spiritual well- being of the student?**
- ✓ PRODEV- Program for undergraduates
- ✓ Longitudinal Mentorship Program for all students; Student Counseling services (Confidential self improvement counseling)
- ✓ Sports events and Physical education training
- ✓ Student support services and facilities
- ✓ Humor Clubs, Cultural activities etc., (refer Criterion V)

### 1.3.7 Does the curriculum provide for adequate emphasis on patient safety, confidentiality, rights and education?

Yes. In addition to units in regular curricula, specific educational programs and CMEs are conducted to provide intense knowledge and training. The Orientation program conducted for the new students (UG and PG) include sessions on Patient Safety, Infection control and Medication safety. PRODEV sessions for medical students address these objectives. Courses in dental sciences, nursing, physiotherapy, biomedical sciences and allied health sciences have ethics as a part of their curriculum which emphasizes patient safety, confidentiality, rights and education. PG students get their orientation to patient safety and rights in their research methodology course work. PhD students have a mandate to complete online CITI Research Ethics program and research methodology course work which deal in ethics education. Sri Ramachandra Medical Centre accredited by JCI, encourages students to practice patient safety and rights by periodic education and adhering to the code of conduct that such regulations prescribe.

### 1.3.8 Does the curriculum cover additional value systems?

Yes. Social and personal values are covered indirectly in the curriculum. The behavior science course work in many programs taught by faculty from Clinical Psychology orients the students towards acquiring such value systems. Personal values related to being good and doing good is inculcated while practicing in clinical set-up. Prevention of cruelty to animals in experiments, Rights of patients / ethics promote value systems. All students receive structured learning through the mandated course work e.g., in curricula; in obtaining ethical permission while carrying out any research projects and through online certifications.

### 1.4 Feedback System

### 1.4.1 Does the institution have a formal mechanism to obtain feedback from students regarding the curriculum and how is it made use of?

Yes, the university obtains feedback from all the students through a confidential online mechanism and structured phase wise feedback is obtained from medical education units. The feedback is analyzed, discussed and considered for curricular revisions and other reforms.

### 1.4.2 Does the institution elicit feedback on the curriculum from national and international faculty? If yes, specify a few
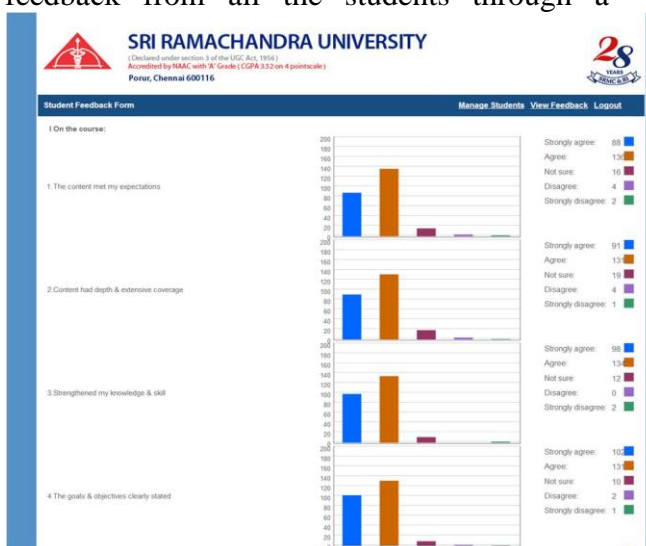
**methods such as conducting webinars, workshops, online discussions, etc. and its impact.**

Feedback from both national and international faculty is periodically obtained through expert committee meetings, BoS, workshops and other online discussions conducted across various disciplines in the university. All our CMEs and workshops receive valuable, credit hours in the certificates issued to participants and resource –persons based on a feedback received on all aspects of the organized program. Such a <u>credit- hour certification</u> was created based on recommendations of international bodies such as our earlier partnership with HMI and helps participants receive internationally recognizable credits. Credit- hours are incorporated after satisfying the specific rules prior to the conduction of the program from the office of the Dean of Faculties.

**1.4.3 Specify the mechanism through which affiliated institutions give feedback on curriculum enrichment and the extent to which it is made use of.**

Students from the 8 faculties of SRU participate in the online confidential feedback process before graduating from the university. A sample of the online analysis submitted for each department is given below:
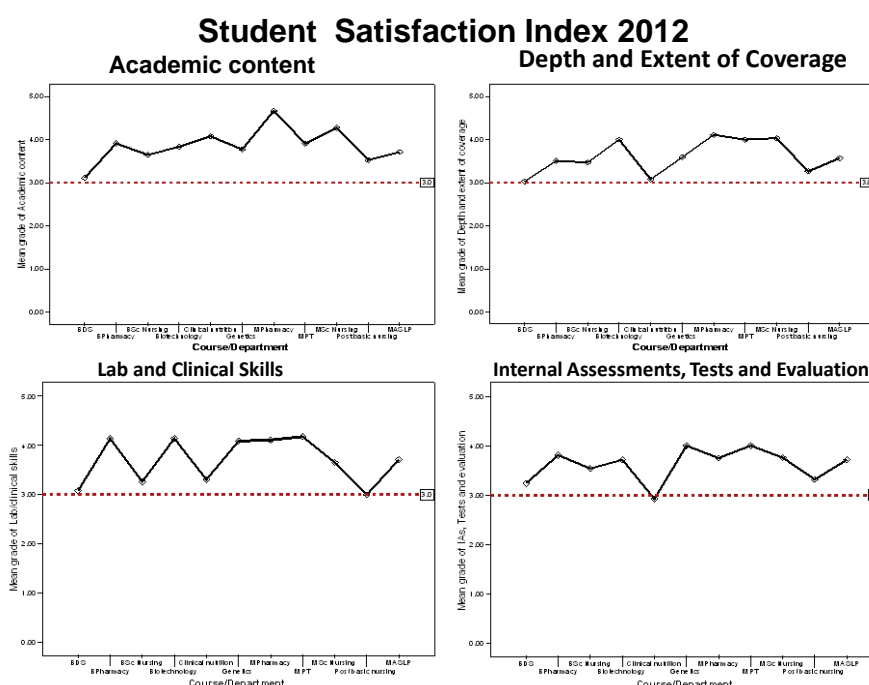


**1.4.4 Based on feedback, what are the quality sustenance and quality enhancement measures undertaken by the institution in ensuring the effective development of the curricula?**

- Creating Sri Ramachandra Centre for health professional education (SRCHPE) under a Dean (Education) to oversee the educational

activities of the University and leading to establishment of education units for the Medical, Dental, Pharmacy and Health Sciences
- Initiation of newer trans-disciplinary courses
- Introduction of value added courses
- Faculty development programs to improve teacher competency
- Integrated curriculum for the undergraduate medical students and evaluating it.
- Foundation course for the first year MBBS students.
- Longitudinal Mentorship program for students.
- Establishment of skills labs for clinical skills training.
- Sri Ramachandra Centre for Global Collaboration
- The subject "International Health Management" was introduced into Management course (MBA) curriculum to meet global trends and developmental needs

All the above structural and systematic reforms have facilitated quality sustenance and quality enhancement which is being coordinated by the IQAC and is reflected in the Annual Quality Assessment Reports (AQAR) which were already submitted annually to NAAC.

**1.4.5 What mechanisms are adopted by the management of the institution to obtain adequate information and feedback from faculty, students, patients, parents, industry, hospitals, general public, employers, alumni and interns, etc. and review the activities of the institution?**
- Faculty members engage in formal and informal needs assessment to assess adequacy and relevance of existing and new curricula in their departmental committee meetings. These are utilized by faculty to propose new programs
- The Professors of Eminence and Emeritus Professors play a valuable role in needs assessment of new programs
- The Vice – Chancellor invites all heads to meetings of educators visiting the university from across the world to discuss possible collaborations and MoUs. At these meetings some of the novel programs are identified as for e.g, the four year B Sc Sports and Exercise Science program
- Feedback is obtained from students, alumni, external examiners, and experts regarding existing curriculum and on revisions required.
- Experts opinion are sought before initiation of new programs through expert committee meetings wherever necessary
- New courses so developed are introduced after necessary approvals of syllabus, regulations by Board of Studies and Academic Council, SRU
- For existing programs, periodic feedback is obtained from students, faculty, and internal and external experts, Board of Studies and revisions are approved / ratified in Academic council
- Medical education and Dental education units have curriculum committees that facilitate innovations within the framed curriculum

- based on periodic feedbacks. Innovations such as integrated curriculum, case based learning, introduction of problem based learning and other learner centered approaches, formative assessment etc. have already been introduced.

- The Board of Studies draws its members with wide representation from academia, industry, health care service providers and international experts. They provide feedback to initiate, revise and redesign curricula as and when necessary. These members discuss and analyze the suggestions given periodically by faculty members and external examiners. After discussion and consideration of the validity of suggestions, changes and inclusions are placed in the Academic Council. Introduction of new courses (MD, DM, Pharm D, M.Sc. Pharmacy and Pharmaceutical Analysis, B.Sc. sports and exercise sciences) and value added courses have also been made at on the basis of feedback provided by members of BOS.

*Any other information regarding Curricular Aspects which the institution would like to include.*

SRU has pioneered many interdisciplinary programs and education technologies. Some of the important contributions are:

In spite of the rigidity in the curricula prescribed by the appropriate statutory councils like MCI, DCI, PCI etc. the university has introduced several innovative teaching – learning strategies to enrich the curricula in all the programs offered by the university. In some instances, like the integrated curriculum, these innovations are now being adopted by MCI itself for implementation by other institutions.

Scope for introducing and conducting Allied Health Sciences program envisaged as a novel physician's assistant program and introduced for the first time by SRU in 2000 itself. Given that medical treatment involves use of advanced technology and robotics, this program found immediate use and employability appreciated by the health sector. This is now being emulated by other medical institutions in India.

SRU has been in the forefront for planning and creating novel multi – departmental and multi -institutional programs utilizing its core strength in medical education, services and extension - such as; B.Sc. (BMS); B.Sc. (Sports and Exercise Science); B.Sc. (Accident & Emergency Medicine) and M.Sc. Imaging Technology (integrated) etc.

SRU has thus spearheaded many such novel curricular innovations in the education sector.

SRI RAMACHANDRA UNIVERSITY
(Declared under Sec. 3 of the UGC Act, 1956) Accredited by NAAC with 'A' Grade (CGPA 3.52)
Porur, Chennai - 600 116, INDIA
SRI RAMACHANDRA MEDICAL COLLEGE AND RESEARCH INSTITUTE
WORKSHOP ON
Medical Education Technologies
01.07.2009 - 03.07.2009

**Criterion II**
**Teaching - Learning**
**and Evaluation**

**Criterion – II: Teaching – Learning & Evaluation**

| Key Aspects | Approach | Outcome |
|---|---|---|
| Student enrolIment & profile | • Wide publicity for admission<br>• Transparent admission: All India entrance examination & rank based counseling | • Meritorious students<br>• Demand ratio increased 1:6 – 1:7<br>• MBBS seats enhanced to 250 ( 2011–12)<br>• Students strength increased – 4368 to 5168 |
| Catering to student diversity | • To ensure smooth transition into college<br>• Communication skill enhancement<br>• Student Motivation & Coping Strategies<br>• Longitudinal mentorship<br>• Catering to Diversity of learners<br>• Student Health | • Orientation / induction program<br>• Bridge courses<br>• Language Laboratory/Training in Vernacular language<br>• Co-curricular activities Yoga & meditation<br>• " Confidential self-improvement counseling" by student counselors<br>• " Anti Ragging" Policy<br>• Grievance Redressal Policy<br>• To help student's Academic & personal needs.<br>• Remedial sessions for slow Learners<br>• Scholarly activities for Advanced learners (publications, presentations & projects)<br>• Health insurance and student clinics |
| Teaching learning process | • Planning & organizing T-L process<br>• Student – centered learning method<br>• E – learning<br>• Scientific temper<br>• Skills development | • Academic Calendar with blue print of T-L activities<br>• Clinical skills lab, journal clubs, workshops, problem based learning, OSCE / OSPE<br>• ICT enabled T-L process<br>• NKN connectivity and e-resources<br>• Chancellor's Summer Research Fellowships (2011)<br>• Annual Rapid Review Courses and skills workshops |
| Teacher Quality | • Faculty attrition rate<br><br>• Competent faculty<br><br>• Faculty Development<br><br><br>• Faculty performance | • Reduction in attrition rate% ,18.3, 2009 - 4.19 ,2012<br>• 782 full time faculty against 650 statutory requirements<br>• MCI recognized center for Medical Education technologies, IT skills development program 2012<br>• Academic performance indicator (API) , 2013<br>• Awards for publishing in high impact journals<br>• Research starter grant (GATE) – 78.<br>• International, National & state awards – 261<br>• Visiting/ Adjunct/ Emeritus professors – 81. |
| Evaluation process and reform | • Quality enhancement of IA<br>• Security & surveillance of exams and exam division<br>• Exam. Reform<br>• Exam. computerization | • Internal Assessment cell established<br>• CC TV cameras, mobile Jammers & Biometric<br>• University Examination guidelines revised in-----<br>• Entrance exam & MCQs valuation by OMR with image copying. |
| Student performance | • Pass percentage<br>• Analysis of students performance | • 85.27 to 95.24 (UG) ; 88.16 to 91.30 (PG)<br>• MEU initials improved T – L process<br>• 976 Placed through placement centre |

## CRITERION II: TEACHING-LEARNING AND EVALUATION

### 2.1    Student Enrolment and Profile

### 2.1.1    How does the institution ensure publicity and transparency in the admission process?

The profile and the eligibility of students for the various courses offered by the university are advertised in all leading newspapers and in its web portal.  The dates and regulations for applications for All India common entrance examinations and the details of 5 centres across the country are announced in the same.  The admission process is carried out by inter se merit of marks obtained in the entrance examination as detailed in the notification and prospectus. Results are published in the website and university notice board.

### 2.1.2    Explain in detail the process of admission put in place by the institution. List the criteria for admission: (*e.g.*: (i) merit, (ii) merit with entrance test, (iii) merit,  entrance test, aptitude and interview, (iv) common entrance test conducted by state agencies and national agencies (v) any other criteria (specify).

The university offers professional and para- professional courses in medicine and allied health sciences coming under eight faculties of the university.  As per the approved procedure for admission for the Deemed universities by Government of India, the university conducts All India level entrance examination for admission to medical and dental, UG/PG and super specialty courses in five different centres of the country.  Inter se merit of the candidates is worked out based on the marks secured by the candidates in the national level entrance examination. Admission is accorded after the rank based counseling process.

For some of the courses in other faculties where students demand is less, based on the approval by Board of Management, a merit cum interview based selection process is adopted since the academic year 2012-13.

### 2.1.3 Provide details of admission process in the affiliated colleges and the university's role in monitoring the same.

Since it is a Deemed university declared under Section 3 of the UGC act 1956, there are no affiliated colleges under this university.

### 2.1.4 Does the institution have a mechanism to review its admission process and student profile annually? If yes, what is the outcome of such an analysis and how has it contributed to the improvement of the process?

Yes.  University evaluates its admission process in-terms of demand / applicants for different courses / programs.  Based on the outcome, the Board of Studies reviews the selection process related to respective programs; the recommendations are approved and executed by the Board of Management. Faculty feedback is also considered for instituting changes in the admission process. The university maintains a review of the students' profile; it provides equal opportunity for students from all sections of society, even though there is no legal obligation for self-financing deemed universities to implement reservation policy.  The process is under constant review and no major changes were required.

**2.1.5    What are the strategies adopted to increase / improve access for students belonging to the following categories:**

* ∗    SC/ST
* ∗    OBC
* ∗    Women
* ∗    Persons with varied disabilities
* ∗    Economically weaker sections
* ∗    Outstanding achievers in sports and other extracurricular activities

The university does not come under the statutory reservation policy of communal basis.    Students belonging to SC/ST/OBC are admitted based on admission criteria for the program.    Statistics shows female students out number male in many courses.    Individuals with disability are admitted based on their medical certification to be fit to join the program to which they apply. Such students are counseled for alternative program available for them to pursue.    Sports persons are given all facilities and encouragement during their course period.

**2.1.6    Number of students admitted in the institution in the last four academic years:**

| Categories | Year 1 2009-10 | | Year 2 2010-11 | | Year 3 2011-12 | | Year 4 2012-13 | |
|---|---|---|---|---|---|---|---|---|
| | Male | Female | Male | Female | Male | Female | Male | Female |
| SC | 12 | 54 | 15 | 50 | 25 | 61 | 26 | 64 |
| ST | 3 | - | 1 | - | - | - | 2 | - |
| OBC | 157 | 322 | 160 | 332 | 204 | 381 | 199 | 470 |
| General | 128 | 257 | 91 | 249 | 136 | 251 | 110 | 279 |

As a Deemed University under section 3 of UGC Act 1956, the reservation policies for admission as per Government reservation policies are not applicable for the admission process in this University.

**2.1.7    Has the university conducted any analysis of demand ratio for the various programs of the university departments and affiliated colleges? If so, highlight the significant trends explaining the reasons for increase / decrease.**

On analysis of the demand ratio an increase in the demand for certain courses was observed, which can be explained by change in the courses as per recommendations of their Statutory Councils, thereby keeping in pace with the national curricular reforms.    The compatibility to certain international degrees is also a reason for the increase in demand ratio. Decrease in demand for PG in Medicinal Chemistry program was identified and assumed to be due to lack of high demand in the employment sector.

**2.1.8    Were any programs discontinued / staggered by the institution in the last four years? If yes, specify the reasons.**

All Diploma programs in Medicine and Surgery in SriRamachandra Medical College and Research Institute have been surrendered to MCI in lieu of increase in number of seats in various Masters Programs in the same specialty. M.Sc Medicinal Chemistry was discontinued as the response for admissions was poor.

**2.2      Catering to Student Diversity**

**2.2.1   Does the institution organize orientation / induction program for freshers? If yes, give details such as the duration, issues covered, experts involved and mechanism for using the feedback in subsequent years.**

A common orientation program is given to all new entrants of the university. The individual faculty of the university provides orientation regarding their respective programs.    The orientation programs include details of university rules & regulations, curricular overview, organizational structure, various amenities in the campus and the career prospects of the individual courses.   The students visit the various departments, interact with faculty and acquire familiarity with learning facilities.   In addition the student's manual provided contains the annual academic calendar, faculty details, timelines for examinations and fees payment besides the rules, regulations and hostel facilities.

For the past 2 years, Sri Ramachandra Medical College & Research Institute has in place a unique, structured orientation program spanning a period of 7 days. This includes academic and co-curricular aspects such as introduction to various subjects, the research opportunities available and assessment methods followed and hospital environment, yoga, stress and time management, physical education, language and communication skills among others. Orientation for Postgraduates of Sri Ramachandra University include:

Orientation postings for post graduate students are implemented in clinicalspecialties

A workshop in Research Methodology by the Department of Community Medicine

Handouts for first year PG's highlighting the curricular aspects including theory & skills expected to be learnt by the Department of Plastic Surgery

The department of Speech, Language and Hearing Sciences, conducts few ice - breaking sessions and creative games.

**2.2.2. Does the institution have a mechanism through which the "differential requirements of the student population" are analyzed after admission and before the commencement of classes? If so, how are the key issues identified and addressed?**

University or colleges do not receive immediate feedback from students after admission and before commencement of classes.   Informal feedbacks are received during orientation programs.  Feedback is received in later part of the program and analysis is made.  Based on the feedbacks students are guided, through personal mentoring, language labs for communication, counseling and guidance for accommodation and hospitality.  Remedial programs are offered on the basis of student's requirement (ref. 2.2.4).

**2.2.3.   How does the institution identify and respond to the learning needs of advanced and slow learners?**

The university identifies slow and advanced learners by their performance in formative and summative assessment; by their mentors and teachers.  Students

with problems due to stress, are counseled by professional student counselor of the university. The following measures for slow learners are carried out:

1. One to one teaching, 2. Additional tests on a weekly/ monthly basis, 3.Counseling and mentoring, 4. Periodical parents-teacher meeting, 5. Revision practicals 6. Provision of lecture notes, 7. Discussion on previous assessment papers, 8. Special classes / Tutorial classes

List of students benefitting:

| Name of the department | Number of students benefited |
|---|---|
| Faculty of Medicine | About 22 students / year |
| Faculty of Pharmacy | About 20 students /semester for B. Pharm; Pharm D programs |
| Faculty of Nursing | About 20 students per batch |

Advanced learners are encouraged to expose their skills and knowledge on various stages like quiz competitions, essay writing, paper presentation in conferences and publications with costs supported by SRU. Advanced learners are also appreciated for their performances in the summative assessment by certificates, medals and cash awards at the University Day functions and Convocation.

**2.2.4. Does the institution offer bridge / remedial / add-on courses? If yes, how are they structured into the time table? Give details of the courses offered, department-wise/faculty-wise?**

**Bridge courses:** The Faculty of Pharmacy conducts Bridge courses such as "Remedial mathematics" & "Remedial biology" during the 1$^{st}$ year & Communication skills during the 2$^{nd}$ year. Bioinformatics department allots 10 hours for Bridge course in IT, Mathematics and Biology

**Remedial courses:** The individual faculty of the University provides remedial programs based on the need of the slow learners in their program. As it is need based, the remedial classes may not be a part of their timetable. These classes will be taken during the free hours in the time table or after regular college hours if required.

| Faculty | Type of course | Number of students benefited | | | | | |
|---|---|---|---|---|---|---|---|
| | | Year | | | | | |
| | | 2009 | 2010 | 2011 | 2012 | 2013 | Total |
| Faculty of Pharmacy | Remedial Biology | 24 | 19 | 3 | 5 | 7 | 58 |
| | Remedial Mathematics | 14 | 5 | 17 | 16 | 15 | 67 |
| Department of Bioinformatics, Faculty of Biomedical Sciences and | Remedial Mathematics | - | 3 | 5 | 5 | 4 | 17 |
| | For AHS- 3$^{rd}$ Semester | - | - | - | 60 | 95 | 155 |

| Technology | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|

Extra classes and clinical postings are conducted as remedial measures for UG and PG dental students. Professional enrichment courses are also conducted for the UG & PG students. Clinical nutrition students have periodic tests for the break semester students and other slow learners.

In the MBBS curriculum, low achievers are identified through performance in the regular internal assessments and extra coaching classes and formative assessments are conducted as remedial measures.

**Value- based add on programs:**Several departments are offering value-based add-on courses for students across all departments to help them acquire employability skills and new knowledge. These add - on programs are taken during second and fourth Saturdays or when needed during 4 to 5 pm without altering the time table of the regular programs.

| Sl. No. | Faculty & Course | Duration | Students enrolled in June 2013 |
|---|---|---|---|
| 1 | Faculty of Pharmacy -Certificate course in Drug Regulatory Affairs | 6 months 9 credits | 22 |
| 2 | Faculty of Nursing - Diploma course in Cardio Vascular and Thoracic Nursing | 12 months 18 credits | 27 |
| 3 | Faculty of Physiotherapy - Certificate in Handling Skills in Rehabilitation | 6 months 9 credits | 9 |
| 4 | Faculty of Management - Certificate course in Strategic Human Resources Management for Healthcare | 6 months 9 credits | New |
| 5 | Dept. of Speech Language and Hearing Sciences - Certificate course in Improving Communication Skills | 6 months 9 credits | New |
| 6 | Dept. of Clinical Nutrition - Certificate course in Art of Cooking and Food Preservation | 6 months 9 credits | New |
| 7 | Dept. of Environmental Health Engineering - Certificate course in Data Management and Data Analysis for Health Science Research | 6 months 9 credits | 15 |
| 8 | Dept. of Human Genetics - Certificate course in Medical Genetics | 6 months 9 credits | New |
| 9 | Department of Biotechnology & Biomedical Sciences - In vitro Bioassays for Pre-Clinical screening of Natural Products | 6 months 9 credits | 6 |
| 10 | Department of Biomedical Sciences - Certificate course in Everyday Electronics | 6 months 9 credits | New |
| 11 | Department of Bioinformatics - Certificate | 6 months | New |

| course in Health Informatics | 9 credits | |
|---|---|---|

For medical students career enhancement courses are conducted as add on during internship. The medical departments have regular CME programs in various specialties which serve for enrichment of knowledge in recent advances apart from the regular curriculum for UG and PG students. The medical college has regular CME programs in various specialties which serve for enrichment of knowledge in recent advances apart from the regular curriculum for UG and PG students.

| Students benefitting from various Rapid Review programs | | | | | |
|---|---|---|---|---|---|
| Name of the Program | 2009 | 2010 | 2011 | 2012 | 2013 |
| Faculty of Medicine | | | | | |
| RACE: Ramachandra Anesthesia Continuing Education | 650 | 700 | 700 | 750 | 800 |
| RIPE: Ramachandra- Pediatrics postgraduate practical exam refresher course | 150 | 150 | 150 | 150 | 150 |
| HOPE -Haemato Oncology Pediatric Education | 250 | 250 | 250 | 250 | 250 |
| OG Quest: Obstetrics and Gynecology education program | 500 | 500 | 500 | 530 | 550 |
| SPARRC: Sri Ramachandra Pathology Rapid Review course | 130 | 150 | 150 | 150 | 150 |
| RARE: Ramachandra Advanced Radiology Education | 300 | 300 | 300 | 300 | 300 |
| SCORE: Sri Ramachandra Continuing Orthopedic Revision Education | 150 | 150 | 150 | 150 | 150 |
| TEMFESS -Temporal Bone, Functional Endoscopic Sinus Surgery Course | 50 | 31 | 32 | 48 | 42 |
| AIM: Advances in Internal Medicine | 300 | 300 | 300 | 300 | 300 |
| MARC-Microbiology Advanced Review Course | - | - | - | - | 150 |
| Faculty of Dental Sciences | | | | | |
| RRCP: Rapid review in periodontology and Implentology | 450 | 450 | 450 | 450 | 450 |
| ROME: SriRamachandra Oral and Maxillofacial Education | 275 | 211 | Not organized | | |
| Rapid review examination for dental students (Finish Line)*Started in 2010 | - | 142 | 102 | 138 | Not organized |
| SCOPE (National rapid review course in Dental oral pathology) Started in 2013 | - | - | - | - | 70 |
| Faculty of Nursing (started in 2011) | | | | | |
| Rapid Review Nursing Program | - | - | 34 | 100 | Not Organized |

| Total Programs Per Year | 10 | 11 | 11 | 11 | 11 |
|---|---|---|---|---|---|

### 2.2.5. Has the institution conducted any study on the academic growth of students from disadvantaged sections of society, economically disadvantaged, differently-abled, etc.? If yes, what are the main findings?

University did not conduct any formal audit on the academic growth of the students from disadvantaged sections of the society or economically disadvantaged, and differently - abled students.  The individual faculty takes the responsibility to evaluate the students in their program and offer them support by additional coaching whenever required to compete in their academics.  Mentorship system is followed in the university, which supports counseling of the students whenever required.  The department of English is endowed with dedicated faculty and equipped with English language software to assist students with English language communication skills.

- Skill labs have been created in several departments to enhance cognitive, connative and psychomotor skills of students.  These include:
- ✓ Language Skill Lab
- ✓ Clinical Skill Labs
- ✓ Simulator labs
- Self – Learning desks: *The Language Skill Lab functioning* from 7.9.2011 is equipped with 30 computers;  4 software



programs – Tense Buster, Study skill success, Connected speech and Issues in English.  Spoken skill training is also provided for staff of SRU.

Language lab utility from Oct 2012 – September 2013

Students: 707 b) Nursing staff: 94

Language Lab Utility from October 2012 to September 2013 is presented in the graph above.
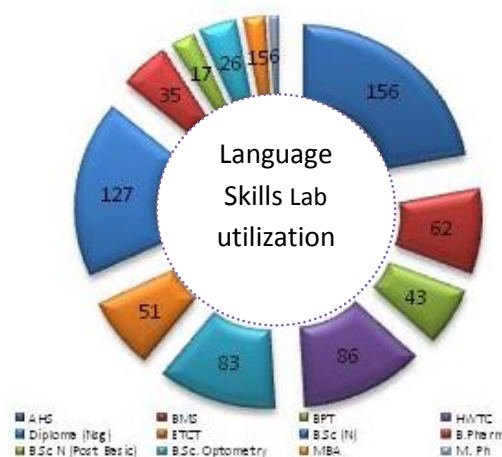
### 2.2.6. Is there a provision to teach the local language to students from other states / countries?

The faculties encourageand help the medical and paramedical students to interact with patients and their attendants in the local language.  Though there is no formal local language teaching program available for students from other states, the Tamil Mandram volunteers offer such programs.   Interpreters are also provided for the same purpose.  These measures help the students with their communication, history taking and patient management skills.

### 2.2.7. What are the institution's efforts to teach the students moral and ethical values and their citizenship roles?

PRODEV a professional development program has been regularly incorporated into the curriculum of the medical and dental sciences. This aims to create awareness and teach the professional, moral and social obligations of a doctor – appendix: 2.2.7. Most of the programs offered in the university have ethics in their curriculum as a subject.

Ethics education programsfor GCP, GLP, Research Ethics etc., are provided to Faculty, PG/ Ph D students.

Periodical inspirational talks and workshops by eminent philosophers, yogi's, and gurus are given to faculty and students alike. Professional Enhancement Program (PEP) is conducted by the Dental Sciences Faculty. The University also organizes extension activities which promotes student's orientation towards health care needs of the community. This facilitates student to have service mentality.

**2.2.8. Describe details of orientation/ foundation courses which sensitize students to national integration, Constitution of India, art and culture, empathy, women's empowerment, etc.**

A structured orientation program and foundation course is designed for the incoming medical students and students' of other faculties to enlighten on ethics, motivation, yoga, stress and time management. The university sensitizes the faculty and students on various International and National issues such as environmental protection by conducting competitions in slogan writing, posters and cartoons. Tamil Mandram of the university was inaugurated on 4th February 2013 and debates, poetry, essay and documentary competitions are organized.

**Women's Empowerment:**

"Sri Ramachandra Centre for Women's Advancement" is available at University level. The mission of the centre is to create awareness among all regarding the need for advancement of women in various spheres of life. The centre works under guidance of 3 advisors, aco-coordinator and 28 active members and conducts programs to empower women; organize health screening program for women employees and female students. The activities of the women advancement centre, from 2008 are as listed below:

- 2008: Workshop on developing managerial skills for women, breast cancer awareness program and health checkup for women employees above 40 years.
- 2009: Workshop on "Women in a changing world: challenges &opportunities".
- 2010: Seminar on "Finance and auditing: all a woman must know".
- 2011: Competition on "Women's role in science and technology"
- 2012:Workshop on "Women and leadership" in association with the British Council of India 2012, Debate in Tamil on "Advancement of women depends on education vs. experience", Eco friendly walk - March 7th 2012, International Women's Day- celebrated on March 8th 2012 . Slogan and essay competitions for the faculty were conducted. Lactation Support Program- August 4th 2012.

- • <u>2013</u>: The campus Environment Day observed on March 7<sup>th</sup> 2013 began with an Eco walk and was followed by several competitions in Tamil and English on the theme "Heat at Work Place". On the 8<sup>th</sup> of March 2013 competitions on the theme "one billion Rising – our role" was held followed by a half a day workshop on "Skills in Governance" for Women.

For married and parenting women students, guidance is given by clinical psychologists to plan their academic activities to excel without interference in personal priorities. If necessary, head of the department and counselors explain to the family members about the support they need to provide. A gender committee of the university also oversees the issues raised.

**2.2.9. Has the institution incorporated the principles of Life Style Modifications for students based on Eastern approaches in their day to day activities?**

Yes. The orientation program which gives an overall exposure towards healthy lifestyle modifications, encourage the students to follow the same in their day to day activities. Naturopathy services can be sought from the hospital to achieve the same. The University adheres to regulations for not selling aerated drinks in the campus. Dress code adherence towards Indian / eastern culture is insisted among students and faculties.

**2.2.10. Has Yoga/ Meditation/ any other such techniques been practiced by students regularly as self-discipline?**

Yes. Yoga cum multipurpose hall for meditation and prayer is available for regular use by both faculty and students. Yoga sessions for the faculty and staff of SRU was organized by Complimentary and Alternative Medicine Unit, from 31.10.2008 between 7 am to 8 am on Mondays, Wednesdays and Fridays.

**2.2.11. How does the institution attend to the diverse health issues (physical and mental) of students and staff?**

Separate staff and student clinic is available to cater to the health needs of students and faculty. Student counselors are also at service to cater to the psychological needs of students. Sri Ramachandra Health Insurance Scheme has been commissioned to meet the health care needs of the employees. Employees who have completed 1 year of service are eligible for Insurance coverage. 50% premium is shared by the management for the insurance cover.

**2.2.12. Does the institution cater to the needs of groups / individuals requiring special attention by conducting group classes / special individual trainings / focused group discussion / additional training measures etc.?**

Slow learners of all courses are provided additional tutoring in their academics. Training programs are also in place to prepare students for National and International competitive exams.

**2.3    Teaching-Learning Process**

**2.3.1.  How does the institution plan and organize the teaching-learning and evaluation schedules such as**

- ∗ **academic calendar:** Academic calendar is prepared by the office of registrar of the university. The calendar includes details of working days,

holidays, examination schedule, fee payment dates.  The calendar will be a part of student's manual provided to the students at the start of every academic year and strictly adhered to by the University.

* **master plan:** Individual faculty and its specialties plan and schedule the teaching and evaluation plans accordingly for their program based on the academic calendar.  The master plan is made as per the program evaluation duration, i.e. yearly or semester pattern.

* **teaching plan:** The entire year teaching schedule is planned and given to the students at the beginning of the year/ phase of study by the departments.

* **rotation plan:** The various depts. /specialties postings through which the students rotate is determined and the rota given to the students at the beginning itself.   Student teacher ratio is maintained as per norms of governing bodies.

* **course plan:** Each course is planned with specific objectives in the area of cognitive and psychomotor knowledge wherever applicable.  Based on the requirement the course contents are planned and organized.   The evaluation is based on the objectives. Modifications are planned based on the inputs from the faculty and students at the end of the course.

* **unit plan:** Each course is subdivided into several units based on the weightage of the topic in the course.  The duration of the teaching is split based on the weightage and schedule is prepared.

* **evaluation blue print:** Evaluation schedule and methodology is decided based on the objectives of the course/subject.  Formative and summative evaluations are planned according to the requirement of evaluation.  The dates and duration are planned at the start of the year or semester.  The details are displayed appropriately and informed to the students also.

* **outpatient teaching:** Outpatient teaching is done using both large group and small group methods wherein the key points regarding history taking assessment and arriving at a diagnosis is discussed.

* **in-patient teaching:**Bedside clinical classes are conducted in small groups. UG / PG students also observe / participate in various surgeries in the operation theatres, procedural areas, respectively.

* **clinical teaching in other sites:** Clinical teaching is also done in the laboratories where students are taught area specific skills.

* **teaching in the community:**Teaching in community is carried out with extension services, as in Faculty of Medicine, Dentistry and Nursing. Students posted in community medicine conduct surveys, teach the public about sanitation, vaccination, etc., MD Community Medicine Program is offered by the university to produce specialists in the field of Community Medicine.   The Medical, Dental and Nursing courses have outreach components integrated in their UG & PG programs so as to equip them to learn national developmental goals.  It includes participation in national health programs, preventive health services, health education initiatives

and rehabilitation programs. The University has a Public-Private Partnership alliance as per the National Rural Health Mission (NRHM) initiative with Government of Tamil Nadu. In this initiative towardspatient welfare services, it has adopted two Primary Health Centers, namely Nemam and Mugalivakkam. These two PHCs are utilized for purpose of Community orientation training of Medical, Dental and Nursing students and CRRIs, besides providing state – of – the - art primary and secondary health care and tertiary care referrals to SRMC. In addition from January 2013, a well-equipped, Primary Health Centre has been set up at Vayalanallur by SRU which serves that village population. In Pharmacy curriculum, community development and patient care is addressed by introducing subjects like Therapeutics, Clinical Research and Community Pharmacy in Pharmacy Practice.

**2.3.2 Does the institution provides course objectives, outlines and schedules at the commencement of the academic session? If yes, how is the effectiveness of the process ensured?**

Yes. The faculty guiding the respective courses under the guidance of the heads of departments take the responsibility of providing the syllabus, course objectives, schedule of classes to the students in first few days of their academic program. The University examination schedule will be informed by details displayed in the notice board and student's manual. The details of the holidays, fee payment are also included in the student's manual. The departments of the Medical College co-ordinate with the Medical Education Unit to ensure smooth conduct of the course. The process is regularly reviewed at faculty and university level meetings. Feedback is also sought from students periodically and at the end of the course to improve effectiveness. The medical college provides study guides to its undergraduate students containing learning objectives, details of learning resources and schedules

**2.3.3. Does the institution face any challenges in completing the curriculum within the stipulated time frame and calendar? If yes, elaborate on the challenges encountered and the institutional measures to overcome these.**

The curriculum is based on the time frame available for the students based on the semester or year pattern of the program. There were no such problems identified regarding the difficulty in completing the program/ curriculum in time reported by any faculty or student as well. As a practice extra hours of teaching days are included in the academic calendar with a view to compensate for unforeseen circumstances. In situations where there is lack of time due to natural events or extra holiday declared by Government, extra hour of classes are taken on second and fourth Saturdays for completion.

**2.3.4. How is learning made student-centric? Give a list of participatory learning activities adopted by the faculty that contributes to holistic development and improved student learning, besides facilitating life-long learning and knowledge management.**

Undergraduate Courses: The teaching methods for undergraduate students include didactic lectures, interactive sessions such as small group discussion,

problem based learning involving large group case study and case resolutions, demonstrations, simulations, field visits, library hours, seminars, debates, workshops, projects - based learning, process recording, clinical presentations, clinical conferences, multimedia and teleconference, practical and clinical sessions. Computer assisted learning is facilitated by providing access to e-resources and access to journals. Within the campus wherever there is network connectivity, all the e-resources available in the central library can be browsed. Free internet access is available in the respective departments, at the active learning center and in the central library.

Across courses, about 50% of undergraduate training focuses on participatory and experiential learning. During the practical and clinical sessions the students are given hands - on training in laboratory and clinical procedures. The students are encouraged to prepare and present seminars which are moderated by the faculty. Well-equipped clinical skills labs are utilized for hands on training in clinical procedures. The students are posted in rural and urban health centers as part of the undergraduate training. During the internship period the students participate in medical, dental, rehabilitation and blood donation camps organized by the institution.

Postgraduate Courses: Experiential learning occupies 70 to 85% postgraduate and super-specialty courses. Bedside clinical examinations and patient management strategies enhance critical thinking and problem solving skills. Two tertiary care teaching hospitals with 2287 beds are available for undergraduate and postgraduate students` learning. All postgraduates are expected to complete a dissertation as a part of the curriculum. Postgraduates attend and present papers at national and international conferences. Journal clubs and seminars are scheduled at periodic intervals to stay up-to-date with the recent advances in the concerned specialty. Conferences, CME programs and guest lectures are organized and eminent national and international speakers are invited to edify the students.

Practical sessions with hands on training in surgical skills is given to the postgraduates in departments of ENT, Orthopedics and Sports Medicine by conducting workshops in coordination with Department of Anatomy using cadavers. TEMFESS - Hands on Temporal bone and FESS Cadaveric dissection Workshop, Arthroscopy Bioskills workshop and Emergency Trauma care workshop are some of the unique well organized workshops. Surgical departments conduct workshops during which live surgical procedures are demonstrated along with interactive participation of faculty and students.

Temporal Bone Dissection Lab and Orthopedic skills lab are used regularly by the concerned postgraduates to improve their surgical skills. The Department of Ophthalmology uses the Phacoskills lab and animal wet lab for training students in surgical procedures.

Pre and para-clinical departments have well organized museums in the respective departments. The department of Pathology has mounted wet surgical and autopsy specimens. Computerized details about the specimens with system-wise catalogue are available in the pathology museum.

Over 14 different rapid review courses are conducted for all Postgraduate courses across the university. The students benefited is provided under 2.2.4 and 2.2.14

Faculty of Dental Sciences has chair side case discussions and patient management strategies.  Faculty of Nursing encourage participatory learning through Continuing nursing education, In-service education, simulator based learning, peer interaction, process recording, debates, clinical & field visits, skits, drama, role play, puppet shows, health education, clinical presentation, journal presentation, research critiquing, self-learning by utilizing library books, self-learning desks.

Faculty of Pharmacy has Industry-Institution participation cell which gives rich scope for experiential learning through industrial visits and training.  Faculty of Management have additional learning methodologies like  Role Play, News Hour, Book Review, Business Plan, Ad-Zap, NEN activities, New Product Development,  Audio Video Presentation, Personality Development Program, Communication Workshops, Brain Storming sessions, Hospital / Industrial Visit are practiced.

The University has adopted the UGC (Minimum requirements for appointment and promotion of teachers and other academic staff and measures to maintain standards in higher education institutions) Regulations, 2010 and implemented the Academic Performance Indicator system (API) from 2013. It includes Criterion I: Teaching learning and evaluation activities; Criterion II: Co-curricular, Extracurricular and profession related activities and Criterion III: Research and academic contributions.  All those indicators ensure that teachers provide student-centric participatory learning activities to students to ensure their holistic development and knowledge management. Details of API system provided as appendix 2.3.4.

**2.3.5. What is the institution's policy on inviting experts / people of eminence to augment teaching-learning activities?**

The Vice-Chancellor may appoint suitable persons as visiting faculty / experts / people of eminence.  These appointments will be placed for approval in the Board of Management in subsequent meetings convened.  University has stipulated guidelines for Visiting Faculty / Professor system.  Professors working in institutions in India and abroad may be recommended for visiting professorship.  They should not be below the rank of Professor or of higher rank. They should be able to impart knowledge in both teaching and research which is otherwise not available or requires strengthening in Sri Ramachandra University. All proposals for visiting professorship shall be forwarded by Head of the Department/ faculty with justifications for such appointments.  The proposals will be placed before a committee consisting of Vice Chancellor, Dean (Research) and the Dean of Faculties.  The recommendation of the committee will be placed before the Chancellor for approval.  The approval will be forwarded to the Establishment Department for issue of appointment letters and further action.  Travel expenses, local hospitality and stay at the University along with honoraria are borne by the University.  Over 83 distinguished faculty serve as Visiting Professors, Adjunct Professors or Emeritus Professors and Professor

of Eminence to augment Teaching – Learning activities in the University.  There are 83 Visiting Professors / Adjunct professors / Faculty at present in SRU. Details shown in 2.4.4.

### 2.3.6.  Does the institution formally encourage blended learning by using e-learning resources?

University encourages students to use e-learning resources through the library. University also trains the faculty through faculty development program in usage of e-learning.  In Medical College, the integrated undergraduate curriculum includes Active Learning Centres and sessions using e-resources.  Learning resources from library is provided to all faculties through LAN and internet with site address of: <ezproxy.sriramachandra.edu.in>

### 2.3.7. What are the technologies and facilities such as virtual laboratories, e-learning and open educational resources used by the faculty for effective teaching?

University has Active Learning Centreswith internet facility for use by students and faculty. Telemedicine Department facilities are used for effective community level training in the Faculties of Medicine, Dental Sciences, Nursing and Speech, Language and Hearing Sciences. Skill labs and mannequins in Departments of Nursing, Orthopedics and General Surgery facilitate virtual learning.

### 2.3.8.  Is there any designated group among the faculty to monitor the trends and issues regarding developments in Open Source Community and integrate its benefits in the institution's educational processes?

Selected members of the medical education unit are invited resource persons by the MCI for curricular reforms.Input on the integrated curriculum is communicated to the MCI and community health needs are also integrated into the MBBS curriculum.Faculty of Dental Sciences has also developed case based learning in line with the global dental health needs of the community. SRU subscribes toNational Knowledge Network (NKN) connectivity which is a Government of India initiative for sharing of resources including teaching - learning modules for eventually joining the Open source Community.  SRMC is selected asa member of medical e-lesson preparation group of Ministry of Health & Family Welfare, Govt. of India.

### 2.3.9.  What steps has the institution taken to transition from traditional classrooms into an e-learning environment?

Facilities are available to aid 'off the classroom' learning environment. Classroom lectures are supplemented with multi - media sessions to make teaching more interesting and effective.  Students are introduced to educational websites wherein they can obtain more learning material.  Access to certain educational websites like Up-to-date and MD Consult is available in the library as well as in the entire campus.  University has library open from 8 am till 10 pm on all working days.  This facilitates access to the learning material by the students whenever required.  Telemedicine facilities enhance the e- learning environment of the university.

**2.3.10. Is there provision for the services of counselors / mentors/ advisors for each class or group of students for academic, personal and psycho-social guidance? If yes, give details of the process and the number of students who have benefitted.**

Yes.  Longitudinal mentorship is being followed in all the Faculties of this University. Each student is allotted to a faculty during the first year of the program.  The mentor follows the student's progress in academics and co-curricular activities throughout the course.  A student counselor with specialization in counseling services is available, with whom students can discuss when counseling is required.  Most of the faculties have allotted specific time in week/month for the students meet with their mentors.

**2.3.11.Were any innovative teaching approaches/methods/practices adopted and implemented by the faculty during the last four years? If yes, did they improve learning? What were the methods used to evaluate the impact of such practices? What are the efforts made by the institution in giving the faculty due recognition for innovation in teaching?**

The preclinical phase and paraclinical phase of MBBS follows an innovative organ system and case based integrated curriculum since 2007.  The clinical phase has a structured clinical skills development program and problem based learning.  The innovations are regularly reviewed through students' feedback and performance.  Necessary changes are incorporated.  The Dental Faculty has incorporated case based learning modules on dental caries and cleft lip. Individual education units are formed to cater to the specific teaching learning needs of various courses.  Well- structured faculty development programs are conducted on a regular basis. Innovative teaching methods imparting experiential learning like simulators and cadaver based workshops have been introduced.

In Faculty of Nursing, self - learning desks are provided where students improve their clinical skills, by practicing a specific task.  Organization of Rapid Review programs by different faculties of the university is one notable feature of newer teaching learning methodology (ref.2.2.4).PerformanceBased Appraisal system (PBAS) using Academic Performance Indicator (API) introduced have components which explores the faculty members' steps towards introducing new teaching learning methods. Introduction of web portal where students can post questions for faculty members and get answerswhich improves their communication with the faculty members.  Faculty recognition is institutionalized through Performance Linked Incentive System (PLIS).

**2.3.12. How does the institution create a culture of instilling and nurturing creativity and scientific temper among the learners?**

Creativity, both in academic and non-academic domain is encouraged in the university. Undergraduate students exhibit their creativity academically through the projects that they design and execute with minimal input from their teachers. Posters, poems, rangolis, essays, slogans, collages on important health issues like "World No Tobacco Day", "Breast Cancer awareness"etc., bring out their creativity.  Outside academics, they excel during their "University cultural

program" – a week long festivity filled with art, music, dance, sports competitions and exhibitions.

The University instills the temperament to do research in its students as well as faculty by assisting financially and by providing infrastructure. The Chancellor's Summer Research Fellowship, the Founder Chancellor's Research Scholarship are two such initiatives by the University. Recognition of the faculty for their research and publication motivates the students to pursue research. Department of community medicine organizes workshop on research methodology and biostatistics regularly in the campus.IQAC has conducted workshop on quality sustenance in research publication(June 2012), thus faculties and students are oriented towards process of scientific temper and creativity.

**2.3.13. Does the institution consider student projects mandatory in the learning program? If yes, for how many programs have they been (percentage of total) made mandatory?**

The university considers student's projects / dissertations mandatory in the learning program, especially in post graduate programs of all faculties. A few under graduate programs also have project work as a part of their curriculum

**\*Number of projects executed within the institution**

| Period: 2008-2013 | Number | Percentage of programs with mandatory projects |
| --- | --- | --- |
| Post graduate projects | 1728 | 100 % |
| Under graduate projects | 79 | 23% |

**\*Names of external institutions for student project work:**

| IIT Madras | NATCO Pharma | BIOCON |
| --- | --- | --- |
| APEX Laboratories Pvt Ltd. | Granules India Limited | Microlabs. |
| Trident Group | Vital Pharmacal Ltd Rohatak | Alchemist Ltd |
| Dr. Reddy's Laboratories Ltd | Shasun Chemicals and Drugs Ltd | Aurobindo Pharma Limited |

**\* role of faculty in facilitating such projects:** The faculty work as mentors to the students in selecting, planning and completing the project. They also assist in obtaining permissions, ethical clearance, funding and concessions in financial management for conducting the projects. The faculty train students in publishing the project and enabling students to appear for university examinations. For students selected at external institutions, the internal mentor help the students find a suitable lab and guide based on the collaborative projects. They help such students to complete the process of carrying out the project and satisfy all the requirements for appearing for university examinations.

**2.3.14. Does the institution have a well-qualified pool of human resource to meet the requirements of the curriculum? If there is a shortfall, how is it supplemented?**

The university has a well-qualified and competent faculty team to handle the curricular needs of all programs. The university follows the regulatory bodies guidelines to fill up faculty positions. In case of need for any faculty the same will be informed to Dean of Faculties, and vacancy will be filled as per university norms. There has never been a shortfall in faculty. The details are provided under 2.4.

**2.3.15. How are the faculty enabled to prepare computer-aided teaching / learning materials? What are the facilities available in the institution for such efforts?**

Faculty of this university is trained to use computer as a teaching tool through faculty development program. IT skill development program was conducted for the faculty during 2012. The university has active learning centre to be used by the faculty and students to prepare their academics. Computers are also provided in the individual departments for preparing computer aided teaching – learning materials.

**2.3.16. Does the institution have a mechanism for the evaluation of teachers by the students / alumni? If yes, how is the evaluation feedback used to improve the quality of the teaching-learning process?**

Every faculty of this university is evaluated by the students through online feedback at the level of the departments. The feedback is discussed with the faculty by the Principal/ course chairperson for the improvement in the performance. If required the matter will be discussed with the Dean of Faculties for guidance. The alumni evaluate the faculty only informally whenever he visits the university. The outgoing students evaluate the program and faculty through the online feedback system available on our web portal.

**2.3.17. Does the institution use telemedicine facilities for teaching-learning processes? If yes, cite a few instances.**

The Department of Telemedicine is actively involved in

1. Patients' Health Care Program
2. Academic Activities by telecasting CME programs
3. Physicians Conferences, Guest lectures, Clinical Society Meetings, Workshops & Live-surgeries with many parts of the world.

The institution conducts regular telemedicine programs as the Telemedicine Centre is recognized under PAN-African e-network scheme of the Government of India. Our students attend lectures/ symposia conducted in other institutes through telemedicine. Research on "Tele-Audiology screening to the children including new born babies" by using our mobile telemedicine van is a unique project funded by ICMR.

Details of telemedicine programs in last five years:

| TELEMEDICINE CENTRE SRI RAMACHANDRA UNIVERSITY | | | | | | |
|---|---|---|---|---|---|---|
| | Tele-consultation | | CME Program | | Images transferred | Total Program |
| Year | Regular | Pan | Regular | Pan | | |

| | Telemedicine | African Project | Telemedicine | African Project | | |
|---|---|---|---|---|---|---|
| 2009 | 329 | 2 | 79 | 18 | 1089 | 1517 |
| 2010 | 566 | 25 | 103 | 75 | 1980 | 2749 |
| 2011 | 698 | 10 | 80 | 72 | 2535 | 3395 |
| 2012 | 830 | 21 | 130 | 70 | 4049 | 5079 |
| | Teledentistry | | | | | |
| 2012 | - | - | 26 | - | - | 26 |
| 2013 | - | - | 11 | - | - | 11 |
| Mobile Telemedicine | | | | | | |
| 1. | Total No. of Patients Screened | | 9,135 | | | |
| 2. | Total No. of kilometers travelled | | 16,561 KM | | | |
| 3. | Total No. of Villages Covered | | 502 | | | |
| 4. | Total No. of Days camp conducted | | 256 | | | |

Pan African e-Network Project for Telemedicine, many member countries attend our CME Program; particularly Egypt, Ethiopia, Eritrea, Nigeria, Somalia, Central African Republic, Ghana, Gambia, Congo, Zambia are regular participants

**2.3.18 Does the institution utilize any of the following innovations in its teaching-learning processes?**

* **ICT enabled flexible teaching system:** All lectures classes are ICT enabled for interactive learning. In addition, Telemedicine facilities are fully utilized as a learning system and helps students gather knowledge from experts in the nation and other countries.

* **Reflective learning:** Yes, most programs offered are professional programs or basic science programs. Reflective learning by hands-on training and experiments enhances the personal learning abilities for the students.

* **Simulations:** Yes. Faculties like medicine, dental and nursing, have clinical simulation labs for enrichment in learning atmosphere. In Medical College Departments of ENT, Orthopedics, General Surgery have simulation labs. In Ophthalmology, simulation lab, Phacoskills lab and animal wet lab are used for skills development. In Orthopedics and General Surgery skill development labs are used to train specific surgical skills. In faculty of nursing, students practice on mannequins to train on labor procedures, dressing, suturing, and inserting IV lines.

* **Evidence based medicine:** Yes, this as a core component, has been developed as a part of integrated curriculum in medical faculty under the MEU.

* **Emphasis on development of required skills, adequate knowledge and appropriate attitude to practice medicine:** Yes. Clinical rotations and laboratory training are compulsory. These skills are evaluated in the university examinations and a pass is mandatory to obtain the relevant

degrees. The contact hours for these skills and labs are equal to lectures hours.

∗  **Problem based learning (PBL):**Yes. Hybrid Problem based learning tool to medical students is used to teach how to arrive at a diagnosis using definite objectives. This helps students at self- learning and application of knowledge gained.

∗  **Student assisted teaching (SAT):** Yes. Post graduate students were given responsibility to take classes to the under graduate in an aim to improve their learning process and presentation skills. This practice is carried out in most of the faculties of this university. This improved student level interaction also.

∗  **Self-directed learning and skills development (SDL):**Yes. Several skills lab and stimulatory stations expose students to develop three dimensional knowledge and encourage self- directed learning. Faculty of nursing has provided a Self-Learning Desks to help learn at their pace.

∗  **Narrative based medicine:** Historical accounts of important discoveries are generally delivered using this mode including role model and play acting.

∗  **Medical humanities:** Under the PRODEV program (submitted as Best Practice to NAAC in 2011) this was conceived and successfully implemented for all medical students and is now being extended to dental sciences.

∗  **Drug and poison information assistance centre:** Yes. Faculty of Pharmacy manages the centre. The centre has handled 169 queries between 2008 to 2012.

∗  **Ayurveda practices:** The University hospital has an Ayurvedic clinic supported by AYUSH for clinical care of needy patients. Funded research programs for evaluating Siddha & Ayurveda formulations for efficacy and developing evidence – based research findings.

∗  **Yoga practices:** The University always had health of students and faculty in its list of priorities. To promote well being yoga classes were organized with experts in yoga. The training was given without any charges and is conducted as part of orientation program for students and in faculty development programs.

∗  **Yoga therapy techniques:** In this university, a few research programs to evaluate a few yoga techniques has been conducted by PhD students and post graduate students.

∗  **Naturopathy and its practices:** Planning to include as future in integrated, holistic medicine

**2.3.19Does the institution have an Electronic Medical Records facility, staffed by trained and qualified personnel? Is it used for teaching-learning process?**

Electronic medical records division of the Medical Centre and Hospital are staffed with IT trained professionals. It is essentially used in diagnostics,

medical transcription of procedural notes and the discharge summary. It is used for teaching learning process as well as for data-retrieval of students' projects.

**2.3.20 Does the institution have well documented procedures for case sheet writing, obtaining Informed consent and the discharge process of the patients?**

Yes. Sri Ramachandra Medical Centre and hospital have well laid documentation system in place. Medical record department aids this process. As a part of JCI and NABH accreditation the health care sector of the university has clear documentation policies including format for various parts of case record like admission records, follow up notes, records for various medical procedures. Informed consent is a process which is strictly adhered to where ever necessary. Interpreters for various languages in India and abroad are available and listed for assistance during process of explaining informed consent. The discharge process and record maintenance also has clear guidelines. The process duration is considered as an outlier for quality control in the medical centre. The students at the level of post graduates are trained in writing case sheet and discharge process and related explanations to the patients wherever possible.

**2.3.21Does the institution produce videos of clinical cases and use them for teaching-learning processes?**

Yes, as and when required, for real time understanding for the students. CD and DVD database from the library is available through intranet for academic usage.

**2.3.22Does the institution perform medico legal/post-mortem procedures with a view to train the undergraduate and post-graduate students in medico legal procedures?**

Yes. The Department of Forensic Medicine undertakes post-mortem procedures and are used for teaching/training of UGs/PGs. Along with the Department of Accident and Emergency Care, the Department of Forensic Medicine trains the students in medico-legal procedures.

**2.3.23Does the institution have drug and poison information and poison detection centres? How are these used to train the students?**

Yes. Drug and poison information centre is run by the Faculty of Pharmacy. The Centre is staffed by licensed graduate pharmacists who have specialized training in drug information and postgraduate students of Pharmacy Practice and Pharm D (Post Baccalaureate) students. The mission of DPIC is to enhance the quality of pharmaceutical care and supporting the efforts of health care practitioners of the hospital. The centre has successfully responded to 2087 queries received from various departments of the university. The quality of the service provided is assessed periodically by external reviewer.

**2.3.24 . Does the institution have a Pharmacovigilance / Toxicology centre /clinical pharmacy facility / drug information centre/Centre for disease surveillance and control/ Prevention through Yoga/Promotion of positive health / well-equipped Psychology Laboratory / Naturopathic diagnostic centre, etc.?**

The institution has Pharmacovigilance, Toxicology centre, Clinical pharmacy facility, Drug information centre, promotion of positive health and well-equipped

Psychology Laboratory. The Pharmacovigilance committee monitored by Faculty of Pharmacy and Pharmacology (Medical faculty) documented nine ADRs in 2012 and 109 in 2013. The students of pharmacy practice are actively involved in this process. In addition to the above, "NEXUS" is the news letter from Department of Pharmacy published quarterly from 2011 providing information regarding medication, its use and patient safety. Six issues have been successfully released till date.

### 2.3.25. Laboratories / Diagnostics

**How is the student`s learning process in the laboratories / diagnostics monitored? Provide the laboratory time - table (for the different courses).**

The student's learning process in laboratories/ diagnostics is monitored by the respective teacher posted with them in the laboratory (appendix 2.3.25).

∗  **Student - staff ratio in the laboratories / diagnostics:** It is 20:1

| Details of clinical teaching hours per student in different under graduate programs Φ | |
|---|---|
| Faculty name | Number of clinical hours during program |
| SRMC & RI (M.B.B.S) | 2520 |
| Faculty of Dental Sciences (B.D.S) | 1540 |
| Faculty of Nursing (B Sc Nursing) | 2610 |
| Faculty of Physiotherapy (B.P.T) | 1935 |
| Faculty of AHS (Speech Language and Hearing) | 115 |
| Faculty of Pharmacy (Pharm D) | 630 |
| Faculty of Biomedical Sciences, Technology and Sciences (B Sc Biomedical Sciences) | 160 |
| Faculty of Allied Health Sciences (B Sc. ETCT) | 857 |

Φ - Details for other programs will be submitted during the onsite visit

### 2.3.26. How many procedures / clinical cases / surgeries are observed, assisted, performed with assistance and carried out independently by students in order to fulfill learning objectives?

The number of procedures/ clinical cases / surgeries observed or assisted or performed with assistance and carried out independently depends on the particular course, the no. of students in the batch, etc. The regulations by governing bodies are adhered in this process. Each student required to maintain a logbook for the clinical cases handled by them. The details will be made available in the respective department/ faculty.

### 2.3.27. Does the institution provide patients with information on complementary and alternative systems of Medicine?

On patients' enquiry, the patient is at a liberty to try alternative health systems but the institution does not provide in-depth details about the alternative health systems, since the hospital / medical centre is legally not permitted to practice alternative system of medicine. However, as permitted by AYUSH/ Government of Tamil Nadu, there is one Ayurveda clinic and one Siddha clinic available at

the outpatient block. Several funded projects to evaluate traditional drugs for efficacy in clinical treatment is a strong interdisciplinary research effort of the university.

**2.3.28. What are the methods used to promote teaching-learning process in the clinical setting?**

The students are divided into small groups for their clinical postings and are guided by their respective teacher in history taking, clinical examination, and arriving at a differential diagnosis. The students are posted in small batches to the operating theatre/ procedural areas to observe the surgeries/ procedures. Problem based learning that is done in small groups is effectively utilized in the clinical setting. Skills learnt on the skills lab mannequins are put into practice on the clinical cases in a structured fashion.

**2.3.29. Do students maintain log books of their teaching-learning activities?**

Yes. Students in all faculties have log books for their work in different formats based on the requirement by the governing bodies of the programs. The logs are predominantly for their clinical acumen and numbers of entries are based on their regulations. The students log books are regularly checked and signed by the in-charge faculty. The log books are also checked during their examinations for completion.

**2.3.30 Is there a structured mechanism for post graduate teaching-learning process?**

The postgraduate curriculum is a well-structured one that outlines the learning objectives and the syllabi in detail. The Academic Performance Indicator details of teaching – learning process are provided in appendix 2.3.4. The timetables, syllabi and other schedules for a program are provided in the website.

**2.3.31 Provide the following details about each of the teaching programs:**

∗ **Number of didactic lectures:** Hours are allocated as per guidelines of Statutory Councils. The didactic lecture hours in undergraduate program ranges between 1500 and 4200. Details will be submitted during departmental visits.

∗ **Number of students in each batch:**

| Faculty | UG students in each class | PG |
|---------|---------------------------|-----|
| Medical | 250 | As per the number of seats sanctioned by Statutory Councils. |
| Dental | 100 | |
| Pharmacy | 35-50 | |
| Nursing | 100 | |
| Physiotherapy | 40-50 | |
| AHS | 35-72 | |
| Management | 30 | |

∗ **Number of rotations:** During the internship period, in medicine, clinical rotation of students ranges between 2 weeks to 27 weeks during the course period. In faculty of dental sciences students have 1989 hours of clinical rotation. In faculty of nursing, clinical rotation is 1150 hours. In all other

under graduate program the clinical rotation hours ranges between 750 hours to 2000 hours. Details are available with individual faculty/specialty.

∗ **Details of student case study / drug study:** Students evaluate cases during their clinical postings and the number of cases evaluated during their course period depends on the governing bodies regulations. The students maintain the record, as per the requirement of the governing bodies of each course.

∗ **Nursing Care Conference (NCC):** Nursing care conference is a group discussion, using problem solving techniques, to determine the ways of providing care for the patients to whom students are assigned as part of their clinical experience. A student who has been allotted a patient will discuss with others in the group in the presence of the supervisor, the following aspects: complete patient's profile that includes all the aspects of care rendered to the patient, the review of patient condition: definition, incidence, etiology, pathophysiology, clinical features, investigations, treatment, complications and nursing management. Each post graduate student is given 1 patient in Advanced Nursing Practice and 4 patients each in clinical specialty I and II with a total of 9 NCC for a period of 2 years. An Undergraduate student gets similar opportunities to discuss on 2 patients each, in nursing related specialty subjects namely, Medical Surgical Nursing, Pediatric Nursing, Obstetrics & Gynecology Nursing, Psychiatric Nursing and Community Health Nursing with a total of 10 NCC per student in a period of 4 years.

∗ **Number of medical / dental procedures that the students get to see:** Procedures provided for each student is as per the Regulations of the Medical and Dental Councils. An example, is given below:

| Department of Dental Sciences | Procedures No/ year |
|---|---|
| Oral Medicine | 69875 |
| Pedodontics and Preventive Dentistry | 6138 |
| Oral surgery | 6138 |
| Periodontics | 12814 |
| Conservative dentistry and Endodontics | 94965 |
| Orthodontics | 550 |

More data can be provided on-site.

∗ **Mannequins / Simulation / skills laboratory for student teaching:** Clinical skills lab for undergraduates is efficiently run in the medical college. Skills lab is also available in the departments of General surgery, Orthopedics, ENT, Ophthalmology, Emergency Medicine, Faculty of Dentistry, Faculty of Nursing, etc.,

∗ **Number of students inside the operation rooms at a given time:** 8 to 10 / theater.

∗ **Average number of procedures in the ORs per week, month and year:** 30 to 40 procedures / week / theater.

∗ **Autopsy / Post-mortem facility:** Well-maintained state - of - the art autopsy/ postmortem facility is available in the Dept. of Forensic medicine. UG

students can view the procedures on screens just outside the autopsy room, while PG students have hands –on training.

## 2.4    Teacher Quality

### 2.4.1.  How does the institution plan and facilitate its faculty to meet the changing requirements of the curriculum?

The Faculty development programs of Education units of SRU, refresher programs, CMEs, workshops provide periodic orientation.    Conferences, seminars and funded research projects build their capacity further to meet updated curricula.

### 2.4.2.  Does the institution encourage diversity in its faculty recruitment? Provide the following details (department / school-wise).

|                                  | % of Faculty          |                                              |                                   |                   |
| -------------------------------- | --------------------- | -------------------------------------------- | --------------------------------- | ----------------- |
| Department/ Faculty names        | same institution      | other institutions within the State          | institutions outside the State    | other countries   |
| Sri Ramachandra Medical College and Research Institute | 28 | 35 | 33 | <1 |
| Dental Sciences                  | 49                    | 54                                           | 5                                 | -                 |
| Nursing                          | 44                    | 56                                           | -                                 | -                 |
| Pharmacy                         | 25                    | 68                                           | 5                                 | -                 |
| Allied Health Sciences           | 27                    | 37                                           | 27                                | <1                |
| Biomedical Sciences, Technology and Research | 19       | 75                                           | 6                                 | -                 |
| Management                       | 14                    | 86                                           | -                                 | -                 |
| Physiotherapy                    | 71                    | 21                                           | 7                                 | -                 |

### 2.4.3.   How does the institution ensure that qualified faculty are appointed for new programs / emerging areas of study? How many faculty members were appointed to teach new programs during the last four years?

University appoints the faculties as per the norms specified by the Statutory Councils and UGC wherever applicable.  Qualified faculty required for the new courses are appointed by advertisement in national news papers and selected through interview by the university selection committee.  During the last 4 years 117 new faculty members were appointed.  Currently there are 189 Professors, 124 Associate professors and 308 Assistant Professors employed.  In addition to the full time faculty, eminent faculties from different areas are invited as guest / visiting faculty to provide specialized training to the faculty and postgraduate students.   Forty nine international visiting faculties and 30 national visiting faculties have been appointed by the institution.

### 2.4.4.  How many Emeritus / Adjunct Faculty / Visiting Professors are on the rolls of the institution?

| Faculty name | Number of Emeritus / Adjunct Faculty |
| ------------ | ------------------------------------ |

|  | / Visiting Professors | |
|---|---|---|
|  | National | International |
| SRMC & RI | 23 | 33 |
| Faculty of Dental Sciences | - | 2 |
| Faculty of Pharmacy | 1 | 1 |
| Faculty of Physiotherapy | 1 | 1 |
| Faculty of Nursing | - | 6 |
| Faculty of Allied Health Sciences | 2 | 4 |
| Faculty of Biomedical Sciences, Technology And Research | 1 | 2 |
| Faculty of Management | 2 | - |
| Total | 30 | 49 |

* Details of faculty are given as appendix 2.4.4
We also have 4 Professors of Eminence to strengthen our academics at SRU.

**2.4.5. What policies/systems are in place to academically recharge and rejuvenate teachers? (*e.g.* providing research grants, study leave, nomination to national/international conferences/seminars, in-service training, organizing national/international conferences etc.)**

The university has several structured programs to meet the needs to academically recharge and rejuvenate teachers including:

- Faculty development programs of MEU, DEU, PEU and EU of Allied Health Sciences provide valuable training to help teachers in education technology
- Research grant to provide seed money for young researchers - GATE award.
- Faculty are provided Ethics education, GCP /GLP courses etc., through CITI- India collaboration with University of Miami.
- Access to high – end equipment for research through CRF.
- They are given study leave to pursue their higher studies/ short term courses
- Assisted financially to present papers in national and international conferences
- Supported to organize national and international workshops/ conferences
- Faculties are award with Gold Coin for 10 and 20 years of academic service in the organization.

| Faculty development programs | Number of beneficiaries | | | | |
|---|---|---|---|---|---|
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| Medical Education Unit | 5 | Nil | 20 | 29 | 49 |
| Dental Education unit | - | 27 | 71 | 70 |  |
| Allied health sciences Education unit | 30 | - | 58 | 48 | 20 |

| Pharmacy Education unit | - | - | - | 35 | 39 |
|---|---|---|---|---|---|

**2.4.6. How many faculty received awards / recognitions for excellence in teaching at the state, national and international level during the last four years?**

One hundred and seventy nine faculties have received awards and recognitions between, 2009-2013.

| Category | 2009 | 2010 | 2011 | 2012 | 2013 | Total |
|---|---|---|---|---|---|---|
| International (FRCP, FRCS, Chevalier, Boyscast Awardees; Fulbright Awardees; etc.) | 2 | 3 | 3 | 5 | 6 | 19 |
| National (Padmashri, Padmabushan, BC Roy award etc.) | 20 | 16 | 19 | 15 | 11 | 81 |
| State (Life time achievement, Best teacher award etc.) | 5 | 7 | 6 | 16 | 3 | 37 |
| University Awards | 3 | 4 | 2 | 16 | 17 | 42 |
| Total/ year | 30 | 30 | 30 | 52 | 37 | 179 |

**2.4.7. How many faculty underwent professional development programs during the last four years? (add any other program if necessary)**

| Faculty Development Programs | Number of faculty attended |
|---|---|
| Induction programs | 619 (from 2008 – 13) * |
| Re-orientation programs | *(similar to refresher courses) |
| Refresher courses | 498 (from 2008 – 13)* |
| Capacity building programs | 21* |
| Programs by regulatory / apex bodies | Medical Education Unit's Programs are as per MCI requirements. |

*source: Education Units of Medical, Dental, Allied Health Science Faculties and Pharmacy.

**2.4.8. How often does the institution organize academic development programs (*e.g.*: curriculum development, teaching-learning methods, examination reforms, content / knowledge management, etc.) for its faculty aimed at enriching the teaching-learning process?**

The Dean Education of the University oversees the curriculum and faculty development across courses of the University. Regular basic educational technologies workshops, advanced level workshops and focused workshops are conducted by all the four educational units of SRU.

The workshops aim at a comprehensive faculty and curriculum development. The units conduct regular meetings, plan curricular changes and oversee the execution of the same. Program evaluation of the curricular reforms are also undertaken. The Medical Education unit is a MCI recognized regional centre. The details of functioning of this unit is presented as best practice in 7.3.1.

**2.4.9. Does the institution have a mechanism to retain faculty? What is the annual attrition rate among the faculty?**

Yes.Mechanism to retain faculty include: implementation of 6th Pay Commission scales of the UGC; adopting employee welfare measures; encouraging faculty to develop their careers and providing higher learning opportunities adopted by the university. For the past 5 years the annual attrition rate has reduced from 18.39% in 2009 to 4.19% in 2012.

**2.4.10 . Does the institution have a mechanism to encourage**
  * **mobility of faculty between institutions /universities for teaching/research?**
  * **faculty exchange programs with national and international bodies?**

**If yes, how have these schemes helped in enriching the quality of the faculty?**

The university has provision for sabbatical leave and study leave for the faculties. The eligible faculty move between the institutions to improve their academic caliber utilizing this regulation. These schemes have resulted in the rise in number of publications with impact factor, publication of more books, adoption of innovative teaching learning methodologies and more number of conferences / CMEs conducted to enhance their organizational and leadership skills. The MoUs have exchange programs for faculty members with the University of Wisconsin, Oshkosh, USA and University of Washington, Seattle, USA, University of California at Berkley and others. The details of number of faculty who availed study leave and sabbatical leave are provided in ref. 3.1.11.

**2.4.11 . Does the institution have well defined career advancement policy for Health Science professionals? If yes, outline the policy.**

Yes. SRU continues to provide several avenues for career advancement and opportunities for professional enrichment of the faculty. Young faculty are encouraged to pursue research through research starter grant scheme known as'Young Faculty Growth and Development Towards Excellence (GATE)'. In addition, the University facilitates access of faculty to extramural and intramural research projects, centralized facilities for high- end research, clinical research orientation and other types of support - publish papers, present papers at conferences and patent. The University recently completed an IT skills training conducted by invited IT experts. The other areas where faculty are supported include, special leave provisions and financial support to attend conferences, opportunities for fellowships and other professional training programs, participation in faculty exchange programs with national and international institutions and provision of easy access to books and e-resources. Adopting API and Performance Linked incentives scheme helps faculty with outstanding record for promotions; member ship and secretary ship in various committees and other incentive credits including financial benefits.

**2.4.12. How does the institution create synergies with other PG institutes for generating required number of specialists and super specialists?**

The required specialists and super-specialties for the Faculties of Medicine, Dental Sciences and others are appointed by search – cum selection process from national level institutes and super speciality hospitals. The university also

encourages its own faculty to undergo superspeciality fellowships in other PG Institutes e.g., FAIMER.

**2.4.13. Does the institution conduct capacity building programs / courses in subspecialties for its faculty?**

Yes. The various specialties under the constituent faculties, conduct regular conferences and workshops imparting hands on training, in association with the respective state, national or international bodies. These help the faculty to stay informed of the recent advances and hone their practical skills.The details are provided in 2.4.7.Education Units of the university also organize capacity building programs like case writing for problem based learning, workshop on teaching clinical skills, mentor ship workshop, workshop for integrated assessment.  Sixteen such workshops have been conducted internally in the university during 2008 to 2013. Over 439 faculties from Medical College departments have benefited. Faculties are also sent to workshops conducted by external agencies and institutions like JIPMER(Puducherry), CMC (Vellore) among others.

**2.5      Evaluation Process and Reforms**

**2.5.1 How does the institution ensure that all the stakeholders are aware of the evaluation processes that are in place?**

Evaluation process is communicated to students and parents during their orientation program. The details of evaluation are given in the syllabus books for each course. Faculties are oriented to the evaluation pattern during their orientation after joining the institution.  The regulations for every course which inter alia, include the syllabus and examination pattern, after approval by the Board of Studies and Academic Council are circulated to the heads of the departments and Deans /Principals of constituent Faculty of Sri Ramachandra University.

**2.5.2 What are the important examination reforms implemented by the institution? Cite a few examples, which have positively impacted the examination system.**

The institution has developed and implemented several evaluation reforms:

The recently revised examination reforms package was approved by the Sri Ramachandra University 38th BoM in its meeting held on 08.01.2011 (appendix 2.5.2).  It is now being implemented.  A brief account is given below:

The system of optical mark reader with bar coded sheet was introduced ten years ago and is being successfully used. The image capturing optical mark reader was introduced in 2009 which is very useful for the retrieval of images in addition to the data.  This has helped in publication of results at the earliest and maintenance of accuracy and secrecy.  Periodic internal auditing of the already conducted and evaluated examination answer papers are taken to maintain the standard of evaluation.  Post validation of answer scripts is periodically carried out by the external and the internal examiners and is usually found to be satisfactory.  The multiple choice questions (MCQs) are periodically assessed for their difficulty and discrimination indices.  A written feedback is obtained from the external examiners at the end of the examination regarding the mode of conduct of the

examination and the standard of the theory question papers. Remedial actions are undertaken where required.

The questions reported to be out of syllabus, very difficult or ambiguous are brought to the notice of the COE. The difficulty and discrimination indices are calculated in that particular subject and a detailed report is prepared for rectification of errors, if any. CCTV and metal detectors have been placed at vantage points in the university examination halls, to facilitate monitoring by the Chief Superintendent and the Controller of Examinations. Mobile phone jammers have also been installed in the University Examination Hall.

Establishment of Internal Assessment Test Cell(IATC) in 2013 which functions centrally helps the various departments in the Medical and Dental Faculties to maintain confidentiality by printing and distributing the internal assessment examination question papers without interfering with autonomy of the individual departments in setting the questions and evaluating the papers as per specified timelines. To a large extent the evaluation methods are designed to be compatible with the learning objectives. Structured questions and questions with clinical application are included in the question papers. Practical and clinical sessions are taught in a structured manner and inclusion of OSPE/OSCE in the formative /summative assessment examinations enhances the objectivity of teaching, learning and evaluation methods.

**2.5.3 What is the average time taken by the University for Declaration of examination results? In case of delay, what measures have been taken to address them? Indicate the mode adopted by the institution for the publication of examination results (*e.g.* website, SMS, email, etc.).**

The time frame for publication of results for all university examinations is within 30 days from the last date of conduct of scheduled examinations for a particular course, as per examination manual. Most often results are declared much ahead of the stipulated time. All these are stipulated in Examination Manual. Examination results are posted on the website and put on the Notice Board. Details of related document titled "Duration of examinations and publications of results for various courses" will be provided on site.

**2.5.4. How does the institution ensure transparency in the evaluation process?**

The records for various stages in the evaluation process are maintained in the office of the Controller of Examinations [COE]. These data can be accessed when required. Various check lists are devised to scrutinize the accuracy of data entered and generated by the computers at every stage of evaluation process till declaration of results. The standard operative procedures are framed by the office of the COE for different stages of evaluation till the declaration of results.

**2.5.5. What are the rigorous features introduced by the university to ensure confidentiality in the conduct of the examinations?**

The faculty are requested to maintain confidentiality during question paper setting. The questions are added to a common pool and random selection is made. The questions are printed a day before the commencement of examinations. A strong room is available to ensure storage without leakage of

questions. In the university examinations, the bar coded theory answer scripts are evaluated after providing dummy numbers. Both internal and external examiners approved by the university, carry out a central evaluation. Double evaluation is carried out for postgraduate examinations. Optical mark reader is used to evaluate multiple choice questions and in the compilation of theory marks. Quality checks were carried out for both MCQs and theory papers.

**2.5.6. Does the institution have an integrated examination platform for the following processes?**

∗ **pre-examination processes – Time table generation, hall ticket, OMR, student list generation, invigilators, squads, attendance sheet, online payment gateway, online transmission of questions and marks, etc.**

All the pre-examination process are planned and carried out by Controller of examination section. Student's section assists COE section in distribution of Hall ticket and accounts section assists in collection of examination related fees. COE appoints squads to check the examination during practical/ clinical examination. Being a University with all the constituent colleges within the campus, the invigilators are part of the faculty of various colleges and COE section.

∗ **examination process – Examination material management, logistics, etc.**

Examination related materials are confidentially managed by the office of COE only. Unauthorized personnel are not allowed to see or handle examination related materials. The materials are kept sealed, both the question papers and answer booklets/MCQ booklets till they are opened in the examination hall. Being a university with examination halls within the campus, security and timely transfer of material to examination hall is never a compromise.

∗ **post-examination process – Attendance capture, OMR-based exam result, auto processing, result processing, certification, etc.**

Attendance capture, OMR sheets recording are processed with software and double confirmed by manual verification. The results are confirmed by COE office before placed for approval of Boards of Examiners. During the Boards, the results are again confirmed for correctness. Certification is prepared by the COE and results are announced well in time by notice boards and web portal. The results are informed to respective faculty head to take further action.

**2.5.7 . Has the university / institution introduced any reforms in its evaluation process?**

Yes;

1. **Creation of an Internal Assessment Test Cell (IATC),** functioning since 2011. To ensure objectivity in the internal assessment examinations, questions are allotted to individual faculty for evaluation. He/she values the same question in all the answer papers of that particular exam. A minimum of two faculty members are assigned by rotation for paper correction for every internal assessment examination. The weightage varies as stipulated by the respective regulatory bodies of various courses.

2. **Double evaluation:** (central, door, double evaluation, etc.,): All the university examination theory papers are evaluated centrally. Double evaluation is carried out for postgraduate examinations. Revaluation of

answers is carried out for undergraduates when a candidate applies for the same as mentioned in the examination manual and students' manual.

3. **Question Bank:** A question bank has been developed, subject/paper wise for various courses over a period.  Questions are procured from internal and external faculty, edited and added to the question bank.  These are updated regularly. The bank is assessed for difficulty and discrimination indices, as and when required.

4. **Moderation:**  On completion of university examination in each session, the meeting of the Result Passing Board comprising of concerned examiners, the Dean of Faculties, the Controller of Examinations (Convener) and Additional / Associate Controller of Examinations and any other appropriate officer, is convened.  The board scrutinizes the results, in each subject, discipline wise. The feedback / recommendations of the external examiners are also perused. After due deliberations, the board moderates if necessary and finalizes the results. The results are published after the board proceedings are approved by the Vice Chancellor.

**2.5.8    What is the mechanism for redressal of grievances with reference to examinations? Give details.**

Revaluation of the answers – papers for undergraduate students

 Re-totaling of the marks awarded for undergraduate and postgraduate students

Based on genuine grievances, difficulty and discrimination indices were assessed by the Results passing board and remedial moderation made.

These procedures are incorporated in the examination manual.

**2.5.9.   Does the institution have a Manual for Examinations and if yes, does it specifically take cognizance of examination malpractices by students, faculty and non-teaching staff?**

Yes.A manual for examinations adopted by the BoM is available since inception of the Deemed University which was revised in 2011.   Eleven cases of malpractices have been reported so far and appropriate action has been taken in each case as per the University Bye-laws.  Details are available in office of the COE.

**2.5.10 .What efforts have been made by the university to streamline the operations at the Office of the Controller of Examinations? Mention any significant efforts which have improved the process and functioning of the examination division/section.**

Round the clock security guards are available in the COE office.  Biometric security has been installed.  The office has a structured hierarchy with the controller as the head, coordinated by the deputy controller and deputy registrar. It is staffed adequately with persons, who are well versed with the assessment policies.  A list of external examiners is maintained, which is constantly updated. Information regarding conduct of practical examinations is intimated to faculty well in advance and alternate arrangements are made when needed.  CCTV is installed for monitoring all the activities within the COE office.

**2.5.11. What are the efforts of the institution in the assessment of educational outcomes of its students? Give examples against the practices indicated below:**

* **Compatibility of education objectives and learning methods with assessment principles, methods and practices:** The programs delivered are tailor made to match the educational objectives and learning methods. Assessment method is also made according to the educational objectives. As most of the programs offered deals with humans as clinical material, handling is trained on mannequins initially (as in nursing education), or in special skill labs (as in MBBS, BDS) and then skill is transferred on to the handling on patients under supervision. By this learning Skill development is achieved as identified under learning objectives. Assessment of the same skill is evaluated on mannequins or on subjects as required at each level of education. Theoretical knowledge is evaluated with internal and university level examinations. Some programs uses assignments (as in physiotherapy, nursing, biomedical sciences) to add value to the method of evaluation. This helps to assess the self-learning capacity of the student. Students also maintain clinical log books (as in MBBS, Physiotherapy) to note their clinical learning, which helps to track their academic activity.

* **Balance between formative and summative assessments:** In all programs formative and summative type of assessments are followed. Formative examination will have both written and skill component. In all under graduate programs the formative component is combined with the summative performance to give the final result. But in post graduate programs the formative assessments are used as a feedback to improve the quality of teaching and learning. Formative assessments help a learner to score better as it is combined with summative assessment.

* **Increasing objectivity in formative assessments:** Formative assessments follow similar pattern as summative assessment in terms of question paper, skills examination etc. This is assumed to prepare a student to face the summative assessment or final university examination with confidence. The objectivity of formative assessment is increased by the use of Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OSPE) as in MBBS. Few other courses also follow this method for their formative assessment.

* **Formative (theory / orals / clinical / practical) internal assessment; choice based credit system; grading / marking:** Formative assessment has similar pattern as final summative examination. The components include theory, oral and clinical/ practical depends on the component of the course being examined. Schedules for formative assessment are prepared well in advance and informed to the students. Internal assessment cell, which mediates the formative assessment for MBBS program in one such initiative to streamline the process. Structured scales are used for evaluation of seminars, assignments and practical examinations, improving the objectivity of the evaluation.

In view of curricular restrictions of MCI and DCI, the Credit Based Semester System is adopted in the programs of Pharmacy, Biomedical Sciences, Technology and Research, AHS and Management. Choice of value- added courses across the university and choice of electives at faculty level is practiced.

∗ **Summative (theory / orals / clinical / practical):** Summative assessment has components of theory, oral and clinical/ practical depending on the subject. Summative evaluation is carried out by the COE section. The question paper and method of examination are regulated by the COE section.

∗ **Theory – structure and setting of question papers – Essays, long answers, shorts answers and MCQs etc. Questions bank and Key answers.Theory examination structure of the question paper will comprise of long and short answers.** The question bank is created with questions set by both university faculty and faculty who visit as examiners. The question bank is finalized and maintained by COE. Senior faculties may be called for clarification of the weightage, whenever required. MCQs form a part in most of the undergraduate program question paper pattern. The MCQs are prepared by question paper setters. The final version for the examination will be framed by proportionate addition of MCQ from question bank. All the faculties of this university are sensitized about the method to prepare a MCQ through faculty training programs. The examiners are advised to give keys and source of reference for the MCQs, when submitting to COE office.

∗ **Objective Structured Clinical Examination (OSCE):** All faculty members are sensitized regarding OSCE in faculty development program. The format is used by few programs (like MBBS, BDS, Clinical nutrition) in their formative assessment.

∗ **Objective Structured Practical Examination (OSPE):** All faculty members are sensitized regarding OSPE in faculty development program. The format is used by programs (like MBBS, BDS, Clinical Nutrition) in their formative assessment.

∗ **Any other.** Assignments and seminars are also used to evaluate students in some faculty like nursing, physiotherapy.

**2.5.12. Describe the methods of prevention of malpractice, and mention the number of cases reported and how are they dealt with?**

Malpractices are prevented by the following steps: i) instructions are given to students not to have any electronic gadgets like mobiles, calculators inside the examination hall ii) security is provided in the vicinity of examination hall, along with the invigilators, iii) not allowing any students to enter the examination hall with bags and electronic items. CCTV cameras installed in the examination hall gives an additional security measure. Mobile jammers are used as a precaution to block network in the area of examination hall. The invigilators are organized on the basis of number of students, (20 students per invigilator). Seating arrangements are made such that, no student can disturb any other student while writing examinations. Students are requested to leave the premises immediately

after completing the examination.  No student will be allowed to go out of the examination hall within the first half an hour of examination, to avoid any communication with late comers.  Security arrangement similar to those done for summative examination by COE section is followed by individual faculties for their formative examinations.  Any report of malpractice will be dealt with seriously, as per the malpractice prevention guidelines of the University bye-laws.

## 2.6.    Student Performance and Learning Outcomes

### 2.6.1. Has the institution articulated its Graduate Attributes? If so, how does it facilitate and monitor its implementation and outcome?

The institution has articulated its graduate attributes through its vision and mission statements.  As the students are the brand ambassadors of this university, it is expected that they share common values with the vision and mission of the university.  The oaths taken by students during convocations and the different commemoration days, like World Environment Day etc., throughout the year, reiterates the Graduate attributes.  Their overwhelming response is an indicator of their compliance.

### 2.6.2.  Does the institution have clearly stated learning outcomes for its academic programs/departments? If yes, give details on how the students and staff are made aware of these?

The learning outcomes are clearly stated in the syllabus of each program. The details are made known to the students by the respective faculties.  Faculty are aware of the learning outcomes because they are involved in the preparation of syllabus and in case of new faculty, they understand the learning objective while discussing with his/her colleagues and are always given Orientation/ Refresher Courses through the Faculty Development Programs.

### 2.6.3.  How are the institution's teaching-learning and assessment strategies structured to facilitate the achievement of the intended learning outcomes?

The teaching learning strategies are tailor made for each program by the senior teachers in discussion with their colleagues, which are subsequently agreed by the Board of Studies of each faculty.  The learning objectives are made clear to both the teacher and the student through syllabus.  The teacher prepares the schedule based on the syllabus, keeping in mind the core objectives of the subject.  The concepts are strengthened where ever possible by self-learning methods like assignments and seminars.  Skill development is given importance where ever required.  Percentage of hours allotted to theory and skill varies with the subjects' experiential learning requirement. Clinical postings become part of academic delivery if experiential learning becomes important.   Clinical objectives are specified in the log book/ syllabus for the student to fulfill.

The learning outcome intended through the above approaches are assessed through the evaluation methods adopted.   Formative assessments provide additional support indicators for slow learners.  Advanced learners are given opportunity to stand apart in their performance, by answering questions which are beyond the must know aspects.

**2.6.4. How does the institution ensure that the stated learning outcomes have been achieved?**

The university authorities and the COE monitor the performance of the students in both internal and university level examinations. Percentage of students passing subjects with a score 50% is analyzed. If the percentage of students with below 50% is more than 30 to 40 percentage of the students, the reason of such a performance is discussed with the faculty concerned. As the evaluation and teaching methods are aligned to meet the educational objectives, if a student does not get 50 percentage in the subject, he/ she is considered as a poor performer. If the percentage of poor performers increases in any subject, the reason for poor performance is evaluated. It is felt that if a student could score in formative and summative examinations, it can be considered that learning objectives are met as specified. The following table depicts the analysis done based on the results showcasing the learning outcomes.

| Examination Results (During The Past Five Years) - % Pass | | | | | |
|---|---|---|---|---|---|
| Details | 2008 | 2009 | 2010 | 2011 | 2012 |
| Undergraduates | | | | | |
| % of Pass | 85.27% | 82.49% | 91.38% | 87.39% | 95.24% |
| No. of First Classes | 222 | 274 | 295 | 312 | 236 |
| No. of Distinctions | 16 | 12 | 9 | 22 | 15 |
| Postgraduates | | | | | |
| % of Pass | 88.16% | 91.58% | 92.04% | 85.24% | 91.30% |
| No. of First Classes | 179 | 229 | 208 | 178 | 171 |
| No. of Distinctions | 33 | 40 | 49 | 39 | 42 |
| M. Phil | | | | | |
| % of Pass | 100% | 100% | 100% | 75% | 85.71% |
| No. of First Classes | 7 | 7 | 7 | 4 | 5 |
| No. of Distinctions | - | - | - | - | - |

*Any other information regarding Teaching-Learning and Evaluation which the institution would like to include.*

In Sri Ramachandra University, students of MBBS program are sensitized through 'ProDev' on acquiring attributes of a clinician and medical ethics to be imbibed in day- to- day clinical practice. In continuation of the successful implementation of the integrated curriculum in MBBS / BDS, "integrated evaluation strategies" are developed by the Medical Education Unit through external experts and is being experimented.

**Criterion III**
**Research, Consultancy and Extension**
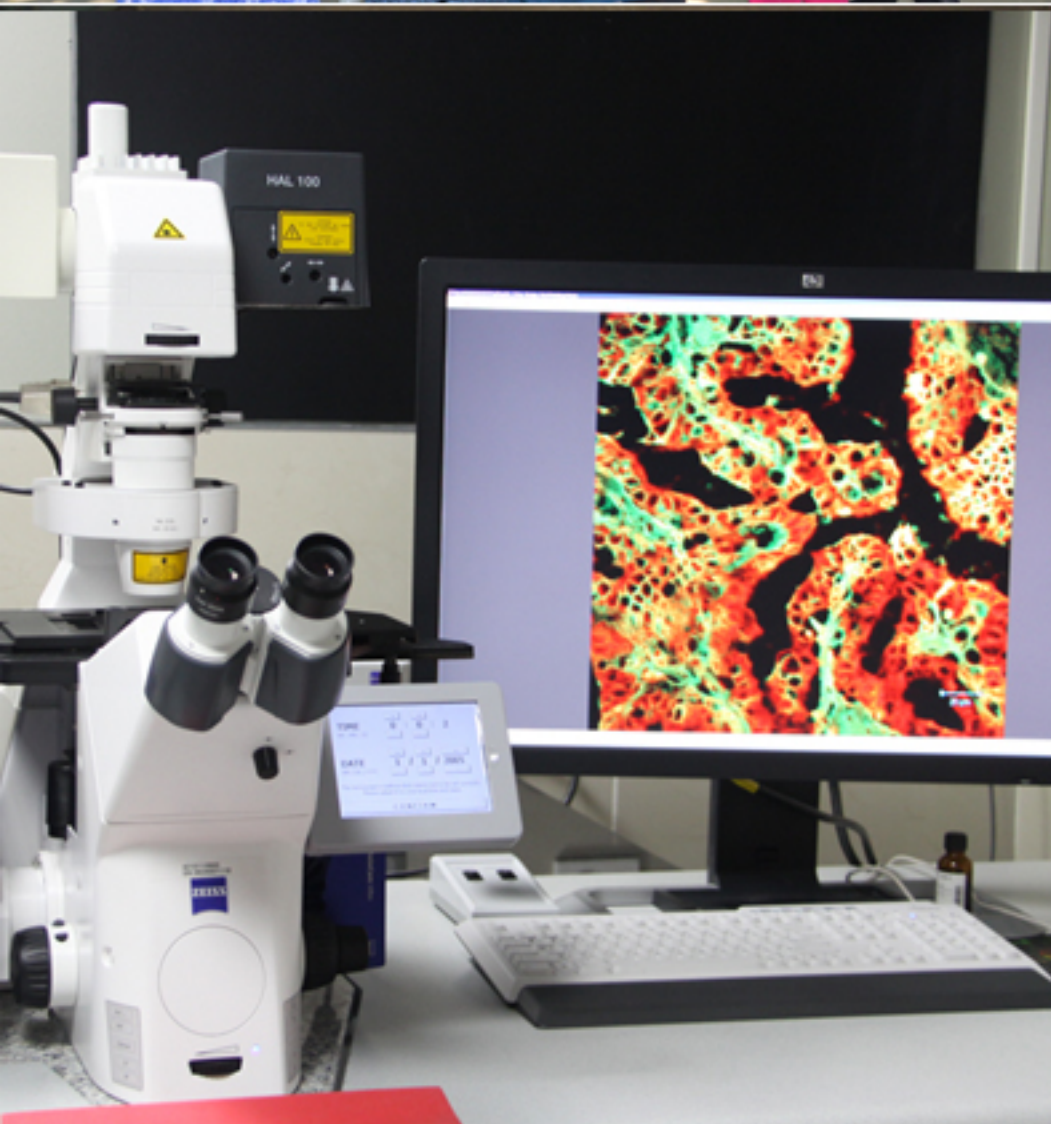
**Criterion III – Research, Consultancy and Extension**

| Key Aspects | Approach | Outcome |
|---|---|---|
| Promotion of Research | • Facilitating participation in research | • GATE Project-78 benefitted (2008-13)<br>• Integrated MD/MS-PhD supported by ICMR-25<br>• Summer Research Fellowship for UG students-92 (2011-13)<br>• Research fellowship for Ph D Scholars - 46 (2009-13)<br>• Research related workshops conducted - 45<br>• Conferences or seminars conducted - 590 |
| Resource mobilization for Research | • Financial provision in Research Budget of SRU<br>• Management of funds received from funding agencies | • Major Research projects-113 worth Rs. 3794.557 Lakhs<br>• Centres of research recognized by national and international agencies - 16<br>• Centres of Research development - 11 |
| Research facilities | • Creating infrastructure for Research | • Central Research Facility with sophisticated equipment in 25,000 sq ft.<br>• CEFT- 15000 sq ft., CPCSEA approved GLP compliant animal facility<br>• Medicinal herbal garden - 3 acres |
| Research publications and Awards | • Performance linked incentive scheme to reward best publication | • Percentage of faculty undertaking major/minor research projects - 90<br>• Faculty received research awards in last 5 years -179<br>• No. of publications - 240 with 'h' index of 14 in 2008 to 459 with 'h' index of 28 in 2012 |
| Consultancy | • Organisation of consultancy | • Consultancy rules approved by BOM (2008)<br>• University Industry Institution Centre (UIIC) with IPR cell<br>• Sponsored clinical trial - 17<br>• Consultancy projects - 749<br>• Resource generation – Rs. 245.11 lakhs<br>• Patent filed - 9 (1 US patent commercialized to industry) |
| Extension Activities and Institutional Social Responsibility | • Community outreach health care programs facilitating education and research | • Health camps conducted – 264<br>• Vayalanallur Village adoption and ensuring total health care<br>• Vidya Sudha- Rehabilitation centre<br>• NSS unit in partnership with EKAM foundation<br>• Participation in NRHM, Govt. of Tamil Nadu scheme |
| Collaborations | • MOU's signed | • International-24, National- 16, Institutions - 33 |

### CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

**3.1    Promotion of Research**

**3.1.1    Is there an Institutional Research Committee which monitors and addresses issues related to research? If yes, what is its composition? Mention a few recommendations which have been implemented and their impact**.

Yes.  Research activities are monitored and advised by the following committees (details available on www.sriramachandra.edu.in)

- Board of Research Studies
- Research Advisory committee for the University
- PhD Admission Committee
- Integrated MD / MS - PhD committee with ICMR experts
- Publications Oversight Committee

| Committees to implement and monitor the research programs of the University | | | | |
|---|---|---|---|---|
| Name of the committee | Year of inception | Total members | External member | Frequency of Meeting |
| Academic Research Quality System | | | | |
| Board of Research Studies | 2000 Revised 2011 | 15 | 8 | Every year |
| Research Advisory Committee | 1995 Revised 2010 | 24 | 12 | Twice a year |
| Publications Oversight Committee | 2011 | 9 | Internet based anti plagiarism software | Once a month |
| CITI- India Ethics Education Program Committee | 2010 | 15 | 6 | Once in Three months |
| Sri Ramachandra Journal Committee | 2006 | 12 | Panel of Referees | Once in a month |
| Library Committee | 1989 | 13 | - | 3 to 4 times per year |
| PhD Admission Committee | Revised in 2012 | 9 | 1 | Once in three months |
| Integrated MD/MS-PhD Admission cum Review Committee | 2008 | 11 | 3 | Once in a year |

**Board of Research Studies:** This board complies with regulatory adherence to UGC and National Bodies and consists of eminent, medical and science experts. After adopting "UGC (Minimum Standards for Procedure and Award of M Phil /

PhD) Regulations, 2009, University has stipulated higher benchmarks of Revised PhD Regulations implemented since 2011.

**Recommendations/ major decisions made by the above committees which have been implemented during 2008-2013 and their impact are given below:**

1. Quality Improvement of PhDs of SRU
   a. Two Publications as against one in the UGC Regulations is to be published before submitting PhD Thesis for evaluation.
   b. Mandatory Foreign Examiner for PhD Theses evaluation.
   c. Well-structured course-work for all PhD candidates with Research Methodology course and conduct of his/her PhD work.
   d. University Level Research methodology Examination after one year of registration. It consists of three papers (i) Research Ethics, Biostatistics & Research Methodology (ii) an advanced paper in the subject concerned including the involved instrumentation and (iii) background paper relating to design and conduct of his/her PhD work.
   e. Quality Benchmarks and Monitoring Mechanisms for PhD Program through Research Advisory Committee for each and every candidate with one external expert in the committee.
   f. Research Ethics Online Certification Course (CITI-India) made mandatory for all PhD candidates and clinical researchers; also being introduced for all PG students.
   g. Uploading the e-version of all PhD theses in the INFLIBNET-SHODGANGA e-repository after award of their degrees.

2. Quality improvement of publications made by faculty and researchers
   a. All post graduates and researchers are encouraged to secure ethical clearance from the appropriate Institutional Ethics Committee (IEC) for all their research projects whether they are minor / major funded projects as well as those for PG dissertations / projects.
   b. Mandatory submission of all manuscripts for approval by Publication Oversight Committee and screening for plagiarism through anti plagiarism software before submitting to journals. [Details of activities of Publication Oversight Committee in 3.4.7]
   c. Year wise analysis of all publications of the University for Quality benchmarks like Impact factor of journals, citation index of the articles, cited half life etc., of the author and 'h' factor of the University using Scopus, Web of Science, Pub Med, Embase and Google-Scholar databases.
   d. Recognizing researchers with incentives during the University Day Celebrations for publications in high-impact factor journals.
   e. Financial support to all researchers to attend and present papers in Conferences both national and international for publishing papers in refereed / indexed journals.

3. Promotion of IPR and Strengthening of University Industry interaction activities

a. An IPR - Cell with an IPR – Consultant instituted for IPR awareness and for exploring and filing patents out of the research projects carried out.

b. Development and implementation of the University approved "Consultancy Rules" on the pattern of CSIR – Consultancy norms.

c. Guidelines for the conduct of Industry – Sponsored clinical trials, contract projects and R & D projects for process / product development / evaluation.

4. Promotion of infrastructure for focused research in cutting edge areas:

   a. Establishment of SRU Centres for research with dedicated research personnel for in depth interdisciplinary research in the identified focus area as enumerated under 3.3.2

Impact of implementation of the above recommendations:

   i. PhD candidate demand ratio has increased from 1: 1.5 in 2008 to 1: 3.6 in 2013.

| Year | No. Applied | No. Admitted |
|------|-------------|--------------|
| 2008 | 48 | 32 |
| 2009 | 56 | 41 |
| 2010 | 53 | 30 |
| 2011 | 172 | 31 |
| 2012 | 148 | 53 |
| 2013 | 137 | 36 |

   ii. PhD theses (44) have already been uploaded in SHODGANGA – digital repository of INFLIBNET (UGC)

   iii. Significant increase in number of UG – Summer Research Fellowship applicants from 27 in 2011 to 76 in 2013.

| UG – Summer Research Fellowships since 2011 – 2012 | | |
|------|------|------|
| Year | No. of applicants | No. awarded |
| 2011 | 27 | 27 |
| 2012 | 33 | 33 |
| 2013 | 76 | 32 |

   iv. GATE project grants from 7/20 in 2008 to 23/42 in 2013 for young faculty members as (Research Starter grant)

| GATE Projects as Starter grant for young faculty members. | | |
|------|------|------|
| Year | No. of applicants | No. awarded |
| 2008 | 20 | 7 |
| 2009 | 22 | 11 |
| 2010 | 24 | 11 |
| 2011 | 24 | 12 |
| 2012 | 28 | 14 |
| 2013 | 42 | 23 |

   v. Quality of research manuscripts as monitored by Publication Oversight Committee (POC) resulted in increase of voluntary submission of

manuscripts from 23 in 2011 to 197 in 2013. Details of its activities are provided in 3.4.7.

vi. The quantum jump in quality of publications as shown by increase in number from 240 in 2008 to 459 in 2012; indexed journal publication from 60% in 2008 to 76% in 2012; citations of Sri Ramachandra University publications from 320 in 2008 to 4102 by Scopus and 2375 by Web of Science in 2012.

vii. The 'h' index of Sri Ramachandra University publications have also showed significant improvement from 14 & 12 by Scopus and Web of Science in 2008 to 28 by Scopus, 26 by Web of Science and 41 by Google Scholar data bases.

viii. Award & applications for patents have increased from 1 in 2008 to 9 by 2013 including one US Patent awarded & technology transferred to an industry. Details of Patents awarded / applied during 2009-2013 given in 3.2.4.

**3.1.2  Does the institution have an institutional ethics committee to monitor matters related to the ethics of inclusion of humans and animals in research?**

Yes. There are FOUR – Institutional Ethics Committee (IEC) as mentioned below with specific mandate. (DGGI Registration No. as recommended by the 2013. Department of H&FW, Government of India is ECR/203/Inst/TN/2013 dated 20.04.2013)

In addition, there are TWO Ethics Committees for Students' Research projects exclusively.

| Name of the IEC | Year of inception | Total members | External member | Frequency of Meeting |
|---|---|---|---|---|
| Institutional Ethics Committee – I (Clinical Evaluation of drugs/ procedures/ devices/ diagnostics/ vaccine/ herbal remedies) | 1994 | 14 | 7 | Meeting every 6 to 8 weeks |
| Institutional Ethics Committee - II (other than Clinical Evaluation of drugs/ procedures/ devices/ diagnostics/ vaccine/ herbal remedies) | 2007 | 15 | 6 | Meeting every 6 to 8 weeks |
| Institutional Animal Ethics Committee | 2005 | 9 | 4 | Meeting 4 to 6 per every year |
| Institutional Ethics Committee for Stem | 2007 | 11 | 2 | Once in 6 months |

| Cell Research and Therapy (IEC-SCRT) | | | | |
|---|---|---|---|---|
| Student Research Ethics Committees | | | | |
| Ethics Committee (For PG Students - Medical Faculty) | 2012 | 11 | 2 | Once in 8 weeks |
| Ethics Committee (For all students Proposals) | 2008 | 13 | 2 | Once in 8 weeks |

### 3.1.3 What is the policy of the university to promote research in its affiliated / constituent colleges?

The university has implemented the Academic Performance Indicator (API) system as per UGC – Regulations, 2010 as amended in June 2013 from the academic year 2013-14 for appointment and promotion of teachers where in research is one of the three categories to be assessed.

The Statutory Councils like MCI/DCI etc., have also mandated involvement in research as an important requirement for promotions. Hence the already existing faculty interest in research has been further stimulated.

Faculty are required to participate in research, publish their output and participate in international and national conferences, seminars and workshops to present the research data, besides opportunities for scientific discussions and generate new concepts in the emerging areas as well as collaborations with Indian and Foreign universities and institutions.

The university has made the proactive policy to promote the research, which has further motivated the faculty members. The university level research promotion initiatives to all the constituent units are mentioned below:

   i.   Research grants:
   ✓ Travel grant to present papers in national and international conferences.
   ✓ Re-imbursements of expenses for publication of manuscripts in peer-reviewed & indexed journals with impact factors.
   ✓ Fifty percent reduction in user charges of sophisticated investigations at SRU for research fellows and faculty doing Ph D and other PhD/PG students.
   ✓ Research starter grant called 'GATE' grant by the university to all eligible young faculty members.
   ✓ Chancellor Research Fellowships to meritorious PhD students getting selected through entrance examination.
   ✓ Chancellor Summer Research Fellowships for under graduate students of all constituent colleges.
   ✓ Facilitation for ICMR – Integrated MD-PhD – Fellowships and other PhD fellowships through funding agencies.
   ii.  Leave: Encouragement for higher studies (PhD - Part time & Post-doctoral training) by providing study leave, deputation for training in

    specialized area of research and special leave for presenting papers in conferences, etc.,

iii.    Central Facilities: Providing high end Infrastructure for research
- ✓ Central Research Facility (CRF)
- ✓ Centre for Toxicology and Developmental Research (CEFT)
- ✓ Centers for Excellence in Research sanctioned by funding agencies (5) and those established by the university (shown under section 3.3.2)
- ✓ Access to books, national and international journals through Library and e-resources
- ✓ Herbal Garden

iv.    Supportive measures:
- ✓ Collaborative Institutional Training Initiative (CITI-India) program in partnership with University of Miami for providing research ethics education to PGs, PhD scholars and all faculty members of the university.
- ✓ Institutional support for conducting CMEs/ workshops/ conferences (national / international), training programs and telemedicine programs *vide,* 6.4.4 & details in 3.1.12.
- ✓ Awards and recognition for publications with high impact factor
- ✓ Administrative facilitation to submit and present project proposals to National & International funding agencies and utilization of funds through a separate hassle-free accounting and auditing process at CRF.
- ✓ Access to collect clinical data from the medical record division.
- ✓ Recognition of faculty members to guide graduate/ postgraduate students and PhD candidates.
- ✓ MoUs with (as in December, 2013) 52 international, national universities / institutions and industries, providing opportunities to all for inter-institutional and interdisciplinary research.

**3.1.4 What are the proactive mechanisms adopted by the institution to facilitate the smooth implementation of research schemes / projects?**

**A. Externally funded projects (both government and private agencies):**

  **a.advancing funds for sanctioned projects:**

Yes. Whenever there was a delay in the receipt of second / third installment and so on, the PIs are permitted to procure consumables and project related materials to continue the project without any delay. The staffs in the projects are also paid their fellowships without any break.

  **b.    providing seed money**

Provision of Research starter Grant to young researchers annually for young and entry level faculty under the 'Growth and Development Towards Excellence' scheme (GATE) available.

  **c. simplification of procedures related to sanctions / purchases to be made by the investigators.**

The Central Research Facility (CRF) is made as a single window facility under the governance of The Professor of Eminence & Dean (Research) with financial approval powers. It has separate accounts and audit Division for the purchase of consumables, equipment to expedite the project related activities and also to

provide Utilization Certificate and Audited Statement of Expenditure for all research grants received.

**d. autonomy to the principal investigator/coordinator for utilizing overhead charges.**

The PIs are permitted to make purchases of consumables directly from the suppliers with the budget limit up to Rs 10000/ and advance of Rs. 20,000 at a time for meeting project related expenditure. The overhead charges are utilized for the infrastructure development, and supportive measures for travel grant to present papers and re-imbursement of publication charges etc.,

**e. timely release of grants**

Yes. Upon the receipt of the project sanction order, even before the actual receipt of the First installment grant, PIs are permitted to advertise for project staff. Appointment orders are issued by Dean (Research) within one day of completing the interview process.

**f. timely auditing**

Yes. There is complete computerization of Research Division at CRF through the Research Management Information System software (R-MIS). In view of the automation of the research division through the Research MIS, the CRF accounts division prepares the statements of expenses, after verification by the PI. Audit of the final statement by the Certified Charted accountant is done as and when necessary instead of waiting up to end of financial year.

**g. submission of utilization certificate to the funding authorities.**

Yes. The utilization certificates are prepared as per prescribed format of the funding agency promptly without any delay. The same is signed by the University authorities (Dean Research & Chief Finance Officer) based on the audited statement signed by the Certified Charted accountant.

**h. writing proposals for funding**

Yes. Investigators are submitting proposal throughout the year to various national and international funding agencies. In addition whenever there is call for proposal on specific thrust areas from the funding agencies, the Dean (Research) conducts group discussions with concerned departments and helps in development of the proposal and to submit within the deadlines prescribed by the agency. All secretarial support for submission of proposals is provided by CRF.

**i. any training given for writing proposals**

Yes. At regular intervals workshops are being organized for the young faculty to train in proposal writing. Particularly, the young investigators awarded the GATE project grants based on the data's generated in those projects, are trained to develop them for major grants using them as preliminary findings. The trainings conducted during reaccreditation period are:

  i. Epidemiology & SPSS training offered by the Department of Community Medicine every year.
  ii. Research Project Proposal writing Hands on Workshop for GATE projects completed young faculty conducted on 4th-5th February 2011.
  iii. Seminars on Publication writing and quality indicators: The IQAC conducted State level Seminar on "Quality Indicators for Teachers" on

24th August 2011 and "National Level Seminar and Workshop on Quality sustenance in Research publications" on 4th – 5th June 2012 sponsored by NAAC.

iv.  Research proposal writing: conducted once a year by faculty of Dental Sciences titled "Art and Science of Scientific Writing" – 19.04.2009; "Thesis selection, writing and publishing" - 18.04.2009 and once a year program as part of RAPID Review, Dental education for PG students as also by faculty of Pharmacy

v.  International Conferences of CITI- India with University of Miami every year on Research Ethics education and Responsible conduct of Research.

**B.  Institution sponsored Projects:**

∗  **Proportion of Funds dedicated for research in the annual budget**
   Recurring fund allocation by SRU in annual budget is shown in graph with 122 Lakhs in 2008- 09 which increased to 197 Lakhs in 2012- 13.

∗  **Availability of funding for research / training / resources**.

Out of the Budget allocation for 'Research', young faculty starter grant for 'GATE projects' has increased two fold by 2013 along with the number of Projects sanctioned. In addition, the university has provided budget allocation for

**Financial allocation for Research**

| Year | R & D Expenses |
|------|----------------|
| 2008-09 | 122 |
| 2009-10 | 170 |
| 2010-11 | 181 |
| 2011-12 | 214 |
| 2012-13 | 197 |

participation of faculty / research students in conferences, trainings and for publications.
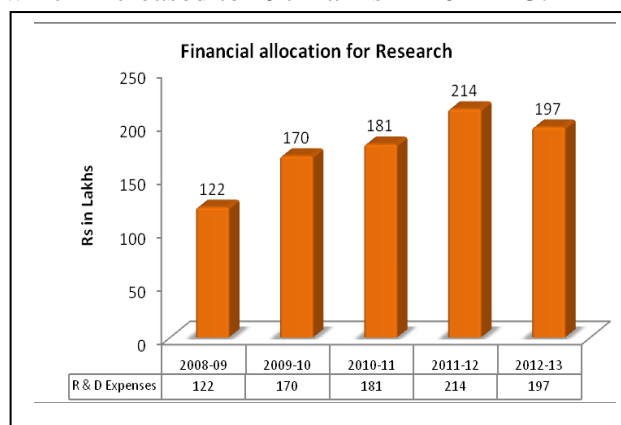
∗  **Availability of access to online data bases.**

| Institutional and remote accesses to the following items: | |
|---|---|
| Electronic Journals | 430 |
| Databases | Four (Including Journals and e-books) besides DELNET membership |
| Clinical Keys | 160 modules (Biochemistry, Physiology, Microbiology, Clinical skills in internal medicine, Clinical skills in Obstetrics & Gynecology, Practical skills in Animal physiology, Clinical skills in surgery, Ward Procedures and Life support techniques) |
| Animal experiments simulator | 31 |

**3.1.5  How is multidisciplinary / interdisciplinary / trans-disciplinary research promoted within the institution**?

∗  between /among different departments

The organization of the university in a single campus with 8 faculties, research promotional initiatives of the university, common dedicated research infrastructure facilities at CRF, CEFT, etc., and the user friendly research project administration has facilitated interdepartmental and interdisciplinary research programs with the participation related departments on trans-disciplinary areas of cutting edge research.

∗ collaboration with national/ international institutes/ industries
  ✓ The clinical trial division provides complete scope for interdisciplinary projects along with Pharmaceutical industries. During the reaccreditation period, 31 Pharma industries collaborated in 32 clinical trials and other R & D projects.
  ✓ The intra-institutional and inter-institutional collaboration in the interdisciplinary / multidisciplinary research projects is facilitated by the ongoing large number (52) of MoUs / linkages with universities (31), National institutes (9) and Industries (12), both nationally and internationally as listed in 3.2.6
  ✓ Consultancy programs are institutionalized with approved consultancy rules of the university with the provision of financial share for the consultants of the projects. (Details provided in 3.5)

**3.1.6 Give details of workshops/ training programs/ sensitization programs conducted by the institution to promote a research culture in the institution.**

During the reaccreditation period (2009-2013) the university has conducted 45 Workshops/ Training/ Sensitization programs to promote research culture and build research skills for the faculty members and researchers. These included areas of - equipment & analytical technology, research methodology & biostatistics, research ethics educations, research project development and publication writing. The details are provided below:

| Type of the Events | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| Equipment /Analytical Technology related events | | | | | | |
| No. of Events | 2 | 2 | 5 | 1 | 2 | 1 |
| Total number of participants | 102 | 160 | 418 | 20 | 120 | 60 |
| Publication, Ethics related Events | | | | | | |
| No. of Events | - | 4 | - | 1 | 2 | |
| Total number of participants | | 484 | - | 100 | 304 | |
| Research Methodology related events | | | | | | |
| No. of Events | 3 | 5 | 3 | 6 | 6 | 3 |
| Total number of participants | 148 | 455 | 101 | 434 | 446 | 192 |

**3.1.7 How does the institution facilitate researchers of eminence to visit the campus? What is the impact of such efforts on the research activities of the institution?**

Researchers of eminence from various countries are invited for interactive sessions / CMEs and Guest Lectures to faculty and students (details in 3.1.12)

Eminent Researchers from the collaborating institutions / MoU partners are appointed as Visiting Professors and Visiting faculties in the respective departments. They visit periodically and deliver a course of lectures, PG / PhD training and also as co-guides for PhD scholars. (List of Visiting Professors / faculty provided in appendix 2.3.5)

**3.1.8 What percentage of the total budget is earmarked for research? Give details of heads of expenditure, financial allocation and actual utilization.**

| Heads of Expenditure Rs in Lakhs | 2008-2009 | 2009-2010 | 2010-2011 | 2011-2012 | 2012-2013 |
|---|---|---|---|---|---|
| Recurrent Expenditure | 122 | 170 | 181 | 214 | 197 |
| Capital/Non-Recurring | 1143 | 231 | 65 | 5 | 33 |

**3.1.9 In its budget, does the university earmark funds for promoting research in its affiliated colleges? If yes, provide details.**

As per Deemed University norms of Government of India, the university comprises of a medical college and 7 constituent faculties. It provides research promotion funds to all its constituent faculties.

**3.1.10 Does the institution encourage research by awarding Postdoctoral Fellowships / Research Associateships? If yes, provide details like number of students registered, funding by the institution and other sources**.

Yes. At present there are nine fellows - working as post-doctoral Fellows/ Research Associates in the University. The details are listed below:

| S No | Department | Number of Research Associates | Agency/Project name | Period |
|---|---|---|---|---|
| | Cell & Tissue Engineering Lab - CRF | 1 | DBT; Effect of p38MAP kinase on postmitotic cardiomyocyte proliferation in-vitro and in-vivo | 2010-14 (4 years) |
| | HIMRL-CRF | 1 | DST; Evaluation of Copper Herbomineral Formulation in the Management of Ulcer | |
| | Purse-His-Study – Phase-II | 6 | DST; Phase-II of Population study of Urban, Rural and Semi-urban regions for the detection of Endovascular disease and prevalence of risk factors and Holistic Intervention | 2012 |

| | | Study | |
|---|---|---|---|
| Environmental Health Engineering | 1 | DST; Vulnerability Assessment to Heat stress and its impacts on Health and Productivity for select occupational sectors in the context of Climate Change | 2012 |

**3.1.11 What percentage of faculty have utilized facilities like sabbatical leave for pursuit of higher research in premier institutions within the country and abroad? How does the institution monitor the output of these scholars?**

Number of faculty who availed sabbatical or special leave:

| S. No | Year | Study leave & Place of Study / Training | | Long / Sabbatical leave & Places | | Outcome of visit /training |
|---|---|---|---|---|---|---|
| | | National No. | International No. | National No. | International No. | |
| 1. | 2009 | 13 (Chennai/ Hyderabad / Trivandrum) | 1 (Taiwan) | - | 5 (China, Libya, Qatar, USA) | Higher degree/ Fellowships / specific superspecialty or Focused Research area training |
| 2. | 2010 | 12 (Chennai) | 2 (USA & Thailand) | - | 6 (Canada, UAE, Kuwait, USA, Qatar) | |
| 3. | 2011 | 7 (Chennai) | 2 (UK, Singapore) | 1 (Andhra) | - | |
| 4. | 2012 | 9 (Chennai/ Trivandrum) | 1 (UK) | 3 (Chennai ) | 1 (USA) | |
| 5. | 2013 | 8 | 4 (Taiwan, Korea) | - | - | |
| | 2009 to 2013 | 49 | 10 | 4 | 12 | |

**3.1.12 Provide details of national and international conferences organized by the institution highlighting the names of eminent scientists / scholars who participated in these events.**

A total of 590 conferences / seminars / workshops were organised during 2008 - 2013.

Conference/Seminars/Workshops organized by SRU (2008-2013)

| | 2008 | 2009 | 2010 | 2011 | 2012 | Sept. 2013 |
|---|---|---|---|---|---|---|
| Total | 52 | 84 | 125 | 120 | 146 | 63 |
| Conferences | 10 | 19 | 31 | 26 | 26 | 16 |
| Seminar | 31 | 46 | 68 | 66 | 89 | 36 |
| Workshop | 11 | 19 | 26 | 28 | 31 | 11 |
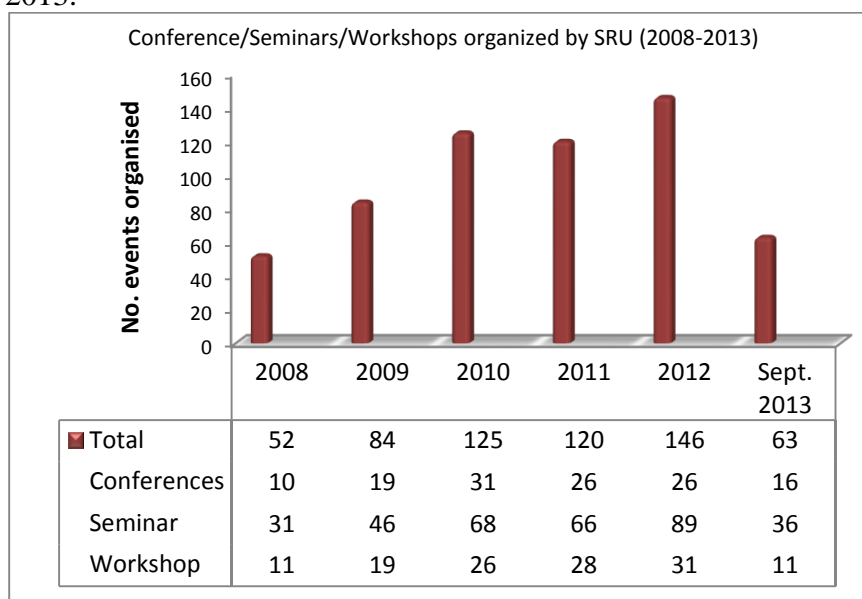
The list of eminent scientists who participated as resource persons has been maintained in the individual departments. Faculty wise breakup of Conferences / Seminar/ Workshop organized during 2008-2013 is shown in the graph below.

Events participated by faculties of SRU

| | SRMC and RI | Dental | Nursing | BMS | AHS | Pharmacy | Physiotherapy | Management |
|---|---|---|---|---|---|---|---|---|
| Conferences | 67 | 19 | 28 | 3 | 3 | 8 | 0 | 0 |
| Seminar | 148 | 59 | 49 | 30 | 20 | 18 | 7 | 5 |
| Workshop | 83 | 11 | 5 | 9 | 12 | 4 | 0 | 2 |
| Total | 298 | 89 | 82 | 42 | 35 | 30 | 7 | 7 |
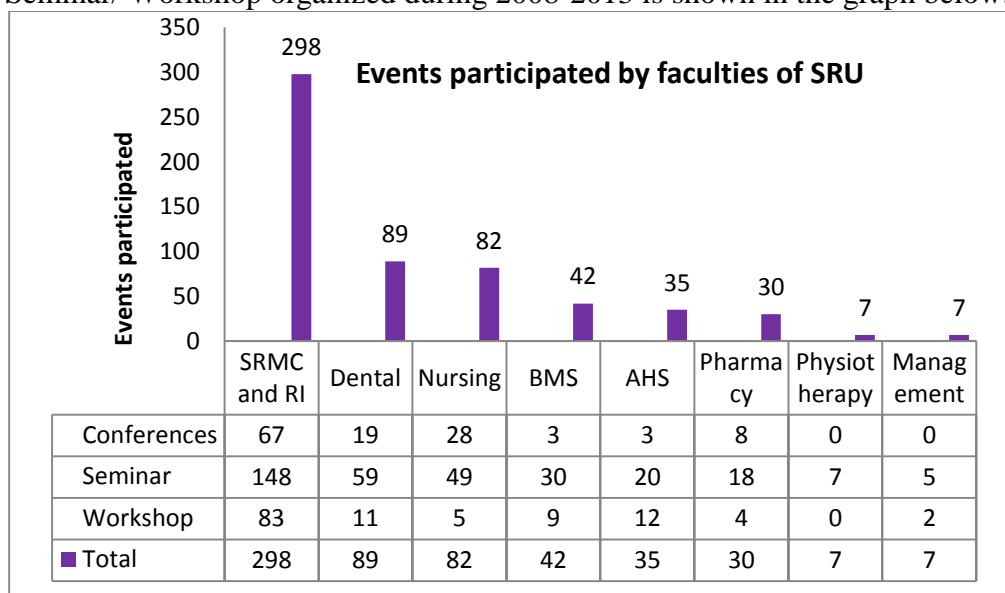
**3.1.13 Mention the initiatives of the institution to facilitate a research culture in the below mentioned areas:**

∗ **Training programs in research methodology, research ethics and biostatistics**
   ✓ Collaborative International Initiative (CITI) of University of Miami has recognized SRU as the CITI-INDIA Centre for India, Sri Lanka and Nepal for offering online education on Research Ethics, Good Clinical

practices and related 23 courses which are open to all institutions and individuals as Web-based program.

✓ Well-structured course-work for all PhD candidates with Research Methodology course is incorporated in SRU-Ph D Regulations as a University Level Research methodology Examination after one year of registration. It consists of Research Ethics, Biostatistics & Research methods, an advanced paper in the subject concerned including the involved instrumentation and Background paper relating to design and conduct of his/her PhD work.

✓ Details of the performance of the Institutional Ethics Committees (Six) of SRU which is approved by DCGI (DGGI. Registration No. ECR/203.Inst/TN/2013 dated 20.04.2013) is provided below in the table 3.1.13

| Table 3.1.13. | | Details of the performance of the Institutional Ethics Committees | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Number of Proposals proceed during 2008-2013 | | | | | | | | | |
| Name of IEC | Year of Est | 2009 | | 2010 | | 2011 | | 2012 | | 2013 | |
| | | *R | *A | *R | *A | *R | *A | *R | *A | *R | *A |
| IEC (Clinical Evaluation of Drugs/ Procedures/ Devices/ Diagnostics/ Vaccines/ Herbal Remedies) | 1997 | 34 | 26 | 38 | 36 | 20 | 18 | 28 | 24 | 19 | 16 |
| IEC (Other than Clinical Evaluation of Drugs/ Procedures/ Devices/ Diagnostics/ Vaccines/ Herbal Remedies) | 2007 | 45 | 42 | 45 | 38 | 85 | 70 | 66 | 62 | 98 | 96 |
| Ethics Committee for Students Proposals | 2008 | 30 | 30 | 46 | 46 | 115 | 115 | 160 | 160 | 216 | 216 |
| Institutional Research Ethics | 2012 | -- | -- | -- | -- | -- | -- | 51 | 46 | 140 | 140 |

| | | R | A | R | A | R | A | R | A | R | A |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Committee (for PG Students of Medical College) | | | | | | | | | | | |
| Institutional Committee for Stem Cell Research and Therapy (IC-SCRT) | 2008 | 5 | 3 | 2 | 2 | 2 | 2 | -- | -- | 2 | 2 |
| Institutional Animal Ethics Committee | 2005 | 18 | 14 | 33 | 19 | 46 | 37 | 48 | 32 | 79 | 66 |

*R – No. of Proposals Received; *A – No. of Proposals Approved

∗ Development of Scientific temperament

The University instills the temperament to do research in its students as well as faculty by assisting financially and by providing infrastructure. The Chancellor's summer research scholarship, Young researcher scholarship are two such initiatives by the University. Recognition of the faculty for their research and publication motivates the students to pursue research. Department of Community medicine organizes workshop on Research Methodology and Biostatistics regularly in the campus.

- ✓ Students and faculty take part in research activities through curriculum based programs in UG/PG programs or inculcating a research aptitude through specific funded programs.
- ✓ For Quality monitoring of publications, Publication Oversight Committee (POC) & Anti Plagiarism Software scrutiny were introduced for all manuscripts submitted for Publications & theses in 2011. The details are provided in 3.4.7.
- ✓ Initiating a Nursing PhD Society of India
- ✓ Institutional Ethics Committee (6 numbers) as detailed in 3.1.2.
- ✓ Research Proposal committee for faculty and students
- ✓ Inclusion of research in curriculum
- ✓ Encouragement to participate in seminars, conferences and CMEs by both students and faculty
- ✓ Awards and recognition for meritorious publications
- ✓ Providing e-access to literature
- ✓ MoUs for advanced research collaborations; conferences; workshops etc

∗ **Presence of Medical / BioEthics Committee**

YES. Completion of Online certification course offered by CITI-India of SRU is mandatory for all the members of the various ethics committees and compulsory for Ph. D, PG students of this University as well as the clinical researchers who submit their research proposals for IEC clearance. Details of the committees (six) are provided in 3.1.2 and its activities are shown in the table 3.1.13 above.

∗ **Research linkages with other institutions, universities and centers of excellence (national and international).**

The university has 52 MoUs with university, industries and centers. A summarized list of MoUs is presented below while the details are in appendix 3.13. The MoUs meet the objectives for joint education, training, collaborative research, industry- academia projects; exchange/ clinical training in specific areas.

Table of Research linkages with other institutions, universities and centers of excellence (national and international) including those formalized as MoUs:

| Department/ Faculty | National | International | Industry |
|---|---|---|---|
| *Totaling* | *20* | *23* | *9* |
| Faculty of Nursing | - | 1. University of Wisconsin, OSKAS 2. Wayne State University, Detroit, USA 3. University of Washington, USA 4. Queen Margaret University College of Edinburgh, UK | - |
| Central Research Facility & Dept. of Community Medicine | - | 5.CITI - University of Miami, USA | 1. EID PARRY (INDIA) LTD, Chennai |
| Central Research Facility & All Departments | 1. Central Leather Research Institute, Adyar 2. Indian Institute of Technology, Madras 3. Anna University 4. SSN Engineering College | - | - |

| | | | |
|---|---|---|---|
| | 5. Indian Institute of Integrative Medicine (IIIM) | | |
| Central Research Facility & Cardiology | - | - | 2. Pfizer Limited, Mumbai |
| Central Research Facility & Department of Human Genetics | - | 6. Miller School of Medicine, University of Miami, USA | - |
| Central Research Facility & Faculty of Pharmacy | | - | 3. Orchid Chemicals & Pharmaceuticals Ltd |
| Central Research Facility, CEFT and all departments | 6.Vellore Institute of Technology, Vellore | - | 4. BIOCON – BMS, Bangalore |
| Central Research Facility, Department of Environmental Health Engineering & Cardiology | 7.National Institute of Epidemiology (ICMR)Chennai | - | - |
| Faculty of Pharmacy & CRF/CEFT | 8. Jamia Hamdard University, New Delhi | - | - |
| Central Research Facility, Faculty of Pharmacy | 9. Visva Bharathi University & East India Pharmaceuticals & DST, Government of India 10. Tamilnadu Veterinary and Animal | - | - |

| | | | |
|---|---|---|---|
| | Sciences University, Chennai2. | | |
| Centre for Toxicology & Developmental Research | | | 5.M/s. Arvind Remedies Ltd & DST, Government of India 6.M/s. Harshul Ayur Pharma & DST, Government of India |
| Department of Arthroscopy & Sports Medicine | | 7. University of Capetown, South Africa 8. Staffordshire University, UK 9.Sheffield Hallam University, UK 10. AG Biokinetics, University of Cape Town | - |
| Departments of Cardiology/ Radiology & Imaging, SRMC & RI | 11. Agada Health Sciences | | - |
| Department of Cardiology and all departments | 12.National Institute of Siddha, Government of India | | - |

| | | | |
|---|---|---|---|
| Department of Cardiology | 13. M.S. University, Vadodara, 14. Alluri Sitaraman Raju Academy of Medical Science (ASRAM), Eluru; Laila Pharmaceuticals & DST, Government of India | 11. University of Cambridge, UK, 12. Tufts University School of Medicine, 13. Boston, Tufts Medical Center, Boston | |
| Department of Clinical Psychology | | 14.Brock University, St Catharines, Ontario, Canada | |
| Department of Environmental Health Engineering | 15. National Environmental Engineering Research Institute (NEERI), Nagpur | 15. University of California, Berkley, USA, 16. George Warren Brown School of Social Work, Washington University, USA | 7.Siemens Limited, Mumbai |
| Department of Human Genetics, Faculty of Biomedical Sciences | 16. IGCAR, Kalpakkam 17. International Centre for Genetic Engineering & Biotechnology (ICGEB), Delhi | | |
| Department of Microbiology, SRMC & RI | - | - | 8.Piramal Life Sciences, Mumbai |

| | | | |
|---|---|---|---|
| Department of Neonatology, SRU | 18. Ekam Foundation | | |
| Department of Pathology, SRMC & RI & Department of Human Genetics, Faculty of Biomedical Sciences | 19. National Centre for Biological Sciences (NCBS) | | |
| Department of Speech, Language &Hearing Sciences | | 17. Smile Train – Cleft Lip Palate (Plastic Surgery) 18.Transformi ng Faces Worldwide (TFW), Canada | |
| Departments of Plastic Surgery & Biomedical Sciences | | 19. Utah State University, USA 20.University of Dundee, Scotland, UK | |
| Faculty of Dental Sciences | | 21. Kyushu Dental College, Japan, 22. Faculty of Dentistry – University of Hong Kong 23. The University of Sheffield School of Clinical Dentistry | |
| Sri Ramachandra Medical Centre | 20. Jeevan Foundation | | 9. Yonsei University Systems of Korea and Hyundai Motor Chung Mong-Koo |

|  |  |  |  |  | Foundation |  |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |

* **Research programs in Basic Sciences, Clinical, Operational Research, Epidemiology, Health Economics, etc.**

Yes. Over 113 funded research programs in these areas of research. These programs are funded by national, international agencies and industries. The detailed breakup is provided below and in 3.2. The university has mobilized a total grant of Rs. 3794.557 Lakhs during the years 2009-2013 through 113 major research projects funded by DST, DBT, ICMR, DRDO, CSIR, CCRAS, AYUSH, DAE, BRNS, UKIERI, WHO, other international agencies and Industries as provided in the tables below:

| S. No. | Funding agency | 2009 (in Lakhs) | 2010 (in Lakhs) | 2011 (in Lakhs) | 2012 (in Lakhs) | 2013 (in Lakhs) | 2009-13 (in Lakhs) |
|---|---|---|---|---|---|---|---|
|  | NATIONAL |  |  |  |  |  |  |
| 1. | DST, Govt. of India | 301.652 | 578.49 | 50.00 | 956.772 | 302.58 | 2189.49 |
| 2. | ICMR, Govt. of India | 154.21 | 411.21 | 21.31 | 13.54 | -- | 600.27 |
| 3. | DRDO, Govt. of India | 38.75 | - | 14.93 | 4.32 | 46.90 | 104.90 |
| 4. | DBT, Govt. of India | 81.11 | 76.66 | -- | -- | -- | 157.77 |
| 5. | AYUSH, Govt. of India | 25.25 | 90.22 | -- | -- | -- | 115.47 |
| 6. | DAE, Govt. of India | -- | 20.58 | -- | -- | -- | 20.58 |
| 7. | MHRD, Govt. of India | -- | -- | 2.50 | -- | -- | 2.50 |
| 8. | TNSCST, Govt. of Tamilnadu | 5.59 | 20.00 | -- | -- | -- | 25.59 |
|  | INTERNATIONAL |  |  |  |  |  |  |
| 9. | WHO | 18.52 | -- | 9.76 | 3.93 | -- | 32.21 |
| 10. | Other International Agencies | 23.20 | 137.35 | 59.02 | 64.12 | 2.53 | 286.22 |
| 11. | INDUSTRIES | 81.038 | 38.97 | 92.365 | 41.97 | 5.21 | 259.553 |
|  | Total | 729.32 | 1373.48 | 249.885 | 1084.65 | 357.22 | 3794.557 |

The pie diagram denotes 79.3% of the funds were from Government of India funding agencies, 11.4% from foreign agencies and 9.3% from Industries.

## Amount (Rs in Lakhs)

259.553

318.43

2215.08

□ National   ■ International   ■ industries
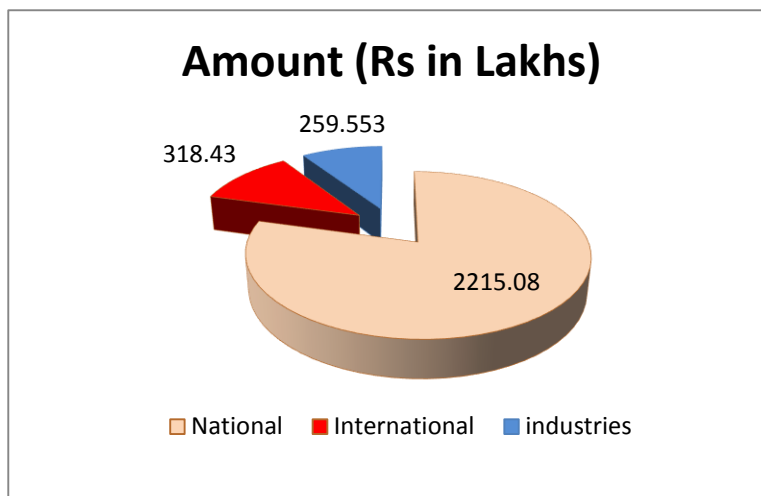
∗ **Promotional avenues for multi-disciplinary, inter-disciplinary research.**

Yes.   The institutional efforts to promote multidisciplinary, interdisciplinary research are delineated in 3.1.5 and 3.1.13.

∗ **Promotional avenues for translational research.**

Based on the strengths of research programs across Basic medical sciences, nonclinical / paraclinical sciences and clinical disciplines, the University has established an exclusive "SRU Centre for Preclinical and Translational Medical Research" to facilitate "Bench to Bed-side research programs.

∗ **Instilling a culture of research among undergraduate students.**

Yes.  Chancellor summer research Fellowships are being provided for the UG students every year across all the faculties of SRU from the year 2011 which has stimulated research culture and interest among UGs. Details are provided under Section 3.1.1.

∗ **Publication-based promotion / incentives.**

Yes.  Faculty with the best publications is being honored with meritorious award each year from 2011 onwards along with cash incentives.  The Academic Performance Indicator (API) system also has been implemented since 2013 as per UGC Regulations, 2010 to recognize research contributions.

∗ **Providing travel grant for attending national/international conference and workshops.**

Yes, all faculty members who present papers in Conferences / Seminars are provided travel grant.

**3.1.14 Does the institution facilitate**

∗ **R&D for capacity building and analytical skills in product development like diagnostic kits, biomedical products, etc. for the national / international market.**

R & D skills are imparted through Workshops as detailed in Section 3.1.6 besides imparting IPR knowledge through Seminars. Patent applications are facilitated through the IPR cell and through an IPR consultant. During the reaccreditation period 9 patent applications were filed one US patent has been commercialized by an Industry. Details are provided below in 3.2.4.

∗ **Development of entrepreneur skills in health care**

Yes. The Entrepreneurship Cell (E-Cell) has been established by the University is collaboration with NEN in the year. Periodic training programs are provided to students of Pharmacy, Management, Biomedical Sciences and others.

∗ **Taking leadership role for stem cell research, organ transplantation and harvesting, Biotechnology, Medical Informatics, Genomics, Proteomics, Cellular and Molecular Biology, Nanoscience, etc.**

Yes. Besides manpower development and research project implementation carried out by the departments of Human Genetics, Pathology, Blood Transfusion & Immunohematology, Biotechnology, Bioinformatics, Microbiology and clinical departments a dedicated SRU – Centre for Stem-Cell research and regenerative medicine has been established. Both basic stem-cell related research projects as well as stem cell based clinical trials have been conducted.

**3.1.15 Are students encouraged to conduct any experimental research in Yoga and / or Naturopathy?**

Yes, the departments of Physiology, Cardiology, Nursing are undertaking Ph D research projects and major funded projects on yoga in health related conditions.

**3.2. Resource Mobilization for Research**

**3.2.1. How many departments of the institution have been recognized for their research activities by national / international agencies (ICMR, DST, DBT, WHO, UNESCO, AYUSH, CSIR, etc.,) and what is the quantum of assistance received? Mention any two significant outcomes or breakthroughs achieved by this recognition.**

| S. No | Department | Name and place of agency | Name of recognition | Period / Grant | Any other details |
|---|---|---|---|---|---|
| 1. | Environmental Health Engineering | WHO – Geneva, Switzerland | WHO – Collaborating Centre for Environmental & Occupational Health | 2005 – till date Research Resources & Training funds | Policy guidelines, Trainings, Workshops & Health Innovation Projects |
| 2. | Environmental Health Engineering | ICMR – New Delhi – Government of India | ICMR – Centre for Advanced Research for Indoor Air Pollution | 2009 – till date Rs. 400.87 Lakhs | Health Impact Studies |

| 3. | Environmental Health Engineering | NEBOSH, ILO – New Delhi, Government of India | NEBOSH – Training Centre | 2007 – till date Training assistance | Occupational Health & Industrial Safety – Training |
|----|----|----|----|----|----|
| 4. | Human Genetics | AERB – Atomic Energy Regulatory Board, Mumbai – Government of India | AERB – Bio Dosimetry Centre | 2007 – till date Recognition for Service | Biodosimetry – monitoring Development of tests etc., |
| 5. | Human Genetics | Department of Health & Family Welfare, Government of Tamilnadu | Government of Tamilnadu – Prenatal Genetic testing & counseling centre | 2008 – till date Patients' Service | Gene – abnormality testing services |
| 6. | SRU – Hospital | Government of Tamilnadu, Chennai | ICTC – Service Centre | 2008 – till date | Integrated Counseling & testing services |
| 7. | SRU – Hospital | Government of Tamilnadu, Chennai | Health Insurance Scheme Centre for BPL | 2011 – till date Tertiary Care Service | Designated Centre for tertiary care operation |
| 8. | SRU – Medical Education Unit | Medical Council of India, New Delhi | MCI – Nodal Centre for Faculty Development in Medical Education technologies | 2011 – till date Medical Education Recognition | Round the year Programs for 45 medical colleges |
| 9. | Cardiology & Cardiac Care Centre | Department of Science & Technology, Government of India, New Delhi | PURSE-HIS Centre for Population Research | 2008 – till date Rs. 712.78 Lakhs | Risk factor analysis for Endovascular |

| 10. | Microbiology & SRU Hospital | Department of Health and Family Welfare, Government of Tamilnadu | H1N1 – testing Centre | 2009 – till date Diagnostic Service Recognition | Testing and treatment of H1N1 patients |
|---|---|---|---|---|---|
| 11. | Department of Community Medicine & Central Research Facility | CITI – University of Miami, USA | CITI – India Centre for Research Ethics Education | 2009 – till date Research Ethics Education | Online Research Ethics Education to India, Sri Lanka & Nepal |
| 12. | Cardiology & Central Research Facility | Pfizer's Limited, Mumbai, India | Pfizer's Preferred Research Centre for Clinical Research | 2010 – till date GCP – Training Rs. 5.31 (in Lakhs) | GCP – training for clinical trials & research |
| 13. | Central Research Facility & Centre for Toxicology & Developmental Research | AYUSH, Government of India, New Delhi & DST (DPRP) Government of India, New Delhi | AYUSH/DST Centre for Herbal and Indian Medicine Research & Preclinical toxicology | 2009 – till date DST-DPRP and AYUSH Funded projects | Validation & Standardization of Natural products & toxicological evaluation |
| 14. | Central Research Facility & SRU | DSIR, Department of Science & Technology, Government of India | DSIR certified - SIRO – Scientific & Industrial Research Organization | 2009 – till date | Certified for R & D research with industries |

Two significant outcomes / breakthroughs are the following -

i.　ICMR Centre for Advanced Research on Indoor air pollution: Health impact of Indoor air pollution and Global disease burden of air pollution – "A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: A systematic analysis for the Global Burden of Disease Study 2010", Lancet (2012), 380:2224-2260.

    ii.    DST – PURSE-HIS Project Centre: Burden Diabetes Mellitus & risk factors in rural, semi-urban and urban population of Tamilnadu - "Prevalence of risk factors for coronary artery disease in middle income group in South Indian population" Circulation (2012), 125(19)e-74.

**3.2.2    Provide the following details of ongoing research projects of faculty:**

Detailed breakup with name of the project, Name of funding agency, number of Major research projects and grant received is provided in Sections 3.1.1 and 3.1.5; other details are given below:

| Categories | Years | Number | Name of funding agency | Total grant provided / Received (in Lakhs) |
|---|---|---|---|---|
| **A. University Awarded Projects** | | | | |
| **(i) Minor Projects** | | | | |
| UG Summer Projects | 2011-2013 | 92 | SRU | 9.20 |
| PG Dissertations (Medical / Dental) | 2009-2012 | 564 | SRU | Absorbed in fees |
| PG Projects (other faculties) | 2009-2013 | 943 | SRU | Absorbed in fees |
| M Phil & PhDs | 2009-2013 | 320 | SRU | Absorbed in fees and project fellowships |
| Chancellor PhD Research Fellowship | 2009-2013 | 46 | SRU | 133.86 |
| **(ii) Major Projects** | | | | |
| GATE Research Starter Grants to young faculty | 2009-2013 | 78 | SRU | 63.89 |
| **B. Funding Agencies awarded projects** | | | | |
| **(i) Minor Projects** | | | | |
| ICMR- MD / MS – Integrated PhD Projects (fellowships) | 2009-2013 | 25 | ICMR | 227.53 |
| **(ii) Major Projects** **(a) National** | | | | |
| DST funded projects | 2009-2013 | 24 | Department of Science & Technology, Govt. of India | 2189.49 |
| ICMR funded projects | 2009-2013 | 9 | Indian Council of Medical Research Govt. of India | 600.27 |

| | | | | |
|---|---|---|---|---|
| DBT funded projects | 2009-2013 | 6 | Department of Biotechnology, Govt. of India | 157.77 |
| AYUSH funded projects | 2009-2013 | 2 | Department of AYUSH, Govt. of India | 115.47 |
| DAE & MHRD projects | 2009-2013 | 2 | Department of Atomic Energy & MHRD | 23.08 |
| Tamilnadu Government projects | 2009-2013 | 4 | Tamilnadu State Council for Science & Technology | 25.59 |
| Industry projects | 2009-2013 | 43 | Pharma Industries | 259.55 |
| **(b) International** | | | | |
| WHO projects | 2009-2013 | 6 | World Health Organisation, SEARO | 32.21 |
| Other agencies | 2009-2013 | 10 | International Foundation & NGOs | 286.22 |
| Total Number Minor projects | 2009-2013 | 375* + 1507* | SRU & ICMR | 370.59 |
| Major projects | 2009-2013 | 191 | SRU & funding agencies | 3858.45 |
| Consultancy projects | 2009-2013 | 749 | Individuals, Industries & Institutions | 254.11 |

*Funded minor projects fellowships (375); **PG dissertations/PG Project as part of their curriculum (1507).

During the reaccreditation period of 2009-2013, 113 major research projects have been sanctioned to



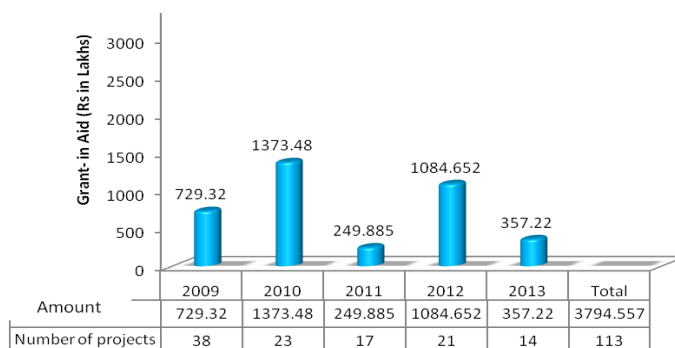faculty members with a total grant outlay of Rs. 3794.557 Lakhs.

Figure here depict (a) the year-wise number of projects sanctioned; (b) the quantum of grants sanctioned from 2009-2013 and (c) the breakup of funding sources vis-à-vis number of projects & quantum of grants.

**3.2.3 Does the institution have an Intellectual Property Rights (IPR) Cell?**

Yes. It is housed in the Central Research Facility which is operated by an IPR – Consultant. It provides IPR sensitizations seminars as well as IPR/Patent processing of inventions made by Faculty / Researchers.

**3.2.4 Has the institution taken any special efforts to encourage its faculty to file for patents? If so, how many have been registered and accepted?**

As mentioned above, the university has a 'patent cell' with a registered patent officer as IPR Consultant who facilitates the patenting process. She coordinates with the faculty and discuss with them regarding their findings & helps in preparation, filing of applications and securing patents. The details of patents processed are given in below:

| S. No. | Title of the patent | Inventors name/department | Patent application number | Date of application |
|---|---|---|---|---|
| 1. | An equipment called PIGA (Precise Intelligent Guiding Arm) to facilitate precise ct guided biopsies | 1. Prof. Roy Santhosham Department of radiology | US2008/ 0091101a1 April/17/2008 | 17/4/2008 (awarded in 2009) |
| 2. | A novel polyherbal formulation for treating rheumatoid arthritis as an immunomodulator | 1. Dr. Sanjay Sharma 2. Mr. G. Ramesh Kumar 3. Dr. Hannah Rachel Vasanthi 4. Dr. Subashri Beulah Priyadarsini | 287/che/2011 | 31/01/2011 |
| 3. | A novel herbal formulation for treating obesity | 1. Mr. G. Ramesh Kumar 2. Dr. Subashri Beulah Priyadarshini 3. Dr. Sanjay Sharma 4. Dr. Sadagopan Thanikachalam 5. Dr. S. P. Thyagarajan 6. Dr. C. Saravana Babu | 466/che/2012 | 2012 |

| 4. | A method for preparing three dimensional collagen fiber mat using benign solvent and products there of | Anuradha Elamparith Alan Mathew Punnoose Sarah Kuruvilla Department of Pathology | 640/che/2013 | 14/02/2013 |
|---|---|---|---|---|
| 5. | Use of natural bioenhancer to improve safety and efficacy of conventional anti-arthritic drug | 1. X. Fatima Grace Faculty of Pharmacy | 1547/che/2013 | 05/04/2013 |
| 6. | A method for detecting banana bunchy top virus | Kumar Perumal Arun Viswanathan Thirupanagadu Srinivasan Lokeswari Department of Biotechnology | 2117/che/2013 | 13/05/2013 |
| 7. | An anti oxidant and anti anxiety activity exhibiting polyherbal pharmaceutical formulation and method of preparation thereof | Duraipandian Chamundeeswari Settu Dinesh Kumar Cheekala Uma Maheswara Reddy Faculty of Pharmacy | 2308/che/2013 | 27/05/2013 |
| 8. | Laryngotracheal stenosis – a indigenous stent design | Dr. Prasanna Kumar Department of ENT | 3728/che/2013 | 23/08/2013 |
| 9. | A pharmaceutical formulation for treating diabetes mellitus and its associated complications | 1. Dr. Vasugi Suresh 2. Arcot Sadagopan Subhashini 3. Dr. D. Chamundeeswari 4. Dr. S. P. Thyagarajan | 5274/che/2013 | 18/11/2013 |

**3.2.5   Does the institution have any projects sponsored by the industry / corporate houses? If yes, give details such as the name of the project, funding agency and grants received.**

A total of 44 sponsored research projects were sanctioned to the various faculties of the University.  The most important sponsors being Firststring / Max Neeman Int.; GVK Biosciences; Icon Clinical Research; Max Neeman & The Shell Foundation, USA.  The table below indicates the numbers and outlay.

| Year- wise | 2009 | 2010 | 2011 | 2012 | 2013 | Total |
|---|---|---|---|---|---|---|
| Total Projects funded | 14 | 7 | 9 | 11 | 3 | 44 |
| Total grants (Rs in Lakhs) | 140.48 | 38.94 | 98.565 | 230.05 | 5.21 | 513.245 |

**3.2.6   List details of**

**a.  Research projects completed and grants received during the last four years (funded by National / International agencies)**

The university has received funding from national agencies for 55 projects and 10 with funding from international agencies.  They were <u>completed</u> during the reaccreditation period.  The table below lists the year – wise distribution of these completed projects and details are available as appendix 3.2.6

| National | | | | | | | |
|---|---|---|---|---|---|---|---|
| Year of sanction | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | Total |
| Number | 2 | 6 | 10 | 22 | 10 | 5 | 55 |
| Amount Rs in Lakhs | 113.39 | 532.19 | 331.965 | 335.05 | 142.93 | 72.12 | 1527.645 |
| International | | | | | | | |
| Numbers | | 4 | 1 | 5 | - | - | 10 |
| Amount Rs in Lakhs | | 288.21 | 11 | 56.68 | - | - | 355.89 |

**b.  Inter-institutional collaborative projects and grants received**

**i)  National collaborations:** Over 13 funded projects

| S. N o | Title of the R & D project | Name of the Project Leader and Collaborator/ Institution | Name of the agency | Year in which started & duration | Total (Rs. in Lakhs) |
|---|---|---|---|---|---|
| 1. | Scientific evaluation of copper containing herbomineral formulations for the management of ulcers | Dr. S. P. Thyagarajan Central Research Facility, Dr.D Chamundeeswari & College of Pharmacy SRU | Department of Science and Technology (DST), New Delhi | 2008-2013 (5 years) | 114.00 |

| | | | | | |
|---|---|---|---|---|---|
| | | and Dr. B. Unni Nair (CLRI) | | | |
| 2. | Development, standardization and safety of a poly herbal formulation in the management of OBESITY Associated Hyperlipidemia | Dr.Venkatesh, Veterinary Officer Prof. S.Thanikachalam, Director, CCC Prof.S.P.Thyagarajan, Pro Chancellor (Research) & Dr. Arvind Shah (Arvind Remedies) | DST / Arvind Remedies | 2009 3 years | 95.102 |
| 3. | To examine the minimum inhibitory concentrations of PLSL's samples against SRU's 35 clinical and susceptible strains | Dr.Uma Sekar Dept of Microbiology & Dr. Arun Balakrishnan | SRU/ Piramal Life Sciences Ltd | 2009 1 year | 4.20 |
| 4. | (1) Preclinical safety and efficacy validation of a new Siddha formulation for vitiligo management (2) Antihypertensive potential and Toxicological evaluation of a new Siddha formulation in rat models (3) Standardization | Dr.SThanikachalam, Cardiology & CEFT & Dr. Manickavasagam, National Institute of Siddha, Chennai | NIS AYUSH | 2010 2 years | 90.22 |

| | | | | | |
|---|---|---|---|---|---|
| | and evaluation of Siddha purification process of a compound with evaluation of pre clinical safety and invitro efficacy of Siddha formulation proposed for psoriasis management | | | | |
| 5. | Technology Business Incubator | Dr. S. P. Thyagarajan & Core faculty, SRU with NEN, Fischer Chemics & Novel therapeutics | DST | 2010 5 years | 514.00 |
| 6. | Sri Ramachandra University – Smile Train Cleft Speech Training Initiative (SRUSTI) | Dr. Roopa Nagarajan Professor & Course Chairperson, Speech, Language & Hearing Sciences & 12 Indian Centres | Smile Train, USA | 2010 | 107.35 |
| 7. | Studies on mumps virus infections among MMR vaccine recipients and mumps associated infertility | Dr. Elanchezhiyan Professor, Microbiology University of Madras Dr. Padmasini, Pediatric Medicine and Dr. Sanjeeva Reddy, Obstetrics & Gynecology, SRU | ICMR | 2011 (3 years) | 11.32 |

| | | | | | |
|---|---|---|---|---|---|
| 8. | Synthesis and evaluation of the anti-proliferative activity of novel glycopyrrlidines. | Dr. Ganesh Venkatraman Human Genetics, SRU & Dr. R. Raghunathan Prof. of Organic Chemistry University of Madras | DST | 2011 (3 years) | 50.00 |
| 9. | Scientific Validation of Safety, Protective and curative Efficacy of a Patented Folklore Medicine "Savliv" Developed for the Management of Hepatic Disorders – A preclinical Study | Dr. C. Saravana Babu, CEFT, Dr. M Ganesh, Biochemistry Dr. S. Thanikachalam, Cardiology & Harshul Ayur Pharma | DST | 2012 (2 years) | 33.65 |
| 10. | Validation and Pre-clinical toxicological evaluation of the Phase-I candidate herbal preparation of antidiabetic molecules | Dr. S. P. Thyagarajan CRF, Dr. D. Chamundeeswari Pharmacy, Dr. C. Saravana Babu, CEFT , SRU & Visva Bharathi University & East India Pharmaceutical Works, Kolkata | DPRP, DST | 2012 (3 years) | 154.43 |
| 11. | Genome wide association study to identify genetic variants conferring risk to cardiovascular disease – Indian | Dr. S. Thanikachalam Cardiology M.S. University, Vadodara | DST | 2012 (3 years) | 1.152 |

| | | | | | |
|---|---|---|---|---|---|
| | population | | | | |
| 12. | Development, Characterization and Validation of Novel Ultrafiltration Membranes for Hemodialysis in Preclinical Model | Dr. P. Soundararajan Nephrology & Dr. Mohan Anna University | DST | 2013 | 57.91 |
| 13. | Standardization, establishment and inter laboratory comparison of γ-H2AX assay for triage biodosimetry | Dr. P. Venkatachalam Human Genetics & INMAS, DRDO, New Delhi | DRDO | 2013 | 24.50 |

**ii) International collaborations:** 4 in number

| S. No. | Title of the R & D project | Name of the Project Leader | Name of the agency | Year in which started & duration | Total (Rs. in Lakhs) |
|---|---|---|---|---|---|
| 1. | Human health risk assessment for air pollution in Chennai | Dr. Kalpana Balakrishnan Environmental Health Engineering & University of California, Berkley | INDO-US under ICMR | 2009 3 years | 15.74 |
| 2. | The role of micro RNA in metabolic syndrome | Dr. L. V. K. S. Bhaskar, Biomedical Sciences and Kaohsiung Medical University, Taiwan | DST | 2010 3 Years | 36.65 |

| 3. | Sweden-India cooperation on protection of working people from health and productivity risks due to workplace heat exposure and the links to climate change | Prof. Vidhya Venugopal Environmental Health Engineering and Swedish Institutions | Swedish International Development Cooperation Agency | 2012 | 50.42 |
| 4. | Addressing Maternal metabolism, nutrition and environmental pollution in the context of aetiology of birth defects in India | Dr. Jyotsna Murthy Plastic Surgery University of Dundee, UK & University of Utah, USA | UKIERI-UK | 2013 | 2.53 |

### 3.2.7 What are the financial provisions made in the institution budget for supporting students' research projects?

| S. No. | Categories of Students projects | No. | Budget for (Rs in Lakhs) | | | | |
|---|---|---|---|---|---|---|---|
| | | | 2009 | 2010 | 2011 | 2012 | 2013 |
| 1. | UG – Summer Research projects | 92 | - | - | 2.70 | 3.30 | 3.20 |
| 2. | Chancellor PhD Research Fellowships | 46 | 32.01 | 29.10 | 34.92 | 14.55 | 23.28 |
| 3. | Students Conference/ Seminar participation/ Students Clerkship/ Observership in foreign universities | 46 | 6.75 | 0.50 | 0.88 | 0.75 | 1.38 |
| | Total | 184 | 38.76 | 29.60 | 38.50 | 18.60 | 27.96 |

Table 3.2.7: List of the student fellowships accorded by funding agencies.

| 1. | Research Associate | 5 | DST – Sponsored Projects | 50 |
| | Senior Research Fellow | 11 | | |
| | Junior Research Fellow | 30 | | |
| | Project Assistant | 4 | | |
| 2. | Scientist Grade-I | 1 | ICMR | 18 |
| | Scientist Grade-II | 2 | | |

| | | | | |
|---|---|---|---|---|
| | Senior Research Fellow | 3 | | |
| | Junior Research Fellow | 11 | | |
| | Research Assistant | 1 | | |
| 3. | Senior Research Fellow | 2 | DRDO | 8 |
| | Junior Research Fellow | 6 | | |
| 4. | Medical Officer | 3 | AYUSH | 7 |
| | Research Associate | 1 | | |
| | Senior Research Fellow | 3 | | |
| 5. | Research Associate | 1 | DBT | 4 |
| | Senior Research Fellow | 1 | | |
| | Junior Research Fellow | 1 | | |
| | Technical Assistant | 1 | | |
| 6. | Senior Research Fellow | 2 | CSIR | 2 |
| 7. | Junior Research Fellow | 2 | CCRAS | 2 |
| 8. | Project Fellow | 1 | CICT | 1 |
| 9. | Junior Research Fellow | 1 | EID Parry | 2 |
| | Research Fellow | 1 | | |
| 10. | Junior Research Fellow | 1 | Shell Foundation, USA | 3 |
| | Senior EHS | 1 | | |
| | Junior EHS | 1 | | |
| 11. | Project Assistant | 1 | Smile Train, USA | 1 |
| 12. | Research Scientist-II | 1 | SIDA (Swedish) | 3 |
| | Senior Research Fellow | 1 | | |
| | Project Assistant | 1 | | |
| | | | Total | 101 |

Details are provided in appendix 3.2.7 with all details.

## 3.3    Research Facilities

### 3.3.1    What efforts have been made by the institution to improve its infrastructure requirements to facilitate research? What strategies have been evolved to meet the needs of researchers in emerging disciplines?

Improvement in infrastructure facilities for research has been carried out two levels: a) Central facilities of Sophistication b) Strengthening of the departmental facilities across the university, for research c) strategies to meet the needs of researchers in emerging disciplines

(a) Central facilities:

Central Research Facility (CRF) established in a 25000 sq. ft area, at the cost of Rs. 30 crore excluding the civil infrastructure having:

(i) Sophisticated Instrumentation Laboratory (SIL) with equipments (PCRs, DNA-Sequencer, Ultracentrifuge, HPLC, GC, HPTLC, ICPMS, Flowcytometers, RIA-Scintillating counter, NMR, Confocal microscopy & Tissue culture facilities to carryout Genomics, Proteomics, Chromatography, Spectroscopy, Cell biology, Cell enumeration and immunology research.

(ii) Clinical trials division with State- of - art- infrastructure as per international and DCGI norms which is a FDA audited and DCGI-Registered facility.

(iii) An Epidemiology division to carry out any population research having all investigational, counseling and guidance and clinical management infrastructure.

(iv) Centre for Toxicology and Developmental Research (CEFT) established in 15000 sq. ft building as a fully air-conditioned, 70:30 an exchange HEPA-filter small animal facility for pre-clinical toxicology and developmental Research for the entire university. It is CPCEA approved – GLP-pre audited facility awaiting GLP-accreditation shortly.

(v) Herbal Garden to facilitate research on Indian medicinal plants.

(vi) Central clinical laboratory to provide investigational support for clinical research projects and clinical trials.

(b) Strengthening of departmental facilities:

Almost all departments of the university are provided equipment and infrastructure to carryout UG/ PG/ PhD research and to conduct sponsored projects from funding agencies. Project specific sophisticated equipment support is made available through the above CRF and CEFT.

(c) Strategies to meet the needs of researchers in emerging disciplines:

A three prolonged approach is made to meet such needs:

(i) Securing the award of eleven centres of Excellence in Research from International and National agencies.

(ii) Establishing eleven SRU Centres of Research in emerging disciplines under the theme – 'focused areas of research'

(iii) Principal Investigator initiated major research projects from funding agencies along with grants for equipment which are research area specific.

(Details of the above are furnished under 3.3.2)

**3.3.2    Does the institution have an Advanced Central Research facility? If yes, have the facilities been made available to research scholars? What is the funding allocated to the facility?**

Yes.    A Central Research Facility with sophisticated facilities has been established with Rs 30 crore by SRU with a plinth area of 25,000 sq. ft in an exclusive area of the University.    It has a Sophisticated Instrumentation Laboratory, clinical research/clinical trials unit, epidemiology division, Project development/analysis and documentation unit; Herbal & Indian Systems of medicine research Laboratory and Tissue Engineering & Stem cell laboratory. The Sophisticated instrumentation centre houses the high end equipments, walk in cold room (+4 °C), walk in incubator (+37 °C) cryo-preservation unit (-80 °C & -146 °C ), deep freezers, digital library, university industry liaison centre with the IPR / patents cell and an administrative office, certified central animal house of this unit is situated as a separate block as an asset for this facility.    All these facilities are available to students / PhD scholars and scientists.

| Centralised Facilities | | |
|---|---|---|
| S. No | Categories | Status |
| 1 | Central Research Facility (CRF) established in 2007 | Fully functional Since 2009 |

| 2 | Epidemiology Research Division | Recognized by DST as PURSE –HIS Centre for endovascular diseases in 2009: <br> II Phase of PURSE – HIS centre launched in 2012 |
|---|---|---|
| 3 | Clinical Research Division | Recognized by PFIZER as Preferred Clinical Research Centre from 2009 <br> US-FDA audited clinical trial facility since 2012 |
| 4 | Sophisticated Instrumentation Laboratory | Caters to SRMC & RI and other universities, Faculties and industries since 2009 |
| 5 | A single window – automated Research administration division | Novel methodology yielded increased research funding since 2007 and also increased research outcome |
| 6 | Centre For Toxicology & Experimental Research (CEFT) | COPSEA certified small animal research facility since 2009; <br> Applied for GLP accreditation in 2012; Pre audited in 2013. Awaits final audit in the beginning of 2013. |

| Sri Ramachandra University  - Centers of Research <br> fully supported by the University | | |
|---|---|---|
| | Categories | Current Status |
| | Centre for Indian systems of Medicine Quality Assurance & standardization | 08.10.2011 (BoM) launched in 2012 |
| | Centre for life style diseases & prevention | 08.10.2011 (BoM) ; <br> launched in 2012 |
| | Centre for Regenerative Medicine & Stem cell Research | 08.10.2011 (BoM); launched in 2012 |
| | Centre for Biomedical Nanotechnology. | 08.10.2011 (BoM); Launched in 2012 |
| | Centre for Pre-clinical Toxicology & Translational Research | 08.10.2011 (BoM); launched in 2012 |
| | Centre for sports & Exercise Sciences | 08.10.2011 (BoM); launched in 2012 |
| | Centre for Health Professions Education & Faculty Development | 08.10.2011 (BoM); launched in 2012 |

| | | |
|---|---|---|
| | Centre for Global collaboration | 08.10.2011 (BoM); launched in 2012 |
| | Centre for Healthcare quality & Patients safety | 08.10.2011 (BoM); launched in 2012 |
| | Perinatal Centre of Excellence | 08.10.2011 (BoM); launched in 2012 |
| | Sri Ramachandra Centre for International Patient Care Services | Functioning since 2007 |

While the creation and maintenance of these Central facilities are fully supported by the University management, Projects based research in these facilities are supported national and international by grants obtained from various funding agencies like WHO, Fogarty, NIH, ICMR, DST, DBT, DRDO, CSIR, MOEF, MOES, DAE, BNRS, etc.,

**3.3.3 Does the institution have a Drug Information Centre to cater to the needs of researchers? If yes, provide details of the facility.**

Yes; situated in the Medical College Block. Assistance to clinicians is given by a team of faculty and students from the Department of Pharmacy Practice, Faculty of Pharmacy. In addition there is also a clinical research pharmacist in the clinical trial division of Central Research Facility who monitors the use of clinical trial based drugs.

**3.3.4 Does the institution provide residential facilities (with computer and internet facilities) for research scholars, post-doctoral fellows, research associates, summer fellows of various academies and visiting scientists (national/international)?**

Yes. The computer with internet facilities at university guest houses and Hostels (Men and Women) are available for the research scholars, post-doctoral fellows, research associates, summer fellows of various academies and visiting scientists.

**3.3.5 Does the institution have centres of national and international recognition / repute? Give a brief description of how these facilities are made use of by researchers from other laboratories.**

| RESEARCH CENTERS RECOGNIZED BY INTERNATIONAL / NATIONAL AGENCIES | | USE BY RESEARCHERS FROM OTHER LABS |
|---|---|---|
| Categories | Status | |
| WHO Collaborating centre for Research & Training in Occupational & Environmental Health Since 2005 | Continuance of award for additional five years from 2011 | National Institutes, industries & Pollution control Boards use the facilities |
| ICMR – Centre for Advanced Research on Indoor air pollution | Awarded for 5 years since 2010 | Foreign universities, Fogarty fellows & PhD scholars utilize the centre |

| Technology Business Incubator of Dept. of Sciences & Technology, Govt. of India | Awarded for 5 years since 2011 | Industry incubatees utilize the centre |
|---|---|---|
| "Biodosimetry Centre" of AERB, Govt. of India since 2008 | Renewed for another three years in 2011 | DRDO Laboratories and Hospital Radiation Safety teams |
| DSIR & SIRO certification by Dept. of Science & Technology, Govt. of India since 2008 | Renewed for another three years in 2011 | Industry collaborators of R & D projects |
| MCI – Nodal / Regional Centre for Basic & Advanced courses in Medical Education technologies | Regional centre in 2009 Elevated as Nodal centre in 2011 | Faculty members of 46 medical colleges |
| Govt. of Tamil Nadu approved Centre for "Prenatal Genetic Testing" 2009-2014 | Since 1999; renewed every three years (to date) | Patients and PGs/PhDs conducting research |
| US – FDA Audited ICMR – Registered Clinical Trial Unit | US-FDA audited as clinical trial unit from 2012 | Pharma Industries |
| PFIZER'S - "Preferred Clinical Research Center" | Recognized since 2009 | GCP training for clinical researchers |
| CITI-University of Miami – SRU Centre for Research Ethics Education | Recognized since 2009 for India, Sri Lanka and Nepal | Research Ethics Education and Certification of PhDs and Clinical researchers |
| DST-PURSE-HIS-Population Research Centre | Since 2009; Renewed for three years up to 2015 | PhD research Centre and Life Style disease Study & Prevention Centre |

### 3.3.6   Clinical trials and research

∗ **Are all the clinical trials registered with CTRI (Clinical Trials Research of India)?**

Yes.   As per Government of India Regulations (Amendments dated 13th February, 2013, the IEC of SRU is registered with DCGI. The Registration number is ECR/203/inst./TN/2013 dated 20.04.13.  Further all clinical trials are registered with the ICMR - Clinical Trials Research Registry.

∗ **List a few major clinical trials conducted with their outcomes:**

Over 33 trials have been conducted from 2009- 2013 listed below

| Year | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| No. of Trials | 10 | 4 | 7 | 9 | 3 |

A sample of the details for the trials in 2013 is given below

| S. No | Title of the R & D project | Name of the Project Leader | Name of the agency | Year in which started & duration | Total (Rs. in Lakhs) |
|---|---|---|---|---|---|
| 1. | Protocol: EGF114299: A Phase III trial to compare the safety and efficacy of lapatinib plus trastuzumab plus an aromatase inhibitor (AI) versus trastuzumab plus an AI versus lapatinib plus an AI as first-line therapy in postmenopausal subjects with hormone receptor positive, HER2-positive metastatic breast cancer (MBC) who have received trastuzumab and endocrine therapy in the neo/adjuvant setting | Dr.Anita Ramesh Medical Oncology | GSK Pharmaceuticals | 2013 | 1.05 |
| 2. | Protocol No: RI-01-002 "A Randomized, Multi – centre, Double- blind, Parallel Group Study to Compare the Pharmacokinetics, Pharmacodynamics, safety and Efficacy of Two Anti- CD20 Monoclonal Antibodies in Combination with | Dr.Anita Ramesh Medical Oncology | Dr. Reddys lab | 2013 | 2.08 |

| | | | | | |
|---|---|---|---|---|---|
| | CHOP in Patients with CD20 – +ve Diffuse Large B-Cell Lymphoma". | | | | |
| 3. | An 8 week, Placebo-controlled, Double-Blind, Randomised, fixed- Dose Efficacy and Safety Trial of Asenapine in Adolescent Subjects with schizophrenia (Phase 3b Protocol No: P05896) | Dr. Sathianathan Psychiatry | Schering-Plough Research Institute | 2013 | 2.08 |

The outcome of these trials has been international validation of the trial drugs which have helped in most of them getting approved for manufacture.

## 3.4　　Research Publications and Awards

### 3.4.1　　Does the institution publish any research journal(s)? If yes, indicate the composition of the editorial board, editorial policies and state whether it / they is / are listed in any international database.

Yes, the University publishes a bi-annual journal, "Sri Ramachandra Journal of Medicine" ISSN 0973-9939 and Sri Ramachandra Journal of Nursing. The former is listed in Google Scholar and Index Copernicus. Composition of editorial board, editorial policies and indexing details mentioned in appendix 3.4.1.

### 3.4.2　　Give details of publications by the faculty and students:

∗　**Number of papers published in peer reviewed journals (national / international)**

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2008-12 |
|---|---|---|---|---|---|---|
| Number of publications | 240 | 266 | 350 | 382 | 459 | 1697 |
| Number of the Journals | 53 | 160 | 214 | 241 | 256 | 924 |

∗　**Monographs:** 129

∗　**Chapters in Books:** 93

∗　**Books edited:** 25

∗　**Books with ISBN with details of publishers:** 111 Nos

∗　**Number listed in International Database (For *e.g*. Web of Science, Scopus, Humanities International Complete, EBSCO host, Google Scholar, etc.*)*

Number of Publications - (2008 – 2012)



Publications Trend- (2008 – 2012)
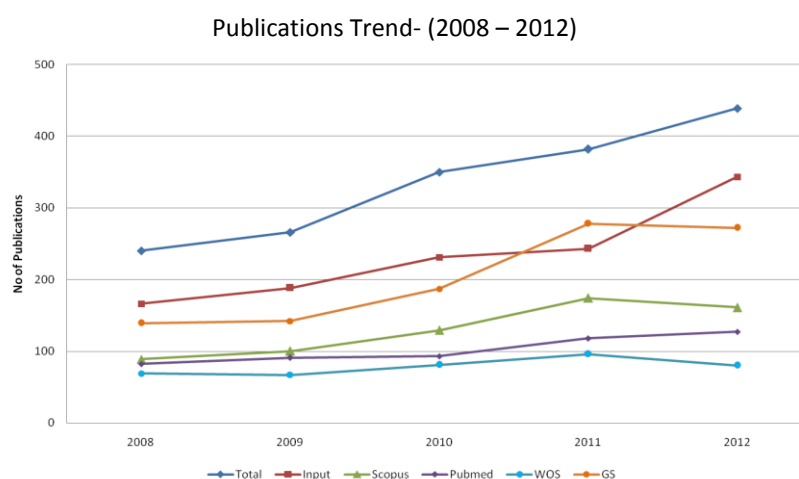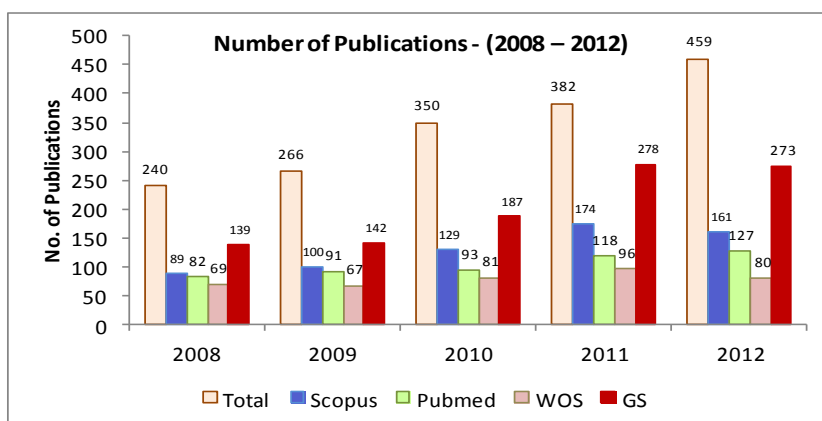
### Total vs. Indexed Publication Trend (2008 – 2012)

Indexed Publications are Publications identified by at least any one of the following database like Scopus, WOS, Pub Med and Google Scholar. The graphical representation below graphs shows the year wise distribution of indexed publications out of the total publication of SRU. An analysis reveals that the percentage of indexed publication was 62.5% in 2008; 59.02% in 2009; 63.71% in 2010; 80.63% in 2011 and 64.71% in 2012.

### Publication with GS Vs Indexed Databases (2008 – 2012)
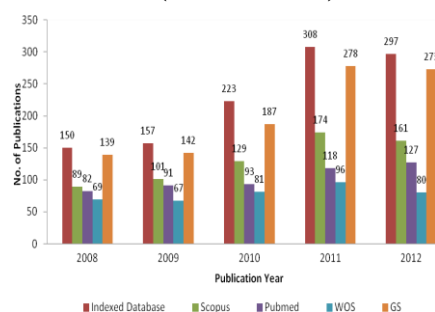
### Total vs. Indexed Publication Trend with Google Scholar (2001 – 2012)
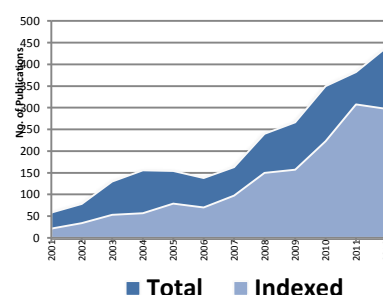
∗ **Citation Index – range / average:** Citation Trend- (2008 – 2012) The total citations received by SRU publications are given in Table 3.4.2. When calculated against the total 1697 publications in last 5 years, the average is (6722/1697) as citation index.

| Overall Citations and h-index | | | |
|---|---|---|---|
| Data bases | No. of Publications | No. of Citations | h-index |
| Scopus | 1068 | 4102 | 28 |
| WOS | 572 | 2375 | 26 |
| Google Scholar | 1544 | 6722 | 41 |



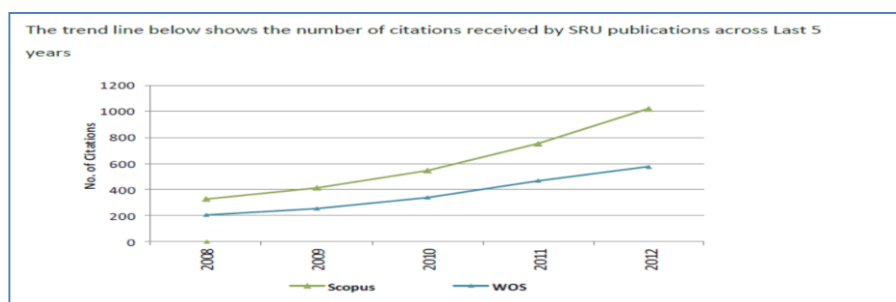The trend line below shows the number of citations received by SRU publications across Last 5 years

∗ **Impact Factor** – range / average: 0 to 53.84 (average 0.86) for 2008-2012 for all 1697 publications. However, when the 1135 indexed journal publications are analyzed the range is 0.492 to 53.84 with the average of 1.897.

∗ **Source Normalized Impact per Paper** (SNIP): The detailed analysis of SNIP and SJR along with Immediacy Index (II), Cited Half Life (CHL) are provided in the appendix on Publication analysis of SRU. In summary, of the 1135 indexed publication as per SCOPUS and Web of Science SNIP ranged from 0.748 to 11.498.

∗ **SCImago Journal Rank** (SJR): Similarly the SJR of the indexed journals ranged from 0.131 to 4.01

∗ **h-index:** The 'h' index of Sri Ramachandra University has improved from 14/12 in Scopus/Web of Science respectively in 2008 to 28 and 26 in 2012. 'h' factor as analyzed by Google Scholar is 41 for Sri Ramachandra University for the year 2012. The graph below depicts the year - wise breakup of h-factor.

Year wise h-index for Scopus and WOS
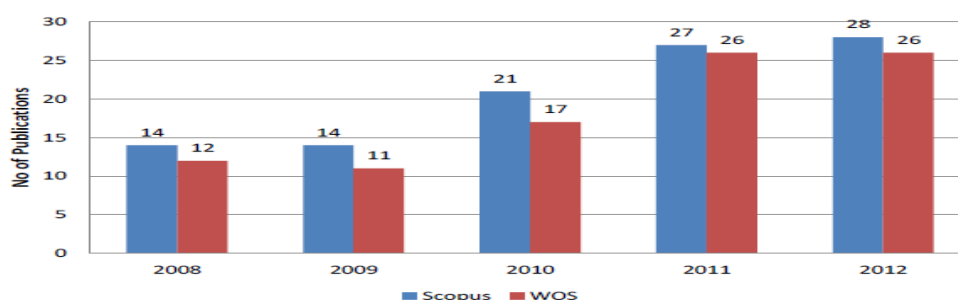


### 3.4.3 Does the institution publish any reports/compilations/clinical round-ups as a part of clinical research to enrich knowledge, skills and attitudes?

Besides the "Sri Ramachandra Journal of Medicine", a bi-annual print and online journal which carry reviews and research papers from external experts, research article and case reports from Medical and Dental and Health Science colleges of the university.  Other newsletters/ reports/ journals published also enrich the students' knowledge, skills and attitude.  They include:

√ Bridges     √ Nexus    √ Sri Ramachandra Nursing Journal

### 3.4.4 Give details of

∗  **faculty serving on the editorial boards of national and international journals**

| National Journals | 86 |
|---|---|
| International Journals | 46 |

∗  **Faculty serving as members of steering committees of national and international conferences recognized by reputed organizations / societies.**

| Category | Chairman/Member of SRU Conferences etc., | Chairman/Members of other organizations/ societies |
|---|---|---|
| National | 715 | 163 |
| International | 470 | 16 |

### 3.4.5 Provide details for the last four years

∗  **research awards received by the faculty and students**

| *Awards & Recognitions | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|
| *Faculty* | | | | |
| National International Professional bodies | 93 4 | 110 8 | 224 8 | 375 23 |
| *Students* | | | | |
| National | 59 | 53 | 75 | 65 |

| Professional bodies (IPGA) | 20 | 30 | 45 | 50 |
|---|---|---|---|---|

| Details of the prestigious awards | | | |
|---|---|---|---|
| Name of award - National | No. of awardees | Name of award - International | No. of awardees |
| Padma Shri | 2 | Chevalier Award of Government of Italy | 1 |
| Hari Om Ashram | 1 | Boyscast Awardees – | 4 |
| Dr.B.C.Roy National Awardees in Medicine | 4 | Fulbright Awardee – 1 | 1 |

∗ **national and international recognition received by the faculty from reputed professional bodies and agencies**

| Type of award | International | National | numbers |
|---|---|---|---|
| Chevalier Award of Government of Italy | 1 | National Awardees | 47 |
| Honorary Doctorates | 3 | Regional/State level Awardees | 24 |
| International Awardees | 22 | Best Doctor award | 8 |
| FRCP / FRCS | 3 | Best teacher & Life Time Achievement Awardees | 15 |

**3.4.6 Indicate the average number of post graduate and doctoral scholars guided by each faculty during the last four years**.

   i.    Numbers of students guided in PG and Ph D

| S. No | Constituent College / Faculty | Recognized PG guide | PG Students guided in Last 5 years | Recognized PhD Supervisors | PhD Students guided/guiding |
|---|---|---|---|---|---|
| 1. | Medical College | 220 | 398 | 73 | 118 |
| 2. | Dental College | 37 | 129 | 6 | 19 |
| 3. | College of Nursing | 16 | 121 | 2 | 3 |
| 4. | College of Pharmacy | 8 | 209 | 8 | 24 |
| 5. | College of Physiotherapy | 3 | 52 | - | - |

| 6. | College of Biomedical Science, Technology & Research | 11 | 188 | 12 | 44 |
| 7. | College of Allied Health Sciences | 12 | 240 | 6 | 15 |
| 8. | College of Management | 2 | 140 | - | - |

ii. Split – Ph D Programs: <u>No. of Candidates Registered for MD/MS/MDS Integrated Ph D.</u> [for the years 2008 to 2012]

| S. No | Faculty of | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
| | | FT | FT | FT | FT | FT | |
| 1. | Medicine | 4 | 2 | 2- | 3 | 5 | 16 |
| 2. | Dentistry | - | 3 | 3 | 2- | - | 8 |
| | Total | 4 | 5 | 5 | 5 | 5 | 24 |

**3.4.7   What is the official policy of the institution to check malpractices and plagiarism in research?   Mention the number of plagiarism cases reported and action taken.**

The University has a Publication oversight committee which screens manuscripts with plagiarism detection software available at check for plagiarism.  No plagiarism cases reported to university after installation anti-plagiarism software <checkforplagiarism.net>.  During software screening all similar scientific phrases are identified by POC members and revisions are made by the submitting author.

| Year | No. of Manuscripts Received | Approved | Not Approved |
| 2011 | 23 | 22 | 1 |
| 2012 | 167 | 151 | 16 |
| 2013 | 197 | 193 | 4 |
| Total | 387 | 366 (94.57%) | 21 (5.43%) |

**3.4.8   Does the institution promote multi / interdisciplinary research? If yes, how many such research projects have been undertaken and mention the number of departments involved in such endeavors?**

Thirty two departments collaborate internally with other departments and with outside institutions to produce research that are important and recognized as pioneering contributions to science.

**3.4.9   Has the university instituted any research awards? If yes, list the awards.**

Top 20 publications selected based on indices of journal and article quality are awarded with merit certificates since 2011. Details of awards are given in appendix 3.4.9.

**3.4.10 What are the incentives given to the faculty and students for receiving state, national and international recognition for research contributions?**

Faculty achievements are appreciated through Institutional Chancellor service awards and consideration during promotion and other institutional honors.

**3.4.11 Give details of the postgraduate and research guides of the institution during the last four years.**

The detailed faculty –wise distribution of guidance in the constituent faculties is given in the table in 3.4.6

**3.5 Consultancy**

**3.5.1 What is the official policy of the institution for structured consultancy? List a few important consultancies undertaken by the university during the last four years.**

The University has developed and implemented the "Consultancy Rules" as approved by the Board of Management dated 8.10.2011 (Copy of the University Consultancy Rules provided in appendix 3.5.1). Faculty members of various medical departments, basic sciences departments and Central Research Facilities carry out consultancies based on their expertise. The consultancies carried out during 2009- 2013 are 749 projects and services which resulted in resource generation of Rs. 254.11 Lakhs. The breakup of the involved agencies, departments / units is given below:

∗ Consultancy for Pharmaceutical companies: Newron S.P.A / CliniRx Research Pvt. Ltd., Life Care Innovations Pvt Ltd, M/s. Theraclion, M/s. Roxaane Research Ltd, Panacea Biotec Ltd, Piramal Life sciences Ltd, AstraZeneca, Max Neeman, GVK Biosciences, STEMPEUTICS, Asian Clinical Trials, BRISTOL MYERS SQUIBB India Private Limited, SUVEN/ Asian Clinical Trials, GSK Pharmaceuticals, Boehringer Ingelheim India Pvt Ltd, Reliance Clinical Research Services.

| S. No. | Name of Departments/ Laboratories | No. of Projects | Resource generated (Rs.) |
|---|---|---|---|
| 1. | Environmental Health Engineering | 25 | 1,59,30,679.25 |
| 2. | Centre for Toxicology & Development Research | 120 | 36,21,869.00 |
| 3. | Central Research Facility – Sophisticated Instrumentation Lab- research investigation services | 394 | 25,72,218.24 |
| 4. | Herbal & Indian Medicine Research Laboratory | 128 | 13,20,893.50 |
| 5. | Biomedical Research Cell | 1 | 6,49,080.00 |

| 6. | Anatomy | 4 | 4,20,000.00 |
|---|---|---|---|
| 7. | Biotechnology | 10 | 3,25,607.00 |
| 8. | Pharmacognacy | 11 | 1,46,264.50 |
| 9. | Tissue Engineering Laboratory | 7 | 1,30,691.00 |
| 10. | General Medicine | 7 | 1,27,000.00 |
| 11. | Oral Medicine | 5 | 63,400.00 |
| 12. | Medicinal Chemistry | 9 | 60,693.00 |
| 13. | Oral Pathology | 3 | 28,500.00 |
| 14. | Pharmaceutical Chemistry | 11 | 11,195.00 |
| 15. | Surgical Nursing | 12 | 2,000.00 |
| 16. | Herbal Garden | 2 | 467.00 |
| Total | | 749 | 2,54,10,557.49 |

∗ Health care services are not included in this analysis

**3.5.2 Does the institution have a university-industry cell? If yes, what is its scope and range of activities?**

Yes, the University-Industry Interaction Centre (UIIC) is housed in the Central Research Facility along with the IPR Cell. It is coordinated by Dean (Research) with necessary infrastructure and IPR consultant to assist in IPR related matters. The list of Industry sponsored projects and patents awarded / filed are provided in 3.2.5 and 3.2.4 respectively.

**3.5.3 What is the mode of publicizing the expertise of the institution for consultancy services? Which are the departments from whom consultancy has been sought?**

The information on available expertise is publicized through SRU website, workshops, Industry-Academia Seminars, R & D projects of funding agencies participation in conference as resource person and personal communication. Details of departments / centres of Sri Ramachandra University involved in consultancy work are enumerated in 3.5.1.

**3.5.4 How does the institution utilize the expertise of its faculty with regard to consultancy services?**

The Central Research Facility (CRF), Centre for Toxicology and Developmental Research (CEFT) and Sri Ramachandra Medical Centre act as nodal centres to identify experts/consultants to the needy industries institutions and individuals.

The major areas are:
   a. R & D projects
   b. Validation & Standardization of products
   c. Toxicology & Safety studies
   d. Clinical trials and
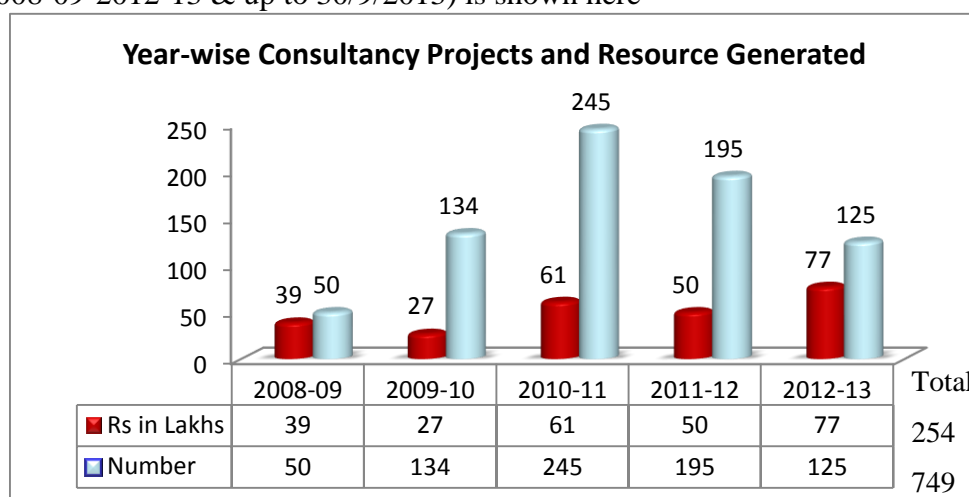   e. Secondary & tertiary healthcare consultancies.

**3.5.5 Give details regarding the consultancy services provided by the institution for secondary and tertiary health care centers and medical / dental practitioners.**

Sri Ramachandra Medical Centre and Sri Ramachandra Dental Hospital provide consultancies as referral services for training medical / dental practitioners as well as for secondary and tertiary healthcare for referred cases. The graph below provides details about such services.

**3.5.6 List the broad areas of consultancy services provided by the university and the revenue generated during the last four years.**

Broad areas of research consultancies include - Population based studies for risk factors; tissue engineering; detection of human viruses and pathogen; surveillance of antibiotic resistance among human bacterial pathogen; standardization and validation of herbal formulations; air quality and health assessments besides clinical trials for drugs and vaccines

Year - wise breakup of Consultancy projects *vis-à-vis* Resource generated (2008-09-2012-13 & up to 30/9/2013) is shown here

**Year-wise Consultancy Projects and Resource Generated**

| | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | Total |
|---|---|---|---|---|---|---|
| ■ Rs in Lakhs | 39 | 27 | 61 | 50 | 77 | 254 |
| □ Number | 50 | 134 | 245 | 195 | 125 | 749 |

**3.6 Extension Activities and Institutional Social Responsibility (ISR)**

**3.6.1 How does the institution sensitize its faculty and students on its Institutional Social Responsibilities? List the social outreach programs which have created an impact on students' campus experience during the last four years.**

Faculty and students are encouraged to participate in collaboration with other organizations in carrying out social outreach programs. Information regarding these programs is disseminated through notices and Heads of Departments. Institute appreciates the services provided by students and faculty by considering their working for such activities as on duty.

Most courses have extension program incorporated as part of the field practices at Primary Health Centres (PHC), Urban Health Centres (UHC) and Rural Health training Centres (RHTC). These are utilized as training program for the postgraduates who are posted regularly at these centres and are included in their academic curriculum. Interns are also posted on rotational basis in health centres as a part of rural and urban health postings for Compulsory Rotatory Residential Internship. Undergraduate and postgraduates students of

MBBS / BDS, Nursing, Physiotherapy & Allied Health Sciences, are taken for field work in the community as a part of their training.

Some of the salient contributions of SRU to institutional social responsibilities (ISR) include:

i.   <u>Serving public through PHCs</u>:

a.   NRHM: Providing specialty services to the patients attending the Primary Health Centers with the approval of State Government of Tamil Nadu *vide* G.O.No.913, Health & Family Welfare Department dated 31.07.2008.  One of the major highlights is provision of field services at Nemam and Mugaliwakkam Primary Health Centres, Chennai coordinated by Department of Community Medicine from 2008 onwards which includes daily out-patient and other specialty's services on specific days of the week days.  Assistant professors and Postgraduates participate in providing these services.  The graphical presentation of the community service under this program is presented in 3.6.12.

b.   During the year 2012, a dedicated Rural Health Centre has been established by SRU in Vayalanallur village providing both outpatient and inpatient services, besides training for medical, dental and nursing students.

ii.  <u>Participation in Government recognized health care programs</u>: Faculty, staff and students participate regularly in various health care programs, flood relief, disease outbreaks and disaster management that include:

a.   *'Varumun Kappom Thittam'* a Government of Tamil Nadu initiative stressing on preventive strategies in health maintenance from 2008 to 2011.

b.   Participation in the Government of Tamil Nadu sponsored Health Insurance Scheme to provide tertiary care services including hi-tech, expensive operations for Below Poverty Line (BPL) population.

c.   Screening and treatment camps for various conditions are also provided within SRU or at PHCs in outside either on a weekly, monthly or specialty basis as shown below:

| | |
|---|---|
| • Pulse polio Program | • Cancer screening Programs |
| • Cardio - diabetic camps | • Urogynaecology and infertility screening |
| • World Heart Day camps | |
| • School health camps | • Blood donation camps |
| • Mental Health camps | • Hearing Loss camps |
| • Asthma detection camps | • Speech screening camps |
| • Dermatology screening camps | • Hepatitis B and C serological markers by medical Gastroenterology Department |
| • Ophthalmology (DBCS Program); Eye disorders | |
| • Leprosy clinics | • Immunization camps |
| • Oral hygiene and Dental camps | • NPV Ramaswamy multi-specialty |

| | |
|---|---|
| • Cleft- Lip Palate diagnostic and therapy camps; Bhutan Cleft Care program;<br>• Assessment and distribution of hearing aids<br>• Fitness Evaluation, toning and shaping abdominal muscles services | camps<br>• Neck and low - back pain camps<br>• Revised National Tuberculosis Control Program (RNTCP)<br>• Integrated Child Development Scheme (ICDS) |

iii.    Training programs: These are routinely conducted at SRU or peripheral locations. Training for Basic Life Support; training Medical officers in certification for cause of death in collaboration with Directorate of Public Health and Preventive Medicine, Chennai; Village Health nurses and Anganwadi Health workers for Cleft- Lip, Palate conditions; in - service education to Basic Health Workers on antenatal care Noise awareness for special educators; NGOs; Voice – Care program for teachers.

A notable event was '*CEMEx 2011* – Chennai Emergency Management Exercise with focus on humanitarian and medical response - a disaster management drill that the University took an active part in organizing, in collaboration with the UN Disaster Management Team, National Disaster Management Authority, Government of India and the Government of Tamil Nadu from 4th to 8th August 2011. SRU hosted the 5-day academic program in which about 900 personnel drawn from different areas like doctors, nurses, paramedics, police & fire service personnel, NGOs and school teachers were trained by a team of UN experts on disaster management in the campus. This was followed by a simulated disaster scenario and rescue drill in the center of Chennai city in which SRU Emergency Department received more than 70 casualties from the simulated disaster scene.

iv.    Awareness programs: SRU and its various faculties routinely conduct these programs at camps or in the departments during -

World TB day; World Asthma Day; World No Tobacco Day; World Health day; World Heart day; World Mental – Health day; COPD day; Deep Vein Thrombosis awareness program; Women's Day and health; World Breast Feeding day; Nutrition week; Children's Day and health; noise awareness; AIDS awareness program; Eye donation and Optometry Day (OCULUS); Dengue Awareness; Cancer Awareness; Health education on 'environment and health'; Pulse Polio, Oral Hygiene Day; World Kidney Day.

Environmental Health Engineering Department spearheads community awareness on Pollution, Environmental and Occupational Health Impact of indoor air pollution by services of projects and programs. PHC visits and anganwadi visits have been organized for MPH

students for Implementation of Integrated Child Development Scheme (ICDS) and to understand the Immunization process at the field level and counseling aspects in terms of family planning at the field level. MPH students visit the Gremaltes (Leprosy Hospital) to understand the Implementation of National Leprosy Eradication Program and Revised National Tuberculosis Control Program (RNTCP). A visit was organized to National Malaria Research Institute to study the Implementation of Anti-Malaria Program. MPH students visited the Vector Control and Research Center Pondicherry to analyze and understand the implementation of National Vector Control Program in India.

The M. Pharm (Pharmacy Practice), Pharm D IV year and the Pharm D (Post Baccalaureate) students are posted in the patient counseling area. The faculty and the students of the department have prepared patient education leaflets on common diseases and drugs both in English and vernacular language and distribute them on regular basis for the benefit of the patients.

   v.  <u>Social camps and surveillance</u>: Cleaning the Beach by SLHS department; MPH students have been a part of State Surveillance Unit for the Investigation of Dengue epidemic. Along with the district surveillance unit they investigated the outbreak of dengue in Vellore District.

  vi.  <u>Telemedicine outreach activities</u>: Providing health-related extension services through Information Communication Technology - linked Telemedicine services to institutions in different parts of India and to 65 countries in Africa through the PAN-African e-network scheme of the Government of India.

**3.6.2 How does the institution promote university-neighborhood network and student engagement, contributing to the holistic development of students and sustained community development?**

The university-neighborhood network and student engagement is promoted by the university through the following stages.

   a.  Curricular components of community services to inculcate the spirit of student participation in all these activities at the field level. Such components are there for all courses both at UG and PG levels of all eight faculties of the university (MBBS/ BDS/ B Sc (N) and others).

   b.  Enrichment of students' sustained involvement in the community healthcare by their participation at the Primary Health Centres at Mugalivakkam and Nemam and the Sri Ramachandra University – Rural Health Centre at Vayalanallur besides the yearlong health camps in several villages in the interiors of Tamilnadu.

   c.  The neighborhood networking is sustained through linkages with health services to Hyundai Motors employees and others.

   d.  Services through mobile healthcare & mobile telemedicine along with students also facilitate engagement.

e.  Sustenance is achieved by successive batches of students.

**3.6.3  How does the institution promote the participation of the students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International programs?**

The university has established NSS in the year 2013 from its own resources and has launched programs on Malnutrition among children, maintenance of hygiene and sanitation in primary health centres and Government hospitals, in partnership with EKAM foundation.  Student bodies of the universities interact with NGOs and CBOs and serve the community.

**3.6.4  Give details of social surveys, research or extension work, if any, undertaken by the institution to ensure social justice and empower the underprivileged and the most vulnerable sections of society?**

Various faculties of the university conduct health related social surveys, extension work and operational research projects resulting in empowering the under privileged and vulnerable sections of Society. They are:

∗   i. *Vidya Sudha: E*arly Intervention Center for children with special needs

*Vidya Sudha*, the early intervention center for children with special needs located in the campus is another impressive facility and has been functioning since 2004.  *Vidya Sudha* is an early intervention holistic program where the team of experts with diverse backgrounds and specialties come together to cater to the overall development of the child with special needs. "Their aim is to help as many children as possible to join the main stream of education by early intervention"

The school currently provides special education, physiotherapy, occupational therapy and counseling sessions for 85 children registered with it. The training is by a specially trained and experienced child educator assisted by a team that includes three Montessori-trained teachers and two occupational therapists.  SRU takes full advantage of the services provided by specialists like Pediatricians, ENT surgeons, Ophthalmologists, Orthopedic surgeons, Speech therapists, clinical psychologists and physiotherapists available in the campus.

ii. *Karthikeyan Child Development Unit* at Sri Ramachandra Medical Centre inaugurated on 22$^{nd}$ September 2010 is a multi - specialty screening clinic.  It aims to mitigate many of the childhood disabilities of which, premature birth, low birth weight, not having normal breathing within ten minutes of birth and being in neo-natal ICU for more than a week are definite indications that the child needs follow up for normal growth. Many times a new born child is saved in the Neo-natal ICU but many residual disabilities are noted as they grow requiring special efforts.  If the problems in the new born child are identified and solved in time it will grow well.   The two participating departments are Department of Pediatrics, SRU and Neonatology.

∗   Research projects and their benefits to community:

i) The communities that participated in the interventional research projects on indoor air pollution from cook stoves conducted by the Department of

EHE have benefitted by receiving the improved technologies (e.g., improved cook stove) with the support of ICMR grants.

ii) An ICMR research project on Telemedicine by the Department Speech, Language, Hearing and Sciences aims to compare two models of newborn hearing screening *viz.*, face to face method versus tele-testing method. Over 3000 babies born in 52 villages in two blocks, Thirukazhukundram and Madhuranthagam blocks of Kanchipuram District in Tamil Nadu were being screened for hearing by village health workers. Until December 2012, 3000 babies were screened and 11 children with hearing loss have been identified through this project. It has also trained health workers to identify and detect disabilities at the grass root level for early intervention.

iii) Transforming Faces Worldwide Project (TFW): This is a community based project established in 2005, through which services are provided in the remote villages in the Thiruvannamalai and Cuddalore districts in Tamilnadu. Through this project community based workers were identified from the villages and training about Cleft Lip & Palate and its effects was provided. These trained workers play a role in sensitizing the community about the condition and treatment options. Till date more than 300 individuals with cleft, lip and or palate have been identified and surgical correction and intervention has been provided (free-of cost under the SMILE train initiative). Community workers have been trained to provide speech correction services at the door step of the patient and closely monitored by Speech pathologists at SRU.

iv) TFW - SRU project which has ensured that 3000 individuals from Thiruvanamalai receive comprehensive (surgery, health care education related to cleft, speech and dental screenings, and dental care, speech services at their doorstep, orthodontic care). Such a community based project is unique. An 'Empower App' software was developed as a mobile applications through the 'Spark the Rise award' and used in the above projects.

v) The PURSE-HIS multidisciplinary project of Department of Cardiology with the participation of Genetics, Dental Sciences, Environmental Health Engineering etc., as cohort study of 8100 subjects from rural, urban and semi urban areas is analyzing the risk factors of Endovascular diseases including diabetes, Hypertension etc., and provides necessary management through a major grant from DST, Govt. of India.

* Community service through media and camps:
  ✓ Institution encourages its faculty from various departments to participate in television and radio programs and participate in question and answer session by which, the general public is able to clarify their doubts.
  ✓ A community service project funded by Tamil Nadu State Council for Science & Technology "Prevalence of periodontitis in Tamil Nadu rural areas" by the Department of Periodontics is carried out. The department of public health dentistry has satellite centers in Ram

colony, Mugalivakkam, Nemam where they treat the patients and this hands - on experience is useful for sustained community development.

✓ The Department of Community Health Nursing has adopted Soornacherry, Nemmam, AnaiKattu Cherry and Vayalanallur rural health center and also urban Primary health centres (PHC) namely Mugalivakkam Urban health post, Nanganallur, Nootchimedu and Kuthambakkam Awareness Programs for prevention of diseases and promotion of health through Information, Education and Communication (IEC).

✓ Manual on BOHS (Basic Occupational Health Services) published as an outcome of a collaborative work with Tamil Nadu Government Health Services, as part of a WHO program serves as an awareness tool in disease prevention and health promotion.

✓ Participating in Science Education camps at Periyar Science and Technology Centre

These are in addition to the awareness programs conducted by most departments of SRU.

**3.6.5 Does the institution have a mechanism to track the students' involvement in various social movements / activities which promote citizenship roles?**

Mechanism to track the students' involvement in the above activities is by the following built - in methodologies:

i. Attendance monitored curricular participation of students in all above community related activities.

ii. PRODEV (Professional development program) for all students to promote their citizenship role.

iii. NSS activities of the students

iv. Rotational involvement of students in health camps, village adoption projects, health and hygiene related Awareness programs.

v. Students - centric commemoration days round the year like the "Heart Day", "Diabetes day", "Hepatitis Day", Blindness Day", "Environment Day" among others.

vi. Longitudinal mentoring programs of students from their entry to exit by faculty members, which includes motivating students for community health service and citizenship roles.

**3.6.6 How does the institution ensure the involvement of the community in its outreach activities and contribute to community development? Give details of the initiatives of the institution which have encouraged community participation in its activities.**

The involvement of the Community in the University's outreach activities is facilitated by Government bodies, non-governmental agencies, corporate bodies, local village leaderships / community heads etc. A brief of the above is provided in the table below:

| S. | Type of activities | Agencies involved in organization & |
|---|---|---|

| No | | conduction |
|---|---|---|
| 1. | Health Camps | Rasipuram Municipality administration & village leaders<br>Kuruvayur Devasthanam<br>Tirupathy – Tirumala Devasthanam<br>Community heads of Vayalanallur<br>State Govt. camps |
| 2. | Environmental Health Projects | Pollution Control Board of Government of Tamilnadu & NGOs in local sites |
| 3. | PURSE-HIS Project | Corporation of Madras, Revenue officials of Municipalities and village Panchayats along with Ward councilors and people representatives. |
| 4. | TFW & ICMR projects on cleft lip and Hearing of New born | Tiruvannamalai village leaders and other locations like Thirukkalukundram |
| 5. | Public Health Dentistry, Community Nursing, Community Pharmacy, Community Medicine and others. | Appropriate health centres and the community leaders & CBOS. |

Details are provided under 3.6.2 and 3.6.4.

**3.6.7 Give details of awards received by the institution for extension activities and / contributions to social / community development during the last four years.**

| S. No. | Department / Unit which received the award | Name of Award/year | Name of Agency | Purpose of Award |
|---|---|---|---|---|
| 1. | Department of Speech, Language, Hearing and Sciences | Mahindra & Mahindra award 2012 | Mahindra & Mahindra & Co | Developing mobile Apps for Tele-testing new - born for hearing impairment |
| 2. | Department of Environmental Health Engineering | International award, 2010 | Vodafone Americas Foundation wireless innovation project, USA | International award for monitoring and evaluation of improved stoves in TN |

| | | | | & Karnataka |
|---|---|---|---|---|
| 3. | Sri Ramachandra Hospital | Healthcare Excellence Award, 2013 (Tamilnadu) | The Media Group | Patient care and healthcare services |

**3.6.8   What intervention strategies have been adopted by the institution to promote the overall development of students from rural/ tribal backgrounds?**

| S. No. | Development Activities of rural students | Beneficiary group of students |
|---|---|---|
| 1. | Fees waivers and Fees subsidy | Ward-Secretary; Students' Nursing Diploma / Certificate Course |
| 2. | Book Bank facilities | To all BPL students and rural / tribal students |
| 3. | English communication skills through the language laboratory | To all Tamil medium, rural students and their needs |
| 4. | Bridge and Remedial courses | To all slow learners and needy students screened after the initial student - induction orientation programs |
| 5. | Entrepreneurship skills through the E-cell | In partnership with NEN |
| 6. | Women Empowerment programs | Through the SR Centre for Women's Advancement. |
| 7. | Providing Employment in Sri Ramachandra Hospital after necessary training | Nursing, Allied Health Sciences, Management, Ward Secretary Course students |

**3.6.9   What initiatives have been taken by the institution to promote social-justice and good citizenship amongst its students and staff? How have such initiatives reached out to the community?**

The areas of social justice and good citizenship which are promoted by the university are:

| S. No. | Areas | Initiatives | Students / Faculty |
|---|---|---|---|
| 1. | Anti-ragging | By implementation of UGC Regulation on Anti-ragging – resulting in universal comradeship | Both Students & Faculty |
| 2. | Environment protection | By providing an "Ever Green Campus" to all students and programs on Environment and | Both Students & Faculties |

| | | | |
|---|---|---|---|
| | | their conservations | |
| 3. | Women Empowerment and protection of Women rights and privileges | Through the Women Center, well monitored by faculty teams and mentors | Students |
| 4. | Networking of working mothers; child development and breast-feeding practices | Through the Child Development Centre; Provision of "Breast Feeding Centre" for all working women with infants | Staff & Faculty |
| 5. | Provision of knowledge and skills through special modules in the faculty development programs | SRU-Educational Units always include a module on Human rights and Good – citizenship roles in all their Faculty Development programs | Faculty members |
| 6. | Dissemination to community | Rallies and Faculty Walkathons along with students to highlight the themes to the community; Theme – based awareness programs | Faculty & Students |

**3.6.10 How does the institution align itself with the annual themes / programs of WHO / ICMR?**

The institution participates in the annual themes WHO / ICMR etc.

a. Commemoration of events like WHO Day, World AIDS Day, World Kidney Day, Eye Donation Day, Organ Donation Week, Hypertension Week and World Heart Day etc., by health camps and by Rallies, Walkathons and awareness programs.

b. Conduction of both applied and R & D research projects on the periodic themes of WHO/ICMR and other funding agencies.

c. Programs of the WHO Collaborating Centre for Environmental & Occupational Health and the ICMR – Centre for Advanced Research in Indoor-Air Pollution.

**3.6.11 What is the role of the institution in the following extension activities?**

The concerned departments organize several programs annually which are detailed in their evaluative reports. Role of SRU in the following extension activities:

| S. No. | Type of Extension activity | Role of Sri Ramachandra University |
|---|---|---|
| (i) | **Community outreach health programs for prevention, detection, screening, management of diseases and rehabilitation by cost effective interventions**. | Establishing Vayalanallur Rural Health Centre of Sri Ramachandra University and built-in referral provision to Sri Ramachandra University main hospital for free tertiary care. Full participation in the National Rural Health Mission programs and Tamilnadu Governments' Health Insurance schemes Community outreach projects for preventive health for the medical and dental health problems/diseases. Rehabilitative programs by Community Physiotherapy, Community Pharmacy and Accident & emergency Care. |
| (ii) | **Awareness creation regarding potable water supply, sanitation and nutrition** | By NSS programs By outpatient sensitization programs through TV program inpatient / patient relatives waiting areas. By Programs of the clinical Nutrition department of SRU |
| (iii) | **Awareness creation regarding water-borne and air-borne communicable diseases**. | By NSS programs Sensitization programs at the OP block Programs of the department of Environmental Health Engineering in collaboration with Pollution Control Board and Directorate of Public Health, Government of India & Tamilnadu. By Awareness day cum camps by the Department of Gastroenterology |
| (iv) | **Awareness creation regarding non-communicable diseases - cardiovascular diseases, diabetes, cancer, mental health, accident and trauma, etc**. | Cancer Survivors Day by Department of Medical Oncology, Heart Day by Department of Cardiology, Diabetes Day, Disaster Management drills, services by the Department of Accident and Emergency Care and the Care & Support programs for the Elderly by Departments of Neurology and Psychiatry. |
| (v) | **Awareness creation regarding the role of healthy life styles and physical exercise for** | In addition to several awareness program, SRU has established a "Centre for Life Style Diseases and their Prevention" to conduct preventive |

| | promotion of health and prevention of diseases. | and management services, besides research. |
|---|---|---|
| (vi) | **Awareness creation regarding AYUSH Systems of medicines in general and / or any system of medicine in particular.** | Several programs of Seminars / Public lectures / Endowment Lectures on AYUSH systems of Medicines. Conduction of several AYUSH / SIDDHA Systems of Medicine Validation and Standardization projects and their dissemination to public. |
| (vii) | **Complementary and alternative medicine.** | Setting up of Siddha and Ayurveda Clinics in the Sri Ramachandra Hospital to provide clinical support to referred patients. |
| (viii) | **Pharmaco - economic evaluation in drug utilization.** | The Community Pharmacy program of the Faculty of Pharmacy disseminates knowledge in judicial drug utilization. The Pharmacy Practice Program has an inbuilt provision for Drug Information Centre in the hospital to advice on Pharmaco-economic evaluation of drug utilization. The hospital infection control committee of SRU Hospital and the Medical Centre conducts periodic assessment on drug use and contributes for developing antibiotic policy. The Research Pharmacist of Clinical trial division of the university monitors the judicious drug utilization of trial drugs and provides awareness to the study subjects from the community. |
| (ix) | **Participation in national programs like Family Welfare, Mother and Child Welfare, Population Control, Immunization, HIV / AIDS, Blindness control, Malaria, Tuberculosis, School Health, anti - tobacco campaigns, oral health care, etc.** | Various departments of the university participate and implement all these national programs as enumerated above resulting in awareness to people along with health care support and rehabilitation. Special care programs and Maternal, infant and child development is provided by the Centre of Excellence in Prenatal Care and the Child Development Centre. |
| (x) | **Promotion of mental health and prevention** | Drug abuse Day programs and anti tobacco campaign are carried out by |

| | | |
|---|---|---|
| | **of substance abuse**. | Departments of Psychiatry, Oral Pathology and Community Medicine |
| (xi) | **Adoption of population in the geographical area for total health care**. | Several programs of adopting Villages & nearby areas implemented like Tiruvellore District for PURSE-HIS Study Thiruvannamalai, Thirukkalukundram for the TFW – Smile Train project and New born Hearing project of ICMR Cook-Stove project to sensitize community in India to avoid indoor air pollution Vayalanallur as the village adopted for total health care through the SRU – Rural Health Centre |
| (xii) | **Research or extension work to reach out to marginalized populations**. | There are special programs to differently - abled children through "Vidya Sudha" |

**3.6.12. Do the faculty members participate in community health awareness programs?  If yes, give details.**

During the years of reaccreditation (2009-2013 till July 2013) faculty members of SRU participated in 718 community health awareness programs as detailed below:

| Year | 2009 | 2010 | 2011 | 2012 | 2013 (till Sep.) | Total |
|---|---|---|---|---|---|---|
| No. of participating faculty | 36 | 53 | 74 | 209 | 250 | 718 |

Types of camps / outreach / awareness programs include:

✓ Varummun Kappom Thittam camp held every month until 2011

As per the NRHM Scheme, Sri Ramachandra Medical College & Research Institute is contributing to the patient welfare society at Nemam and Muglaivakkam financially and providing specialty services to the patients attending the Primary Health Centers with the approval of State Government of Tamil Nadu *vide* G.O.No.913, Health & Family Welfare Department dated 31.07.2008.  This is a good example of Public – Private Partnership.

<u>Statistics of screening camps (NRHM) from 2008 to 2011</u>
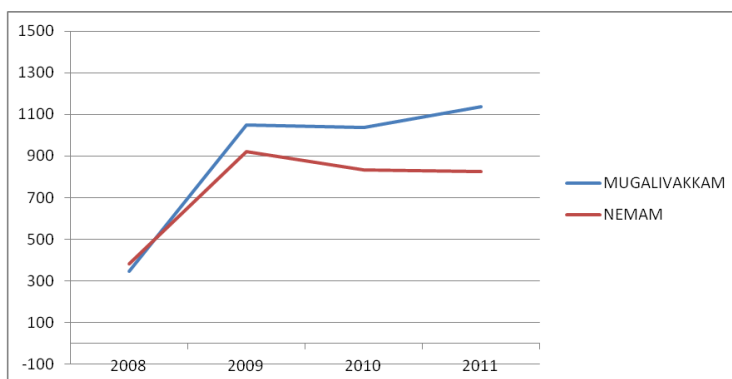
- ✓ Chief Minister's Health Insurance Scheme currently in progress since 2011.
- ✓ Weekly Camps at Tirupathi Tirumala Devasthanam, T. Nagar Chennai, every Sunday.
- ✓ Specialist Camps at Primary Health Centre, Nemam and Mugalivakkam on alternative weeks
- ✓ Participation in Pulse Polio programs
- ✓ Live interactive session with the public in Govt. and private television channels on various disease conditions, their prevention and management.

Table of all camps conducted till Sept# 2013 and the beneficiaries at these camps

| Year | 2008 | 2009 | 2010 | 2011 | 2012 | 2013# | Total |
|---|---|---|---|---|---|---|---|
| No. of camps | 215 | 140 | 143 | 163 | 118 | 23 | 802 |
| No. of Beneficiaries | 38278 | 28953 | 79026 | 58298 | 33559 | 515 | 238629 |

 #To be updated

A break – up of the faculty participating in camps is given below:

| Department / Faculty/ Others | Year | | | | | |
|---|---|---|---|---|---|---|
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
| Accident and Emergency Medicine | 6 | 1 | - | | 1 | 3 |
| Cardiology | 6 | | 3 | | 4 | 4 |
| Chest and TB | - | - | 3 | 2 | 4 | 4 |
| Clinical Nutrition | 5 | 1 | 3 | 5 | 12 | 8 |
| Clinical Psychology | 4 | 2 | | 1 | - | 2 |
| Community Medicine | 2 | | 2 | 3 | 3 | 23 |
| Dermatology | 3 | 1 | 2 | | 1 | 1 |
| ENT | | | | 2 | 5 | 6 |
| General Medicine | | | 2 | | 4 | 4 |
| General Surgery | 3 | | | | 4 | 4 |
| Medical Gastroenterology | | | | | 1 | 1 |
| Nephrology | 2 | | | | 4 | 4 |
| Neurology | | | | | 1 | - |
| Neurosurgery | - | 2 | 4 | | - | - |
| Obstetrics and Gynecology | - | - | 4 | - | 3 | 2 |
| Ophthalmology | 11 | 2 | 4 | 5 | 26 | 26 |
| Orthopedics | 9 | | | 2 | - | - |

| | | | | | | |
|---|---|---|---|---|---|---|
| Pediatric Medicine | 7 | | | 7 | 5 | 5 |
| Pathology | 1 | | | | - | - |
| Physiotherapy | - | 1 | 1 | 3 | 1 | 2 |
| Plastic Surgery | | 5 | | 1 | 4 | 4 |
| Psychiatry | 2 | | | | 1 | - |
| Radiology | 1 | - | 2 | | 3 | 7 |
| Transfusion Medicine | - | - | 7 | 6 | 5 | - |
| Urology | 6 | | | | 2 | 1 |
| Vascular Surgery | 1 | | 1 | | - | - |
| Multidisciplinary | 5 | 1 | 3 | | | 23 |
| Vidya Sudha | | | 2 | | - | - |
| Dental Sciences: | | | | | | |
| Conservative Dentistry and Endodontics, | 4 | | | | 2 | 1 |
| Department of Oral and Maxillofacial Prosthodontics | 1 | | | | | |
| Oral Medicine and Radiology | - | 5 | | | 4 | |
| Orthodontics | 1 | 1 | | | | |
| Oral Pathology | | | | | 1 | 2 |
| Pedodontia and Oral medicine | 3 | | | 1 | | |
| Pedodontics | 2 | | | - | 7 | 1 |
| Pedodontics and Preventive Dentistry | 2 | | | 6 | 1 | |
| Prosthodontics | 1 | | - | 2 | 2 | |
| Public Health Dentistry & Orthodontics | - | 3 | - | 1 | 51 | 48 |
| Faculty of Nursing | 4 | 9 | - | 15 | 16 | 16 |
| Faculty of Pharmacy | - | - | - | 1 | 2 | - |
| Optometry | - | - | 1 | 4 | 3 | 37 |
| Speech, Language and Hearing Sciences | 3 | 2 | 9 | 7 | 24 | 9 |
| Centre for Women's Advancement, SRU | 1 | | | | 2 | 2 |
| Total | 36 | 53 | 74 | 209 | 250 | 718 |

**3.6.13 How does the institution align itself and participate in National program for prevention and control of diseases?**

The university has set its priorities in line with National program for prevention and control of diseases like the NRHM, Tamilnadu Government Schemes, etc. The details are provided in 3.6.1.

**3.7      Collaborations**

**3.7.1 How has the institution's collaboration with other agencies impacted the visibility, identity and diversity of campus activities? To what extent has the university benefitted academically and financially because of collaborations?**

- Several Collaborations with State, National, International universities, institutes and Industries exist besides 52 MoUs with institutions.
- The International Collaboration mentored by Harvard International, USA, resulted in establishment of Medical Education unit, which has

currently evolved into a MCI recognized regional centre (Southern zone) for faculty development. Similar lists of collaborations are presented in the table in 3.5.3; 3.1; 3.2.

- MoU linked collaborations resulted in development of teaching programs, funded collaborative projects, exchange of faculty and students and the in-flow of faculty expertise through visiting Professor scheme.

### 3.7.2    Mention specific examples of how these linkages promote

| | |
|---|---|
| *Curriculum development | Linkages by the departments concerned have been used in several ways to enhance the conduct of courses. Notable among these are: <br> The curriculum of MPH (Master of Public Health) course which is being conducted with support from the International Training and Research on Occupational and Environmental Health (ITROEH) program of the Fogarty International Centre, NIH, USA and additional expert support from GTZ-Centre for International Migration (GTZ-CIM), was designed in collaboration with the University of California (Berkeley). <br> The Four year B.Sc. Sports & Exercise Sciences under Faculty of AHS was developed jointly with University of Cape town, South Africa in 2013. <br> Faculty of Physiotherapy has mutually beneficial agreement with Institute of Therapeutic Sciences, Michigan, USA to conduct program named "Certification in Orthopedic and Traumatology". |
| *Internship | In addition to the routine internship in built in the curricula, health care screening camps, awareness programs, and outreach activities (with the participating collaborators) are routinely used as internship by students and faculty. The notable faculties utilizing these linkages include Medicine, Dental Sciences, Nursing, Pharmacy; AHS, Management and Physiotherapy who participate in internships at several community camps organised. Notable are the NHRM; PHCs and Vayalanallur PHC – supported by Hyundai motors. |
| *On-the-job training | The Pharm D (Post Baccalaureate) interns and the M Pharm (Pharmacy Practice) students are engaged in Unit dose dispensing and Total Parental Nutrition preparation for neonates and pediatric patients, and dose dilution of Cancer chemotherapeutic drugs for the Oncology patients of Sri Ramachandra Medical Center and Hospital. <br> The EHE department has collaborative research |

| | projects with UCB and Berkeley Air Monitoring Group that provide on the job training for international students for Protocol development for air quality<br>M Phil students of Clinical Psychology receive training in Psychometric and Psychological Therapies which are offered to the inmates of "Banyan". |
|---|---|
| *Faculty exchange and development | Notable faculty exchanges with collaborators are:<br>Five fellowship training programs conducted at Yonsei University Health Systems, Seoul, Korea during 2013;<br>Travel fellowships to enhance research technologies has benefited 75 faculties<br>Trainers for the program on "Training of Nurses on HIV/AIDS & ART'' organized by Indian Nursing Council in consultation with NACO, supported by Global fund to fight AIDS, TB & Malaria.<br>Nursing faculty exchange with Wisconsin University, Oshkosh, USA is ongoing feature.<br>Telemedicine services to institutions in different parts of India and to 65 countries in Africa through the PAN-African e-network scheme of the Government of India benefit clinicians and patients. |
| *Research | Over 13 collaborations with national institutes and four international collaborations have resulted in funded research projects across all faculties. Details provided in 3.2.6. |
| *Publication | Joint research publications in high impact factor journals like New England Journal of Medicine have enthused researchers to improve their citations and obtain patents (9 nos). Details provided in 3.3. |
| *Consultancy | Linkages resulted in 749 consultancies during 2009-2013 which resulted in the resource generation of Rs. 254.11 Lakhs. The linkages with Pharma companies, MNCs and Biotech companies have been useful in inculcating professional academic approach (details in 3.5.1). |
| *Extension | Extension activities and awareness camps are a very important linkage for academic and skill based training in all our courses. SRU has developed linkage through participating in Govt. Schemes; national health care screening schemes; national vaccination schemes; NRHM; ICDS etc. The total number of such activities conducted were 802 and 238629 persons benefitted (details in 3.6.12) |
| *Student | Most of the courses are professional programs but the training received during internships and on - the job |

| **placement** | training have helped to develop good linkages with Academic institutions; Pharma and Biotech companies and other health sector units for placement. The details are provided in 5.1.13. |
|---|---|
| **∗Any other (please specify)** | Linkages help ideate and propose new courses; new research programs in nationally relevant areas |

**3.7.3   Has the institution signed any MoUs with institutions of national/ international importance / other universities / industries / corporate houses etc.? If yes, how have they enhanced the research and development activities of the institution?**

Inter-institutional collaboration in the interdisciplinary / multidisciplinary research projects is facilitated by the ongoing large number (52) of MoUs / linkages with universities (31), National institutes (9) and Industries (12), both nationally and internationally.   These collaborations have significantly facilitated curriculum and in faculty development and greatly in collaborative research projects through which funded projects could get granted during the last 5 years (2009-13).  These linkages also improved the quality of teaching-learning process (appendix 3.7.3).

**3.7.4   Have the institution-industry interactions resulted in the establishment / creation of highly specialized laboratories / facilities?**

The university-industry interactions have resulted in the establishment of the following highly specialized laboratories and facilities.

- Central Research Facility with the Sophisticated Instrument laboratory, Clinical trials division and Epidemiology division.
- Tissue Engineering Laboratory
- Herbal and Indian Medicine Research Laboratory
- Centre for Toxicology and Development Research (Central Animal Facility)
- WHO collaborating Centre for Research training in Environmental and occupational Health.

The details of these Central facilities are provided in 3.3.

**3.7.5   Give details of the collaborative activities of the institution with the following:**

While the details are in 3.7.1 and 3.7.2 the summary table is provided below:

| S. No. | Collaborating bodies | Collaborative activities |
|---|---|---|
| 1. | **Local bodies / community** | Community orientation and field level training of students of all faculties as a part of their curricula<br>Participation in the conduct of Health camps and awareness programs<br>Co-ordination with faculty for the conduction of community based Research projects |
| 2. | **State government** | Participation in the NRHM program of |

| | | |
|---|---|---|
| | **/ Central government / NGOs** | Government of India Participation in Tamilnadu Government Insurance Program for BPL families Participation in Health Services projects of Government of Tamilnadu Collaboration with NGOs like NEN, Banyan, PHFI, EKAM foundation and others to carryout skill building for students and faculty in addition to promotion of preventive health activities |
| 3. | **National bodies** | ICMR funded projects on indoor air pollution among others; Dept. of Clinical Psychology organized state level workshop on "Steps of nutrition - lies the emancipation of next generation" and "Nutritional Awareness - A key to nation's health" in association with Food and Nutrition Board, Ministry of Health and Family Welfare, Govt. of Tamilnadu. |
| 4. | **International agencies** | Collaborations are in progress with international agencies like WHO/NIH, Fogarty foundation, Shell foundation, besides several universities resulted in high order research & consultancy outputs as publications and policy guidelines. Healthcare innovations, Service and Training for clinical post graduates and young faculty in international medical centres. E.g. Hyundai project Yonsei University Systems of Korea and Hyundai Motor Chung Mong-Koo Foundation China. |
| 5. | **Health Care Industry – Biomedical, Pharmaceutical, Herbal, Clinical Research Organization (CRO)** | There are 32 clinical trials through collaboration with 31 CROs / Sponsors Healthcare Industry provide significant support for the Medical Centre and the hospital of the university in terms of equipment infrastructure and maintenance support Herbal research is one of the thrust areas of research in SRU with a dedicated centre and funded major R & D projects. |
| 6. | **Service sector** | Collaborations are in vogue in the areas of IT support, ICT support, Pharmacy support, Hospital management support and in community Services |

**3.7.6. Give details of the activities of the institution under public- private partnership.**

a. Public Private Partnership and NRHM Scheme:
   As per the NRHM Scheme, Sri Ramachandra Medical College & Research Institute is contributing to the patient welfare at Nemam and Muglaivakkam financially and providing specialty services to the patients attending the Primary Health Centers with the approval of State Government of Tamil Nadu *vide* G.O.No.913, Health & Family Welfare Department dated 31.07.2008. This is a good example of Public – Private Partnership. Details of beneficiaries are provided under 3.6.12.

b. One of the major highlight is provision of field services at Nemam and Mugaliwakkam Primary Health Centres, Chennai coordinated by Department of Community Medicine from 2008 onwards. As corporate social responsibility, the university also provides Rs. 3 Lakhs per annum for each PHC to be used for purchase of drugs, equipment or infrastructure. Daily Out-patient services are provided. In addition, other specialties also provide services in these health centres on specific days of the week, on regular basis with their Assistant professors and Postgraduates.

c. During the year 2012, a dedicated Rural Health Centre has been established by SRU in Vayalanallur Village providing both outpatient and inpatient services, besides training for medical, dental and nursing students.

d. Telemedicine outreach activities: Providing health-related extension services through Information Communication Technology-linked Telemedicine services to institutions in different parts of India and to 65 countries in Africa through the PAN-African e-network scheme of the Government of India (details in 2.3.17).

*Any other information regarding Research, Consultancy and Extension, which the university would like to include.*

a. Innovations / Good Practices in Research:

- Promotion of research culture among the UG students by Summer Research Fellowships and PG students by a built- in PG projects as part of the curriculum.

- Induction of young faculty into research activity by providing a Research starter Grant in the form of GATE projects paving the way for them to apply to funding agencies with major research proposals.

- University Research Fellowships, called Chancellor Research Fellowships to fulltime Ph D Scholars on merit.

- Institutional Central Research Facilities exclusively by institutional funding to provide cutting – edge research ambience as well as working together collaborative culture among researchers.

- Establishment of University- level "Centres of Research" on focused areas with 75% time - share for research and 25% for value- added diploma / certificate and effective

- Publication quality enhancement strategies through Publication - Oversight Committee, anti-plagiarism screening software for all manuscripts and hosting of all Ph D degree awarded theses on to the "SHODHGANGA" e – repository of INFLIBNET.
- Best Research Publication awards for researchers who publish papers in highest impact factor journals.
- Research publication incentives by reimbursing the publication expenses, besides supporting financially for paper presentation in conferences and seminars.
- Provision of the services of IPR- Cell with an IPR-consultant for encouraging faculty to file patents.

b.  Innovations/ Good Practices in Consultancies:

- University - level consultancy rules as approved by the BoM of the university providing a consultant share of financial benefits from the money earned as per the formula outlined in the rules.
- Profit accrued out of consultancy is also provided to enhance the department level infrastructure and other academic needs.
- User friendly norms and agreement procedures to bring about Industry-academia interactions in teaching, training and collaborative R&D research.

c.  Innovations and Good practices in Extension activities: The following innovations and good practices have been institutionalized.

- Community health services through health camps approach to different parts of Tamil Nadu, besides providing intense public awareness program.
- Contribution to National Rural Health Care Mission by providing preventive and curative health care through the primary health care centers by adopting them, establishing full-fledged SRU- Rural Health Centre at Vayalanallur and through collaboration with community based NGOs.
- Participation in the Govt. of Tamil Nadu sponsored Health Insurance Scheme to provide tertiary care services including hi-tech expensive operations for Below Poverty Line (BPL) population.
- Providing Health related extension services through Information Communication Technology linked Telemedicine services to Institutions in different parts of India, and to 65 countries in South of Africa through the PAN - African e - network scheme of Govt. of India.

# Criterion IV
# Infrastructure and
# Learning Resources

**Criterion IV – Infrastructure and Learning Sources**

| Key Aspects | Approach | Out come |
|---|---|---|
| Physical Facilities | • Expansion of infrastructure | • Total area -148.44 acres<br>• Expansion area: 42,118.71 sq m (2008-13)<br>• Lecture theater - 300 capacity (5), 600 capacity (1) |
| | • Creation of new departments | • 72 departments (7 new departments created from 2008-2013) |
| | • Augmentation of library facilities | • Increase of height of library racks, 32 CCTVs with 4 TV screen to monitor the user's movements, establishment of 252 seated "own books" reading room |
| Clinical / lab learning | • Accreditation | • Accreditation by 14 international and national agencies |
| Library as a learning resource | • Enrichment of library resources | • 40647 book titles, 678 text books in Book bank; UNO-Depository volumes -2579; Competitive examination books: 89; Back volumes: 8580; PG/ PhD Theses: 5080.<br>• Journal: 487 (hard copy), 69694 back issues;<br>• Digital library - 205 e-books & 501 e-journals, 2409 in PROQUEST & 6 databases, CD-ROMs – 2786. |
| | • Increase in library budget | • From Rs. 2.29 crore (2008-2009) to Rs. 4.09 crore (2012-2013), with a total of Rs. 13.98 crore during the last five years.<br>• Student: Book ratio – 1: 80 |
| | • Access of e resources | • With LAN and internet, faculty and students for access e journals through portal <ezproxy.sriramachansdra.edu.in> |
| IT Infrastructure | • Enhancement of IT facilities | • 450 computer systems and 1 GB internet bandwidth for e-resources use; Implementation of IT-policy; Introduction of green computing practices; Wi-Fi facility in hospital, library and auditoria / seminar halls.<br>• Maintenance of equipments and computers budget - Rs. 30.00 crores. |
| | • Access to National Mission on Education through ICT | • Subscription to National Knowledge Network Connectivity in 2011. |
| Maintenance of campus facilities | • Increase in maintenance budget | • Rs. 24.84 crores (2008-2009) to Rs. 48.21 crores (2012-2013);<br>• Biomedical Engineering department |
| | • Maintenance units | • General Manager (Projects) and team for physical infrastructure maintenance. |

### CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 Physical Facilities

Sri Ramachandra University is situated on 148.44 acres of green foliage in semi-urban Chennai.  Currently the campus houses one Medical College and 7 other faculties as listed below

| Faculty | Area in sq m |
|---|---|
| SRMC & RI | 27576 |
| Faculty of Dental Sciences | 20893 |
| Faculty of Pharmacy | 3900 |
| Faculty of Nursing | 4565 |
| Faculty of Biomedical Science | 3251 |
| Faculty of Allied science | 3144 |
| Faculty of Physiotherapy | 2224 |
| Faculty of Management | 7101 |

\# - DO – Door No.

| D.NO  # | Name of the Building | Area in sq m |
|---|---|---|
| 22 | Centre for Toxicology and Developmental Research (CEFT). | 1588 |
|  | Central Research Facility | 2322.6 |
| 57 | Early Intervention Center | 4080 |
| 40 | Generator room & Medical record room | 473 |
| 9,   9A,   41, 41A, 42, 43 | Hostel Building | 46190 |
| 34 | Auditorium | 5745 |
| 31 | Canteen | 8889 |

The table below shows the area of some of the prominent facilities on campus.
All faculties share common infrastructure such as two hospitals, the Sri Ramachandra Hospital (G Block) and Sri Ramachandra Medical Center, several common facilities such as the library, Central Research Facility, academic/conference halls, labs and museums, telemedicine centre etc. The campus also houses hostels, places for spiritual growth, meditation centre, playing fields, gym, cricket ground, running track, canteens, shops, bank, railway booking centre, post office etc.

### 4.1.1 How does the Institution plan and ensure adequate availability of physical infrastructure and ensure its optimal utilization?

The University has always ensured availability of physical infrastructure as specified by different Statutory Councils and efforts are taken to provide additional infrastructure for safe, comfortable and clean facilities for all individuals,　　　students,　　　staff　　　and　　　patients.
To ensure optimum usage several administrating steps such as using well

structured time tables/schedules/ logbooks and auditing of facilities have been established.

Infrastructure is also used for conducting conferences, seminars, workshops, examinations of the National Boards and International boards, indoor sports events, CMEs, Rapid Review Courses for PGs and junior faculty.

✓ The SRH and SRMC serve as primary centers for clinical learning not only for the medical college but also for other courses such as nursing, physiotherapy, speech language and hearing sciences, ETCT, AHS, optometry, clinical psychology, clinical nutrition and others.

✓ The University ensures utilization of the lecture theatres by a well-structured timetable, logbooks, auditing usage of operation theatres, and research laboratories. Research laboratories are open to other departments both for collaborations and for students who wish to use them for their projects.

✓ Defined number of beds is allotted to each unit; however in cases of emergencies it is possible to utilize beds from adjoining units. This mechanism is also applicable to the operation theatres. The medical college facilities, hospitals and laboratories are optimally utilized by all the other constituent faculties like, Nursing, Physiotherapy, Nutrition and Dietetics, Speech, Language and Hearing etc., for their teaching, learning, and training programs. (The details of various activities can be observed during Peer Visit).

**4.1.2 Does the institution have a policy for the creation and enhancement of infrastructure in order to promote a good teaching-learning environment? If yes, mention a few recent initiatives.**

Yes. The following infrastructure have been added to our existing facility at SRU; based on the need, utilization and feedback from the stake holders and experts during 2012-2013.

| Sl. No. | D. No. | Name of the building | Blocks | Floor | Sq m |
|---------|--------|---------------------|--------|-------|------|
| 1 | 20 | Medical College Extension | 1 | G+4 | 3597.60 |
| 2 | 28 | Outpatient Block Expansion | 1 | B+G+5 | 2,735.55 |
| 3 | 29 | Inpatient Block Expansion | 1 | G+6[pt] | 1099.65 |
| 4 | 60 | Attendant Waiting Hall near IP Block | 1 | G | 93.85 |
| 5 | 65 | Sports Medicine and High Performance Center | 1 | G+4 | 1,251.14 |
| 6 | 69 | Staff quarters 2BHK | 1 | G+8 | 6768.46 |
| 7 | 70 | Staff quarters 3BHK | 1 | G+8 | 8488.96 |
| 8 | 71 | Nurses dining | 1 | G | 1,886.2 |
| 9 | 72 | Covered pathway | 1 | G | 591.22 |
| 10 | 73 | Link building between IP and OP | 1 | G+5 | 9620.88 |

| 11 | 74 | RMG Room | 1 | G | 45.11 |
| 12 | 75 | Commercial canteen | 1 | G | 884.48 |
| 13 | 76 | Sump room near gents Hostel | 1 | B+G | 188.10 |
| 14 | 77 | Sump Room near IP Block | 1 | B+G+F | 730.91 |
| 15 | 78 | Covered pathway | 1 | G | 591.78 |
| 16 | 79 | Ladies hostel kitchen | 1 | G+M+2 | 2824.51 |
| 17 | 80 | Sump & pump room near sports medicine | 1 | B+G | 76.08 |
| 18 | 81 | Toilet block | 1 | G | 16.93 |
| 19 | 61 | AC Plant & Substation IV near Dental College | 1 | G.F | 244.57 |
| 20 | 82 | Pooja Shed & amenities | 1 | G | 382.73 |
|  |  |  |  |  | 42,118.71 |

In 2012-13 the following areas have been renovated and expanded.

| Department | Expansion and Renovation |
| --- | --- |
| Arthroscopy and Sports Medicine | Sports Medicine Centre & Bio skills workshop |
| Cardiothoracic | New ICU facility & new consultation suites |
| Microbiology | Renovation of Mycobacteriology laboratory, expansion of virology / molecular biology, expansion of mycology lab with molecular diagnostic facility |
| Neonatalogy | Expansion of Postnatal Ward in G Block & Total renovation of NICU |
| Pediatrics | New Pediatrics consultation area in C2, new Pediatrics intensive care in medical centre in C3, new intensive Pediatric care with ventilator support in G block, expansion of the Pediatrics general ward in G-Block. |
| Pathology | Expansion of Museum with 435 mounted specimens and 500 wet specimens |
| Forensic Medicine | The size of the mortuary block is 500 sq m. with an observation gallery capacity for 125 students. It has three autopsy tables, shadow less lamps, good ventilation, A.C, continuous water supply, concealed drainage, fly proof, backup generator facility, cold room / cooling cabinet [510 sq ft, capacity 6+6 bodies] and autopsy theatre. |

**4.1.3 Has the institution provided all its departments with facilities like office room, common room and separate rest rooms for women students and staff?** Yes. The institution provided facilities for office room, common room, and separate rest rooms for women students and staff.

**4.1.4 How does the institution ensure that the infrastructure facilities are barrier free for providing easy access to college and hospital for the differently-abled persons?**

Lifts / escalators are available in all the University buildings and a ramp facility for the differently - abled students / patients is provided at health centre. Wheel chairs are provided in all areas.

**4.1.5 What special facilities are available on campus to promote students' interest in sports and cultural events/activities?**

Courts for tennis, football, volley ball, basketball, shuttle and cricket are available on campus. In addition running tracks are also available. Full-fledged sports complex with high-performance center is developed for the dept. of Sports medicine which includes indoor courts for all the games, swimming pool, Biokinetics laboratories etc. Fully air conditioned auditoria are available for practicing and conducting cultural events. Gymnasia are also available on campus. There are also facilities for meditation and prayer.

**4.1.6 What measures does the institution take to ensure campus safety and security?**

University has its own security system including security personnel and CCTV at vital areas with 24 hrs monitoring. All the incoming and outgoing vehicles are checked for security and safety purposes. All the vehicles of the faculty and staff are identified by an identification sticker. Fire brigades are also in place to face the unfortunate event of fire in the campus. All authorized personnel, faculty staff and students are given ID badges which they have to wear while on campus. Training in Accident and Emergency, disaster management (CEMEX), annual BLS (Basic Life Support) and ACLS (Advanced Life Support) training is provided by Department of Accident and Emergency Medicine with participation by the fire brigade.

**4.1.7 Facility of Animal House**

∗ **Is animal house maintained as per CPCSEA guidelines?**

Yes. Facility comes under the category of animal bio-safety level II, Certified by CPCSEA, Government of India (reg no: 189/CPCSEA). In view of in-depth research carried out, this facility is called Centre for Toxicology and Developmental Research (CEFT). It has a plinth area of 1,588.07 sq m. This facility is made accessible to the pharmaceutical industries, undergraduate, postgraduate and Ph D students—both medical andpPara- medical.

∗ **Whether records of animal house are maintained for learning and research activities**?

Yes. Eighty two SOPs have been developed and followed. All project reports are maintained with special software. CEFT is currently undergoing GLP accreditation.

∗ **Does the animal house have approval for breeding and selling experimental animals as per CPCSEA guidelines?**

No; Breeding and maintenance are done based on the requirements of the university and R & D projects by acquiring animals from certified agencies.

**4.1.8 Provide the following details on the use of laboratories / museums as learning resources:**

∗ **Number:** There are 8 museums and several laboratories. The museums are listed below and laboratories are described with the infrastructure of individual faculties under any other

| S No | Name of the department | Museum location |
|------|------------------------|-----------------|
| 1 | Microbiology | Medical college second floor |
| 2 | General pathology | Medical college first floor |
| 3 | Anatomy | Medical college ground floor |
| 4 | Forensic medicine | Medical college first floor |
| 5 | Pharmacology | Medical college second floor |
| 6 | Pharmacognosy | Faculty of Pharmacy |
| 7 | Pharmaceutical Chemistry | Faculty of Pharmacy |
| 8 | Pharmaceutics | Faculty of Pharmacy |

∗ **Maintenance and up-gradation:** Yes. Periodic up-gradation of the infrastructure and specimens are carried out.

∗ **Descriptive catalogues in museums:** Available at the individual museums.

∗ **Usage of the above by the UG/PG students:** Yes, the museums are used by undergraduate and post graduate students across courses as needed.

**4.1.9 Dentistry**

The Sri Ramachandra Faculty of Dental Sciences is an independent four-storied building occupying 21245.4 sq m. This houses 9 departments with four skills lab, 5 pre-clinical and 5 clinical laboratories, in-patient facilities that includes one major OT and 2 Minor OT, and separate male and female wards with 6 beds in each.

**Dental chairs in clinic – specialty wise**: A total of 331 dental chairs which are high ended, fully loaded / equipped and ergonomically designed are distributed among the various departments.

| Department | Total |
|------------|-------|
| Oral medicine | 35 |
| Public health dentistry | 17 |
| Pedodontics | 34 |
| Oral and maxillofacial surgery | 43 |
| Periodontics | 39 |
| Conservative dentistry | 68 |
| Prosthodontics | 47 |
| Oral pathology | 06 |
| Orthodontics | 42 |
| **Total Dental Chairs** | 331 |

**Schedule of chair side teaching in clinics – in each specialty**

| Third BDS | 4 hrs / day |
|-----------|-------------|

| Final BDS | 5 hrs / day |
|---|---|
| CRI's | 8 hrs / day |
| PG's | 8 hrs / day |

**Number of procedures in clinics per month and year**

| *Oral medicine & Radiology* | | |
|---|---|---|
| Procedures in clinics | Number per month | Number per year |
| Biopsy | 4 | 44 |
| Exfoliative Cytology /FNAC | 4 | 42 |
| Intra oral Radiograph | 3577 | 41197 |
| Extra oral Radiograph | 225 | 2589 |
| *Public Health Dentistry* | *Services provided in community based camps held* | |
| G Block – OP services | 867 | 9589 |
| In Camps: | | |
| Ram colony camp | 457 | 5318 |
| TTD | 6 | 75 |
| Varumun Kappom Thittam | 26 | 306 |
| Hyundai Corporate Camp | 31 | 371 |
| Neman PHC | 9 | 104 |
| Mugaliwakkam PHC | 10 | 117 |
| Oral Health camps in School | 880 | 10123 |
| *Pedodontics and Preventive Dentistry* | | |
| Scaling and Fl application | 105 | 1257 |
| Restoration | 147 | 1769 |
| Extraction | 64 | 764 |
| SSC | 17 | 206 |
| Pulp therapy | 71 | 847 |
| Appliances | 2 | 23 |
| Space maintainers | 6 | 67 |
| Others | 100 | 1205 |
| *Oral surgery* | | |
| Minor oral surgery | 113 | 1356 |
| Major oral surgery | 24 | 288 |
| *Periodontics* | | |
| Surgical | 850 | 10196 |
| Non-Surgical | 77 | 924 |
| *Prosthodontics and Crown & Bridge* | | |
| Complete denture | 37 | 417 |
| Removable partial denture | 80 | 926 |
| Fixed partial denture | 16 | 180 |
| Maxillo facial prosthesis | 10 | 116 |

| Implants | 5 | 55 |
|---|---|---|
| *Conservative Dentistry and Endodontics* | | |
| Amalgam | 263 | 3159 |
| GIC | 346 | 4146 |
| Anterior RCT | 35 | 424 |
| Posterior RCT | 183 | 2190 |
| Others | 590 | 7083 |
| *Orthodontics& Dentofacial Orthopaedics* | | |
| Fixed appliances | 18 | 212 |
| Removable appliances | 28 | 338 |

∗ **Mobile Dental Care Unit:** Mobile Dental van:
The Mobile Dental Clinic is equipped with the following instruments:

1. Two Dental chairs with Intra oral camera and monitor
2. One compressor
3. Two scaler units
4. Public address system – including a speaker and amplifier
5. Television
6. Audio visual aids
7. One LC unit
8. Instrument for scaling and restorations
9. Hot water sterilizer

In addition there are various portable mobile units, which include

a. Four dental chairs
b. One compressor
c. One suitcase unit
d. Unit with intra-oral camera. The unit has a scaler and air rotor unit

**Facilities for dental and maxillofacial procedures** are provided in detail as appendix 4.1.9. The in-patient facilities includes one major OT and 2 Minor OT, and separate male and female wards with 6 beds in each. Essentially the departments of Orthodontics, Oral pathology, Prosthodontics, Conservative material, and Endodontics, Pedodontics, Oral medicine, and Oral medicine and Radiology, Oralsurgery, Periodontics; and Public Health Dentistry have all the equipment, instruments and requirements for teaching, training, research and advanced dental care more than the statutory requirements.

**Dental laboratories –**details of other clinical laboratories provided in appendix 4.1.9

| S. NO. | Departments | U.G/P.G | Laboratories |
|---|---|---|---|
| 1 | Dept of Orthodontics& Dentofacial Surgery | U.G | Preclinical, Clinical |
| | | P.G | Preclinical, Clinical |
| 2 | Dept of Conservative Dentistry& Endodontics | U.G | Preclinical, Clinical |
| | | P.G | Preclinical, Clinical |
| | | P.G | Ceramic |

| 3 | Dept of Prosthodontics and Crown & Bridge | Preclinical | Plaster lab, dewaxing and curing ,dental lathe room; phantom head lab |
|   |   | Clinical U.G | Dry Lab, Wet Lab |
|   |   | P.G | Dry Lab, Wet Lab, Casting room, Ceramic lab, Phantom head lab, Technician lab |
| 4 | Dept of Oral Pathology& Microbiology | U.G P.G | Reporting room - 5 headed microscope & Image Analysis, Immunohistochemistry lab, Injection OP, Histopathology lab |

**4.1.10 Pharmacy**

The Faculty of Pharmacyis housed in a spacious 3900 sq m, three storey independent building. Adequate lecture halls and tutorial classrooms along with spacious labs for all the specialties namely Pharmaceutics, Pharmaceutical Chemistry, Pharmaceutical Analysis, Pharmacology, Pharmacy Practice and Pharmacognosy are available. Faculty of Pharmacy also has instrumentation lab, machine room, medicinal herbal garden and drug information center.

∗ **Pharmaceutical Science Laboratories:** Yes these are tabulated below

| S.No | Pharmaceutical Science Lab | Numbers | Location in Faculty of Pharmacy |
|------|----------------------------|---------|---------------------------------|
| 1 | Pharmaceutics | U.G-3 P.G-1 | First floor Ground floor |
| 2 | Pharmaceutical Chemistry | U.G-3 P.G-2 | Second floor Second floor |
| 3 | Pharmacognosy | U.G-1 P.G-1 | Third floor Third floor |
| 4 | Pharmacology | U.G-1 P.G-1 | Third floor Third floor |
| 5 | Drug information center | - | Sri Ramachandra Hospital |
| 6 | Computer lab | - | Third floor |

| **Museum for drug formulations** | Yes | 1 |
|----------------------------------|-----|---|
| **Machine room** | Yes | 1 |
| **Herbarium / crude drugmuseum** | Yes | 1 |
| **Balance room** | Yes | 1 |
| **Instrumentation facilities** | Yes | 2 |
| **Pilot plant** | Yes | 1 |

| Chemical store | Yes | 4 |
| Computer aided laboratory | Yes | 1 |

### 4.1.11 Yoga and Naturopathy:

Even though the university does not offer any educational program in Yoga and naturopathy, the following facilities are created and provided to faculty, students, and staff for diet service, walking track, gymnasia and swimming pool. Several research programs on the effects of such treatment modes to alleviate disease conditions are also ongoing by our part time Ph D students. An annual GCIM oration lecture is arranged by the alumni of doctors who had the opportunity to study this system of medicine along with allopathy. In this oration eminent speakers are invited on the topics of traditional medicine and modern methods.

* **Demonstration hall with teaching facility to cater to the needs of the students –** Available for routine teaching
* **Diet Service Management Department -**Yes
* **Yoga cum multipurpose hall for meditation and prayer-** available
* **Solarium compatible for multimedia presentation** - Yes
* **Mud Storage Unit –** not available
* **Outdoor Facilities - Walking track with reflexology segment** - available
* **Swimming Pool -** Available
* **Naturopathy blocks –** Not available

### 4.1.12 Homoeopathy:

* **Museum and demonstration room (Homoeopathic Pharmacy Laboratory, Pathology Laboratory, Community Medicine, Homoeopathic Materia Medica, Organon of Medicine including History of Medicine)**
* **Repertory with Computer Laboratory and Demonstration Room**

The University does not offer any educational programs in Homeopathy and hence these are not developed.

### 4.1.13 Nursing

* **Faculty of Nursing** is housed in a separate four–storied building (5,198.7 Sq m) which houses classrooms, administrative offices, labs, changing rooms for female students and faculty. All the labs are well equipped and equipment are replaced and renewed periodically. The usage, maintenance of the unit, lending and borrowing of equipment by the students are monitored. Students' log book is available to monitor students' performance of activities in the lab. This building houses the five departments of the Faculty of Nursing.

* **Nursing Foundation Laboratory**
  The Nursing foundation laboratory was created in 1994 with 6 cots, 2 mannequins and articles needed for student's learning. This has been expanded to include 14 cots and students' self learning desk was initiated in 2009.In 2012, the following models were added: human heart, liver,

pancreas, duodenum, human torso, human skeleton set- adult, brain with arteries, eye, ear, urogenital system-male / female, lungs (larynx, heart), human torso unisex.

∗ **Medical and Surgical Nursing Laboratory**

This includes an air- conditioned laboratory established with 5 mannequins, 8cots, separate cardio pulmonary resuscitation mannequin, teaching stethoscope, and two students' self learning desks.  From 1998 onwards, articles were equipped in the nursing service ward side, for nursing students to utilize and practice for patient care.

∗ **Community Health Nursing Laboratory**

Community health nursing service started in the year of 1994.  In 2004 a well equipped laboratory was established with a dedicated space for storage of family folders, various teaching learning aids and to accommodate 50 community bags.  In 2009, a computer was installed to computerize the family folders.  Various out-reach programs such as puppet shows, skit for mass health education are practiced in the laboratory.  It has students' self learning desk facility.

∗ **Maternal and Child Health laboratory**

*Child Health Laboratory:*

Originally, this was a part of Maternal and Child Health laboratory.  Since 2009, a separate Pediatric laboratory was created with three cots, two Pediatric mannequins and adequate articles.  Polyvinyl teaching aids, students' self learning desk and indoor play unit according to developmental age is an additional feature.

*Obstetrics and Gynecology Nursing Laboratory:*

Originally, this branch functioned as a Maternal and Child Health laboratory.  Obstetrics and gynecology nursing laboratory was started in the year 2001.  Over time this lab has added electronic driven delivery simulator, newborn resuscitation simulator and three episiotomy simulators and labor table.  In 2008, students' self learning desk was created and laboratory was equipped with various Hi-tech polyvinyl posters for a better teaching learning process.

∗ **Nutrition laboratory**

The Nutrition laboratory was started in 2001.  It has utensils, mixer, grinder and centralized gas supply.  It is used by students during cooking demonstration and knowledge sharing.  Various posters are displayed regarding nutrients for student learning purpose.

∗ **Pre clinical Labs**

These are shared resources with medical college.  In all the labs above, simulators and mannequins are provided for imparting hands –on skills to students before they are sent for clinical ward posting.

∗ **Specimens, Models and Mannequins:**

Each laboratory has been equipped with several numbers of models and mannequins that serve the purpose of effective teaching and is well utilized by students. Details are provided in the specific laboratories.

∗ **Any Other:** *Psychiatric Nursing Laboratory*

The Psychiatric nursing lab is a unique feature of the Faculty of Nursing, which was set up based on the needs assessment. This facility is in excess of that required by the Nursing Council of India. This houses AV aids depicting psychosocial therapies, testing measures and students' self-learning desk.

### 4.1.14 Ayurveda:

∗ **Herbal Gardens:** Even though SRU is not offering educational programs in Ayurveda, there is an herbal garden and herbarium attached to the Faculty of Pharmacy.

∗ **Museum Herbarium:** as above

∗ **Panchakarma Facility:** not applicable

∗ **Eye Exercises Clinic:** Department of Ophthalmology and Physiotherapy provides these facilities

∗ **Kshara Sutra and Agni Karma Setup:** not applicable

∗ **Ayurveda Pharmacy;** not applicable; however the University hospital has an Ayurvedic / Siddha clinic supported by AYUSH for clinical care of needy patient on referral requests.

### 4.1.15 Does the institution have the following facilities? If so, indicate its special features, if any.

∗ **Meditation Hall** : Yes – Founder Chancellor Memorial Monument

∗ **Naturopathy blocks:** Nil

### 4.1.16 Provide details of sophisticated equipment procured during the last four years.

SRU spent Rs 815142735/- on fixed assets for various departments of SRU, up to March2013 while in 2009 March, fixed assets procured was Rs. 703728529/- The important sophisticated equipment purchased include high- end analytical equipment such as:

A sample of purchased equipment for University Departments is shown here:

| Project R& D | |
|---|---|
| EQPLA-637 | Trinocular Inverted Fluorescence Microscope With Optikam 5 Cooled Camera Attachment Model: XDS 2FL "OPTIKA" |
| EQPHS-377 | Laparoscopic Set - Digital Video Camera "PROMIS PM-ECS-222" |
| EQPOP-046 | Surgical Operating Microscope Opmi Sensera [000000-1203-689 / 302931-9901-000] "CARL ZEISS" |
| Urology | |
| EQPUR-086 | Extracorporeal Shockwave Lithotripsy Sytem - Electrohydraulic Medispec E3000 With Treatment Table With Accessories |

| Neuro Cath Lab | |
|---|---|
| EQPCA-203 | Defibrillator - Biphasic Defibrillator Model - Heartstart Xl+ With Accessories "PHILIPS" |
| Arthroscopy & Sports Medicine Department | |
| EQPSM-031 | Isokinetic System, Model: System 4 Pro With All Accessories |
| E.N.T. Operation Theatre [A-6] | |
| EQPEN-073 | Coblator Ii System With Foot Control, Saline Flow Regulator And Connecting Cables [Ec8001-01] "ARTHOCARE CORPORATION - USA" |
| Departments of Radiology and Neurophysiology Lab | |
| EQPEN | II MRI and III CT, II fluoroscopy unit, digital technology of X-rays, Acquisition of PACS |

A detailed list is provided in appendix 4.1.16.

## 4.2 Clinical Learning Resources

The Medical College (with 39 departments) and hospitals (OP, IP, and Medical Center) are the most essential and pivotal infrastructure that support innovative teaching programs at Sri Ramachandra University.

### 4.2.1 Teaching Hospital

| | | |
|---|---|---|
| **Year of establishment** | : | 18/03/1985 |
| **Hospital institution distance** | : | Within the same campus |
| **Whether owned by the college or affiliated to any other institution?** | : | Owned by Sri Ramachandra University to which SRMC & RI is a constituent college. |
| **Are the teaching hospitals and laboratories accredited by NABH, NABL or any other national or international accrediting agency?** | : | Yes. National Accreditation Board for Hospitals & Healthcare Providers (NABH), National Accreditation Board for Testing and Calibration Laboratories (NABL), Joint Commission International (JCI) have accredited the Hospital Medical Centre and Laboratories. |
| **Number of beds** | : | 2287 (1500 – G Block wing and 787 – Medical Center) |
| **Number of specialty services** | : | 20 (Listed below) |

| | | | |
|---|---|---|---|
| Accident & Emergency Medicine | Critical Care Unit | General Surgery | Pediatric Medicine |
| Anesthesiology & Pain Management | Dermatology including Leprosy Clinic & STD | Master Health Checkup | Pediatric Surgery |

| Central Laboratory | Dialysis | Obstetrics and Gynecology | Physiotherapy |
| Child Development Unit | ENT | Ophthalmology | Psychiatry |
| Clinical Nutrition | General Medicine | Orthopedics | Radiology & Imaging Sciences |

**Number of Super- Specialty Services:** 25 (listed below)

| Aesthetic Clinic (Cosmetic Surgery) | Arthroscopy & Sports Medicine | Cardiology |
| Cardiovascular & thoracic Surgery | Chest & Pulmonology | Endocrinology & Diabetology |
| Joint Replacement Services | Medical Gasteroenterology | Medical Oncology & Hemato-oncology |
| Neonatology | Nephrology | Neurology |
| Neuroradiology | Neurosurgery | Nuclear Medicine |
| Pediatric Urology | Plastic & Reconstructive surgery | Oncology |
| Reproductive Medicine | Rheumatology | Spine Surgery |
| Surgical Gastroenterology | Surgical Transfusion Medicine | Urology |
| | | Vascular Surgery |

The hospital has the following advanced care facilities:
a. Neuro Cath. and Cardiac Cath. Laboratories,
b. Gamma Camera Room,
c. Neonatal ICU,
d. Ultramodern Birthing Suites,
e. Organ Transplant Unit,
f. Perinatal Center,
g. Karthikeyan Child Development Center.

In addition, each discipline runs its own special clinics namely Hypertension Clinic, Infertility Clinic, Well Baby Clinic, Nutrition Clinic, Pain clinic, Cleft Palate Clinic, Vascular Clinic, Breast Clinic, Diabetes Clinic, Skin Clinic, ENT Clinic, Voice Clinic, Headache Clinic and Arthritis Clinic

* **Number of beds in ICU / ICCU / PICU / NICU, etc.** :

| S.No | Beds | G-Block Numbers | Medical Centre Numbers |
|------|------|-----------------|------------------------|
| 1 | ICU | 29 | 99 |
| 2 | NICU | 20 | 23 |

| 3 | Burns ICU | 05 | - |
|---|---|---|---|
| 4 | Post OP ICU | 15 | - |
| 5 | Cath Lab ICU | 08 | 16 |
| 6 | PICU | 08 | 16 |
| 7 | PACU | 18 | - |

∗ **Number of operation theatres** : 16

∗ **Number of Diagnostic Service Departments** : 5

∗ **Clinical Laboratories** : 3

∗ **Service areas *viz*. laundry, kitchen, CSSD, Backup power supply, AC plant, Manifold Rooms, pharmacy services** : All are available

∗ **Blood Bank services** : AABB re-accredited Blood Bank

∗ **Ambulance services** : number 4

∗ **Hospital Pharmacy services** : 2

∗ **Drug poison information service:** Yes; The Drugs and Poisons Information Centre (DPIC) was established in the year 2001. It provides information on queries received from physicians and other health care professionals regarding drug utilization and poison management using database: Uptodate. The Centre is staffed by licensed graduate pharmacists who have specialized training in drug information and postgraduate students of Pharmacy Practice and Pharm D (Post Baccalaureate) students. The mission of DPIC is to enhance the quality of pharmaceutical care and supporting the efforts of health care practitioners of the hospital. The centre has successfully responded to 2087 queries received from various departments of the university. The quality of the service provided is assessed periodicallyby external reviewer.

∗ **Pharmacovigilance** : Yes

∗ **Mortuary, cold storage facility** : Yes; Two deep freezers; one is -24 ºC and the other is -40 ºC for storing cadavers.

∗ **Does the teaching hospital display the services provided free of cost?** : Yes; The SRUH (G- Block) provides health care services free of cost.

∗ **What is the mechanism for effective redressal of complaints made by patients?** : Both suggestions boxes and patient's feedback forms provide details of grievances. Careful analysis of patient's feedback /complaints done through Root Cause Analysis (RCA) and implementing Corrective and Preventive Action (CAPA) by QIPST of the Sri Ramachandra Medical Centre.

**Give four years statistics of inpatient and outpatient services provided.**

| Services / year | 2009 | 2010 | 2011 | 2012 | 2013 | total |
|---|---|---|---|---|---|---|
| outpatient statistics for all departments of medicine | 987838 | 1226934 | 1384454 | 1497984 | 1470780 | 6567990 |
| In Patients statistics for all departments of medicine | 53864 | 64896 | 69656 | 80489 | 78574 | 347479 |
| Dental Sciences | 157771 | 162765 | 169910 | 183913 | 151838 | 826197 |

* **Does the hospital display charges levied for the paid services?** : Yes; Available at Medical Centre reception and admission counters

* **Are the names of the faculty and their field of specialization displayed prominently in the hospital?** : Yes; in the website and in the medical centre reception.

* **Is pictorial representation of the various areas of the hospital displayed in a manner to be understood by illiterate patients?** : Yes; displayed

* **Is there a prominent display of ante-natal, mother and child health care facilities?** : Yes; displayed

* **How does the hospital ensure dissemination of factual information regarding rights, responsibilities and the health care costs to patients and the relatives / attendants?**

Display is made on plasma TV screen in all places and printed flyers are also displayed prominently. Booklets are given at the time of admission in Tamil, Telugu and English

* **How does the hospital ensure that proper informed consent is obtained?**

All procedures are performed on patients only after informed consent. Regular audits are conducted to check for 100% adherence of the practice.

* **Does the hospital have well-defined policies for prevention of hospital-acquired infections?**

Yes; the Hospital Infection Control Committee recommends and acts through the Infection Control Team and set standards for patient care and antibiotic policy. A comprehensive hospital-wide infection control and surveillance system exists in the hospital. Apart from reporting, identifying and analyzing the incidence and cause of nosocomial infections, it is responsible for the

analytical review of such data, and follow-up policy development. For successful infection control two major activities include: Hand hygiene practices and Prevention of Antibiotics abuse are promoted.

∗ **Does the hospital have good clinical practice guidelines and standard operating procedures?**

Yes; the hospital ensures adoption of GCP guidelines and is ably supported by 19 different committees. These committees function to maintain safety and patient care as their main goals. The SRU Centre for Health care Quality and Patient safety is responsible for developing policies, plans, guidelines, manuals and to create SOPs. They develop annual Quality Improvement Plan including analysis of CAPA.

∗ **Does the hospital have effective systems for disposal of bio-hazardous waste?**

Yes; a Committee constituted by the Medical Director called the Radiation, laboratory and hazardous materials (HAZMAT) safety committee is functional since 2010. *Biomedical Waste management* − certification as per State Government guidelines obtained since 2009. This Committee takes care of SRU policy; Biomedical Waste Management Certification; Education; Services; Assessment and Analysis reports; Workshops and training programs

∗ **How does the hospital ensure the safety of the patients, students, doctors and other health care workers especially in emergency department, critical care unit and operation theatres? Are the safety measures displayed in the relevant areas?**

A program called "Safety First" is in place to ensure the safety of the patients and others. Vulnerable patients are identified by yellow wrist band and given special attention. Safety measures are also displayed in the relevant areas including lifts. Emergency exit boards are displayed in all floors. SRMC has received Healthcare Safety Awards on two successive years (2012 & 2013) called (i) Award For "Best Patient Safety Initiative 2012-Incident reporting System" in International Congress on Patient Safety - Best Practices for Asia, Conference held at HICC, Hyderabad On 1$^{st}$ & 2$^{nd}$ Sep 2012 and (ii) Special Mention Award for "Patient Fall Prevention Program" in International Congress on Patient Safety -Best Practices for Asia, Conference held at HICC, Hyderabad on 2$^{st}$ & 22$^{nd}$ April 2011.

∗ **How are the Casualty services/Accident and Emergency Services organized and effectively managed?**

Proper SOP is in place to handle the cases in Accident & Emergency Services. The downtime of care for emergency cases is almost immediate on entry of patients followed by specialists care.

∗ **Whether the hospital provides patient friendly help-desks at various places**.

Yes. Help desks are available both at Sri Ramachandra Hospital and Sri Ramachandra medical centre.

∗ **Does the hospital have medical insurance help desk?**

Yes. A separate team assists in medical insurance related formalities.

∗ **What are the other measures taken to make the hospital patient friendly?**

Every floor has hospital administrator and his/her team in routine rounds to help the patients in need. Phone numbers are displayed to contact appropriate people in case of emergencies. Signage and LCD displays are available throughout the hospital to help/guide the patients.

∗ **How does the hospital achieve continuous quality improvement in patient care and safety?**

"QIPST" – Quality Improvement and Patient Safety Team is in place and it ensures the CQI (Continuous Quality Improvement) by analyzing the data at a monthly intervals. Root cause analysis and CAPA are performed whenever required.

∗ **What are the measures available for collecting feedback information from patients and for remedial actions based on such information?**

Every patient is requested to give feedback during the time of their stay and at the time of the discharge. Separate patient-guest relationship department is functional which takes care of the analysis of feedback and implements steps to improve/address the patient's concern.

∗ **How does the institution ensure uniformity in treatment administered by the therapists?**

Guidelines and evidence based practice recommendations of Medical Staff Executive Committee (MSEC) through its monthly meetings ensures uniformity in treatment. Chancellor himself is the chairman of this committee (Details will be provided onsite)

∗ **Does the institution conduct any orientation training program for AYUSH-based para-medical staff?**

Not applicable, since there is no Ayush- education program.

**4.2.2 What specific features have been included for clinical learning inthe out-patient, bedside, community and other clinical teaching sites?**

PRODEV is a program where students are trained professionally to handle the patients with empathy. The block system based integrated curriculum, scheduled visits as per curriculum, log books maintenance; credits for completion of clinical training, bedside teaching program and university examination ensure the features of holistic clinical learning. Community training is provided as part of curricular and co- curricular component.

**4.3 Library as a Learning Resource**

**4.3.1 Does the library have an Advisory Committee? Specify the composition of the committee. What significant initiatives have been implemented by the committee to render the library student/user friendly?**

Yes. The members of Library Advisory Committee include faculty members of different cadres and students (appendix 4.3.1). This Committee formulates the general policy, rules and guidelines, oversees the day today functioning, monitors the purchase of books and journals and deals with any disciplinary matters and grievances from the users.

**4.3.2 Provide details of the following:**

| | | | |
|---|---|---|---|
| *Total area of the library (in Sq. Mts.) | : | 4000 sq m | |
| *Total seating capacity | : | 522 | |
| *Working hours (on working days, on holidays, before examination, during examination, during vacation) | : | On working day | 8 a.m.t o 10 pm. |
| | | On holidays | 8 a.m. to 8 p.m. |
| | | On Examination days | 8 a.m. to 10 p.m |
| * Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources) | : | Available Appendix 4.3.2 | |
| *Clear and prominent display of floor plan; adequate sign boards; fire alarm; access to differently-abled users and mode of access to collection | : | Adequate signage is available and a lift for barrier free access for differently - abled is being made available | |
| List of library staff with their qualifications | : | Mr V Bhasker Rao, MLIS – Librarian Mrs. P. Uma Rani MLIS, M Phil - Deputy Librarian Mr. R. Ravikumar, MLIS, M Phil – Assistant Librarian | |

**4.3.3 Give details of the library holdings:**

| * **Print** | 248976 |
|---|---|
| Books | 40647 |
| Journals | 487 |
| Back volumes | 8580 |
| Back issues | 69694 |
| Theses | 5080 |
| * **Average number of books added during the last three years** | 3381 |
| * **Non Print (Microfiche, AV):** | Available |
| * **Electronic (e-books, e-journals)** | |
| e-books | 205 |
| e-journals | 451 |
| databases | 6 |
| * **Special collections (e.g. text books, reference books, standards, patents)** | |
| Textbooks | 18442 |
| Reference books | 22205 |
| UNO Depository Centre | 2579 |
| Competitive examinations | 89 |
| * **Book Bank** | 678 |
| * **Question bank** | Both Hardcopy and Soft copy is available |

## 4.3.4 To what extent is ICT deployed in the library? Give details with regard to

| * **Library automation** | : | OPACs is installed and made available for the users. All the holdings are bar coded Issue and return of books done using bar code scanning and through the bar-coded id of the users. Stock taking is done every year by using the barcode scanning. Question banks are given in intranet. E-mailing individuals, separately and in group feedback  is obtained through email Bibliography computerized. User login and logout reports are given. Library is networked with the constituent units |
|---|---|---|
| *** Total number of computers for General access** | : | 58 |
| *** Total numbers of** | : | **2** |

| **printers for General access** | | |
|---|---|---|
| ∗ **Internet band width speed** | : | 1 GB through NKN connectivity |
| ∗**Institutional Repository** | : | includes copies of all dissertations theses, and audiovisual aids. |
| ∗**Content management system for e-learning** | : | OPAC software; Sonic - Firewall installed |
| ∗ **Participation in resource sharing networks/consortia (like INFLIBNET):** | : | SRU is a registered member of INFLIBNET. All our theses work are hosted on INFLIBNET site through MOU signed with Shudhaganga- digital repository. SRU is a member of DELNET and has subscribed to NKN network. SRU is an institutional member of British Council library, Chennai |

**4.3.5 Give details of specialized services provided by the library with regard to**

| ∗ **Manuscripts** | : | Not available |
|---|---|---|
| ∗ **Reference** | : | users are helped to get references from e-resources / databases |
| ∗ **Reprography/ Scanning** | : | available |
| ∗ **Inter - library Loan Service** | : | yes available |
| ∗ **Information Deployment and Notification** | : | yes, performed |
| ∗ **OPACS** | : | yes available |
| ∗ **Internet Access** | : | yes available |
| ∗ **Downloads** | : | yes, performed |
| ∗ **Printouts** | : | yes, provided |
| ∗ **Reading list/ Bibliography compilation** | : | yes available |
| ∗ **In house/remote access to e-resources** | : | yes, both are available |
| ∗ **User Orientation –** | : | yes, performed |
| ∗ **Assistance in searching Databases** | : | yes, users are helped by library staff |
| ∗ **INFLIBNET / HELINET facilities** | : | yes available |

**4.3.6 Provide details of the annual library budget and the amount spent for purchasing new books and journals.**

| Year | Books | Journals | Electronic Resources | Total |
|------|-------|----------|----------------------|-------|
| 2008-2009 | 3848729/- | 18431300/- | 708767/- | 22988796/- |
| 2009-2010 | 3127007/- | 17885142/- | 536500/- | 21548649/- |
| 2010-2011 | 4076492/- | 20073463/- | 1418386/- | 25568341/- |
| 2011-2012 | 4492124/- | 18024644/- | 6282693/- | 28799461/- |
| 2012--2013till June2013 | 7694763/- | 27424771/- | 5808455/- | 40927989/- |
| Grand Total | 23239115/- | 101839320/- | 14754801/- | 139833236/- |

**4.3.7 What are the strategies used by the library to collect feedback from its users?  How is the feedback analysed and used for the improvement of the library services**

Feedback on library services are obtained in several ways, feedback forms are provided, suggestions boxes are prominently displayed and notices for feedback are displayed on notice board and through email.  Sometimes feedback is also obtained through personal interviews and suggestions made by visitors, inspectors.  These are analyzed by the Library Advisory Committee and steps are taken to improve the services provided.

**4.3.8 List the efforts made towards the infrastructural development of the library in the last four years.**

In the last four years several infrastructural improvements have been made in the library

- 50 new computer systems along with new furniture for the internet labs have been purchased
- 252 seat capacity air-conditioned students' "own books" reading room with modern furniture is provided
- Addition of tables and chairs inside the library reading room
- The height of the library racks has been increased
- CCTVs with 32 cameras and 4TV screen to monitor the movements of the users have been installed
- New AC machines for the library complex have been purchased and installed.  Number of power points for connecting laptops are given in the library
- Library is Wi-Fi enabled
- New racks for library counters for storing records and files.
- Name boards for  the racks
- Separate section for new arrivals
- 40KV UPS has been installed for systems in the library counters.
- A new server and laser printer is installed in the library.

**4.4 IT Infrastructure**
**4.4.1 Does the institution have a comprehensive IT policy with regard to:**

∗ **IT Service Management**

The EDP division of SRU is responsible for the maintenance of the IT infrastructure across campus. Some of the strategies for IT support have included periodic proactive maintenance, periodically monitoring the performance voluntarily to minimize system break down, receiving complaints from the end users in a common extension number, analysis of calls and diagnose the problem and prompt rectification. The institutional IT policy is developed along with implementation of e-governance in all area of University administration.

∗ **Information Security**

Authentication in the form of providing unique username and password to each and every user has been provided.

∗ **Network Security**

Sonic firewall which prevents unauthorized access either from outside through internet or through intranet

∗ **Risk Management**

Having the redundant server to facilitate periodic back up.

∗ **Software Asset Management**

A separate team which looks after all the software related issues and manages software asset.

∗ **Open Source Resources**

The linkage with the NKN facilitates open access resources through NPTEL and other web-portals

∗ **Green Computing**

Most of the Cathode ray tube monitors has been replaced with LCD / LED monitors. In some areas local area networks has been replaced by wireless network eg. auditorium, library, seminar hall and medical center.

**4.4.2 How does the institution maintain and update the following services?**

∗ **Hospital Management Information System (HMIS) :** Yes; implemented

∗ **Electronic Medical Records System (EMR) :** Yes; implemented

∗ **Record Keeping**

The above services are maintained by the in-house electronic data processing (EDP) division. An electronic medical record (EMR), which is essential for administration as medico-legal evidence and also for teaching and research, is housed in a separate department (MR Department) located in the second floor of the Sri NPV Ramasamy Udayar Block (E2) and fifth floor of G block. Access to the records with authentication is facilitated. Ward records are maintained according to the Subjective, Objective, Assessment and Planning **(SOAP)** procedures to ensure uniformity in record maintenance. This SOAP format is in compliance with JCI (Joint Commission for International) and NABH (National Accreditation Board for Hospital) standards.

∗ **Digital diagnostic and imaging systems including PACS** : Yes; available

**4.4.3 Give details of the institution's computing facilities i.e., hardware and software.**

| | | |
|---|---|---|
| **Number of systems with individual configurations** | : | 450 systems with dual core, i3 processors/ 250 GB HDD / 1 GB RAM / 19"LCD monitors (University) |
| **Computer-student ratio** | : | 1:10 (excluding the laptops of the students) |
| **Dedicated computing facilities** | : | Computers and printers are provided in each and every department. |
| **Wi-Fi facility** | : | WiFi facility is enabled in library reading hall/Auditorium/and seminar halls |
| **LAN facility** | : | Local area network facility is enabled in all the departments throughout the campus |
| **Proprietary software** | : | Having license for Microsoft Windows XP/ Windows7/Ms office/ windows servers/Antivirus and firewall |
| **Number of nodes/ computers with internet facility** | : | 150 |
| **Any other (please specify)** | : | Customized data analytic software for university e governance has been developed and deployed for day- to day in 2013 |
| | : | In house software developed by faculty – SMS database for Stocks; Chemical Web database site developed. Departmental activity based web portals |

**4.4.4 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?**

- To replace all the cathode ray tube monitors with LCD and to increase the coverage of WiFi areas.
- To increase the number of e-classrooms to enable web-based teaching learning programs
- To maximize the use of the e-governance portal to enable paperless and good governance

**4.4.5 Give details on access to on-line teaching and learning resources and other knowledge and information database/packages provided to the staff and students for quality teaching-learning and research.**

Every staff and students are given id and password for accessing the EBSCO, ez-proxy, etc., databases.

**4.4.6 What are the new technologies deployed by the institution in enhancing student learning and evaluation during the last four years and how do they meet new / future challenges?**

Learning resources are provided in the webpages of constituent faculties

through SRU-website.  A multimedia- e-lesson preparation team support the faculty members to infuse –technology in their ICT-resources.

**4.4.7 What are the IT facilities available to individual teachers for effective teaching and quality research?**

Laptops, deskstop, LCD projectors, digital boards are provided.  Full paper access to all specialty journals available.

**4.4.8 Give details of ICT-enabled classrooms/learning spaces available within the institution. How are they utilized for enhancing the quality of teaching and learning?**

Classrooms are equipped with LCD projectors. Some classrooms in medical college are upgraded as e-classrooms with smart boards.  Access to the lecture notes, library books and e-journals is possible by the individual login and password.  Online access is also available in clinical areas where students can enhance clinical learning nearer to the bedside of patients.

**4.4.9 How are the faculty assisted in preparing computer-aided teaching-learning materials? What are the facilities available in the institution for such initiatives?**

Computers and accessories are maintained by the hardware team of ICT departments.  ICT team help is available for animation of the contents of the lectures.  Training for preparation of the computer-aided teaching-learning is also provided in the faculty development program.

**4.4.10 Does the institution have annual maintenance contract for the computers and its accessories?**

Yes, for preventive measures and breakdown maintenance.

**4.4.11 Does the institution avail of the National Knowledge Network (NKN) connectivity? If so, what are the services availed of?**

Yes.  SRU has subscribed for National Knowledge Network (NKN) connectivity which is a Government of India initiative for sharing of resources including teaching –learning modules for eventually joining the Open source Community.  The 1 GB- bandwidth is extended to all constituent units of SRU.

**4.4.12 Does the institution avail of web resources such as Wikipedia, dictionary and other education enhancing resources? What are its policies in this regard?**  Yes, the above resources are used after checking the authenticity to avoid violation of copyright.

**4.4.13 Provide details on the provision made in the annual budget for the update, deployment and maintenance of computers in the institution.**

The University has allocated a budget of Rs. 25.65 & 37.07crores for the years 2011-12 & 2012-13 exclusively for equipment & instruments which also includes purchase and maintenance of computers. The details are given in the table

| Sl No. | Year | Amount in Rs. |
|--------|------|---------------|
| 1. | 2008 – 09 | Rs. 2484512/- |
| 2. | 2009 – 10 | Rs. 2295615/- |

| 3. | 2010 – 11 | Rs. 2257013/- |
| 4. | 2011 – 12 | Rs. 2548118/- |
| 5. | 2012 – 13 | Rs. 4821166/- |
| | Total | Rs.14406424/- |

**4.4.14 What plans have been envisioned for the transfer of teaching and learning from closed institution information network to open environment?**

✓ Making the syllabus and teaching material available in the internet enables exchange of specific questions to a particular teacher by a student through discussion –box provision.

✓ It is also planned to host e-course ware prepared by faculty and accessed from MoU signed institutions in the SRU- Portal of Learning for off-campus use of students.

✓ NKN connectivity will be fully utilized for access to international open source environments and portals.

**4.5 Maintenance of Campus Facilities**

**4.5.1 Does the institution have an estate office / designated officer for overseeing the maintenance of buildings, class-rooms and laboratories? If yes, mention a few campus specific initiatives undertaken to improve the physical ambience.**

Yes. Infrastructure maintenance, professional gardening by maintaining the existing plants and planting newer ones wherever necessary, maintenance of the roads by relaying whenever and wherever necessary is routinely carried out. The estate officer is designated as General Manager (Projects) who is responsible for all the campus maintenance requirements.

**4.5.2 How are the infrastructure facilities, services and equipment maintained? Give details.**

Frequent physical rounds are made by staff of maintenance department and preventive and corrective actions are taken immediately wherever necessary. Safety committee rounds are also used for preventive and corrective maintenance of the infrastructure. Preventive and breakdown maintenance of all the equipment are carried out by Biomedical Engineering Department. The maintenance labels are placed on the instruments that have the details like date of service and next service date along with equipment number. Sophisticated equipment are under Annual Maintenance Service contracts with the manufacturers / approved service agencies.

**4.5.3 Has the institution insured its equipment and buildings?**

Yes. The building infrastructure along with hi-Tech equipment are insured.

*Any other information regarding Infrastructure and Learning Resources which the institution would like to include.*

*Unique Infrastructure Facilities of SRU*

*(i) SPORTS MEDICINE AND HIGH PERFORMANCE FITNESS FACILITY*

Sri Ramachandra University has strengthened its existing infrastructure with a new state-of-the–art facility for Sports Medicine spanning over 1.6 lakh square feet area with Exercise Physiology labs including treadmill and bicycle ergometric rehabilitation facility, a Bio mechanical lab with latest VICON 3D motion analysis system integrating 20 cameras and force plates capable of acquiring cricket batting and bowling actions simultaneously and an environmental chamber to simulate high altitude conditions. The centre has a High performance fitness facility to train the athletes and teams and a large Gymnasium with an indoor running track along with an international standard indoor swimming pool.

*(ii) OTHER CONSTITUENT UNITS:*

*Faculty of Management*: This College is housed on the third floor of Srimathi Kamalam Udayar Health Sciences Block. The college conducts a PG program and is provided with modern style A/C Classrooms and Active Learning Center.

*Faculty of Allied Health Sciences:* This is constituted by seven different departments namely, Department of Environmental Health Engineering, Department of Speech, Language and Hearing Sciences, Department of Clinical Nutrition, Department of Clinical Psychology, Department of Allied Health Sciences, Department of Optometry and Language Lab. The Department of AHS is housed in a separate block (3144.82 sq m). The Department of Environmental Health Engineering is well equipped with industrial Hygiene sampling laboratory containing instruments for air and water sampling. This well equipped Laboratory has been declared as a WHO collaborating Center for Occupational Health. Department of Speech, Language & Hearing Sciences has a fully equipped Audiology laboratory used for Clinical training and Research. It has computer laboratories equipped with special software for speech assessment and about 10 independent Audiology laboratories. The Department of Clinical nutrition is provided with 2 modern laboratories (Food Science Laboratory and Food Analysis Laboratory and a mixing unit). There are separate Nutritional Counseling rooms that serve patients. Department of Clinical Psychology housed at the ground floor of Sri Ramachandra Hospita1 conducts M. Phil program. Biofeedback and Multi Behavioral Therapy Equipment are available in this department.

*Faculty of Physiotherapy:* This is housed in a separate block of 2224.84 sq m. The ample number of equipment and accessories are sufficient to train students for UG program and PG programs. Recently a separate rehabilitation centre equipped for physical rehabilitation aiming the geriartric populations has been created on the ground floor of the building.

*Faculty of Biomedical Sciences, Technology & Research:*
This College has five distinct research based departments namely the Department of Biotechnology, Department of Bioinformatics, Department of Human Genetics, Department of Biomedical Sciences and Department of Medicinal Chemistry. The Department of Biotechnology has PG teaching Labs

and Research Lab.  Separate facilities for Animal tissue culture, Plant tissue culture and Microbiology Laboratories and instrumentation Laboratory are provided for research and teaching.  The Department of Human Genetics is well equipped with high-end instruments such as, Compound microscopes with image analysis, Photomicrography and PCR.  This well-equipped department has an Atomic Energy Regulatory Board (AERB) accredited Biodosimetry Lab, a NABL accredited Lab for Genetic Testing, and is Certified by the Govt. of Tamil Nadu certification (Reg. No. PNA/301/99) for Pre-Natal Testing and diagnosis.  The department of Biomedical Sciences has a separate Drosophila, molecular epidemiology lab and a cell culture facility for its teaching and research.  The Medicinal Chemistry facility located in Shrimathi Kamalam Ramasamy Udayar Health Sciences Block is a USFDA approved flameless lab with high-end equipment like GC; FTIR and HPLC.

(iii) SPECIAL FEATURES OF INFRASTRUCTURE AND LEARNING RESOURCES:

- ✓ Creation of expensive Skills laboratories for clinical acumen
- ✓ Orthopaedics Skills lab and ENT-Temporal bone dissection lab; Anatomy animation modules
- ✓ Ophthalmology with Phacofoldable skills lab
- ✓ Prosthodontics **-** Mannequin skill lab established for the use of undergraduates and postgraduates
- ✓ Active Learning centers -7 to facilitate self-learning.
- ✓ Special Chairs for Left–handed students provided to all the departments of the Dental College.
- ✓ Eye bank in Ophthalmology department
- ✓ Geriatric Rehabilitation Center in Physiotherapy Department
- ✓ SRU is the only Government approved Private Medical College having Forensic Medicine for carrying out autopsy
- ✓ Picture archival & Communication System.
- ✓ The state of the art Harvard Auditorium equipped with teleconferencing facilities, Video conferencing for diagnosis, telemedicine, for conduction of workshops, conferences and teaching in an attractive infrastructure for interactive learning.
- ✓ University Convention Halls with centralized AC, for conducting academic and social functions within the campus.  The infrastructure and laboratories are recognized to conduct various national and International Board examinations such as MRCP- PACES, DNB, ICMR-JRF and Tamil Nadu Professional Common Entrance Examination (TNPCEE of interdisciplinary curricula.
- ✓ Department of Pharmacology practices the Computer Stimulated experiments Greenhouse gardening of  medicinal plants to preserve the endangered species has been maintained by the Department of Pharmacy
- ✓ Drug Information Center is available in the Department of Pharmacy which is centralized for the University faculties and students to get trained

Student Council - 2012

# Criterion V
# Student Support and Progression

**Criterion V: Student Support & Progression**

| Key Aspects | Approach | Outcome |
|---|---|---|
| Student Mentoring & support | • Effective student mentoring<br>• Placement cell 2009-13<br><br>• Enhanced Entrepreneurship skills through E-week celebration<br><br>• Support system in place<br><br><br><br>• Personal enhancement & skill development | • Longitudinal Mentorship Scheme<br><br>• 976 beneficiaries in placement<br><br>• Entrepreneurship cell in collaboration with NEN<br><br>• Appointment of two Associate Deans for students.<br>• Functional-students grievance redressal system.<br>• Health insurance coverage 2365 in 2009-10; 3361 in 2012-13<br>• Stipend, subsidized mess fee Hospital ward technician program & Diploma in Nursing- 216<br>• Skill enhancement programs, 23 per year<br>• PRODEV to all MBBS students<br>• English Communication skills |
| Student Progression | • Facilitating higher education | • Chancellors' Summer Research for UGs and Research fellowship for Ph D Scholars<br>• International Clerkship / Observerships for Medical & Dental students.<br>• Provisions for D Sc degree and post-doctoral fellowships<br>• GPAT and USMLE training |
| Student Participation in extra-curricular activities | • Providing Opportunity for exploring young talents | • Alumni as consultants, Research Scientists, Technocrats and Health industrialists in India and abroad.<br><br>• Representation in MEU, Library Advisory, IQAC, Hostel and Anti Ragging Committees<br>• Indoor & Outdoor games & sports(National and International levels) with awards<br><br>• Extensive Co-curricular & Extracurricular activities and recognitions<br>• Humanities club, Debate club, MedHope, cultural activities<br>• E-learning centers and Student research talent initiatives. |

**Criterion V: Student support and progression**

**5.1 Student Mentoring and Support**

**5.1.1 Does the institution have a system for student support and mentoring? If yes, what are its structural and functional characteristics?**

Yes.  The University offers a 'Longitudinal Mentorship Program' where the faculty members across the University are active mentors for a group of 5 to 10 students and are responsible for addressing their academic and social needs on and off campus.  The Parent-Teacher meeting, held twice a year provides opportunity for parents to get information about their wards.

Each student is allotted to a mentor (faculty) in the first year of the program, to whom he / she confides on academic and nonacademic issues.  The faculty maintains strict confidentiality and helps student with counseling and guidance to improve his/her academic performance.  Whenever required, faculty escalates the problems to the HOD /Principal / Dean for further action.  The mentors are also the contact person for parents.  There are two Associate Deans for students to provide systematic support to adress their needs.

**5.1.2 Apart from classroom interaction, what are the provisions available for academic mentoring?**

- All Faculties of Sri Ramachandra University organize remedial and supplementary classes for candidates who require additional coaching and attention.  Internal assessment are conducted periodically to ensure that learning and evaluation is continuous.

- 'PRODEV' (Professional Development Program) is a value added academic mentoring to impart professional ethics and citizenship responsibilities to the students.

- Faculty of Dental Sciences has constituted a committee referred to as "Students Academic Performance Improvement Committee" (SAPIC) with one faculty from every department.  The committee handles students with poor (clinical and theory) attendance.  The coordinator interacts with such students / if needed with the parents to motivate students and reduce dropouts.

- Separate classes are taken for students having low academic performance with emphasis on "Must Know" topics

- The Faculty of Nursing conducts quiz program for the beginners of B Sc Nursing (Basic) to strengthen their knowledge on basic science subjects.

- During parent-teacher meeting, teachers and parents share their views about students' attendance and performance and plan appropriate remedial measures.

- Telephonic information and Short Message Service (SMS) are used to appraise parents about their wards whenever required.

- Students with psychological pressures and stress are counseled under "Confidential self-improvement counseling" in collaboration with the

Department of Clinical Psychology and counselors. Students are also counseled by their mentors.

**5.1.3 Does the institution have any personal enhancement and development schemes such as career counseling, soft skill development, career-path identification, and orientation to well-being for its students? Give details of such schemes.**

Yes, some of the several programs conducted are listed below:

| S. No. | Date | Name of the Program | Speaker |
|--------|------|---------------------|---------|
| 1. | 30.11.2013 | Performance enhancement program | Mr. Sathish Kumar Managerial Consultant & Trainer Parikshith, Chennai. |
| 2. | 13.11.2013 | Interpersonal Relationship | Mr. A. Selvam, Asst. Professor and Incharge; College of Management Sri Ramachandra University |
| 3. | 7.9.2013 | Personality Development Program | Mr. Ashwin, Soft Skills Trainer Psychological Trainer & HR Consultant, Chennai-31 |
| 4. | 12.8.2013 | Career Opportunities for Pharmacy Graduates in Abroad | Mrs. Mandakini Dantuluri, Pharmacist, Wall Greens Pharmacy New Jersey, USA. |
| 5. | 15.7.2013 | Career Advancement Program | Dr. BadrinathKumar, Inwort Pharmacy, New York. |
| 6. | 18.5.2013 | Creativity and Innovation | Mr. Abhishek PDF Consultant, Chennai |
| 7. | 17.5.2013 | Your Dreams: Your Future | Mrs. Hemalatha Management Trainer, Chennai |
| 8. | 16.5.2013 | How To Be A Performer In Your Organization | Mr. Sathish Parikshith Consultant, Chennai. |
| 9. | 15.5.2013 | Smart Thinking | Mr. Abhishek PDF Consultant, Chennai. |
| 10. | 5.3.2013 | Communication Skills & Acing the interviews | Dr. R. Sudeendra Bhat, Deputy Registrar (Evaluation) & Professor of Pharmaceutics J.S.S. University, Mysore |
| 11. | 5.1.2013 | Career prospects in pharmacy-India and Abroad | Dr. Dhanushka Curtin University, Australia |
| 12. | 19.11.2012 | Hospital Information Systems | Mr.U K Ananthapadmanabhan, Group Director, Kauvery Hospital |
| 13. | 03.11.2012 | IT Enhancement Skills | Mr. Aswin Yogesh |
| 14. | 03.10.2012 | How to Face | Mr.S Sathish Kumar, Managing |

| | | Interview | director, Parikisith |
|---|---|---|---|
| 15. | 01.09.2012 | Empowerment of soft skills | Mr S Swaminathan Director, Asktenali.com, Chennai |
| 16. | 09.04.2012 | How to face interview and Resume Building | Ms. Rolancia, HR Manager, Accenture |
| 17. | 20.03.2012 | EMR and Health care IT | Mr. Kumar Rangarajan, Accenture |
| 18. | 17.12.2011 | Current growth and future in SAS in pharma market | Mr. Narendra K. Kanteti, Assistant DIS program; Biostatistics and programming ICON clinical research, Chennai. |
| 19. | 28.09.2011 | Career prospects for pharmacy graduates | Mr. K. S. Varadharajan Director Balint pharmaceuticals, Chennai |
| 20. | 17.09.2011 | Personality development and leadership qualities | Mr. M. Chidambaram General Secretary Exnora International , Chennai |
| 21. | 19.03.2011 | Career opportunities in pharmacy profession | Mr. Balaji Prakash Research executive Orchid health care |
| 22. | 24.01.2011 | Scope of clinical pharmacy practice in USA | Mr. Vijayaraghavan Poondi, RPh Director of pharmacy (Retd) Bellevue Hospital, New York, USA |
| 23. | 13.09.2010 | Opportunities for pharmacy graduates in USA | Mr. Mohan Chakraborthy, Registered pharmacist, USA |

**5.1.4 Does the institution have facilities for psycho social counseling for the                                                                                students?**

Yes.  Students with psychological pressures and stress are counseled by Associate Dean of Students, under "Confidential self-improvement counseling" effectively supported by Clinical Psychology department.  The University also has a student counselor system.  The student in need of counseling is directed to meet the counselor by the Principal /HOD / faculty whenever required.

**5.1.5 Does the institution provide assistance to students for obtaining educational loans from banks and other financial institutions?**

Yes.  The Institution facilitates by issuing expenditure certificate of fees payable by students for easy processing in Nationalized / Non-Nationalized banks.  The students are also assisted in obtaining educational loans from other Financial Institutions listed below.

| Financial Institutions / agencies | |
|---|---|
| Directorate of Health Services, Tripura | National Foundation for Teacher Welfare |

| Directorate of Collegiate Education, Trivandram | Embassy of India, Thimphu (Bhutan) |
|---|---|
| Tamilnadu Minorities Economic Deve. Corp. | Welfare Officer, Tiruvallur |
| Kiranmayee – Scholarship | Dept. of Minority, Welfare Govt. of Tamilnadu |
| Sree Venkateswara students hostel, Andhra Pradesh | Directorate of College Education, Govt. of Tamilnadu |
| Directorate of School Education, Govt. of Tamilnadu | Rajasthani Educational Trust |
| Om Sakthi Narayani Sidar Peedam Charitable Trust, Vellore | All Nationalised Banks |

**5.1.6 Does the institution publish its updated prospectus and handbook annually? If yes, what are the main issues / activities / information included / provided to students through these documents? Is there a provision for online access?**

Yes.

- PROSPECTUS: Sri Ramachandra University publishes the prospectus annually and issues it to all applicants. The SRU website provides information regarding the courses, disciplines, eligibility for admission and faculty, which is periodically updated.

- STUDENT MANUAL: Every academic year the students get a copy of updated health insurance hand book and student manual. The manual includes details on history of the institution, its mission and vision statements, location and accessibility, infrastructure, campus facilities, university medical centre, telemedicine, library, hostels, faculty profile, courses offered, disciplinary rules of the university, rules related to university examinations and hostels, Declaration of student / parent/ guardian, regarding anti-ragging as per UGC regulations on curbing menace of ragging in higher educational institutions, 2009, affidavit by student, affidavit by parent/ guardian. Anti -ragging squad help line numbers are available. Details of anti-ragging committee and grievances redressal committee, gender issues committee and other academic details are also provided.

- ANNUAL REPORT: The report highlights achievements of students and faculty with respect to awards received, list of publications / presentations, and extension and sports activities.

- BRIDGES: A monthly newsletter of Sri Ramachandra University that highlights the co-curricular, extracurricular activities and achievements of students and faculty.

**5.1.7 Specify the type and number of institution scholarships / free ships given to the students during the last four years. Was financial aid given to them on time? Give details (in a tabular form)**

- The Chancellor Cash awards are provided to motivate UG students of all courses who have been meritorious in their first year of University examination.
- The university provides financial support every year for UG students across all disciplines to carry out various research projects, through the Chancellor Summer Research Fellowships.

| S No. | Faculty | No. of Students Awarded (2011) | No. of Students Awarded (2012) | No. of Students awarded (2013) |
|-------|---------|-------------------------------|-------------------------------|--------------------------------|
| 1 | MBBS | 10 | 10 | 11 |
| 2 | BDS | 5 | 10 | 10 |
| 3 | Pharmacy | 7 | 5 | 5 |
| 4 | BMS | 3 | 5 | 2 |
| 5 | Nursing | 2 | 2 | 1 |
| 6 | AHS | - | 1 | 3 |
|   | Total | 27 | 23 | 32 |

- Two students from the Faculty of Dental Sciences have undergone student exchange program with Faculty of Dental Sciences, Hong Kong University.
- HMI student exchange program: Students of SRMC & RI were selected to undergo 2 months clerkship in Harvard University affiliated hospitals, USA. The scholarship included tuition and travel grant of Rs. 3 Lakhs per student (2008: 5 students, 2009: 11 students).
- Needy students from college and school of Nursing are provided with financial aid that includes reduction or waiver of tuition fees for the year and/or provision of hostel facility at a concessional rate.
- The students who undergo Hospital Ward Technician certificate program are offered a stipend of Rs. 500/- per month, waiver of tuition fee, subsidized food and hostel fee. The number of students benefited from this scheme is given below:

| Year | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|------|---------|---------|---------|---------|---------|
| No. of students | 12 | 49 | 50 | 59 | 46 |

**5.1.8 What percentage of students receives financial assistance from state government, central government and other national agencies?**

Central / State Government Scholarships received during 2008- 2013

| No. of Students | Course | Agency | Batch |
|-----------------|--------|--------|-------|
| 1 | B Sc Nursing | Government of Tamilnadu | 2008 – 09 |
|   | B.D.S. | Government of Tamilnadu | 2009 – 11 |
| 7 | PG Pharmacy | GPAT | 2008- 13 |
| 25 | MD - Ph D | ICMR | 2010 - 13 |
| 101 JRF/ SRF | For Ph D | DBT, DST | 2008-13 |

| (Cri III 3.2.7) | | | |
|---|---|---|---|
| 1 | M Sc Biotech | MHRD/UGC: PG Indira Gandhi Scholarship for Single Girl Child | 2009-11 |
| 1 | M Sc Biotech | Ministry of Defense Educational scholarship | 2012-14 |

**5.1.9 Does the institution have an International Student Cell to attract foreign students and cater to their needs?**

Yes. The university has established the "SRU Centre for Global Collaboration" which coordinates all international collaborations, student exchanges and international students' observer-ships. During the last 5 years students have undergone teaching & research programs in various departments of the university. The University participates in international education fairs.

**5.1.10 What types of support services are available for:**

**Overseas students:**

- The Manager of Public relations look after the immigration needs, visa requirements, money transfer, accommodation and cultural adaptation of overseas students.
- Language training is given for making conversations with patients in Tamil.
- A separate hostel is available for overseas students.
- Translators are provided during practical examinations

**Physically challenged / differently-abled students:**

- The physically challenged students have barrier free access to almost all areas, of the campus by providing well paved level roads, ramps and elevators. The students and faculty are sensitized to help such needy students.
- Left handed dental chairs are available in the dental hospital.

**SC/ST, OBC and economically weaker sections:**

- All students are treated equally. They are given financial aids if needed. Students from low and middle income group are helped with central book bank facility.

**Students participating in various competitions/conferences in India and abroad:**

Students are encouraged to participate in sports activities and are given special permission to participate in competitions and tournaments during college hours. The expenses towards participation are borne by the university.

Winners are honoured by

- ✓ Distribution of medals and shields
- ✓ Displaying /Flashing Name of the winner / paper cutting in the notice board / LCD monitors in prominent areas of the University/ Website
- ✓ Information is circulated to all departments.
- ✓ The events and name of the winners are also published in "Bridges" – the monthly newsletter of the University.

✓ Number of students participated in different events – the list is given below:

| Student Activities | 2009 - 10 | | 2010 - 11 | | 2011-12 | | 2012-13 | |
|---|---|---|---|---|---|---|---|---|
| | N | I | N | I | N | I | N | I |
| Sport Events | - | - | 185 | 4 | 185 | 4 | 228 | 1 |
| Conferences | 59 | - | 53 | - | 75 | - | 65 | - |
| Other Competitive Events | - | - | 176 | - | 284 | - | 324 | - |

*N- National; I – International;

**Health centre, health insurance etc.**

- The University is supporting student's welfare measures in day-to-day practice.
- To cover the students health related problems, health insurance is provided for all students (this can be utilized for investigations, treatment procedures and medications).
- To meet the assorted dietary needs of students and healthy food multi cuisine restaurants are available in campus.
- Two Associate Deans (students) are available to resolve student related health issues.

| Students Health needs | No. of students | | | |
|---|---|---|---|---|
| | 2009 - 10 | 2010 – 11 | 2011 - 12 | 2012 - 13 |
| Enrolled for Health insurance | 2429 | 2365 | 3000 | 3361 |
| Health Insurance utilized | 107 | 103 | 133 | 110 |

**Skill development (spoken English, computer literacy, etc.)**

- Many UG & PG programs across all Faculties have computer education and English as a subject in their Curriculum.
- Quiz programs are conducted regularly to impart general knowledge and enhance vocabulary skills.
- English communication skills training is provided for UGs in the language laboratory (refer 2.2.6).
- Opportunities are provided for PGs to practice newer technologies and acquire professional skills.
- The curriculum is designed to enable students to present seminars using multimedia and thereby upgrade themselves with recent trends in the field through e – resources.
- The Central library has an exclusive computer center with internet facility for students
- E- Learning center is open for students from 8 am to 8 pm on all working days.

**Performance enhancement for slow learners**

- All Faculties of Sri Ramachandra University organize remedial and supplementary classes for candidates requiring additional coaching, across various semesters. Internal assessment is conducted periodically to ensure that learning and evaluation is a continuous process(refer 2.2.3).

- Faculty of Dental Sciences has constituted a committee referred to as "Students Academic Performance Improvement Committee" (SAPIC) with one faculty from every department. The committee handles students with poor (clinical and theory) attendance. The coordinator interacts with such students (and if required with the parents as well) to motivate them and reduce the dropout rates.

- Separate classes are taken for students having low academic performance with more emphasis on "must know" topics.

- The Faculty of Nursing conducts quiz program for the beginners of BSc Nursing (Basic) to strengthen their knowledge on basic science subjects

- During parent-teacher meeting, teachers and parents share their views about students' performance and attendance and remedial measures are planned.

- Telephonic information and Short Message Service (SMS) are used to appraise parents about their wards whenever required.

- The emotional quotient of the students are handled by professional counselors within the campus. They are mentored under "Confidential self-improvement counseling" and also counseled by their mentors.

**Exposure of students to other institutions of higher learning/ corporate / business houses, etc.**

- Industrial visits, hospital visits are organized for students

- Student projects in other institutions such as PSU's and Corporate Hospitals.

- Student participate in conferences, workshops and other extracurricular activities organized in other institutions

- Student internship programs for PGs of Pharmacy, Biomedical Sciences etc in Industries, R & D institutions.

**<u>Publication of student magazines, news letters</u>**

- The students of Sri Ramachandra Medical College publish an annual magazine "CADUCEUS" which is released during the cultural event in September. A newsletter "Fifteen Minutes" is edited and presented by students which feature articles by them. Wall magazines, "Influenz" (SRMC&RI) and "Inspire" (Physiotherapy) are maintained by students. Students design college magazines and contribute poetries, photographs, paintings and other sections in "Bridges", the monthly newsletter.

- Calories – Newsletter for Nutritionists.

- Nexus – Newsletter for Pharmacists.

- Students are encouraged to publish their research work/ case presentations in Sri Ramachandra Journal of Medicine and in 'Sri Ramachandra Nursing

Journal'. They work with faculty members and publish their articles in peer reviewed academic journals.

• The students are encouraged to prepare educational materials for competitions/ camps.

• I and II year BDS students jointly together authored a library dissertation on Dental materials and released it under the guidance of Dean, Faculty of Dental Sciences in 2011 and 2012.

**5.1.11 Does the institution provides guidance and/or conduct coaching classes for students appearing for competitive examinations (such as USMLE, PLAB, GPAT, NCLEX, CGFNS, IELTS) if yes, what is the outcome?**

USMLE training for MBBS students is conducted in campus. During the last 4 years 89 students underwent USMLE training with a success rate of 2.25 %.

Faculty of Pharmacy conducts GPAT training for students to pursue higher education. 65 students were trained in 2011-2013 and the success rate was an average of 23%.

**5.1.12 Mention the policies of the institution for enhancing student participation in sports and extracurricular activities through strategies / schemes such as**

∗ **Additional academic support and academic flexibility in examinations:**

Students involved in sports & other extracurricular activities are provided additional teaching / coaching by mentors. They are also provided flexibility in examinations within the permissible limits of the respective statutory councils of the Govt. of India.

∗ **Special dietary requirements, sports uniform and materials:**

The Director of Physical Education takes care of the special dietary requirements of students, their uniform and other materials.

∗ **Any other (please specify)**

In addition to the medals and recognitions received by students at National and Regional level, the university also recognizes them during the university day celebrations.

**5.1.13 Does the institution have an institutionalized mechanism for students' placement? What are the services provided to help students identify job opportunities, prepare themselves for interview, and develop entrepreneurship skills?**

Yes

• The placement cell of the University provides guidance, training and organizes interview in campus at regular intervals. The information is communicated to students and alumni.

• The main focus of placement cell is to sensitize the students about the campus interviews and employment opportunities.

• Communication skills program is conducted

- The Placement cell has a tie – up with multiple leading dental hospitals and dental care providers and obtains appointment for our students.
- The exclusive email i.d of placement officer is placementofficer@sriramachandra.edu.in. The contact numbers of the placement cell members have been displayed on the notice board. Counselling sessions have been organised for interns on their further studies and placements abroad. The cell has conducted a fair to improve placement opportunities and also participated in the Annual Science Exhibition and Seminars conducted by science city Govt of Tamilnadu.
- Placement Achievements (Number of students)

| Area | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| Pharmacy | 46 | 40 | 52 | 63 | 71 |
| Management | 22 | 20 | 26 | 30 | 30 |
| Physiotherapy | 15 | 17 | 20 | 22 | 23 |
| AHS | 89 | 93 | 92 | 99 | 106 |

The E-cell in partnership with NEN helps in inculcating entrepreneurship
Table on Entrepreneur ship programs conducted:

| Sl. No. | Title | Dates |
|---|---|---|
| 1 | Newspaper Exercise – ideating exercise | September 2012 |
| 2 | NEN E-week (Invent the Future, Business stimulating games) Celebration | 11th to 18th February 2012 |
| 3 | Entrepreneur Awareness Program – College of Pharmacy | September 2012, 11th to 15th February 2013 |

- "Born to Win" neurolinguistics programs were also conducted for students
- All constituent Faculties of the University are represented in the Placement cell. The cell guides in formal procedures for recruitment drives.

**5.1.14 How does the institution provide an enriched academic ambience for advanced learners?**

Advance learners are encouraged by the institution with:

- Medals, prizes and awards for the best outgoing students during the convocation.
- Cash awards for best performance and rank holders in university examinations during the University day celebrations
- Chancellors' Summer Research Fellowship Program for undergraduate students. (Details are provided under 5.1.7)
- Financial assistance to students for poster and paper presentations in conferences (Details are provided under section: 3.2.7).
- Talent board is displayed in the college and space is allotted for student to display their achievements in curricular and co-curricular aspects.

**5.1.15. What percentage of students drop out annually? Has any study been conducted to ascertain the reasons and take remedial measures?**

Course – wise drop out percentage during 2008- 2013

| Name of Faculty | Admitted | Drop out | (%) |
|---|---|---|---|

| | | No | |
|---|---|---|---|
| SRMC & RI | 2152 | 13 | 0.60 |
| Faculty of Dental Sciences | 705 | 14 | 1.99 |
| Faculty of Nursing | 798 | 8.0 | 1.00 |
| Faculty of Pharmacy | 592 | 7 | 1.18 |
| Faculty of Allied Health Sciences | 1337 | 24 | 1.80 |
| Faculty of Management | 173 | 3 | 1.73 |
| Faculty of Physiotherapy | 244 | 7 | 2.87 |
| Faculty of Biomedical Sciences, Technology and Research | 239 | 9 | 3.77 |

An exit interview is being conducted to identify the reasons for dropout and appropriate remedial measures are taken.

**5.1.16 Give the number of students selected during campus interviews by different employers (list the employers and the number of companies who visited the campus during the last four years).**

The Placement cell of Sri Ramachandra University coordinates with the constituent colleges and conducts various placement activities.

## PLACEMENT - 2009

| Faculty of Management | Out of 30 M.B.A (Hospital and Health system management) students:<br>6 Students were placed in Chettinand Health city, Chennai.<br>4 Students joined Dr. Mehta's Hospitals Pvt. Ltd, Chennai.<br>Some students were employed in Star Health Insurance. |
|---|---|
| Dept. Medicinal Chemistry | Mr. S. Anand (JRF) has joined as Research Associate in the DRDO project entitled "Plant Cell Cultures and Isolation of Bioactive Compounds from plants of Ladakh region" on 19.08.2009.<br>Mr. K. Lalith Kumar has joined GVK biosciences, Hyderabad as a trainee.<br>Mr. A. Seshadri Reddy has joined Simhapuri University, Nellore (A.P) as Lecturer.<br>Mr. K. Chaitanya Kumar has joined as Research Associate in Astra Zeneca, Bangalore. |

## PLACEMENT - 2010

| Faculty of Management | Out of 30 M.B.A (Hospital and Health system management) students:<br>40% are placed in hospitals like Sri Ramachandra Medical Centre and Apollo hospital, Agarwal Eye Hospital, Vasan Eye Care.<br>33% students joined IT Company - Accenture.<br>Remaining students are employed in insurance companies like Star Health Insurance. |
|---|---|
| Allied Health | Students are placed in various hospitals in India and Bhutan. |

| Science | 18% of the students are placed in hospitals and 36 students pursued higher studies. |
|---|---|
| Speech, Language & Hearing Sciences | Out of 15 MSc (SLHS) students, 40% have joined hospitals like Kokilaben Ambani Hospital, Mumbai, GSM hospitals, Varanasi. Another 40% students are working as lecturers in various colleges like Sri Ramachandra University, AVMC Pondicherry. 20% of students are pursuing higher studies. 65% of BASLP students are pursuing higher studies and 25% are working in hospitals. |
| Faculty of Pharmacy | Out of 56 B. Pharm students graduated in April 2010, 95% are pursuing their masters program in various universities and colleges in India and abroad. 5% of the students have opted for placements.  The students were placed in various Pharma companies such as Nestle India Ltd., Mumbai, Hospira India Ltd, Chennai, Orchid Chemicals, Chennai. M. Pharm students are placed in various Pharma research organizations and Pharmacy colleges. 48.7% of the students are placed in the Pharmaceutical industries such as Hetero Drugs, Hyderabad, Orchid Health Care, Irrungattukottai, Aurobindo Laboratories Hyderabad, 28.2% of the students are placed in various Pharmacy colleges in India like St. Marys College of Pharmacy, Guntur, Sri Padmavathi College of Pharmacy, Tirupathi, St. Peters Inst. of Pharmaceutical Sciences, Warangal and the other students have become entrepreneurs in Pharma profession. |
| Faculty of Physiotherapy | 29.7% of the students are placed in various Hospitals in India and abroad. 60% of the students are pursuing higher studies in India and abroad. |

## PLACEMENT – 2011

| Faculty of Management | Out of 28 MBA (Hospital and Health System Management) students, 78% were placed in various hospitals (Apollo, SRM, Mehta etc.) and IT company (Accenture). Remaining students are pursing higher studies. |
|---|---|
| Allied Health Science | 80% of the students are pursuing higher studies 3% of the students have joined as Radiographers in Apollo Hospital, Chennai. 3% of the students have joined as Physician Assistant in K.S. Hospital, Chennai. 5% of the students have joined as Junior Technologists in SRMC, Chennai. |

| | |
|---|---|
| Speech, Language & Hearing Sciences | 27% of the BASLP graduates are pursuing higher studies. 45% of the graduates are currently working in hospitals and private clinics providing speech and hearing services within the country. 27% of the graduates are currently working in private clinics in Malaysia, Singapore and Middle east respectively 73% of the MSc. ASLP graduates are employed.  They are working as Audiologists and Speech Pathologists in hospitals, private clinics, hearing aids and cochlear implant companies across the country. |
| Faculty of Pharmacy | 95% of B Pharm. Students graduated in April 2011 are pursuing their master program and only 5% opted for campus interview and were placed in suitable posts in various industries such as Nestle India Limited and Hospital Health Care. 31% of M Pharm. students of 2011 batch were placed in Aravind Remedies Limited Chennai and 8% of students were placed in various pharmacy colleges in India.  Some students are pursuing their Ph D program. |
| Faculty of Physiotherapy | 54% of students are placed in various hospitals in India. 13% of students are pursuing higher studies. |
| Faculty of Nursing | 62% of students are placed in Sri Ramachandra Hospital 25% of students have joined CMC Vellore 3% of students are  in USA 4% of students are performing medical transcription 3% of students have joined  St. Johns Hospital, Bangalore 1% of students are pursuing higher education |
| Dept. of Biotechnology | 52% are involved in Research / higher studies in India. 21% are with Biotech firms (Navya Biologicals, Hubli & Genomics Biotech, Hyderabad) 27% are employed in other firms |
| Faculty of Nursing | 80% of undergraduates are placed at Sri Ramachandra Hospital.  Placement cell of the university gives information about the available opportunities. |

**PLACEMENT – 2012**

| | |
|---|---|
| Faculty of Management | 100%  of MBA students (Hospital and Health System Management) were placed in various hospitals (Dr. Metha's hospital, SRM hospital, Apollo hospital, Agarwal hospital, Vasan eye care hospital, Firm hospital Chennai, Narayana Hrudalaya Hospital, Bangalore) and in IT company (Accenture). |

| Allied Health Science | 80% of the students are pursuing higher studies in Manipal University, University of Madras, VIT, Boston University, US, Oxford University, UK.<br>2% of students joined as Radiographers in Kovai Medical Centre, Kovai and Neuro Behavioural Research Foundation, Kerala.<br>5% of students joined as Physician's Assistant in Calicut Medical College, KIMS Hospital, Trivandrum.<br>3% of students joined as Junior Technologist Jigme Dorjiwang Chuk National reference Hospital and JDWNRS, Thimpu, Bhutan.<br>2% of students joined as Production editor, Medical coder in MNCs. |
|---|---|
| Speech, Language & Hearing Sciences | 30% of the BASLP graduated students are pursuing higher studies. 53% of them are working in hospitals and private clinics within the country.<br>67% of the MSc. ASLP graduated students are employed. They are working as audiologists and speech pathologists in hospitals, private clinics, hearing aids and cochlear implant companies across the country. |
| Faculty of Pharmacy | 85% of UG Students graduated in April 2012 were interested in pursuing their master program and only 20 % of the passed out 2012 batch opted for campus interview. Those students were placed in Apollo hospitals, ICON clinical research, Chennai; Quintiles, Bangalore.<br>33 % of M Pharm., Passed out PG students of 2012 batch were placed in Apollo hospitals, ICON clinical research, Chennai, Quintiles, Bangalore. Some students are pursuing their Ph D program. |
| Faculty of Physiotherapy | 45% of students are employed in various hospitals in India. 24 % of students are pursuing higher studies. |
| Faculty of Nursing | Students are placed in various hospitals in India (Sri Ramachandra Hospital, CMC Vellore, SRM hospital, MIOT hospital, St. John's Hospital, Bangalore). |

**5.1.17 Does the institution have a registered Alumni Association? If yes, what are its activities and contributions to the development of the institution?**

Yes. From 2013, an Alumni Association for the University merged the individual Departmental / Faculty level Alumni into a Single one with 19 Chapters representing every specialty.

The activities of the different chapters in the preceding years are listed below:

| Faculty | Alumni Activities |
|---|---|
| Chapter -Sri Ramachandra | Alumni day is celebrated on October 5th and includes a continuing education program on campus, social |

| Speech, Language and Hearing Sciences | awareness/public educational activity and release of the directory / newsletter.<br>The alumni meet in May / June each year is held as a general body meet; conducting yearly elections and as social / professional networking program<br>A lunch is organized on the day of convocation to welcome new alumni into the association. They have been diligent in obtaining personal contributions and sponsorship and created a corpus (more than Rs. 7.0 lakhs) for The Radha Nagarajan Alumni grant, Sarala Panchapakesan student grant, Roopa Nagarajan Gold medal, and best clinician book prize.<br>Contributed more than USD 15,000/- towards therapy, test materials, books, and instruments.<br>They annually support departmental international affiliation to the American Speech and Hearing Association and subscription to 6 high impact journals.<br>Serve as mentors, helping students obtain admissions and placements.<br>Fifteen camps were held all over Tamil Nadu, reaching out to over 1500 patients.<br>They have sponsored 35 free hearing aids for patients<br>Created Abirami Memorial Fund (in memory of an alumnus who passed away) to support needy patients.<br>In 11 years, 30 academic programs (seminars, lectures, workshops etc), and 9 Social awareness activities (public talks, interviews, beach cleaning etc.) have been conducted.<br>The Association celebrated its decennial year in 2012. Highlight of the celebrations was the "The decennial lecture series" where 10 alumni from India and abroad shared their professional experience and growth with students on campus. |
|---|---|
| Chapter - Sri Ramachandra School and faculty of Nursing | The composition of the management of Alumni Association included the president, vice president, secretary, treasurer and committee members.<br>The alumni meet every year in the month of May to observe Nurses day, conducting CNE programs. The general body meeting is conducted on the same day annually and elections are held once in two years.<br>Alumni reunion is conducted to honour old members and welcome new alumni members.<br>Association conducts Continuing Nursing Education (CNE) Program on the Nurses Day.<br>The editorial board of Association releases a newsletter called "Sangamam" to update the events and activities of the Association. |

| | |
|---|---|
| | Various competitions like skit, elocution, essay writing etc. for alumni and students organized annually. |
| | Has also enriched facilities by donating furniture's and teaching materials. |
| | Taken special interest to honour Ph D awardees |
| | Reaches out to community through health screening camps e.g., diabetes mellitus and hypertension camp at Vayalanallur and Nemam on 29.04.2009 and 2.05.2009 respectively. About 150 members were screened. Nearly 10% of them were identified as newly diagnosed cases and further referred to Sri Ramachandra Hospital to seek medical care. The second screening camp was conducted on estimation of haemoglobin, fasting blood sugar, Serum cholesterol, physical and psychosocial assessment among 100-150 elderly people at S.V.Pillai street, Kanchipuram on 6.05.2010 and 7.05.2010. |
| | Provided opportunity for the alumni from abroad to share their professional experience e.g., alumna Prof. Annapoorna Mary, University of Memphis, USA, delivered a seminar on Research Evaluation Criteria on 19.12.2011 and a seminar on "Qualitative & Quantitative Research critical analysis on 17.12.2012. |
| | Has taken initiatives to invite prominent alumni members for guest lectures |
| Chapter - Faculty of Physiotherapy | Maintains a communication network to post the happenings in the faculty of physiotherapy and information about workshops/CPE organized. |
| | Members are given concession/ waiver of registration to attend the programs. |
| | Has contributed a hot and cold unit to faculty of physiotherapy for patient care services. |
| | Members share their work and experience with faculty of physiotherapy, which is used to make modifications in the curricular contents. |
| | Conduct reunions, elections and career guidance fairs regularly. |
| Chapter - Faculty of Management | Organizes alumni meet annually through guest lectures, cultural activities and others as a part of the Alumni meet. Alumni from various batches participate in the meet and interact with the current students and share their experiences. |
| | The Deccenial Alumni meet was organized in 2011 |
| | The alumni network is maintained through e mail id and a Facebook page and provides information about workshops, seminar, and conferences organized. |
| | Alumni members visit the campus as Resource person and |

| | share their knowledge and experience.<br>A get–together is organized on the convocation day for the recently passed out batch.<br>Play a strong role for student projects and placement activities. |
|---|---|
| Chapter - Faculty of Pharmacy | conducts guest lectures and seminars periodically on career guidance and soft skills enhancement.  The alumni had contributed the following to the Faculty of Pharmacy, SRU.  Konica Camera, HP Laserjet 1020 printer, Photocopy machine; Cordless mike system (Ahuja) at the cost of Rs. 3000 in November 2011; Standard Pharmacy Text books; Sponsors the registration fee for four faculty in February 2012; conducting Pharmacy Practice module in July 2012; Sponsored students' participation in the 64th Indian Pharmaceutical Congress, held at SRM University, Kattangalathur, from 7th to 9th December 2012.<br>Instituted an endowment of Rs.1,00,000: a) for the award of a Gold medal by name "Dr. Vasantha Janardhan Gold Medal"  to the best outgoing student in M Pharm (Pharmacy Practice) from September 2012; b) for the award of a Gold medal by name "Prof. Sivagnana Balaiyan Gold Medal" to the best outgoing student in M Pharm (Pharmaceutics) from September 2013. |
| Alumni of Department of Biotechnology: | Has contributed by donating books to the university book bank annually since 2007 for Rs 5000/-.  They conduct environmental awareness one day programs or quizzes on the themes: wealth from waste; blood donation; tree-planting among others.  A dynamic online website sponsored by Alumni (mscbiotech.net) keep the alumni linked to the current students - the KBP4.  They share book resources; research linkages; higher education opportunities and job opportunities to name a few. |

**5.1.18 List a few prominent alumni of the institution**

| S. No | Name of alumnus | Designation | Institution | Location |
|---|---|---|---|---|
| 1. | Dr.Senthil K. Rajasekaran | Associate Professor and Director, Centre of Excellence in Medical Education | Oakland University William Beaumont School of Medicine | Rochester |
| 2. | Dr.Annapoorna | Asst. Professor | Loewenberg | Memphis |

| | | | |
|---|---|---|---|
| | Mary, Faculty of Nursing | | School of Nursing | University, USA |
| 3. | Dr. Munikumar Venkatasulu , Faculty of Nursing | Lecturer | School of Health, Community & Educational Services | Northumbria University, UK |
| 4. | Ahamed Sahib, Faculty of Management | Quality Manager | Health Care | Bahrain |
| 5. | Vivek M. Cherian, Faculty of Management | Manager– Operations | New Dr Sunny Medical Centre | Sharjah – UAE |
| 6. | Ali Mohammed Yunus. I, Faculty of Management | Business Analyst | Stanford Hospital | USA |
| 7. | Mr. Arivudai Nambi – Faculty of Pharmacy | Clinical Research Co-ordinator, | Orchid Health Care | USA |
| 8. | Dr Vijay Karthikeyan, IAS, Medical College | Sub Collector | Govt. of India | Kovilpatti district |
| 9. | Dr.Raga Priya, IAS, Dental College | Sub Collector | Govt. of India | Uttara Karnatakka |
| 10. | Dr.Rajesh Jagannathan, Medical College | CEO | Billroth Hospitals | Chennai |
| 11. | Dr.V.Kalanidhi, Medical College | CEO | VEE CARE Hospitals | Chennai |
| 12. | Dr. Emmanuel, Medical College | CMD | Bharat Scans | Chennai |
| 13. | Dr V Saveetha, Medical College | CED | Saveetha Medical College | Chennai |
| 14. | Dr Shobhana, Medical College | CED | Meenakshi Medical College | Chennai |
| 15. | Mr. R. Ranjith - Department of SLHS | Principal | MERF-ISH Madras ENT Research | Chennai |

| | | | Foundation, Institute of Speech & Hearing | |
|---|---|---|---|---|
| 16. | Mr. K. Murugu Pandian - Faculty of Pharmacy | Manager R & D Division, | Fourt's India | India |
| 17. | Dr. Krishnakumar – Faculty of Management | Manager – Admin | Apollo Hospitals, | Chennai |
| 18. | Nirmal .E - Faculty of Management | Project-Manager | MV Diabeties Research center | Chennai |

**5.1.19 In what ways does the institution respond to alumni requirements?**
The institute responds to the Alumni requirements by taking a feedback as shown in the graph below.  Recommendations based on the analysis are done with some examples listed below:
- ✓ Programs for skills development
- ✓ Internship Projects and placements for SRU students
- ✓ Support for Publications and projects
- ✓ Yearly annual meets conducted
- ✓ Establishment of Placement cell for alumni in SRU
- ✓ Collaborative research projects
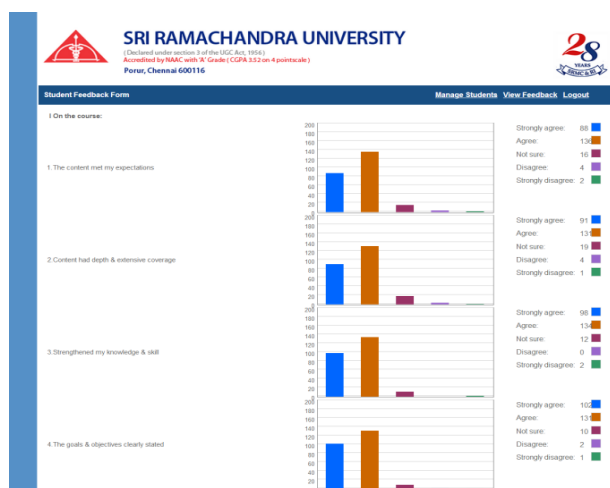


**5.1.20. Does the institution have a student grievance redressal cell? Give details of the nature of grievances reported. How were they redressed?**
Yes
- ✓ The institution has a grievance redressal cell that addresses inequalities and perceived injustices.  This varies from the issues related to the appraisal valuation, peer related issues and promotions.  The major grievances redressed are confidentially maintained.
- ✓ Students can approach the Grievance redressal cell for their problems or deposit them in writing in the Grievance suggestion boxes kept in various places.  The problems are taken up for discussion and appropriate

decisions are taken.  Confidentiality is maintained regarding the grievances expressed.
- ✓ Grievances / suggestions by staff / faculty or students can also be given directly to the Dean of Faculties.  Any matter with regard to the welfare of the institution can be taken up.
- ✓ The committee meets periodically to deliberate on the grievances received. Records are maintained confidentially with the Dean of Faculties.
- ✓ Grievance boxes are available at prominent places in the constituent faculty buildings and in common places.

**5.1.21 Does the institution promote a gender-sensitive environment by**
**(i) Conducting gender related programs (ii) establishing a cell and mechanism to deal with issues related to sexual harassment? Give details.**
Yes as per UGC Guidelines.

- i. **Conducting gender related programs:** The Sri Ramachandra Centre for Women's Advancement (SRCWA) conducts programs that are women – centric.  Sri Ramachandra Centre for Women's Advancement (SRCWA) and departments of SRU play a role in creating awareness; training and activities that are stated in table below:

| Year | Activities- supported | Training | Awareness programs |
|---|---|---|---|
| Since 2003 | Inauguration of Day care centre for babies | | |
| 2007 | Health Screening for Women employees | | |
| 2008 | Health check-up for women over 40 years. | Workshop on developing managerial skills for women | Cancer Breast awareness |
| 2009 | | Workshop on "Women in a changing world challenges & opportunites" | |
| 2010 | Screening and general health checkup for all women faculty of SRU-Silver Jubilee celebrations (Medical Centre) | Seminar on "Finance and auditing – all a woman must know" | |
| 2011 | Women's health check-up; Competitions on "Womens' role in science and technology" -  quiz | | Environment protection – Eco-walkathon environment day- 8 March 2011 |

| | | | |
|---|---|---|---|
| | program, music program, slogan, poster and poetry" | | |
| 2012 | Debate in tamil: "Advancement of women depends on education vs experience" Lactation support program - launched | • Sensitization and training under the UGC sponsored Capacity building for Women managers in higher education programs since 2009 to date.  They serve as Trainer associates (17 nos); Training of Trainers (2); Master Trainers (1) or participate in advanced level training- Management Skills Enhancement Modules (MSEM) modules (2), routinely allowing for gender sensitization as per UGC guidelines (SAM; 5 nos). Work shop on "Woman and Leadership" by faculty from British Council of India, Chennai | Campus day celebrations: "Go Green" on 7th March 2012; slogan ; poetry competitions |
| | | | International women's day: 8th March 2012: " Think differently- Make a difference" for slogan and poetry competitions Exercise in Women's health and well being – A program of awareness and guidance – by Faculty of Physiotherapy and SRCWA |
| 2013 | | | International Womens' Day theme: "One Billion Rising- Our Role" adopting UN theme on -"Time for action to end violence against women" |

**ii. establishing a cell and mechanism to deal with issues related to sexual harassment**

- A Gender issue committee has been constituted to consider the grievances and suggestions of students and faculty including issues

related to sexual harassment. The committee consists of faculty members drawn from across the university and administrative departments.

- Grievance / suggestion by students, faculty or staff can be given directly to the Dean of Faculties or to any member of the committee. Any matter pertaining to the welfare in the institution can be taken up. Contact details and member list is provided in the student manual for information.

**5.1.22 Is there an anti-ragging committee? How many instances, if any, have been reported during the last four years and what action has been taken in these cases?**

- Yes, there is an Anti-ragging committee. The committee is constituted and functions as per UGC regulations. Anti-ragging squad helpline numbers are available in the students manual. Affidavits about ragging issues are collected from students, parent/ guardian. An Anti-ragging cell is also present and functional.
- The report is kept confidential with the Vice Chancellor of the University.

**5.1.23 How does the institution elicit the cooperation of all its stakeholders to ensure the overall development of its students?**

Cooperation of all the stake holders is ensured by following measures:

*Parents as a stake holder*:
- Parents receive academic performance of their ward students by post
- Orientation program after admission regarding regulations and other policies is conducted.
- Regular parent teacher meetings
- Intimation on co-curricular activities
- Parent representation in IQAC
- Interaction during University day and Convocation, annually
- Regular feedback from parents

*Industry as a stakeholders*: By involving them in workshops, inviting them as experts in BoS and as visiting faculty.

*Community as a stakeholders*:
- Interaction with public, community leaders and health workers during screening camps;
- Research programs e.g., PURSE-His; NRHM
- Community awareness programs

*Alumni as a stakeholder*: Alumni share vital resources on global needs and competency that is obtained online through departmental contacts.

*Faculty and Staff as a stakeholder*: They are involved in day to day conduct of the programs and ensure its smooth running for students, which includes motivating them to participate in cultural, sports and academic activities.

*Other stakeholders*:

- Students' feedback at various levels are obtained regarding the infrastructure and program.
- Feedback is obtained from Alumni whenever they visit the institution/department.
- Feedback is obtained from patients visiting Sri Ramachandra Medical Centre & Hospital regarding the services offered, which helps in optimizing the service environment which in turn enhanced the learning environment for the student.

**5.1.24 How does the institution ensure the participation of women students in inter-institutional sports competitions and cultural activities? Provide details of sports and cultural activities where such efforts were made?**

- University encourages women students for participating in National and International Sports and cultural events
- Financial support is also being provided.

Ref: Details in 5.3.2


**5.1.25 Does the institution enhance the student learning experience by providing for rotation from the teaching hospital to the community and district hospital during the internship period**

Yes, the institute has set up a model rural health centre at Vayalanallur exclusively to enhance the learning experience of students at the community level. Students are periodically posted as a part of their clinical training. The institute through the NRHM program has a Public Private Partnership with the Government Health Centres e.g., Nemam, Muglivakkam, where students are posted for clinical rotation during internship. Students are provided with transport, food, and accommodation during their postings.

**5.1.26 Does the institution has immunization policy for its students and staff?**

Yes. Immunization is given for clinical staff and postgraduate students working in the hospital

- Hepatitis B for all staff and students
- Pandemic Influenza (H1N1) vaccination was given for all staff and students

**5.1.27 Does the institution give thrust on students growth in terms of :**

Yes

∗ Physical development:
   Gym facility, Outdoor Sports facility - 12 grounds
∗ Emotional control:
   - Humor club was started in 2013. The club organizes gathering of faculty, staff and students to share moments to laugh. The club also invites personalities and celebrities involved in comedy performances to the gathering.

- Humanities club started in 2013 organizes fine arts involving faculty, staff and students.
- Debates are organised in connection to special days in a year like AIDS awareness day and environmental day. Tamil Mandram functioning in the university also organizes debates.
- Cultural activities are organized for staff, faculty and students regularly.

∗ **Social dimension** University organizes various camps and extension activities, which promotes social dimension to the students (ref. 3.6.12).

MedHOPE Foundation started in 2011 by medical interns to provide holistic support to children in pediatric hemato-oncology department. The organization has been making strides since its inception by organizing the annual HOPE conference for medical students – aimed at increasing awareness on childhood cancers as well as a platform to motivate young medicos to take up Pediatric Hemato-oncology as a specialization. The significant initiatives of the organization are:

1. Play dates for our patients in pediatric hemato-oncology department
2. School health camps
3. Blood donation camps
4. Annual cancer survivor scholarships to deserving young children
5. Walkathon to spread awareness on childhood blood cancer
6. Art workshops for cancer children

∗ **Spiritual growth:** Celebrating all the festivals irrespective of religion, programs organized to develop stability of inner self. Several prayer houses are provided throughout the campus for students, patients and faculty.

## 5.2 Student Progression

**5.2.1 What is the student strength of the institution for the current academic year? Analyse the Program-wise data and provide the trends for the last four years.**

Student strength of the institution for the current academic year:

- UG: 797
- PG - 338

| Student Progression in numbers | | | | | | |
|---|---|---|---|---|---|---|
| Program – wise data | YEAR | | | | | |
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
| UG to PG* | 99 | 121 | 99 | 83 | 124 | 85 |
| PG to M Phil.* | - | - | - | - | - | - |
| PG to Ph D | | | | | | 10 |
| Ph D to Post-Doctoral | | | | | | |

**5.2.2 What is the number and percentage of students who appeared / qualified in examinations like Central / State services, Defense, Civil Services, etc.?**

| | |
|---|---|
| UGC-NET | 1 – JRF ( Faculty of Management) |
| GPAT(Pharmacy) | 3 students (2013) |
| SLET | 1( Faculty of Management) |
| GATE / CAT | 3 qualified |
| INSPIRE | Pharmacy 1 (joined with INSPIRE) and Biotechnology -2 qualified |

**5.2.3 Provide category-wise details regarding the number of post graduate dissertations, Ph.D. /D.Litt. /D.Sc. theses submitted/ accepted/ resubmitted/ rejected in the last four years. 2013.**

The following Ph D thesis and PG dissertation / projects  submitted for University examinations for the period 2009-2013,were all accepted (some PhD theses after clarification / corrections)

| S No | Faculty | No. Submitted | | No. Accepted | |
|---|---|---|---|---|---|
| | | Ph D | PG | Ph D | PG |
| 2009 – 2010 | | | | | |
| 1 | Medicine | 2 | 115 | 2 | 115 |
| 2 | Dentistry | - | 26 | - | 26 |
| 3 | Pharmacy | 4 | 40 | 4 | 40 |
| 4 | Nursing | 1 | 14 | 1 | 14 |
| 5 | Allied Health Sciences | 3 | 33 | 3 | 33 |
| 6 | Biomedical Sciences | 1 | 65 | 1 | 65 |
| 7 | Management | - | 26 | | 26 |
| 8 | Physiotherapy | - | 10 | | 10 |
| | 2010 – 2011 | | | | |
| 1 | Medicine | - | 109 | - | 109 |
| 2 | Dentistry | - | 25 | - | 25 |
| 3 | Pharmacy | 1 | 50 | 1 | 50 |
| 4 | Nursing | 3 | 28 | 3 | 28 |
| 5 | Allied Health Sciences | - | 31 | - | 31 |
| 6 | Biomedical Sciences | 2 | 51 | 2 | 51 |
| 7 | Management | - | 30 | | 30 |
| 8 | Physiotherapy | - | 12 | | 12 |
| 2011 - 2012 | | | | | |
| 1 | Medicine | 1 | 97 | 1 | 97 |
| 2 | Dentistry | - | 26 | - | 26 |
| 3 | Pharmacy | 2 | 48 | 2 | 48 |
| 4 | Nursing | 4 | 27 | 4 | 27 |
| 5 | Allied Health Sciences | 1 | 36 | 1 | 36 |
| 6 | Biomedical Sciences | - | 36 | - | 36 |

| | | | | | |
|---|---|---|---|---|---|
| 7 | Management | - | 29 | | 29 |
| 8 | Physiotherapy | - | 10 | | 10 |
| 2012 - 2013 | | | | | |
| 1 | Medicine | 2 | 100 | 2 | 100 |
| 2 | Dentistry | 1 | 25 | 1 | 25 |
| 3 | Pharmacy | - | 39 | - | 39 |
| 4 | Nursing | 4 | 30 | 4 | 30 |
| 5 | Allied Health Sciences | 2 | 39 | 2 | 39 |
| 6 | Biomedical Sciences | 3 | 22 | 3 | 22 |
| 7 | Management | - | 27 | | 27 |
| 8 | Physiotherapy | - | 8 | | 8 |
| 2013 - 2014 | | | | | |
| 1 | Medicine | 1 | 109 | 1 | 109 |
| 2 | Dentistry | - | 27 | - | 27 |
| 3 | Pharmacy | 5 | 32 | 5 | 32 |
| 4 | Nursing | 3 | 22 | 3 | 22 |
| 5 | Allied Health Sciences | - | 32 | - | 32 |
| 6 | Biomedical Sciences | 2 | 30 | 2 | 30 |
| 7 | Management | - | 28 | | 28 |
| 8 | Physiotherapy | - | 12 | | 12 |
| | Total | 48 | 1556 | 48 | 1556 |

**5.2.4 What is the percentage of graduates under AYUSH programs employed in the following?**

**AYUSH departments/ hospitals**
**Multinational companies**
**Health clubs**
**Spas**
**not offering any Ayush programs**
**Yoga wellness centers,**
**Yoga studios,**
**Health clubs,**
**Own yoga cubes/studios?**

Not Applicable, as SRU is not offering any Ayush programs

**5.3 Student Participation and Activities**

**5.3.1 List the range of sports, cultural and extracurricular activities available to students.  Furnish the program calendar and provide details of students' participation.**

The annual cultural and athletic events are organized in the campus with great enthusiasm, pageantry and discipline.  The University's newsletter '*Bridges*' records their participation and contributions in many of the regular campus activities like the monthly book review, humor club, debate club, quiz club, etc on a regular basis.  Another notable feature is increase in participation and remarkable performance of SRU students in several intra- and inter-institutional academic, cultural and athletic activities (ref. 5.3.2).

The University has established the 'SRU E-Cell' with the objective of propagating the importance of developing entrepreneurial skills and familiarizing students with entrepreneurial principles and methods. More than 15 events including guest lectures and motivational talks were organized in the last five years by the Faculty of Management Sciences under the banner of National Entrepreneurial Network (NEN) with student participation from several departments across different faculties.

**5.3.2. Give details of the achievements of students in co-curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National/ International, etc. During the last four years.**

The students of Sri Ramachandra University are encouraged to participate in extra-curricular activities like sports, cultural and games like cricket, football, athletics and basketball etc. We have an international level champion in skating and a national level chess champion. Several students have won championships in track and field events. The students are also motivated to participate in tournaments conducted by other organizations.

The University organizes sports and cultural events annually. Apart from this, students are encouraged and coached to participate in the sports and cultural events organized by other external agencies.

Sports Achievers of SRU:

| INTERNATIONAL (2013) | | | |
|---|---|---|---|
| SL. NO | REPRESENTING | TYPE OF SPORT | AWARD/PRIZE/ RECOGNITION |
| 1 | India | Roller Skating | Ms. Aarathy Kasturi Raj represented India in World Roller Skating Championship held at Belgium. |
| 2 | India | Roller Skating | Ms. Aarathy Kasturi Raj represented India in 14th Asian Roller Skating Championship held at Taipei and won the bronze medal. |
| 3 | India | Yoga | Ms. Nikarika represented India and won 1 Gold and 2 Bronze medals in Asia Yogasana Competitions, New Delhi in 2012. |
| 4 | India | Yoga | Ms. Nikarika represented India and won 1 Gold, 2 Silver and 2 Bronze Medals in World Professional Yoga Championship, Uruguay in September 2011 |

| NATIONAL (2008) | | |
|---|---|---|
| 5 | University | Throw ball (Women) | Ms. Preetha P Nair and Ms. Priyadharshini Dental Sciences students won the III Place trophy in CMC National level intercollegiate tournament held at CMC, Vellore. |
| 6 | University | Throw ball (women) | Ms. Preetha P Nair, Ms. Sailee Swarup and Ms. Priyadharshini Dental Sciences students won the runners – up trophy in Spandan '08 National level intercollegiate tournament held at JIPMER, Pondicherry. |
| ZONE (2010) | | |
| 7 | University | Throw ball (women) | Ms. Preetha P Nair , Ms. Rajhavee Shreeyha Ms. Krithika Dental Sciences students won the 4th Place in MOP South Zone level intercollegiate tournament held at M.O.P. Vaishnav College, Chennai. |
| STATE – LEVEL CHAMPIONSHIP (2008) | | |
| 8 | University | Throw ball (women) | Ms. Preetha P Nair, Ms. Sailee Swarup and Ms. Priyadharshini Dental Sciences students won the runners – up trophy in ESPO State level intercollegiate tournament held at Ethiraj College, Chennai. |
| 9 | University | Throw ball (women) | Ms. Preetha P Nair, Ms. Sailee Swarup and Ms. Priyadharshini Dental College Students won the runners – up trophy in State level intercollegiate tournament |

| | | | held at Alpha Arts and Science College, Chennai. |
|---|---|---|---|
| 10 | University | Throw ball (women) | Ms. Preetha P Nair, and Ms. Priyadharshini Dental Sciences students won the runners – up trophy in State level intercollegiate tournament held at Chennai District Throwball Association, Chennai. |
| 11 | Dental Sciences | 100 mts, 4x100 mts Relay | Secured II Place in IDA State level Dental Sciences tournament held at Belgaum. |
| **STATE – LEVEL CHAMPIONSHIP (2009)** | | | |
| 12 | University | Throw ball (women) | Ms. Preetha P Nair, and Ms. Priyadharshini Dental Sciences students won the winners and runners – up trophy in ESPO State level intercollegiate tournament held at Ethiraj College, Chennai. |
| 13 | University | Throw ball (women) | Ms. Preetha P Nair and Ms. Priyadharshini Dental Sciences students won the runners – up trophy in State level intercollegiate tournament held at JBAS Women's College, Chennai. |
| **STATE – LEVEL CHAMPIONSHIP (2011)** | | | |
| 14 | Dental Sciences | 100 mts & Shotput | Secured III Place in IDA State level dental college tournament held at Chettinad Dental College, Chennai. |
| 15 | Dental Sciences | Foot ball (Men) 100mts,200mts, 800mts 4x100 mts (Men) Throw ball (Women) 800 mts & Javelin (W) | Secured Winners and I, II & III Place in MIDAS Dental Sciences tournament held at Y.M.C.A. College, Chennai. |
| 16 | University | Throw ball (women) | Ms. Preetha P Nair , |

|  |  |  | Ms.Rajhavee Shreeyha Ms. Krithika and Ms. Sweetha<br><br>Dental Sciences students won the runners – up trophy in State level intercollegiate tournament held at Vel's University, Chennai. |
|---|---|---|---|
| 17 | University | Throw ball (women) | Ms. Preetha P Nair , Ms.Rajhavee Shreeyha Ms. Krithika and Ms. Sweetha<br><br>Dental Sciences students won the runners – up trophy in State level intercollegiate tournament held at Alpha Arts & Science College, Chennai. |
| STATE – LEVEL CHAMPIONSHIP (2012) | | | |
| 18 | University (Medical College) | Table Tennis (Men) Athletic (Men) 100 mts,200 mts, Jevelin, Shot put, High Jump & 4x100 mts Relay | Mr. Eswar,      Mr. S, Siddharata Mr. S. Deepak, Mr. Sanjay Mathew Mr. R. Gopu<br><br>Dental Sciences students won over all second place in 'Aadugalam' 2012 state level intercollegiate tournament held at Kilpauk Medical College, Chennai. |
| 19 | Dental Sciences | Basket ball(Women) Throw ball (Women) Athletic (Women) 100 mts,200 mt, 800mts, Shot put, Discus & High Jump, Athletic (Men)100 mts,200 mt, 1500mt, Shot put, High Jump & 4x100 mt Relay | Secured I, II & III Places and Over all II Place in IDA State level Dental college tournament held at R.V.S. Dental College, Coimbatore. |
| STATE – LEVEL CHAMPIONSHIP (2013) | | | |
| 20 | University | Roller Skating | Ms. Aarathy Kasturi Raj represented Tamilnadu State in the 50th National |

| | | | |
|---|---|---|---|
| | | | Roller Skating Championship held at Virar Mumbai won the 2 Golds and 1 Silver. |
| 21 | University (Pharmacy) | Throw ball (Women) | Winners in state level inter Pharmacy Collegiate Tournament in Sri Ramachandra University, Chennai |
| 22 | University Medical College | Cricket (Men) Table Tennis (Men) Basket ball(Women) Table Tennis (Women) Badminton (Men) Carrom (Women) Athletic (Men) Javelin & Shot-put Athletic (Women) 100mts, 200mts, Javelin, Shot-put, High Jump &Long Jump | Winners and over all second place in 'Aadugalam' 2013 state level intercollegiate tournament held at Kilpauk Medical College, Chennai. |
| 23 | Dental Sciences students | Basket ball (Men) Throw ball(Women) Carrom (Women) Table Tennis (Women) Athletic (Men)100mts, 1500 mts, Shot-put, & 4x100mts Relay. Athletic (Men) 100mts, 200mts, 800 mts, 4x100mts Relay and Mixed Relay | Secured I, II & III Place; Over all II Place in IDA State level Dental college tournament held at Saveetha Dental College, Chennai. |
| 24 | Nursing | Basket ball (Men) Volley ball (Men) | Secured Winners Place in (SNA) State level Nursing College tournament held at Kumarapalayam. |
| 25 | University | Basket ball(Women) Badminton(Women) | IV place in the state level intercollegiate tournament held at IIT, (Madras), Chennai. |
| 26 | University | Foot ball (Men) | IV place in the state level |

| | | | intercollegiate tournament held at Hindustan University, Chennai. |
|---|---|---|---|
| 27 | University | Foot ball (Men) | III place in the state level intercollegiate tournament held at Anna University, Chennai. |
| 28 | University | Cricket (Men) | IV place in the state level intercollegiate tournament held at SRM University, Chennai. |
| **UNIVERSITY (2008)** | | | |
| 29 | University | Throw ball (women) Carrom (Women) | Ms. Preetha P Nair, Ms. Sailee Swarup and Ms. Priyadharshini<br><br>Dental Sciences students won the winners and runners – up trophy in N.P.V. Ramaswamy Udayar intercollegiate tournament held at Sri Ramachandra University, Chennai. |
| **UNIVERSITY (2009)** | | | |
| 30 | University | Throw ball (women) Carrom (Women) | Ms. Preetha P Nair, Ms. Sailee Swarup and Ms. Priyadharshini<br><br>Dental Sciences students won the winners, runners – up trophy in N.P.V. Ramaswamy Udayar intercollegiate tournament in Sri Ramachandra University held at Chennai. |

Cultural Activities:
- A yearly cultural extravaganza is organized by the students of SRU. The students raise funds and organize a one week event that includes track and field events, flood light matches and cultural program.  This is a student initiative with faculty members playing an advisory and supportive role.
- Students are also encouraged to participate in quiz competitions conducted by other colleges.
- Outstanding sports persons are supported in academics with special classes, health care through staff and student clinics.

- Our students have participated and won prizes in throw ball, carom, basketball and relay in inter and intra sports tournaments.
- Our students participated in SRM cultural fest 2012, IDA cultural fest 2012 and several other cultural activities.
- Extra-Curricular activities like humor club, fine arts, quiz club, debate club, tamil mandram and presentation in monthly book reviews are also encouraged.
- Sports and cultural events are organized annually. Students are encouraged and coached to participate in sports and cultural events organized by other external agencies.
- The student nurses association conducts annual sports and cultural competitions. The winners in these events are given opportunities to participate in the state and national level SNA events.
- Students are also encouraged to celebrate all the festivals.

**5.3.3 Does the institution provide incentives for students who participate in national/ regional levels in sports and cultural events?**

- The University has a policy wherein the students who participate in national / regional levels of sports and cultural events are reimbursed with the cost of travel, accommodation, food & refreshments, and uniforms. Infrastructure and coaching facilities are also provided.
- Cash acknowledgements, prizes are also awarded for the students.

**5.3.4. How does the institution involve and encourage its students to publish materials like catalogues, wall magazines, college magazine, and other material? List the major publications/ materials brought out by the students during the last four academic sessions.**

- The annual student Magazine 'Caduceus', the Newsletter 'Fifteen Minutes', the Wall Magazine "Influenz" (SRMC & RI); "Inspire" (Physiotherapy) are prepared and published by the students of SRU. Hard copies of the publication of past 4 years are available with IQAC.
- The students are allowed to publish in the University magazine "Bridges", a monthly newsletter. They work with faculty members and publish in peer reviewed academic journals.
- The students are encouraged to prepare educational materials especially for competitions/ camps.
- The college Student Journal committee is constituted to foster their talents and exhibit their skills.
- I and II B.D.S students together authored a dissertation on Dental materials. A library edition was released under the guidance of the Dean, Dental College and Dr. Pravin, Senior Lecturer, Department of Conservative Dentistry.
- Students design the college magazines and contribute poetries, photographs, paintings and other sessions.

- Postgraduate students of Nursing are encouraged to publish their research articles in the International Nurses conference – a research paper presented in 8th International nurses conference held between 2nd – 4th January 2013.

**5.3.5 Does the institution have a Student Council or any other similar body? Give details on its constitution, activities and funding.**

The Student Council is a nominated body of the University. Student members are nominated on the basis of their academic performance and co-curricular and extra-curricular skills. The students participate actively in health camps, blood donation camps and other community and extension activities organized by the University. A notable student initiative 'MedHope Foundation' committed to providing financial support and medical assistance for children with leukemia and blood-related malignancies is successfully functioning for the last three years (since 2010).

**5.3.6 Give details of various academic and administrative bodies that have student representatives on them. Also provide details of their activities.**

Student representatives participate as members in many of the committees for decision making:

| Sl. No. | Name of the Committee | Year of Inception | Functions |
|---|---|---|---|
| 1. | Sri Ramachandra University Students' Council – 24 representatives from all colleges | 2009 renamed in 2012 | Started in 2005 as Student's Affairs Committee and renamed as Student Council in 2012 It works to promote activities relating to academic awareness, cultural awareness, physical fitness and general welfare of students of SRU. |
| 2 | Library Committee – 5 Student Members (4PG & 1 UG) | 2011 | Library committee has student representatives who offer inputs about student needs and requirements. This representative act as liaison between the governance and the student population. |
| 3. | Medical Education Unit – SRMC & RI – 2 students (UG) | 1997 Students inducted from 2012 | Involves students in curriculum and education related issues |
| 4. | Hostel Committee | 14 student members | The hostel committee meets periodically with the Associate Deans and report any requirements or represent any changes required |

| 5. | SRU Bridges – editorial committee | one | Participates in editorial activities of the newsletter |
|----|-----------------------------------|-----|-------------------------------------------------------|
| 6. | IQAC | Two students from 2012 | Members of student council (president and secretary) become automatic members of the committee and participate in the Quality Initiatives of the University |
| 7. | Students magazines and journals - (2 journals and 6 magazines) | 2 Physiotherapy | Participate in editing and preparing material for magazines |

*Any other information regarding student support and progression which the institution would like to include:*

IQAC enabled launching of the on-line Feedbacks (at our web portal) from students that helped facilitate better quality audits, analysis and rectification, thus modernizing student support.

With enabling of e-Governance project, a separate login id and email facility is offered on the website of the university for each parent / guardian. This will help parents / guardians to obtain immediate feedback and progression of their wards in real time. This is especially useful for parents outside Chennai.

# Criterion VI
# Governance, Leadership and Management

**Criterion VI - Governance and Leadership**

| Key Aspects | Approach | Outcome |
|---|---|---|
| Institutional Vision and Leadership | • Strategies for Institutional Vision and leadership by forming various committees | • Effective organization structure for smooth flow of policy making to implementation<br><br>• E-governance for transparency in documentation and closer monitoring of programs<br><br>• Rotation of leadership |
| Strategy Development and Deployment | • Vision 2025 document<br>• Fostering global competencies among students<br><br><br>• Promoting use of Technology<br>• Integrating Quest for Excellence into the system | • Excellence in Education, Health care and Research<br><br>• Integrated curriculum<br>• UG summer Research Fellowship<br>• Clerkships / Observerships in national and international institutions<br><br>• E- PROPDEV resources, Tele education, NKN connectivity<br>• 9 accreditations from International and National bodies and SREE program |
| Faculty Empowerment strategies | • Faculty promotion | • Transparency in faculty promotions as per UGC guidelines<br><br>• Women Empowerment |
| Financial Management and Resource Mobilization | • Provision for Financial Resources | • Adequate budgetary provision and resource mobilization through fees, endowments and grants from funding agencies |
| Internal Quality Assurance System | • Attaining Quality Sustenance | • Conduct of Academic and Administrative Audit<br><br>• Internalization and Institutionalization of Quality Sustenance in all activities<br><br>• Setting up bench marks in Education, Healthcare and Research |

## CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

### 6.1 Institutional Vision and Leadership

### 6.1.1 State the vision and the mission of the institution.

*VISION*

To offer diverse educational programs that facilitate the development of competent professionals and valuable citizens, who demonstrate excellence in the respective disciplines, while being locally and globally responsive in areas of education, healthcare delivery and research.

*MISSION*

Sri Ramachandra University will actively promote and preserve the higher values and ethics in education, health care and research and will pursue excellence in all these areas while consciously meeting the expectations of the people it serves without prejudice and in all fairness stay socially meaningful in its propagation of the various arts and sciences to enrich humanity at large.

### 6.1.2 Does the mission statement define the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, the institution's tradition and value orientations, its vision for the future, etc.?

The mission statement addresses the needs of internal and external stakeholders and sets the tone for excellence in the areas of teaching, research and clinical services. The vision of the university as described in the VISION 2025 document envisages the university to emerge as one of the top twenty medical and allied health sciences universities in South-east Asian region by contributing high quality education, health care, biomedical translational research to the society(Vision 2025) Appendix 1.1.2

### 6.1.3 How is the leadership involved in

∗ **developing e-governance strategies for the institution?**

Steps have been taken to systematically increase computerization of all process at the university. At the university level a committee comprising of IT savvy personnel has been formed. The various areas for the need for governance like admissions, academics, research, finance, library, human resources, alumni, IQAC, and others were identified. A team was identified for customizing data analyzing software. Computerization of all spheres of university functions (academic, research, administrative and financial) is in place through an e- governance software system in order to facilitate good governance in the university. All health care management activities from patient admissions, pharmacy, radiological services, medical record division etc have been automated. Faculty and staff sensitization and training, trouble shooting and integration are being done on a rapid manner.

∗ **Ensuring the organization's management system development, implementation and continuous improvement?**

The management systemfunctions through participatory mechanism as mentioned below.

Tier I: Institutional level committees with decentralized powers and functions;

a. University Advisory Board with members from senior executives of the university presided by Vice- Chancellor as chairperson looking into major development and policy issues of the university is formed.
b. Medical Staff Executive Committee (MSEC) ensuring fair representation of every segment of hospital manpower for looking after hospital and patient care related matters
c. Quality Improvement and Patient Safety Team (QIPST) monitors quality audits of medical centre and hospital's performance
d. Committees with specified domain functions such as Institutional Ethics Committees, Institutional Biosafety Committee to name a few are actively functioning.

Tier II: Statutory bodies and Committees as per the MoA/ Rules of the university:
a. Board of Management (BoM) with representative of MHRD, Govt. of India and external experts as specified in the MoA
b. Finance Committee: As specified with representatives of MHRD, Govt. of India
c. Planning and Monitoring Board: As specified comprises of UGC representatives and external experts
d. Boards of Studies as per MoA/ rules for each faculty/discipline / program as specified for curricula development and approval
e. Research Advisory committee with external experts
f. Board of Research Studies with external experts
g. Academic Council as per MoA specifications

The recommendations / decisions after due approval by statutory bodies are implemented to facilitate continuous development and quality improvement.

∗ **Interacting with its stakeholders?**
The University officials interact with all stakeholders namely, students (through formal and informal feedback), parents (through their input from schedule PTA meetings and informal interactions), patients (through direct feedback/suggestion forms), the industry (at the time of recruitment / placement)and the alumni. During the General body meeting and Executive meeting the suggestions of the stakeholders are taken up for remedial measures, as and when required.

∗ **Reinforcing a culture of excellence?**
The governance fosters a culture of excellence and also as a commitment to continuous quality improvement by rewarding performance through administrative/cash awards/recognition. During 2012- 2013, a structured performance – linked incentive (PLIS) has been implemented.  Appendix 6.1.3

∗ **Identifying organizational needs and striving to fulfill them?**
The organizational needs in terms of infrastructure, quality improvement and faculty requirement are periodically assessed based on feedback and emerging needs of the society.  The institution strives to fulfill the requirements instantaneously by adopting an appropriate andsystematic administrative system.

**6.1.4 Were any of the top leadership positions of the institution vacant for more than a year? If so, state the reasons.**
No.

**6.1.5Does the institution ensure that all positions in its various statutory bodies are filled and meetings conducted regularly?**
Yes,all positions are filled as per the statutory norms with nominees of MHRD, Govt .of India and UGC, wherever indicated. Meetings are conducted regularly as stipulated. Number of meetings of statutory bodies held year-wise are as follows:

| Sl. No. | Statutory Bodies | 2009 | 2010 | 2011 | 2012 | 2013 |
|---------|------------------|------|------|------|------|------|
| 1. | Board of Management | 3 | 3 | 4 | 4 | 4 |
| 2. | Academic Council | 1 | 1 | 1 | 1 | 2 |
| 3. | Finance Committee | 3 | 2 | 2 | 2 | 2 |
| 4. | Planning & Monitoring Board | - | 1 | - | 1 | - |
| 5. | Board of Research Studies | - | - | 1 | - | 1 |
| 6. | Boards of Studies | 3 | 3 | 9 | 5 | 5 |

**6.1.6 Does the institution promote a culture of participative management? If yes, indicate the levels ofparticipative management.**
Culture of participative management is encouraged at every level for e.g. Faculty members across the constituent units are appointed in various university committees. Students find representation in curriculum committee, IQAC, and library committee. Administrative staff find representation in OR/ hospital committee. Faculty members representing in BOS / Academic Council / Board of Management and the committees areenumerated under 6.1.3

**6.1.7 Give details of the academic and administrative leadership provided by the university to its affiliated colleges/ constituent units and the support and encouragement given to them to become autonomous.**
The university provides complete academic autonomy to all faculties in teaching, health care and researchprograms. As a deemed university, the constituent units are encouraged to be autonomous to the extentpermissible by UGC and respective statutory councils.The leadership of constituent faculties are listed below:

- Dr. S. Anandan, Dean- Sri Ramachandra Medical College and Research Institute.
- Dr. D. Kandaswamy, Dean, Faculty of Dental Sciences
- Dr. Prasanna Baby, Principal, Faculty of Nursing
- Mr. N. Venkatesh, Principal, Faculty of Physiotherapy
- Dr. KalpanaBalakrishnan, Principal, Faculty of Allied Health Sciences
- Dr. D. Chamundeeswari, Principal, Faculty of Pharmacy

- Dr. Solomon Paul, Principal, Faculty of Biomedical Sciences, Technology & Research
- Dr. Sivaniah, Principal, Faculty of Management

**6.1.8   Have any provisions been incorporated / introduced in the University Act and Statutes to provide for conferment of degrees by autonomous colleges?**

Sri Ramachandra University confers degrees to students of all constituent units.

**6.1.9 How does the institution groom leadership at various levels? Give details?**

Leadership grooming is achieved at several levels.

a.  At the department level –
✓  Rotation of headship of departments to ensure participative management
✓  Registrar in clinical specialties represent the middle level grooming to become unit chiefs/professors
✓  Membership of University committees

b.  At the college level – rotation of:
  ✓  Deans / Principals / Course Chairpersons
  ✓  Medical Director / Medical Superintendent

c.  At the university level, through imparting skills to play various roles
  ✓  Through mentoring, Faculty Development Programs,Leadership programs consistent with the vision of our leadership.

**6.1.10 Has the institution evolved a knowledge management strategy which encompasses the following aspects such as access to**

∗  **\*Information Technology**
∗  **National Knowledge Network (NKN)**
∗  **data bank,**
∗  **\*other open access resources along with effective intranet facilities with unrestricted access to learners. If yes give details?**

✓  Akin to international approach, the university evolved ICT mediated knowledge management.  To facilitate its implementation, National Knowledge Network (NKN) connectivity was subscribed with 1GB bandwidth along with campus-wide networking.
✓  Development of teaching- learning resources has also been done in parallel.
✓  Infrastructure for e-classrooms has been put in place.
✓  The Telemedicine Centre of the university is used for Tele-education with the help of partnering foreign universities under the Pan – African networking program.  SRMC & RI has been identified by the Ministry of Health & Family Welfare as one of the centres to develop e-resources for medical education.(Ref 2.3.17)

**6.1.11 How are the following values reflected in the functioning of the university?**

∗  **Contributing to national development**

As a medical and health sciences University, SRU has contributed to national development through

a. Participation in NRHM at primary rural centers level in villages

b. Instituting a 4- year B.Sc program in Biomedical sciences and Allied Health Sciences with internships / specialization component akin to international compatibility.

c. Development of research- based preventive healthcare policy guidelines for WHO, ICMR, DST etc. in the areas of life-style diseases, Environmental and Occupational Health, health impact of indoor air pollution

d. Tertiary health care support for referral patients below poverty line (BPL) who are covered under the Govt. of Tamil Nadu Medical insurance Scheme and

e. Setting up of a center for perinatal science and child development centre as an innovative health management strategy to reduce maternal and infant mortality rates, which can be scaled up by the government health system.

∗ **Fostering global competencies among students**

It is effected by:

a. introducing at the curriculum design levels "Integrated curriculum for MBBS and BDS" and by "integrated MD/ MS- PhD program" for medical graduates and by "PG-PhD integrated program" for all other faculties of Dental Sciences, Pharmacy, Physiotherapy, Biomedical Sciences, Nursing, Allied Health Sciences and Hospital Management with a view to imparting global compatibility.

b. providing opportunities to carry out research, project based learning at both UG and PG levels, promoted by UG- summer research fellowships and mandatory curricular component for PG students

c. exposing to national / international institutions through clerkships / observerships and

d. encouraging students participation in research seminars along with presentations of papers in conferences.

∗ **Inculcating a sound value system among students**

A systematic methodology of inculcating value systems among students is adopted by:

a. Professional Development (PRODEV) program for all UG medical students to inculcate value- based health care service attitude

b. Subjecting the PG and Ph D students to educational courses on responsible conduct of Research, Research Ethics and Good Clinical Practices to inculcate sound value systems in human – subject related services / research

c. Providing an opportunity to take up parallel value- added courses as elective options

∗ **Promoting use of technology**

A significant boost has been given to promote the use of technology in all areas like;

a. Teaching- Learning by providing e- resources, classroom facilities, online courses, Tele-education and by interspersing with MoU signed institutions for use of library resources, facilitated by the NKN connectivity provided by Govt. of India and through campus- wide networking

b. Computerization of all spheres of university functions (academic, administrative and financial) through an e- governance software system in order to facilitate good governance in the university

c. Technology infusion to teachers by Faculty Development Program which has been recognized by MCI duly designating the Medical Education Unit (MEU) of SRU as the Regional Nodal Centre of MCI to train medical teachers from 31 medical colleges

d. Complete automation of Medical Records of the medical center/ hospital for retrieval and study by appropriate students and

e. Hi-Tech technology use in research both through sophisticated instruments and softwares

f. Retrieval of patient information based on International Classification of Diseases Code

∗ **Quest for excellence**

The university has strived hard to achieve excellence in several spheres of university activities which are authenticated by the following accreditations during the post- NAAC accreditation in 2008.

| Sl. No. | University/ its constituent faculties | Accreditation Body | Year |
|---|---|---|---|
| | Sri Ramachandra Medical Centre | Joint Commission International, USA (JCI) | Accredited – 2009 Re-accredited – 2012 |
| | Sri Ramachandra Medical Centre | National Accreditation Board for Hospitals (NABH) | Accredited – 2002 |
| | Sri Ramachandra Blood Bank | AABB (American Association of Blood Bank) | Accredited – 2010 Reaccredited in 2012. |
| | Dept. of Environmental Health Engineering | WHO – Geneva, Switzerland; WHO – Collaborating Centre for Environmental & Occupational Health | Recognised from 2005 – till date Research Resources & Training funds |
| | Dept. of Environmental Health Engineering | ICMR – Centre for Advanced Research for Indoor Air Pollution; ICMR, New Delhi, GOI | 2009 – till date |
| | Dept. of Environmental Health | NEBOSH – Training Centre; NEBOSH, ILO – New Delhi, GOI | 2007 – till date Training assistance |

| | Engineering | | |
|---|---|---|---|
| | Dept. of Human Genetics | AERB – Bio Dosimetry Centre; AERB – Atomic Energy Regulatory Board, Mumbai – Government of India | 2007 – till date Recognition for Service |
| | Dept. of Human Genetics | Government of Tamilnadu – Prenatal Genetic testing & counseling centre, Department of Health & Family Welfare, Government of Tamilnadu | 2008 – till date Patients' Service |
| | Dept. of Anaesthesiology; Dept. of Bioinformatics | ISO certified | Since  2005 |
| | SRU – Medical Education Unit | MCI – Nodal Centre for Faculty Development in Medical Education technologies; Medical Council of India, New Delhi | Medical Council of India, New Delhi |
| | PURSE-HIS Centre for Population Research; | Life- Style Diseases & Prevention Centre; Department of Science & Technology, Government of India, New Delhi | Phase I- 2009; Phase –II- 2013 |
| | Central Research Facility; HIMRL & Centre for Toxicology & Developmental Research | AYUSH/DST Centre for Herbal and Indian Medicine Research & Preclinical toxicology; AYUSH, Government of India, New Delhi & DST (DPRP) Government of India, New Delhi | 2009 – till date DST-DPRP and AYUSH Funded projects |
| | Central Research Facility & SRU | DSIR certified - SIRO – Scientific & Industrial Research Organisation; DSIR, Department of Science & Technology, Government of India | 2009 – till date |
| | Department of Community Medicine; Central Research | CITI – India Centre for Research Ethics Education; CITI – University of Miami, USA | 2009 – till date Research Ethics Education |

| | Facility & SRU | | |
|---|---|---|---|
| | Microbiology & SRU Hospital | H1N1 – testing Centre; Department of Health and Family Welfare, Government of Tamilnadu | 2008 – till date |
| | Sri Ramachandra Hospital | Health Insurance Scheme Centre for BPL; Government of Tamilnadu, Chennai | 2011 – till date Tertiary Care Service |
| | Sri Ramachandra Hospital | ICTC – Service Centre; Government of Tamilnadu, Chennai | 2008 – till date |

**6.1.12   Has the institution been indicted / given any adverse reports by National Regulatory bodies? If so, provide details.**

No

**6.1.13   What are the projected budgetary provisions towards teaching, health care services, research, faculty development, etc.?**

Budgetary provisions towards teaching:

| Type | Year 2013- 2014; Rs.(in lakhs) |
|---|---|
| Teaching | 12866.20 |
| Health Care Services | 3870.30 |
| Research | 98.25 |
| Faculty Development | 45.95 |
| Total | 16880.70 |

Note: The above budgetary provisions are for the financial year 2013-2014 by considering revenue expenditure only (provision, for depreciation and capital costs not considered)

**6.2. Strategy Development and Deployment**

**6.2.1 Does the institution have a perspective plan for development? If yes, what aspects of the following are considered in the development of policies and strategies?**
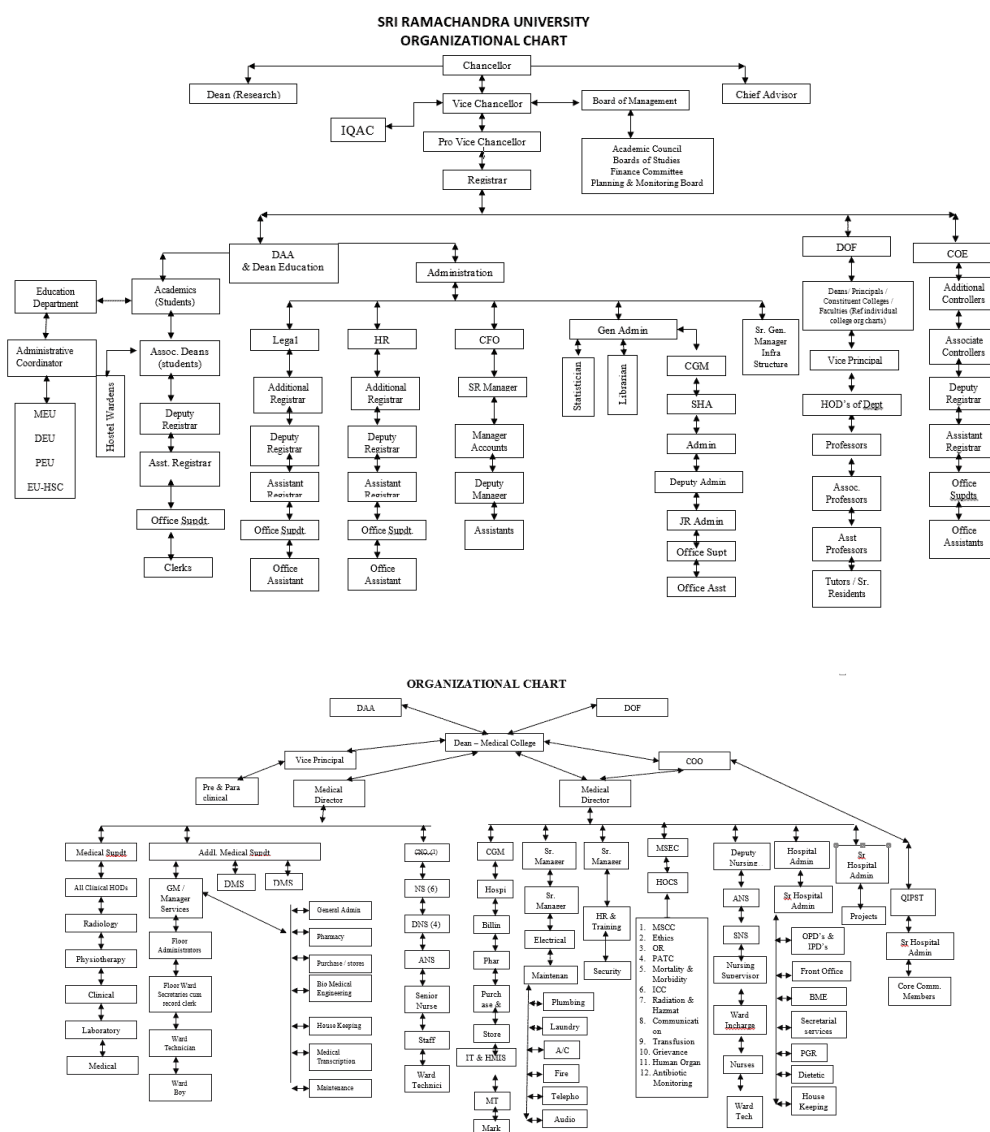
* Vision and Mission
* Teaching and Learning
* Research and Development
* Community engagement / outreach activities
* Human resource planning and development
*Industry interaction
*Internalization

The SRU-VISION- 2025 document (appendix1.1.2) provides comprehensive roadmap of the developmental plan as well as the policies and strategies to be adopted on all aspects outlined in 6.2.1.  The vision document reflects the present status and recently implemented innovations interms of teaching and learning, clinical services and research and development, community engagement,human resource planning at SRU.  The vision document also outlines immediate short term and long term goals to develop SRU into one of

the top universities providing health care education, service and research in this region.

## 6.2.2 Describe the institution's internal organizational structure (preferably through an organogram) and decision making processes and their effectiveness. Is there a system for auditing health care quality and patient safety? If yes, describe.

The organization has a hierarchy in administration and this ensures a smooth flow of policy making / policy implementationand also ensures a feedback / redressal mechanism.

**SRI RAMACHANDRA UNIVERSITY ORGANIZATIONAL CHART**

Chancellor — Dean (Research) — Vice Chancellor — Board of Management — Chief Advisor — IQAC — Pro Vice Chancellor — Academic Council, Boards of Studies, Finance Committee, Planning & Monitoring Board — Registrar — DAA & Dean Education — Administration — DOF — COE

Education Department — Academics (Students) — Legal — HR — CFO — Gen Admin — Sr. Gen. Manager Infra Structure — Deans/ Principals / Constituent Colleges / Faculties (Ref individual college org charts) — Additional Controllers

Administrative Coordinator — Assoc. Deans (students) — Additional Registrar — Additional Registrar — SR Manager — Statistician — Librarian — CGM — Vice Principal — Associate Controllers

MEU / DEU / PEU / EU-HSC — Hostel Wardens — Deputy Registrar — Deputy Registrar — Deputy Registrar — Manager Accounts — SHA — HOD's of Dept — Deputy Registrar

Asst. Registrar — Assistant Registrar — Assistant Registrar — Deputy Manager — Admin — Professors — Assistant Registrar

Office Supdt. — Office Supdt. — Office Supdt. — Assistants — Deputy Admin — Assoc. Professors — Office Supdt.

Clerks — Office Assistant — Office Assistant — JR Admin — Asst Professors — Office Assistants

Office Supt — Tutors / Sr. Residents

Office Asst

**ORGANIZATIONAL CHART**

DAA — DOF — Dean – Medical College — Vice Principal — COO — Pre & Para clinical — Medical Director — Medical Director

Medical Supdt — Addl. Medical Supdt — CSO (3) — CGM — Sr. Manager — Sr. Manager — MSEC — Deputy Nursing — Hospital Admin — Sr Hospital Admin

All Clinical HODs — GM / Manager Services — DMS — DMS — NS (6) — Hospi — Sr. Manager — HR & Training — HOCS — ANS — Sr Hospital Admin — Projects — QIPST

Radiology — Floor Administrators — General Admin — DNS (4) — Billin — Electrical — Security — SNS — OPD's & IPD's — Sr Hospital Admin

Physiotherapy — Floor Ward Secretaries cum record clerk — Pharmacy — ANS — Phar — Maintenan — Nursing Supervisor — Front Office — Core Comm. Members

Clinical — Ward Technician — Purchase / stores — Senior Nurse — Purchase & — Plumbing — BME — Secretarial services

Laboratory — Ward Boy — Bio Medical Engineering — Staff — Stores — Laundry — Ward Incharge — PGR

Medical — House Keeping — Ward Technici — IT & HMIS — A/C — Nurses — Dietetic

Medical Transcription — MT — Fire — House Keeping

Maintenance — Mark — Telepho — Ward Tech

Audio

1. MSCC
2. Ethics
3. OR.
4. PATC
5. Mortality & Morbidity
6. ICC
7. Radiation & Hazmat
8. Communication
9. Transfusion
10. Grievance
11. Human Organ
12. Antibiotic Monitoring

There are monthly audits by various committees to ensure quality. This includes the mortality and morbidity committee, the operation room committee, the pharmacy and therapeutics committee, the medication safety

team, infection control team and the overall quality sustenance is ensured by the QIPST. The SRU centre for health care quality and patient safety is operational since 2012.

∗ **How often are these review meetings held with the administrative staff?**

Administrative staffs are included in several of these committees and the results are presented and reviewed at the monthly MSEC meeting.

**6.2.3 Does the institution conduct regular meetings of its various Authorities and Statutory bodies? Provide details.**

Yes, the institution conducts regular meetings and take decisions periodically with the details of the meetings by statutory bodies given below

| Authorities / Statutory bodies | Frequency of meetings |
|---|---|
| Board of Management (BOM) | once in three months |
| Board of Studies (BOS) | as and when required |
| Academic Council | once or twice a year |
| Planning and Monitoring Board | once in a year |
| Finance Committee | Twice a year, or whenever necessary |

The details of meetings conducted during 2009- 2013 are provided in 6.1.5

**6.2.4 Does the institution have a formal policy to ensure quality? How is it designed, driven, deployed and reviewed?**

The IQAC for the University and the QIPST for the hospital are the committees to formulate formal policies to ensure quality. The members are nominated based on their expertise / commitment in the concerned area. The meetings are held at regular intervals to recommend / review / modify and re-plan quality strategies. The implementation of recommendation is done through the administration to facilitate internalization and institutionalization of quality parameters. The details are given in appendix6.2.4.

**6.2.5 Does the institution encourage its academic departments to function independently and autonomously and how does it ensure accountability?**

Yes, within the norms of the statutory councils and university regulations, policies and procedures are evolved to ensure accountability- linked autonomy.

**6.2.6 During the last four years, have there been any instances of court cases filed by and /or against the institution? What were the critical issues and verdicts of the courts on these issues?**

List of the number of court cases filed by the institution, number of cases filed against the institution from 2009 to 2013 (July) including critical issues and verdict of the courts is detailed below.

| Year | Case filed by Institution | Case filed against Institution |
|---|---|---|
| 2009 | 1 | 1 |
| 2010 | 1 | - |
| 2011 | 1 | - |
| 2012 | 1 | 4 |
| 2013 | 1 | 1 |

| Year (1) | Cases filed by institution (2) | Cases filed against institution (3) | Critical issues and verdict of the Courts(4) |
|---|---|---|---|
| 2009 | W. P. No. 19210 of 2009: Filed by the institution praying to quash the UGC letter prohibiting DUs to use the word 'University' in its name. | ---- | The High Court issued interim stay order dated 17.09.2009 staying operation of the UGC's communication and it is still in force. The case is yet to be taken up for final hearing. |
| | ---- | W. P. No. 20496 of 2009: Filed by Mr.D.T.Vedanayagam, Lab-Assistant, SRMC & RI. | The employee of SRMC & RI prayed to reserve one seat in M.Phil Clinical Psychology course, even though his name did not find place in the selection list. The case is yet to be listed. |
| 2010 | W.P.No.16301 of 2010: Filed by the institution praying to declare certain provisions of UGC (IDU) Regulations, 2010 to be ultra vires Constitution of India. | ---- | The High Court (single judge) heard the batch of W.Ps filed by DUs in Tamil Nadu and dismissed the W.Ps |
| 2011 | W.A. No. 1791 of 2011: Filed by the institution appealing against the judgement passed by single judge. | ---- | The batch of W.As filed by DUs in Tamil Nadu was admitted by Division Bench and 'status quo' order was passed on 18.09.2011. Yet to be taken up for final hearing. |

| 2012 | W.P. No. 27627 of 2012: Filed by the institution praying to declare MCI/DCI notifications amending UG/PG Regulations providing for National Eligibility cum Entrance Test (NEET), ultra vires Constitution of India. | ---- | The High Court admitted the W.P. and granted stay order dated 29.10.2012. Later, all similar WPs were transferred to the Supreme Court. |
|------|------|------|------|
|      | ---- | W.P.No.11568 of 2012 (PIL): Filed by the Indian Dental Association (Tamil Nadu Branch) praying to direct all affiliated private dental colleges and DUs in Tamil Nadu to surrender 50% MDS seats to the State Govt. | The High Court passed interim order dated 23.05.2012 directing the respondents to follow the rules and regulations. Yet to be taken up for final hearing. |
|      | ---- | W. P. No. 24588 of 2012 (PIL): Filed by the Indian Medical Association, Tamil Nadu Branch praying to direct the respondents to implement 69% reservation policy of Tamil Nadu Govt. in affiliated private colleges and all DUs in Tamil Nadu. | Notice was issued and yet to be taken up for further hearing. |

| | | | |
|---|---|---|---|
| | ---- | W. P. No. 33547 of 2012: Filed by Mr. ApuroopDasari, 2$^{nd}$ MBBS student praying to quash the suspension order issued by the institution. | The student who was alleged to have committed murder of his relative lady was arrested and remanded to judicial custody. Subsequently, the Police have filed charge sheet under section 302 of IPC and the case is under trail. The High Court admitted WP and issued notice; counter has been filed by the institution and yet to be taken up for hearing. |
| | ---- | W. P. No.6035 of 2012 (<u>PIL</u>): Filed in the High Court of Andhra Pradesh praying to direct the authorities to conduct single entrance test for all the DUs. | The High Court of AP issued notice and the case is yet to be listed for further hearing. |
| 2013 | T.C. No. 1 and 3 of 2013: (the case relating to the WPs pending in the High Court of Madras filed by various affiliated Medical Colleges/Dental Colleges/ DUs in NEET matter). | ---- | As ordered by the Supreme Court, all similar cases filed before various High Courts were transferred to the Supreme Court on the petition filed by the MCI, in NEET matter. After hearing the matter in detail, the Supreme Court pronounced final judgment on 18.07.2013 (with one judge dissenting) quashing the MCI/DCI notifications providing for NEET. |

| | | W. P. No. 14940 of 2013 (PIL): Filed by the Indian Dental Association, Tamil Nadu Branch  praying to direct the affiliated private dental colleges and DUs in Tamil Nadu to surrender 50% of MDS seats to State Govt. and to implement 69% reservation policy of Tamil Nadu Govt. | Even while similar W.P. filed by the Association in 2012 is pending before the High Court, it has filed another WP with additional prayer for 69% reservation.  The High Court issued notice to the respondents and passed interim order dated 05.06.2013 to comply with the rules and regulations in respect of academic year 2013-14. The case is yet to be listed for hearing. |
|---|---|---|---|
| | ----- | | |

**6.2.7 How does the institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder-relationship?**

a) Suggestion  boxes are placed across the University for persons to drop their grievances anonymously. The received grievances are compiled, analyzed and redressed confidentially by the Dean of Faculties

b) The students' manual includes information about the grievance redressal committee and also provides contact information of the committee.

c) Appeal to Chancellor is the final provision for grievance redressal since he is appellant authority

**6.2.8 Does the institution have a mechanism for analyzing student feedback on institutional performance? If yes, what was the institutional response?**

Students feedback on teaching / infrastructure and amenities are  sought and their view point is given utmost priority in implementing change The feedback form is available  online  and complete confidentiality is maintained. The summary of the feedback received for 2012 is included in item7.2.1. E-governance measures have been adopted to improve on feedback received by students.  Based on analysis measures taken by the university includes mentoring, improved library resources, additional infrastructure facilities and others.

**6.2.9 Does the institution conduct performance audit of the various departments?**

- Performance audit of departments takes place on 2 fronts – educational aspect and health care aspect.  Functional audits includes the student

evaluation, faculty teaching audit, attendance audit, publication / presentation audit as part of the annual appraisal.

- Health care audit includes the morbidity & mortality audit, infection rate audit, operation room utilization audit, pharmacy audit, etc.

- Recently, as per UCG guidelines, an Academic and Administrative Audit Committee of external experts have audited the entire university departments on 11th – 13[th]February 2013. The full report and action taken on its recommendations is also included in the section3, 1st volume of Self study report.

**6.2.10 What mechanisms have been evolved by the institution to identify the developmental needs of its affiliated / constituent institutions**?

The departmental needs of infrastructure, finance, manpower and others are represented to the governance by the Deans / Principals of different faculties through the Advisory Board and on approval implemented by the management.

**6.2.11 Does the institution and hospital have their own updated websites? If so, is the information regarding faculty and their areas of specialization, days of availability, timings, consultation charges available on the website?**

Yes, the details are available on the website (www.sriramachandra.edu.in), and the information is periodically updated. All details pertaining to the above are provided in the website of the hospital pages.

**6.2.12 What are the feedback mechanisms and documentations to evaluate the outcomes of these exercises?**

Indices of student's satisfaction, faculty satisfaction, employee satisfaction and patient's satisfaction are analyzed through the feedback mechanisms. For example, at the medical center, a patient satisfaction index is obtained through feedback and placed before the QIPST to take necessary action. Another example is a system set up for reporting medical errors, root cause analysis and taking corrective and preventive actions. Quality improvements are implemented based on the responses.

**6.3 Faculty Empowerment Strategies**

**6.3.1What efforts have been made to enhance the professional development of teaching and non-teaching staff? What is the impact of continuing professional development programs in enhancing the competencies of the university faculty?**

The faculty development programs, personal teaching audit, attendance and performance audit, Academic Performance Indicator (API) system are the efforts made to enhance the professional skill of the teaching staff. Computer skills were taught to all non-teaching staff and administrative leadership workshops conducted to improve the competencies of non-teaching staff. These are detailed in 7.3.1The research interests and the work done by the faculty are displayed in their work areas, in each of the departments.

**6.3.2 What is the outcome of the review of various appraisal methods used by the institution? List the important decisions.**

Reviewing the appraisal by the immediate superior, feedback was provided immediately to the individual concerned. Some faculty members were also counseled by the Dean of Faculties. Director (Academic Administration) and Deans/Principals of faculties conduct meetings with the constituent departments and appraise them of the department performance based on agenda. The implementation of academic performance indicator system, for appointment and promotion of teachers from 2012-13 (appendix2.3.4). Introduction of Performance Linked Incentive Scheme (PLIS) from the year 2012-13 as a motivational mechanism for maximizing teaching, health care, research and consultancy, and resource mobilization potentials of faculty members have been implemented. (appendix6.1.3)

**6.3.3 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have benefitted from these schemes in the last four years? Give details.**

The following welfare schemes are available for all teaching and non-teaching staff.

a. Statutory provisions under staff welfare measures:-

| Type of Scheme | 2009-2010 | 2010-2011 | 2011-2012 | 2012-2013 |
|---|---|---|---|---|
| Provident fund (Settled) | 560 | 623 | 681 | 635 |
| Gratuity (Settled) | 78 | 97 | 91 | 104 |
| Gold Coin -4 Grams for 10 years continuous service | 42 | 45 | 57 | 85 |
| Gold Coin - 06 grams for 20 years continuous service | 336 | 20 | 5 | 4 |
| Festival Advance (Per Annum) | 1029 | 845 | 945 | 993 |
| Salary Advance (Per Annum) | 11 | 16 | 12 | 5 |
| Education loan (Per Annum) | 285 | 207 | 213 | 195 |
| Marriage Advance (Per Annum) | 34 | 26 | 28 | 18 |
| Welfare Fund loan (Per Annum) | 260 | 295 | 330 | 400 |
| Preferential rate for personal and vehicle loan(Per Annum) | - | 238 | 499 | 372 |
| Stitching charges (Per Annum) | 874 | 1054 | 1196 | 1538 |
| Washing allowance - Rs. 200/p.m. (Per Month) | 2651 | 2830 | 3085 | 3276 |
| CL Encashment -50% (Per Annum) | 815 | 794 | 888 | 914 |
| OP Treatment –Lab Rs.2,000/-p.a. (Per Annum) | 2632 | 3538 | 3079 | 3341 |
| Pharmacy -Rs.1,000/p.a (Per Annum) | 2632 | 3538 | 3079 | 3341 |
| Funeral Expenses Rs.5,500/- (Per Annum) | - | 2 | 4 | 2 |
| Marriage Gift- Rs. 500/- (Per Annum) | 100 | 146 | 111 | 119 |
| Free Tea/Coffee (Per Month) | 1631 | 1899 | 2494 | 2500 |
| Free accommodation for Nurses (Per Month) | 735 | 868 | 870 | 948 |

| Food for nurses staying inside the campus – 50% paid by management (Per Month) | 718 | 847 | 858 | 922 |
|---|---|---|---|---|
| Food for nurses staying outside the campus – 50% paid by management (Per Month) | 24 | 23 | 22 | 24 |
| Food for Employees at Rs. 2/- per token (Per Month) | 275 | 357 | 373 | 265 |
| ESI (Per Month) | 46 | 40 | 1720 | 2508 |

b.  Financial Support /Other Facilities:-

The following are available for all academic staff:

- Financial support for attending /presenting paper at national & international seminars & Conferences.
- Financial support for publication of journals.
- Encourage research activities including awarding GATE / Young scientist Project grant.
- Support for Hosting Seminars & Conferences including CMEs and Workshops within the campus.
- Research grants / Fellowships for Ph D students.
- Research financial support for faculty, students and researchers is provided as described in Criterion III.

c.  Other Welfare Measures:-

- Group insurance
- Accident coverage
- Earned leave Encashment
- Staff quarters
- Uniform for all employees
- Food at subsidized rates
- Health Insurance- self & dependents
- Creche and lactation support programs
- Lactation program for working women employees with infants.

**6.3.4 What are the measures taken by the institution for attracting and retaining eminent faculty?**

Eminent faculty with national and international academic credentials are invited as full time faculty members in the departments such as cardio thoracic surgery, orthopedics.  The institution attracts eminent faculty by offering them visiting professorship / emeritus professorship.  Faculty members are given sabbatical leave (during which seniority is protected) to retain them.

**6.3.5 Has the institution conducted a gender audit during the last four years? If yes, mention a few salient findings.**

While a specific gender audit has not been undertaken several steps have been taken to facilitate woman's advancement and empowerment.  The Women's advancement cell of the university has been in existence since 2007.  This serves as a forum  to create and support awareness of issues related to gender,

women's welfare and advancement. The cell has three advisors, one coordinator and 28 active members representing different departments and sections of the university. The cell has spearheaded several women's health programs including breast cancer awareness, health checkup for women over 40 and others etc. Workshops have been organized for a) development of managerial skills, finance and auditing for women, women and leadership. Eco walk is also conducted every year and programs are held to mark international women's day in March 8th. The cell also advocated and planned the lactation support program at the hospital.

**6.3.6 Does the institution conduct any gender sensitization programs for its faculty?**

Gender sensitization has been incorporated in all clinical and academic programs. A Gender issues redressal committee has also been formed.

**6.3.7How does the institution train its support staff in better communication skills with patients?**

The support staff like nurses and the paramedical staff have a SREE program (Sri Ramachandra Employees Education) that teaches them to communicate and work better in the hospital environment. The persons identified as poor communicators are counseled and mentored by their supervisors and the HR department to acquire communication skills.  IT skills are provided and updated periodically.


**6.3.8Whether the research interests of teaching faculty are displayed in the respective departments?**

Yes, the research interests and the work done by the faculty are displayed in their work areas and in their departments and in the individual web page of the department.

**6.3.9Do faculty members mentor junior faculty and students?**

Each faculty member has a group of students allocated to him / her, whom they mentor through the 'Longitudinal Mentorship Program'.  With regard to junior faculty, mentoring often is need based and is one to one.  The Dean of Faculties and the Director (Academic Administration) play a key role in mentoring faculty besides the head of the departments.  Mentoring and counseling is also provided after analyzing students' feedback analysis.

**6.3.10   Does the institution offer incentives for faculty empowerment?**

Yes, the institution encourages faculty for empowerment in both academic areas and health care by allowing them to attend for conference and training workshops and sanction the travel allowance and registration fee. The institution also reimburses publication costs and also provides for a study leave / sabbatical leave.  The performance linked incentive scheme (PLIS) also serves to facilitate faculty empowerment. The faculty development programs also serve as modalities to empower faculty.

**6.4 Financial Management and Resource Mobilization**

**6.4.1 What is the institutional mechanism available to monitor the effective and efficient use of financial resources?**

Suitable institutional mechanisms are available to monitor the effective and efficient use of financial resources.   The annual budget of Revenue Expenditure and Capital Expenditure are recommended annually by the Finance Committee and approved by the Board of Management of the University.   Results are compared and analyzed.   Generally, the recurring expenses and the capital expenditures are projected to be within the budgeted resources of the institution. Thereby deficit budgeting is not encouraged. Apart from the above there is a regular internal audit of all the day- to - day transactions in addition to the annual statutory audit.

**6.4.2 Does the institution have a mechanism for internal and external audit? Give details.**

Yes.  The University has a mechanism for internal and external audit.  The University has engaged both the internal and external auditors to verify and certify the entire Income and Expenditure and the Capital Expenditure of the University each year. Qualified Internal Auditor from External Resources have been permanently appointed and a team of staff under them do a thorough check and verification of all the vouchers of the transaction that are carried out in each financial year.   Likewise external audit is also carried out on a elaborate way taking into the reports of the regular internal audit.

**6.4.3 Are the institution's accounts audited regularly? Have there been any audit objections, if so, how were they addressed?**

Yes.  The Institutional accounts are audited regularly by both Internal and Statutory Audits.  So far there have been no major findings / objections. Minor errors of omissions and commissions when pointed out by the Audit team are immediately corrected / rectified and precautionary steps are taken to avoid recurrence of such errors in future.

**6.4.4 Provide the audited statement of accounts with details of expenses for academic, research and administrative activities of the last four years.**

The Audited Income and Expenditure Statements of the University of the Last Four years (i.e. 2009-10 to 2012-13) are furnished herewith as appendix 6.4.4.

**6.4.5 Narrate the efforts taken by the institution for resource mobilization.**

The major source of the income is through the fees of the various courses. The Fee fixation Committee revises the fee structure once in a span of three years. Such revised fee structure is applicable only from the fresh batch admitted during the year.  The admission of further batches in the subsequent years till the next three years shall fetch additional fee receipts based on the revised fee structure.   Apart from the above revision of fee towards hostel accommodation, transportation charges and such other fee receipts shall also mobilize additional resources to the University.

Financially the University has suitable investment pattern where monthly fixed deposits are created with banks and as such the entire 12 months of the academic year are covered, thereby the interest earned on maturity of the deposits each month has been fetching a major portion of resources to the University. Even the day-to-day deposits kept in current account are

maintained under the flexi account scheme of the bank which shall also earn interest to the University thereby no money is left idle in a bank account.

The University has also created the concept of overhead charges collected from all the external funded research projects. This also creates additional resource to the University based on the projects that are granted to the University each year.

**6.4.6 Is there any provision for the institution to create a corpus fund? If yes, give details.**

The University has already created a corpus fund to the tune of Rs. 5.00 Crore as per the requirement of University Grants Commission. The amount is kept in the form of fixed deposit with bank, wherein the interest earned on these deposits year after year is renewed on a cumulative basis. In addition, the university has endowment funds which are used for award of medals and prizes to students every year.

**6.4.7 What are the free / subsidized services provided to the patients in the hospital?**

The facilities in OP are totally free with no consultation fee being levied across all specialties. A nominal fee is charged for sophisticated investigations only. Inpatient services include free bed, free consultation and free meals for all patients and the investigations and surgery are grossly subsidized.

**6.4.8 Does the institutions receive fund from philanthropic organizations / individuals towards patient care? If yes, give details.**

No, the institution does not receive any funds. The total expenditure is borne by the Sri Ramachandra Health and Educational Trust and SriRamachandra University Trust. However, there are donations for a specific area of patient care like, cancer care; heart surgeries, care for differently-abled children by organizations like –MedHope, EKAM, Hyundai Motors company Transforming Faces- World Wide, Smile Train etc)

**6.4.9 Do patients from other states / abroad come for treatment, reflecting the unique quality health care provided by the institution?**

Yes, we get several patients from other states and regions, especially from the north east where we have a peripheral unit. We are a well respected tertiary care centre in South India, especially for orthopaedics, interventional radiology, reproductive medicine, neurosurgery and neonatology. The centre for International patient care caters to the needs of foreign patients who come from S. Africa, Nigeria, UAE and even from England. The JCI accreditation is a feather in our cap, in attracting the international patients.

**6.5 Internal Quality Assurance System**

**6.5.1  Does the institution conduct regular academic and administrative audits? If yes, give details.**

The Internal Quality Assurance Cell (IQAC), established in 2009 after the accreditation of SRU by NAAC has taken up oversight responsibilities in quality issues. The IQAC has been able to reach across all levels of the University's academic and administrative systems, collate pertinent data and document institution-wide efforts at quality sustenance and improvement. The

vision of IQAC in SRU is to ensure high operational standards in all its academic and administrative activities. The key points laid down as the IQAC's mission are:

- Facilitating regular update of knowledge by the staff
- Improvement of learning resources
- Enhancing faculty knowledge and skills for quality enhancement in spheres of teaching, learning, research and proper documentation
- Encouraging publications
- Obtaining and analyzing  feedback from stakeholders
- Developing quality benchmarks
- Information dissemination to all sections of the university
- Academic documentation
- Optimization of talents of students and faculty

The Internal Quality Assurance Cell (IQAC) includes the Vice Chancellor as the chairperson, coordinators, external and internal members and student members (appendix 6.5.1).  To carry out the activities laid down by IQAC, a NAAC cell was formed in 2012 with representatives at middle level faculty across the constituent colleges (appendix 6.5.1).  The institution periodically conducts both academic and administrative audit for the development of Quality benchmarks.

**Academic Audit:** It is conducted at both internal and external level.

Internal:

- Inter departmental curriculum co-coordinators meeting – Monthly
- Departmental Level – Departmental level meeting chaired by the head of the department.
- College level meeting chaired by the Principal.
- College Council meeting chaired by the Dean of Faculties where every department is represented.
- Research Advisory Committee of the University to monitor the research proposals of PhD scholars.
- The Publications Oversight Committee started to function in 2011 and was constituted with a view to introduce greater rigor in the quality and authenticity of research papers submitted for publication from the University.  The committee has procured a software that enables routine screening of manuscripts for plagiarism.  The Publications Oversight Committee also assists in participation in INFLIBNET *Shodhganga* national level project for thesis.
- The Pharmacovigilance Committee was also established in 2011 with a view to ensure quality and safety in prescription practices and the clinical use of drugs. The committee oversees the work of the Pharmacovigilance Center and designs pharmacovigilance forms and adverse drug reaction forms and provides information on safety in drug prescriptions and usage to clinical staff and trainees.

- The <u>Medical Education Unit</u> has been active in conducting faculty development programs and teacher-training programs and workshops on a regular basis. A significant development was the recognition of Sri Ramachandra Medical Education Unit in 2010 as a <u>Regional Center</u> by the Medical Council of India for conducting teacher-training workshops for the faculty in 31 other medical colleges in the region. The Dental and Pharmacy Education Units were started in 2010 and these, along with the Education Unit for Health Sciences Colleges started functioning as a comprehensive department of education under the Dean (Education) in 2010. The University has created expanded infrastructure and facilities for the functioning of these Units.

- The Medical Education Unit constituted a <u>Postgraduate Curriculum Committee</u> in 2010 with oversight responsibilities on the quality and conduct of the postgraduate programs. An internally focused workshop on competency-based postgraduate education was conducted in November 2010. This was followed by a 4-day workshop on Curriculum Design and Research in Medical Education in December 2010 and a three-day workshop on 'Integrated Learner Assessment' in June 2011. Prof. Raja C. Bandaranayake, an international expert on curriculum development and integrated teaching-learning methods from Sydney, Australia was invited as the expert guide for the latter two events.+2

- <u>CITI-India Program</u>, an online, web-based collaborative initiative with the University of Miami, USA, was introduced in 2009. The program trains students and researchers in research ethics education. This program is offered from SRU to Nepal, Sri Lanka and Bangladesh. India-specific contents were added to the CITI-GCP module making it a unique feature in the CITI-International curriculum.

- The <u>Institutional Ethics Committee</u> has four subcommittees: Institutional Clinical Research Ethics Committee, Institutional Research Ethics Committee (other than clinical evaluation of drugs/procedures/devices/diagnostics/vaccines), Institutional Animal Ethics Committee and the Institutional Committee for Stem Cell Research and Therapy. These were established in response to new national guidelines and as part of the University's initiative to strengthen and diversify its research efforts.

- <u>Research Ethics Committee</u> (for student projects) was started in 2010 to improve the competency of students in research methodology for their research projects or dissertation works and train them in good research practices and ICMR guidelines for research. Several students have taken up the online training and certification 'CITI-India Program' and participated in the 'Statistical Tools – SPSS' training program. The <u>Institutional Ethics Committee</u> (for postgraduate students) was established in 2012 to help postgraduate students in the Medical College.

- Medical Staff Executive Committee, (MSEC) the Quality improvement and Patient Safety Team Management (QIPST) and Infection Control Committee, Radiation Safety Hazard to monitor patient care and safety.
- The Journal Committee to monitor the publication of Sri Ramachandra Journal of Medicine.
- The University student council to monitor the co-curricular and extracurricular activities.
- Anti-Ragging committee (and squad) to monitor andcontrol, the menace of ragging.

External:

- The external experts give their feedback during Academic council, BoS meetings, Examinations etc.
- The statutory councils *viz*., MCI, DCI, PCI, INC, RCI, AICTE etc. periodically inspect the respective faculties and the compliance if any is rectified from time to time.
- Board of Research, consisting of external experts also audit the research activities of the university.

**Administrative Audit:**

- The Board of Management is the principal organ of management and principal executive body of the Institution. The Board reviews and approves the activities of the University, such as appointments and promotions, amendments of various rules like service rules, study rules, leave rules. The Board approves guidelines for grants for faculty for doing research, publications and paper presentation. The Board also reviews and approves the MoUs with Institutes, Universities in National and International level, the Registration of candidates for PhD research reviews, award of Founder Chancellor fellowships for doing full time PhD, Summer Research Fellowships for doing projects for undergraduates, approves endowments, orations, starting of new courses, approves/ ratifies publication of university, examination results, approves examination manual, college disciplinary rules, rules relating to university examinations, rules relating to the students and hostel and for inmates.
- The Planning and Monitoring Board is the principal body monitoring the development programs of the Institution. The Board carries out the planning of new courses/ programs, creating and expanding infrastructure to enhance teaching and learning resources.
- The Academic Council is the principal academic body of the institution, and responsible for the maintenance of the standards of teaching, research and training and approves the regulations and syllabus for all courses offered by the University, coordination of research activities, maintaining standards of the Examinations. It reviews and approves the awards of fellowships, scholarships and medals.
- The Finance Committee examines the accounts and scrutinizes proposals for expenditure. The annual accounts and financial estimates, annual

budgets, recurring expenditure, non-recurring expenditure based on the income and resources and forward its recommendations to the Board of Management, for approval.

- The accounts are audited regularly. The University practices <u>regular Internal and External Audit processes</u> as part of its compliance with financial discipline. <u>Qualified Internal Auditor</u> from an external resource has been appointed on a permanent basis and the team of staff under him undertakes an exhaustive and comprehensive inspection and verification of all vouchers and transactions carried out in each financial year.

- Grievance committee established in 2005 is involved in formulating specific guidelines to receive and handle grievances which is made available in the handbook; receiving grievances of students or faculty; maintaining confidentiality; suggestions for redressals; meets frequently and whenever needed.

- Credentials Committee established in 2007, functions under the chairmanship of the Dean of Faculties. The committee meets once in 4-6 weeks to scrutinize and verify the documents of faculty eligible for an elevation. Based on the efforts of the candidate, self-assessment reports; reports of superiors and requirements as per statutory bodies like MCI, DCI etc., the credentials are verified. In 2012, nine meetings were conducted and 85 teachers were reviewed.

- Promotions committee instituted in 2005 recommends promotions for the teachers based on the recommendations of Credentials Committee and the availability of vacancies. The committee has reviewed around 160 applications passed by Credentialing committee.

**6.5.2. Based on the recommendations of the Academic audit, what specific follow up measures have been taken by the institution to improve its academic and administrative performance?**

IQAC conducted Academic and Administrative Audit from (AAA Committee ) 11th to 13th of February 2013 with external experts *viz.* Dr. S. Rangaswami, Former Vice-Chancellor of Sri Ramachandra University, Dr. C Thangamuthu, Former Vice Chancellor of Bharathidasan University, Dr. P. Ramasamy Former Vice Chancellor of Alagappa university and Dr. S. Bhaskar Rao, Former Vice President, Dental Council of India and submitted a report on the 24th April 2013. The recommendations made by the committee have been analyzed by the IQAC members and the suggestions for the action to be taken were approved in the General Body Meeting held on the 24th July 2013. The IQAC submitted the recommendations and appropriate suggestions to the Advisory Board for implementation. The recommendation and action taken report is given in detail in section 3 of volume I.

**6.5.3. Is there a central unit within the institution to review the teaching-learning process in an ongoing manner? Give details of its structure, methodologies of operations and outcome?**

The Dean of Education of the University oversees the curriculum and faculty development across the courses of the University. He is the Chairperson of all

the Education Units i.e. Medical Education Unit, Dental Education Unit, Pharmacy Education Unit and Education for other Health Science Colleges. The details of its structure, methodologies of operations and outcome is given below.

Medical Education Unit

Medical Education unit is structured taking into considerations of the MCI. It has the Chairman, Coordinator and Secretary and members (appendix6.5.3).

The Medical Education Unit of SRMC is a Regional Centre for Medical Education Technology (MET) recognized by MCI. It conducts one coordinator workshop and four basic course workshops annually. So far 510 teachers have been trained in the basic course and 62 as coordinators. In addition faculties from SRU have been deputed as MCI observers in MET for 31 workshops.

The following quality measures have been taken for the enhancement of the curriculum.

- Oversight and monitoring by the dynamic curriculum committee , under MEU
- Implementation of an integrated curriculum for all phases of MBBS.
- Conducting Faculty Development Program
- Longitudinal Mentoring
- Evaluation of the integrated curriculum – Student feedback and student performance
- Implementation of PBL for UG students
- Introduction of a Skills Lab; Clinical Skills Lab was introduced in 2010, a set of standardized clinical skills were developed by faculty and were taught to students. A curator was appointed in order to maintain the mannequins and clinical skill lab.
- Evaluation and revision of PRODEV course

**Outcomes**

The evaluation of the integrated curriculum showed a higher percentage of UG students securing distinctions in the final university summative examinations.

**PRODEV program**

Eight workshops have been conducted for SRU faculty exclusively. Four workshops has been conducted on behalf of the national bodies such as oral and maxillofacial surgeons, operative dentistry and oral pathologists. One workshop on problem based learning was conducted by resource people from the University of Hong Kong.

**Dental Education Unit**

The Dental education also has Chairman Secretary, Curriculum Committee, Faculty Development unit. While the response from the Faculty Development Programs has been favorable on the whole, the Dental Education Unit is working on practical implementation of key elements emphasized in the workshops.

1) Setting of goals and objectives in all three domains-knowledge, skill and attitude

2) Standardization of minimum content for every topic/lecture in all subjects taught in the undergraduate curriculum

3) Standardization of assessment methods with emphasis on evaluating competency.

4) Awareness of a paradigm shift from teacher centered learning to student centered learning with introduction of newer methods such as problem based learning.

Majority of the dental faculty at all levels of experience, have been trained

## Pharmacy Education Unit

The Pharmacy Education Unit consists of the Chairman and members of the Faculty Development and the Curriculum Development Committee.  Both committees meet at least six times a year.

## Objectives

1. To organize and monitor teacher training program.
2. To promote development and application of systematic education process in colleges.
3. To identify and conduct research in education.
4. To organize continuing education program for all faculty.
5. To provide feedback to teachers with information of students and colleagues perception of teaching effectiveness.
6. To promote education lobbying through liaisons with council, apex professional bodies, Ministry of Health and International agencies.
7. To identify means and strength of curriculum execution such as peer review and students feedback.

Faculty Development committee and Curriculum Development committee meets 6 times a year and from the  year 2012-2013, will meet ten times a year.

The Faculty Development committee, in association with Indian Association of Colleges of Pharmacy, Chennai, conducted a three day interactive program on Quality Pharmacy Practice Module Advanced Learning Series-II from 26th to 28th July 2012 in the Faculty of Management Sciences, SRU.  136 participants from 19 Colleges in and around South India participated in this program.

Overall the program gave a good impetus and introduced  many ideas for possible changes that may be brought about in Pharm D curriculum

## Education Unit – Health Science Colleges

The Health Science Education unit consists of Chairman, Ex-officio members of different departments excluding Medicine, Dentistry and Pharmacy.

The objectives of the EUHSC are:

- To provide feedback to teachers with information of students and colleagues perception of teaching effectiveness.
- Education lobbying – liaison with council/ apex bodies/ministry of health and international agencies

- To identify means and strengthen curriculum execution such as peer review and students feedback.

The EUHSC has conducted 7 Faculty Development Programs and almost all teachers with one year experience have attended the program. One Faculty Development Program was conducted in Bangalore. The basic teaching methodologies were practiced. The evaluation methods including question paper setting were effectively practiced by the teachers.

### 6.5.4. How has IQAC contributed to institutionalizing quality assurance strategies and processes?

To sustain and augment the Quality Assurance of Academic and Administrative reforms, the IQAC in coordination with the NAAC Cell has conducted the following meetings at the university level of IQAC. During the last four years, where in AQARs of the universities were periodically approved for submission to NAAC besides making recommendations.

List of meetings and recommendations:

| Sl. No. | IQAC meetings | Date | Major recommendations |
|---|---|---|---|
| 1 | IQAC General Body Meeting | 3.09.09 | Online students' feedback submission across the colleges. |
| | | 09.05.11 | Template design of monthly departmental report forwarded for approval and implementation across the colleges. |
| | | 13.01.12 | A detailed publication analysis of the research articles published in journals using scientific databases Viz. Scopus, Web of Science and Pub Med. |
| | | | Regular Annual Quality Assurance report submission to NAAC, Bangalore. |
| | | 13.08.12 | Report on Best Practices – PRODEV is submitted to NAAC, Bangalore. |
| | | | Formation of Publication Oversights Committee.. |
| | | | Conduction of the Academic and Administrative Audit committee peer visit |
| | | | Sensitization program for faculty on implementation of API system. |
| | | | IQAC has conducted the following seminars / workshops during the post accreditation period. |

Recommendations are presented to the management for implementation.
The IQAC has also organized National level workshops for quality sustenance and quality indicators as listed below.

| Sl. No. | Workshop | Dates | Number of participants |
|---------|----------|-------|------------------------|
| 1 | Quality Indicators for Teachers | 24th August 2011 | 110 |
| 2 | Quality Sustenance in Research | 04th and 5th June 2012 | 249 |

**6.5.5. How many decisions of the IQAC have been placed before the statutory authorities of the institution for implementation?**

The IQAC periodically reviews the quality aspects and places it before the university statutory authorities for approval and implementation.   A few are listed below

| Sl. No. | Dates of BoM meetings | IQAC recommendations presented |
|---------|----------------------|--------------------------------|
| 1. | 8.1.2011 | Approval of Annual Quality Assurance report 2009-2010 |
| 2. | 21.7.2012 | Setting up of Publication over sight committee, workshop for quality sustenance |
| 3. | 26.10.13 | AQAR for 2012, Publication analysis, quality sustenance  for research and publication workshop,  preparation  of  Reaccreditation report |

**6.5.6. Are external members represented in the IQAC?  If so, mention the significant contribution made by such members?**

The IQAC comprises three external members.  They are:
- Prof. C. Thangamuthu, Former Vice-Chancellor, Bharathidasan University, Trichy
- Mr. N. Kanniah, General Secretary (Southern Railway Mazdoor Union)
- Mr. V. Ramesh, GM (GA), Hyundai Motors, Chennai

Prof. C. Thangamuthu had given suggestions regarding quality initiatives for teachers in various aspects such as conduction of awareness programs, seminars, workshops etc.

Mr. N. Kanniah and Mr. V. Ramesh provided feedback about the hospital services and suggests on the quality services that can be implemented in the hospital and in medical centre.  The suggestions are well taken by the IQAC and they were analyzed.

**6.5.7. Has the IQAC conducted any study on the incremental academic growth of students from disadvantaged sections of the society?**

The study is being planned for the current year 2013-14.

**6.5.8Are there effective mechanisms to conduct regular clinical audit of the teaching hospital? Give details.**

Yes.  The day to day activities of the teaching hospital was periodically monitored and controlled by different committees.  They meet regularly analyze and review issues in the meeting and initiate appropriate actions from time to time.  The list of committees and their frequency of meeting is given below.

Internal Committees

| Sl No. | List of Committees | Frequency of meeting |
|--------|--------------------|----------------------|
| 1. | Medical Staff Credential Committee (MSCC) | Every 3$^{rd}$ week of the month |
| 2. | Mortality & morbidity committee | 2$^{nd}$& 3$^{rd}$ weeks the month |
| 3. | Pharmacy and therapeutics committee | Every 3r$^d$ week of the month |
| 4. | Operation room committee | Every 2$^{nd}$ week of the month |
| 5. | Grievances committee | Every1$^{st}$ week of the month |
| 6. | Infection control committee | Every 3$^{rd}$ week of the month |
| 7. | Radiation, Laboratory and Hazardous Materials (HAZMAT) safety committee | Every 1$^{st}$ week of the month |
| 8. | Admin review meeting | Every 2$^{nd}$ week of the month |
| 9. | Casesheet team members | Every 1$^{st}$ week of the month |
| 10. | Medical Staff Executive Committee (MSEC) | Every 2$^{nd}$ week of the month |
| 11. | Quality improvement and patient safety team | Every 3$^{rd}$ week of the month |
| 12. | Core team | Every 2$^{nd}$& 4$^{th}$ week of the month |
| 13. | Human Organ Transplant Committee | Once in 3 months |
| 14. | Antibiotic monitoring committee | Once in  3 months |
| 15. | Transfusion committee | Once in  3 months |
| 16. | Advisory board committee | Once in a month |
| 17. | Institutional ethics committee (other than clinical evaluation of drugs / procedures /devises/diagnostics/vaccines/herbal remedies) | Once in 2 months |
| 18. | Institutional ethics committee (clinical evaluation of drugs / | Once in 6 weeks |

| | procedures /devises/diagnostics/vaccines/herbal remedies) | |
|---|---|---|
| 19. | Institutional Committee for Stem Cell Research and Therapy | Once in 6 months |
| 20. | Ethics Committee for Students Projects | Once in 2 months |
| 21. | Institutional Research Ethics Committee (for Post-Graduate students of Medical College) | Once in 2 months |

The inpatient management process in Sri Ramachandra Medical Center is automated and is supported by a hospital information system. The software being developed for MIS is expected to facilitate analysis and coordination of strategic and operational activities of the institution as a whole and help fine tune the internal coordination and monitoring mechanisms.

**6.5.9 Has the institution or hospital been accredited by any other national / international body?**

The SRU is accredited by the JCIA, the NAAC, the ICMR the ISO, the AABB, WHO and is a recognized regional centre for faculty development. These have been detailed in 6.1.11

**6.5.10 Does the hospital have institutional and individual insurance schemes to cover indemnity claims?**

Yes, the hospital has insurance schemes for indemnity cover.

*Any other information regarding Governance, Leadership and Management which the institution would like to include.*

All Regulations/Norms/Guidelines of statutory bodies were adopted by the university.

| Sl No. | Norms/ Regulations | Date of adoption/ implementation |
|---|---|---|
| 22. | UGC – VI Pay Commission Pay scales | 1st September 2008 |
| 23. | UGC Regulations on Minimum Qualifications for Appointment of Teachers and other Academic Staff in Universities and Colleges and measures for the maintenance of standard in Higher Education 2010 | 08th January 2011 (BoM) |
| 24. | Adoption of UGC (Institutions Deemed to be Universities) Regulations, 2010 | 8th October 2011 (BOM) |
| 25. | Adoption of UGC (Minimum Standards and Procedure for Award of M Phil/Ph D Degree), Regulation 2009 | 11th July 2009 (BoM) |
| 26. | Development of Academic performance Indicators & adoption | 8th October 2011 (BoM) |

| 27. | Development of Performance linked incentive scheme & adoption | 8th October 2011 (BoM) |
|-----|---------------------------------------------------------------|------------------------|
| 28. | University level – Consultancy Rules | 11th July 2009 |
| 29. | Compliance to UGC – Review Committee Report – 2009 submitted to UGC | 5th October 2010 (BoM) |
| 30. | Revision of Service Manual | 11th July 2009 (Amended) 14th April 2012 (Revised) |

**Others include:**
- Total transparency in forming and implementing governing policies with 100% involvement of the end users.
- Highly flexible system for rapid implementation of healthy practices
- Effective utilization of feedback for implementing new strategies
- e - Governance represents the optimal use of information technology and other digital advancements, utmost utilization of limited resources in the dissemination of organizational policies and procedures, data collection and appropriate archival system.

**Criterion VII
Innovations and
Best Practices**
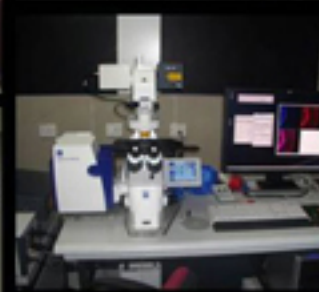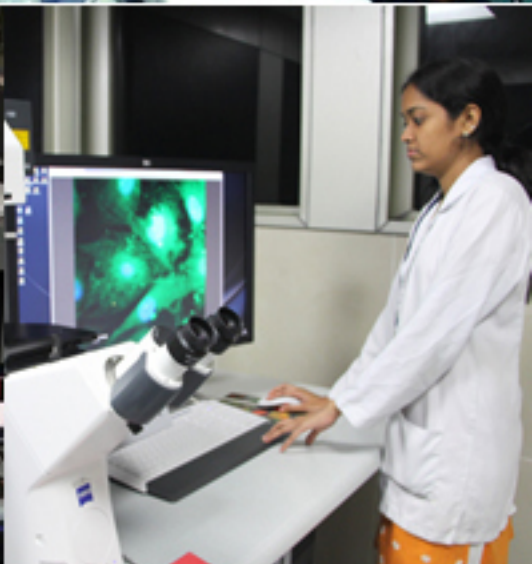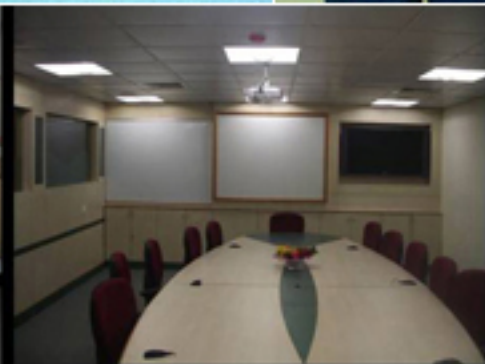
**Criterion VII – Innovative practices**

| Key Aspects | Approach | Outcome |
|---|---|---|
| Environment consciousness | • Campus Green Audit - 2013 | • RAPID Environmental IMPACT Assessment report submitted to *State - Level Environment Impact Assessment Authority, Tamil Nadu.* |
| | • Eco friendly environment | • Energy Conservation; Compliance to safety regulations; Solar systems installation; Rain water harvesting; Water recycling plant; Green belt - 3,61,390.31 sq m with 2000 trees; Herbal garden with 50 endangered species. |
| | • Bio - hazardous waste management<br><br>• Awareness programs | • Radiation, Laboratory & Hazardous Materials safety committee (2010); Biomedical Waste Management certification (2009); Institutional Biosafety Committee for genetic recombinant research (2013); e – waste management policy<br>• 11 education programs organized (2008-13) |
| | • Awards Recognition/ for environment friendliness<br>• Accreditation | • Hospital and Patient Safety awards (2012 & 2013); Appreciation from US Secretary of State (2011); Vodafone America's Foundation wireless innovation project (2010).<br>• By 14 National and International agencies. |
| Innovations | • Introduction of sustainable innovations | • Integrated UG – PG, M.D / M.S – Ph D and PG – Ph D program; Integrated curriculum for MBBS & BDS; Online Student feedback; Value added courses (2013); Clinical skills lab; Innovative extension programs; ICT resources and e-library; Longitudinal mentoring; Alumni Association (19 chapters); Vibrant IQAC; Academic Performance Indicator for faculty promotions; e-governance. |
| Best Practice 1 | • Establishment of a Sustainable Faculty Development Centre of SRU-MCI on Medical Education Technologies | • MCI's Regional Centre for Medical Education Technologies (31 medical colleges); 15 basic course workshops (2007-13); Constitution of Sri Ramachandra Center for Health Profession Education (2011–12); Constitution of Dental, Pharmacy and Allied Health Science Colleges Education Unit. |
| Best Practice 2 | Creation of single window academic, administrative & financial governance of University Research and Consultancy through CRF | Increase of - research grants from Rs. 1991.56 lakhs, 90 projects (2001-08) to Rs. 3794.56 lakhs (2009-13), 113projects; Ph D candidates demand ratio 1:1.5 (2008) to 1:3.6 (2013); Undergraduate Summer Research Fellowships (2011); GATE Projects: applicants / sanctioned  - 20/7 (2008) to 42/23 (2013); Publication Oversight Committee; Publications: 240 (2008) to 459 (2012) |

**CRITERION VII: INNOVATIONS AND BEST PRACTICES**

**7.1 Environment Consciousness**
**7.1.1 Does the institution conduct a Green Audit of its campus?**
Yes. After conducting a Green Audit of the Campus a detailed and voluminous report titled: RAPID Environmental IMPACT Assessment was prepared and submitted to *State - Level Environment Impact Assessment Authority, Tamil Nadu* (SEIAA) in May 2013 (Detailed report available with Project Office).
The EIA report includes:

- Review of the baseline environmental status in the campus and its surroundings in an area of 10 km radius for air, noise, water, land, ecology, and socio-economic environment.
- Identification, prediction and evaluation of the impact of constructions and utilities on environmental conditions.
- Preparation of an Environment Management Plan to minimize the adverse environmental effects for future implementation.

**7.1.2 What are the initiatives taken by the institution to make the campus ecofriendly?**
The university known for its ecofriendly, vibrant green foliage is landscaped with extensive gardens and lawn spaces using recycled water and is strictly a no smoking zone.

| Topic | Status |
|---|---|
| Energy conservation | Electrical substation has been provided with capacitors to improve energy efficiency as per Electricity Board regulations. All new buildings have been provided with LED lighting to reduce power consumption. New refrigeration systems installed as replacement of old ones, compliant with International regulations in using only the approved and permitted refrigerants. All the constructed infrastructural establishments comply with the safety regulations. |
| Use of renewable energy | Solar water heaters have been provided in all hostels (37 nos) to supplement regular electrical source. |
| Water harvesting  Effluent treatment and recycling plant | All buildings have been provided with rain water harvesting systems complying with the state government regulations. Accumulation of rain and treated water has resulted in creation of big water reservoir. A water recycling plant is also available. |
| Efforts for Carbon neutrality | Tree- planting; landscaping are the options that SRU has effectively utilized to obtain carbon- neutrality. |
| Plantation – Botanical or | From 1987 onwards a green belt was developed as per Central Pollution Control Board (CPCB) norms to: |

| | |
|---|---|
| Medical significance | Attenuate noise level; trap vehicular and fugitive dust emissions; provide pollution sink for greenhouse gases; improve aesthetics and balance ecology; prevent soil erosion; and sustain water–use through recycling treated effluents. Available green belt area is 3,61,390.31 Sq m 2000 trees planted @ 400 trees/ hectare. Details of trees planted are in the EIA report (pg. 121) Old tall trees have become an abode for migratory birds. A rejuvenated herbal garden equipped with a greenhouse for medicinal plants preserves 50 endangered species - maintained by the Department of Pharmacognosy, Faculty of Pharmacy. |
| Bio -hazardous waste management e-waste management: These are presented under the following headings: SRU policy; Biomedical Waste Management Certification; Education; Services; Assessment and Analysis reports; Workshops and training programs | A committee constituted by the Medical Director, Radiation, Laboratory and Hazardous Materials (HAZMAT) safety committee has been functional since 2010. *Biomedical Waste management* – certification as per state Government guidelines obtained since 2009. *Education*: The Department of Environmental Health Engineering (EHE) offers programs on occupational and environmental health to meet the needs for such capacity building for the country. i) MPH – Master in Public Health-Occupational & Environmental Health- 2 year program since 2010 vide, criterion I. ii) AFIH - Associate Fellow in Industrial Health since 2010 - 3 months course for MBBS doctors. iii) NEBOSH – National Examination Board for Occupational Safety and Health (UK) – two week certificate program for safety professionals. iv) CHCWM – Certificate in Healthcare Waste Management- SRU- IGNOU study Guide Centre from 2011. *Services:* Two faculty of EHE are panel members / consultants in: i) Internal Safety Audit Committee of SRU from 2012 for conducting yearly audits. ii) BOHS- Basic Occupational Health Services project funded by WHO. iii) Energy and Environment Panel of Confederation of Indian Industries (CII) iv) Integrated Coastal and Marine Area Management, Ministry of Earth Sciences: International Atomic Energy Commission Committee (IAEC) since 2012. |

| | *Assessments and analysis reports by EHE department:* Chemical Exposure Assessment for the Dept. of Pathology, SRU. <br><br> Exposure assessment for anesthetic gases for CMC, Vellore. |
|---|---|
| Recognition / Certification for environment friendliness | - The University has earned global recognition through the work on adverse health effects of indoor air pollution. The US Secretary of State during her visit to India in August 2011 expressed her appreciation for cook stove initiative of Department of Environmental Health Engineering through a letter to our Vice Chancellor. <br> - The Dept. of EHE received the Vodafone Americas Foundation wireless innovation project, USA award in 2010. This is an International award for monitoring and evaluation of improved cook stoves in TN & Karnataka <br> - The Dept. of EHE is recognized to conduct the Biomedical Waste Management course under the Tamilnadu Health System Project (TNHSP); AFIH course with recognition at the All India level by the Ministry of Labour, Govt. of India and also functions as IGNOU study Guide Centre from 2011 for conducting CHCWM course. |
| Any other (please specify) | *Awareness programs, seminars, workshops and training conducted:* <br> Regular student visits to Biomedical waste units in Chennai SRU shares experience of creating eco-friendly campus with other institutions which expands its knowledge base for this inititative. A list of such activities is given in Table 7.1.2a. <br> Environment Day celebrated every year on 7th March, in commemoration of Tmt. Kamalam Udayar birthday. Awareness programs coordinated by the SRU Women's Advancement Centre since 2010 (Table 7.1. 2b). Quiz Competitions on Environment was conducted by Dept. of Biotechnology as part of the Silver Jubilee celebrations in September 2010. |

Table 7.1.2a National and International seminars/ workshops/ awareness programs organized (2008 - 2013)

| Sl. No. | Name of the Department | Event | Venue | Date & Year | No. of Participants |
|---|---|---|---|---|---|
| 1 | Dept. of Community Health Nursing | Mass Health Education Program on protecting health | Govt. Higher secondary school, Mugalivakkam | 7th August 2008 | 1000 |

| | | | | | |
|---|---|---|---|---|---|
| | | against climatic change | | | |
| 2 | Dept. of Environmental Health Engineering | Training Program on "Regulatory Occupational Health & Hygiene Practice" | Chennai | 3rd May 2008 | 13 |
| | | Essentials of Occupational Health and Safety for Professionals | Det Norske Veritas, Bangalore | 6-7th, August, 2010 | 22 |
| 3 | Dept. of Community Health Nursing | In-service education program for basic health workers on Waste Management. | Nemam PHC, Chennai | 3rd March 2010 | 12 |
| 4 | Accident & Emergency Dept | CEMEX Training doctors and paramedics in emergency Situations and Biomedical waste management | SRU | 22nd -26th June 2011 | 800 |
| 5 | Dept. of Environmental Health Engineering | Training workshop on Emerging Approaches in Health Risk Assessment at Workplaces | Sri Ramachandra University | 24 June, 2011 | 40 |
| | | Basic Occupational Health | Health care professional, Maldives | 14th &15th | 30 |

| | | | | |
|---|---|---|---|---|
| | | Services" funded by World Health Organization | | Sept. 2011 | |
| | | Risk Assessment framework and OSH essentials for Industries | TUV-SUD, Chennai | 2-3th, Sept. 2011 | 24 |
| | | Health Risk Assessment framework and OSH essentials for Industries | Det Norske Veritas, Chennai | 11-12th, August, 2011 | 24 |
| | | National workshop on Current concepts and tools in Occupational Health and Safety Risk Assessment | Sri Ramachandra University | 2nd & 3rd Nov.2012 | 40 |
| | | Awareness in Laboratory Safety in Educational Institutions | Science City, Guindy, Chennai | Aug 23rd, 2012 | 270 |

Table 7.1.2b: Environment Day organized by Sri Ramachandra Women's Advancement Centre

| Dates | Theme | Events |
|---|---|---|
| 7th March 2010 | Say No to Plastics | Ecowalk <br><br>  |

| 7<sup>th</sup> and 8<sup>th</sup> March 2011 | Campus Environment Day | Ecowalk; Slogan competitions; Poetry-Tamil and English competitions<br><br>Eco walk, 2011<br><br> |
| 7<sup>th</sup> March 2012 | "Go Green" | Ecowalk; Competitions on the theme "Go Green" -slogan writing; Poetry in English and Tamil<br><br> |
| 7<sup>th</sup> March 2013 | "Impact of heat at Work Place" | Ecowalk; competitions conducted in English and Tamil -<br>Short documentary film<br>Cartoon Drawing<br>Posters<br>Slogans < 10 words<br>Essay writing <60 lines  |

**7.1.3 How does the institution ensure that robust infection control and radiation safety measures are effectively implemented on campus?**

*(a) SRU's policy of safety and hazardous material:*

Radiation, Laboratory and Hazardous Materials (HAZMAT) Safety Committee has been functional since 2010. It is chaired by the Medical Director and consists of 18 members including Doctors, Medical Physicist, Administrative officers, fire and safety officers and a specialist in Environmental Health & Safety.

A table outlining the Hazards and the Risks graded by the safety committee:

**RISK ASSESSMENT**

Hazards identified and Risks graded based on the nature of work in the unit by the Safety Committee. Continous training of the staff is the only key factor in preventing such risks.

| Areas / Hazards | ER | Treatment room | Radiology | Dignostics | Reception | Billing | OPD | G.E | Dialysis | OT | C.T.Post | CICU | Cathlab | MICU | SICU | 3rd flr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fire | | | | | | | | | | | | | | | | |
| Hazmat Spills | | | | | | | | | | | | | | | | |
| Read back errors | | | | | | | | | | | | | | | | |
| HAI | | | | | | | | | | | | | | | | |
| High Alert medication errors | | | | | | | | | | | | | | | | |
| Medication errors | | | | | | | | | | | | | | | | |
| Needle stick injuries | | | | | | | | | | | | | | | | |

**LIST OF LAWS AND REGULATIONS COMPLIANCE**

Number of statutories non compliant=1 (Diet-Nutrifood license)

DESIRED OUTCOME

Compliance %

a)Authorization No. BMW - 2077, Authorization for collection, storage and disposal of biomedical waste under the Protection act, 1986
b)Narcotics and Psychotropic substances Act.
c)Consent Order of the Water and Air (Application sent)
d)Nutri Foods (No license)

a)Authorization No. BMW - 2077, Authorization for collection, storage and disposal of biomedical waste under the Protection act, 1986
b)Consent Order of the Water and Air (Application sent)
c)Nutri Foods (No license)

| | Jan-13 | Feb-13 | Mar-13 | Apr-13 | May-13 |
|---|---|---|---|---|---|
| List of Laws and regulations compliance (%) | 100 | 98.7 | 94.8 | 96.10 | 96.10 |

Month

| S.No | License | Expired on | Renewal Application sent on | Renewal obtained |
|---|---|---|---|---|
| 1 | Fire License | 26.04.2013 | 16.03.2013 | NOC received on 30.9.13, Applied for inspection on 29.10.13 |
| 2 | Water & Air | 31.3.2013 | 26.02.2013 | 18.4.2013 |

An *Institutional Biosafety Committee* approved by Dept. of Biotechnology, Govt. of India along with a DBT- nominee monitors recombinant DNA research and reviews all research projects that entails cloning and / or transformations, expression of genes in eukaryotic or prokaryotic organisms as well as handling of infectious organisms. It also concentrates on sensitization and framing of faculty and researchers on biosafety issues in research, SOP- development, decontamination and disposal of lab- biowaste as per DBT- guidelines

(b) *SRU's policy of infection control*

The Infection Control Committee recommends and acts through the Infection Control Team and sets standards for patient care. A comprehensive infection control surveillance system exists in the hospital. Two major infection control activities include: hand hygiene practices and prevention of antibiotics abuse. Apart from reporting, identifying and analyzing the incidence and cause of nosocomial infections, analytic review of data and follow-up activities are conducted.
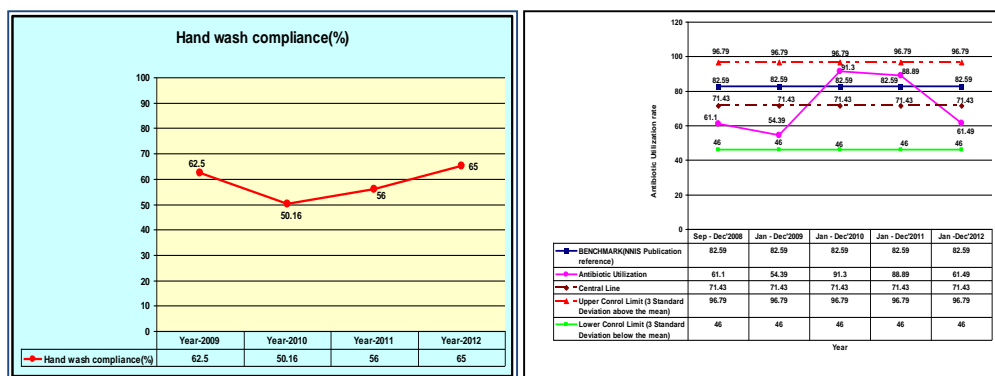
## 7.1.4 Has the institution been audited / accredited by any other agency such as NABL, NABH, etc.?

Yes. Apart from statutory council audits, other agencies such as JCI, NABH, NABL, AABB, AERB, USFDA, etc., has accredited the institution

Table VII. 3 Accreditation by national / International agencies

| S. No | Institution/ Department | Accrediting agency | Status |
|---|---|---|---|
| | Sri Ramachandra Medical Center | Joint Commission International, USA | Accreditation - 2009 Re-accreditation - 2012 |
| | Sri Ramachandra Blood Bank | American Association of Blood Banks (AABB) | Accreditation - 2010 Re-accreditation - 2012 |
| | Sri Ramachandra Medical Center | National Accreditation Board for Hospitals & Healthcare Providers (NABH); | Accreditation - 2012 |
| | Sri Ramachandra Central Laboratory & other diagnostic systems | National Accreditation Board for Testing and Calibration Laboratories (NABL). | Accreditation Reaccreditation-July 2013 |
| | Environmental Health Engineering | WHO Collaborating centre for Research & Training in Occupational & Environmental Health Since 2005 | Continuance of award for five years from 2011 |
| | Environmental Health Engineering | ICMR – Centre for Advanced Research on Indoor air pollution | Awarded for 5 years since 2010 |
| | Central Research Facility | Recognized as Technology Business Incubator of DST, Govt. of India | Awarded for 5 years since 2011 |

| | Central Research Facility | DSIR & SIRO certification by DST, Govt. of India since 2008 | Renewed for three years from 2011 |
|---|---|---|---|
| | Central Research Facility | PFIZER'S - "Preferred Clinical Research Center" | Recognized since 2009 |
| | Human Genetics | "Biodosimetry Centre" of AERB, Govt. of India since 2008 | Renewed for three years from 2011 |
| | Human Genetics | Prenatal Genetic Testing center approved by Govt. of Tamil Nadu | Valid from 2009-2014 |
| | Medical Education unit, SRU | MCI – Regional centre for Basic & Advanced courses in Medical Education technologies | Nodal centre in 2009 Elevated as Regional centre in 2010 |
| | CRF- clinical Trial Division | US – FDA Audited ICMR – Registered Clinical Trial of Medical Oncology | From 2012 |
| | Centre For Toxicology & Experimental Research (Central Animal Facility) | *CPCSEA - Certified small animal research facility Good Laboratory Practice (GLP) | Since 2009 Applied for accreditation in 2012, Pre inspection was conducted in May 2013. |
| | Dept. of Anesthesiology, Bioinformatics | ISO 9001 | 2009 |
| | B. Pharm course of Faculty of Pharmacy | National Board of Accreditation (NBA) | August 2011 |

*Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA)

**7.2 Innovations**

**7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the university.**

*(a) Curricular aspects*

∗ Introduction of integrated programs: In compliance with recommendations of the NAAC Peer Team in 2008, the University has started the following integrated courses.

    a. A 6-year Pharm-D course approved by the Pharmacy Council of India in 2008.

    b. ii) A 6-year integrated M.Ch course in Neurosurgery approved by the MCI in 2013.

    c.  A 5-year integrated MD/MS/MDS - Ph D program supported by ICMR initiated in 2008.  (Refer 3.4.6)

    d.  M Sc. Medical Radiology & Imaging Technology (5 year integrated) in 2013

    e.  5 year integrated PG-PhD for all other Faculties of the University in 2013 - 2014

∗  Promoting and integrating Research into teaching: Establishment of 11 'Centers of Excellence' by the University in focused areas in 2011 (refer 3.3.2).  Their program objectives were approved by the Academic Council in Dec. 2012. Two Centers of Excellence *viz*., Stem Cell research & Regenerative medicine; Centre for translational medicine have been identified in 2013 for further financial and administrative support.

∗  Online student feedbacks: Online student feedback mechanism was implemented in March 2013 on our website (http://www.sriramachandra.edu.in/studentfeedback/ add_students.aspx). This system has helped to:

    a.  Obtain feedback from larger number of students in a transparent and systematic manner.

    b.  Maintain confidentiality.

    c.  Ease of data analysis online.

∗  Value-based Add-on certificate courses: Out of the proposed 22 value based add-on programs, 11 were successfully initiated in June 2013 (Refer 2.2.4).

### (b) Teaching, Learning & Evaluation

∗  Block – based integrated curriculum implementation and interactive teaching/ learning methods

∗  Skill labs have been created in several departments to enhance cognitive, connative and psychomotor skills of students.  These include:

    a.  Language Skills Lab (Refer 2.2.5)

    b.  Clinical Skills Labs

    c.  Simulator labs

    d.  Self – Learning desks

Table VII. 4 Skills lab in SRU

| S. No | Skill Labs | Location | Initiated on |
|---|---|---|---|
| 1 | Orthopedics | Fourth Floor, G Block | April 2007 |
| 2 | Clinical Practices and Surgical lab | Second Floor, G Block | July 2007 |
| 3 | Medicine and Allied subjects | Fourth Floor, G Block | August 2011 |
| 4. | Surgery & Allied subjects | Fourth Floor, G Block | 2009 |
| 5 | ENT- Temporal bone Dissection lab | Second Floor, G Block | June 2010 |
| 6 | Nursing skills lab: Self-Learning Desk; | Nursing foundation lab | 2008 |
| | | Medical Surgical Nursing lab | |

| | and new mannequins were added | Paediatric Nursing lab | |
|---|---|---|---|
| | | Obstetrics & Gynaecology lab | |
| | | Psychiatric Nursing lab | |
| | | Community Health Nursing lab | |
| 7 | Dental skills lab: Simulators, Mannequins 4 (single table pattern) | Department of Periodontology | 2009 |
| | 50 (Twin table pattern) | Department of Prosthodontics | 2009 |
| | 56 (Twin table pattern) | Department of Conservative Dentistry & Endodontics | 2010 |

∗   Faculty development:

Strengthening of the activities by the Medical Education Unit and creation of education units in other Faculties like Dental Sciences, Pharmacy and other Health Science colleges has allowed enhancement of education technologies to all faculties of the University.   Opportunities for organizing more faculty development programs and training teachers to stress on the application of knowledge and skills (Refer 7.3.1) have increased manifold.  Specifically, 52 courses on educational technology (refresher courses, orientation courses and coordinators courses) by Education Units and 30 others (capacity building) by SRCWA and UGC during the reaccreditation period was conducted.

∗   Evaluation and Examination reforms:

Special observers are appointed during the university practical / clinical and viva examinations to ensure smooth conduct of examinations without any malpractices. Establishment of Internal Assessment Test Cell (IATC) in the office of the Controller of Examinations assists the Faculties of Medicine and Dental Sciences to conduct internal assessment examinations in accordance with preset schedules.

*(c) Research and Consultancy*

The students and faculty of Sri Ramachandra University are facilitated to conduct research by the provision of sophisticated infrastructure and a user- friendly single window academic and administrative governance system under the Central Research Facility.  (Details provided in 7.3.1, Best Practice – 2)

Strategies for enhancing of quality of publications include screening through 'Publication Oversight Committee,' (POC) anti-plagiarism software check for all manuscripts and hosting of all Ph.D. degree-awarded theses on the *Shodhganga* e-repository of *INFLIBNET*. (Refer 3.1.13).

*(d) Extension Programs and their promotion:*

∗   Establishment of SRU Rural Health Center (4.5 acres) at Vayallanallur in 2013.

∗   Public-Private Partnership Health services as part of the National Rural Health Mission (NRHM) activities.

∗ Participation in the Govt. of Tamil Nadu sponsored Health Insurance Scheme to provide tertiary care services including hi-tech expensive operations for Below Poverty Line (BPL) population.

∗ Extensive Telemedicine coverage networked to 72 centers all over India and to several countries in Africa through the Pan-African e-Network; an initiative of the Ministry of External Affairs, Government of India. Outreach activities in collaboration with ISRO Satellite connected telemedicine centre and mobile Medical & Dental unit.

## *(e) Infrastructure & Learning resources*

| ICT enabled resources: Launched  e-learning centre established | |
|---|---|
| ICT – integration in Learning ICT-integration in academic programmes & administration of the University from 2011 | Subscribed to NKN connectivity of MHRD through BSNL for academia and research. Campus –wide e- governance system implemented |
| e- Resources | |
| E-journals subscription | Rs.55.8 lacs. PROQUEST, EBSCO, MEDLARS AND DELNET; J-Gate, Medline databases |
| Access to E- journals through customized portals | Knowledge Genie |
| E-version of Ph.D. thesis deposited INFLIBNET –Shodhganga | As per UGC recommendations (Refer 4.3.4) |
| CITI- India | Online- ethics certification program in collaboration with University of Miami, USA |

∗ Expansion of G- Block SRU hospital/ bed strength/ free services etc. (Refer 4.1.2)

## *(f) Student support and progression*

∗ Implementation of longitudinal mentoring system across all the faculties of the university.

∗ An international student office and counselor to cater to the individual needs of international students.

∗ Humor club, Quiz club, Tamil literary, Fine arts association, Humanities club and Debate club have been initiated to foster extracurricular activities and also serve as stress busters for students.

∗ Establishment of a student council in 2012 with student nominees' representation across the faculties of the University as office bearers.

∗ Inclusion of student representatives in several university committees such as the Curriculum Committee, Library committee, Anti-ragging Committee and IQAC.

∗ Strengthening of Alumni association of Sri Ramachandra University with 19 chapters under its umbrella on the 19th June 2013.
∗ Appointment of Associate Deans of Students to provide on campus and off – campus support
∗ Introduction of online student feedback mechanism.
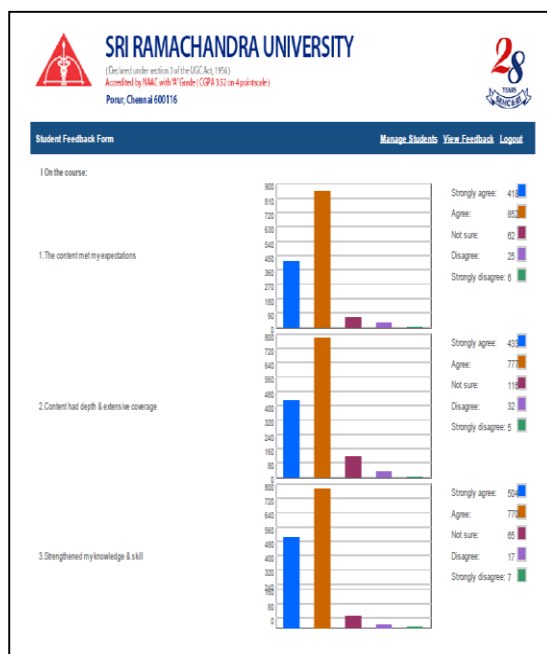


## (g) *Governance and leadership*

∗ Customization of performance based indicators (Academic Performance Indicator; API) for Medical, Dental and other Faculties and implementation of the same from June 2013.
∗ As per the recommendation of AAA Committee): Patient information system has been made operational. Registration of patients and statistics are being compiled and shared electronically on daily basis. Diagnosis with ICD coding and retrieval system is available. Medical records department with electronic data transfer facility is being established.
∗ A number of younger and middle level faculty have been included as members of the various University committees, such as the Academic Council, BoS, Curriculum Committee, IQAC, Hospital Committees, Education Units, etc.
∗ Appointment of Dean, Education to oversee the curricular reforms and faculty development activities of the University.
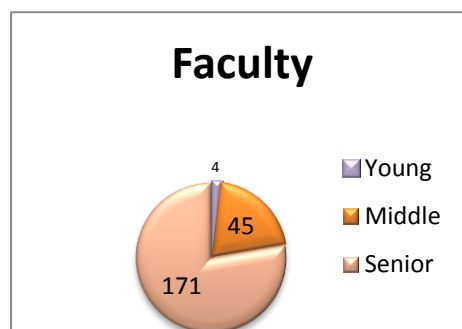
∗   Rotation of headships in departments implemented in 2009 has allowed the talents and abilities of younger faculty members to be utilized in administration of the departments.
∗   Establishment of e – governance across all the departments of SRU.
∗   IT skill training for faculty and staff was implemented in 2010.
∗   Installation of biometric system for maintaining attendance records of faculty and students.

**Best Practices**

**7.3.1 Give details of any two best practices which have contributed to better academic and administrative functioning of the institution.**

**Best Practice 1**

1. **Title of the Practice: Sustainable Faculty Development Programs on Education Technologies at SRU**

2. **Objectives of the Practice**

Development of a sustainable and emulatable model of teacher quality-enhancement in terms of competencies, educational technologies including ICT, curricular innovation and leadership development is the goal of this programme.
The specific objectives include:

- Establish a centralized curriculum and faculty development centre for the whole University.
- Develop an organizational structure for the successful implementation of the activities of this centre.
- Develop trend setting postgraduate programmes in Medical Education Technologies.
- Organize a state of the art Medical information centre.
- Encourage qualitative and quantitative research in Medical Education.
- Facilitate curricular reforms in all the health care related programmes of the University.
- Facilitate faculty development programmes and enhance capacity building among the faculty of the University.
- Introduce and sustain the use of information and communication technology in the entire university.
- Update the knowledge and skills in the teaching educational activities and educational administration.
- Sensitize, equip and empower teachers for discharging their professional responsibilities
- Ensure the overall quality enhancement in Medical Education to pave way for establishing units for other Faculties of SRU.

**3. The Context:**

Sri Ramachandra University founded in 1994 is a premier institution offering several professional, allied and basic sciences degree programs in its eight constituent colleges. During the early formative years of founding and growth, it was guided / mentored through its alliance with Harvard Medical International (HMI) between 1997 – 2007. The training of medical educators was one of the

main aspects of mentoring by HMI and was well supported by National Teacher Training centre at JIPMER. Since medical teachers are usually inducted as faculty without a formal training in education technologies, formal structured training programme of HMI has helped in formulating the centre.

Genesis of the MEU:

Teachers of professional programs have had limited opportunities to develop their teaching skills and technologies. To address this need to improve teaching as a profession; Sri Ramachandra Medical college created the medical education unit in 1997 as per MCI guidelines. The education unit conducted teachers training; workshops on leadership; faculty development workshops between 1997- 2009. The Medical Council of India found it essential to strengthen faculty development in a big way to implement curriculum reforms and created initially 6 nodal centers across the country and recognized SRMC & RI, MEU to be one of centers.

However, it became clear in a short while that scope of such a unit was wide and multifold. Hence, the current unit – MEU has two committees *viz.*,

- Faculty Development Committee (FDC) and
- Curriculum Development Committee (CDC).

The roles, contributions and progress of the FDC to education units at SRU is one of the best practices for this University.

The training of educators of professional courses in our medical education unit is open to the faculty from our own institution and faculty from other medical colleges. Since 2009 SRU has been conducting teacher training programs. MCI, the apex agency for medical education in India has recognized these efforts and identified it as a Regional Centre for Medical Education Technologies in 2009. Initially MCI recognized 6 regional centres and later increased to 17 across the whole country. Under the preview of this regional centre, 31 colleges have been selected and allotted for training. Thirty of our own University faculty members are recognized resource persons for these workshops.

It soon became obvious that education technologies could become a source of developing teaching competencies, introducing new methodologies through participatory training, introducing new curriculum strategies, developing leadership and enhancing motivational skills among teachers. What was developed into a routine and essential tool for medical education was quickly adopted by other faculties of this university. The management soon realized the essentiality and need for such self training and has decided to upgrade it as a new University level Centre:

*SRI RAMACHANDRA CENTRE FOR HEALTH PROFESSION EDUCATION*

The constitution of Committees of MEU:

| Medical Education Unit | Curriculum Committee | Faculty Development Committee | PG Curriculum committee |
|---|---|---|---|
| Chairman Dean Medical College Coordinator Senior Faculty Member | Chairman Senior Faculty Member | Chairman Senior Faculty Member | Chairman Senior Faculty Member |
| Secretary | Secretary | Secretary | Secretary |

| Senior Faculty Member | Senior Faculty Member | Senior Faculty Member | Senior Faculty Member |
|---|---|---|---|
| Members<br>Phase I – Director<br>Phase-II- Director<br>Phase III- Director<br>Chairman, PG CC<br>Chairman, CCC<br>Secretary, CCC<br>Chairman, FDP<br>Secretary , FDP<br>CRRI In-charge<br>PRODEV In-charge<br>Mentorship In-charge<br>2 Student members<br>from 8<sup>th</sup>and 9<sup>th</sup> semester | Members<br>Senior Faculty<br>Members – 6<br>Registrars of<br>MBBS<br>departments | Members<br>Senior Faculty<br>Members – 4<br>Resource<br>Persons (other<br>than Members)<br>-  12 | Members<br>Senior Faculty<br>Members- 8 |
| Ex- Officio Members-Three;<br>Professor of Eminence<br>Dean of Faculties &<br>Dean - Education | | Convener<br>Director<br>(Academic<br>Administration)<br>Co-Convener<br>Senior Faculty<br>Member | |

## 4. The Practice:
**The Practice at MEU- FDP: [MCI Regional Centre for Medical Education Technologies]**

SRMC & RI has been conducting teaching workshops since 1997.  These workshops train teachers to understand and implement new technologies. The basic course workshops conducted during the period 2007- 2013 are 15 in number with over 500 faculty members as beneficiaries.

The workshops enable the participants to understand consensus building and group dynamics in education system, familiarize on development of educational objectives; use of teaching-learning activities like microteaching, interactive learning, small group and large group discussions; and appreciate the principles of evaluation and utilize various methods for formative and summative assessment.

To replicate the process in each of the medical educational institutions in this region, 31 other institutions have been allotted to SRMC & RI, MEU to mentor and help set up their activities. The unit is also recognized now for training coordinators and resource persons who would then take up training at their parent institutions. The Regional Centre has so far conducted four Coordinator workshops where coordinators of MEU from 31 medical colleges attached to this regional centre have attended. The activities of the centre include:

- Organising Faculty development programs
- Developing Curricula for MBBS, BDS programs
- Conducting research projects through Members of Medical Education Unit

- Deputing faculty members to register and complete
  - Recognized training like FAIMER Fellowship
  - National Teacher Training Centre (NTTC, JIPMER) workshop
  - International and National Medical Education Conferences
- Setting up of clinical skills lab and structured Objective Structured Clinical Evaluation (OSCE) stations.

The faculty training has two components:
- A three day basic workshop
- A one day Coordinators orientation workshop

The MEU- FDP conducts a three day basic workshop for Assistant Professors. One of the components is introducing faculty to "Problem Based Learning" – PBL strategies.  PBL enables to increase and apply base line knowledge, develop clinical and reasoning skills, foster self- directed learning and collaborations.  Training is imparted to implement the new technologies through case studies, activities, micro - teaching, reasoning skills, decision making and team building.  The modules handled at the workshop are Group dynamics; systems approach; learning process and adult- learning; taxonomy of learning; educational objectives' introduction to microteaching and introduction to curriculum and its development. All modules are well supported by active group discussions / activity to bring out their value.

A one day Coordinators orientation workshop orients and helps trained educators to host a similar workshop in their own institutions.  It has programs such as; organizing a medical education unit; managing change, principles of integration in medical education and linking faculty development towards curricular reforms.

Both the workshops provide detailed reading material, and tools to help faculty transact the same for their medical schools. The main aim of such workshops is for teachers of medical profession to try and integrate new medical discoveries and train students in advancements / adopt newer skills for health care.

*Frequency of such workshops:* The basic course workshop is conducted at least twice a year while the coordinators workshop is held once in a year as shown below.



**What were the constraints / limitations faced?**
The constraints encountered during the progress of an education program were:

- Voluntary participation by faculty
- Obtaining permission from parent organization to participate, especially for external faculty members.
- Lack of recognition and credit for time spent in organization of the program
- Organizing a program by trained persons in their parent institutions for office support, infrastructure and time
- Scheduling a training program in a time suitable across departments and developing the course material
- Expanding its purpose and agenda for delivery

One of the major constraints was to recruit trainees during the initial phases when it was voluntary. This constraint was resolved subsequently, when MCI recognised during the process of revision and upgrading the MBBS curriculum, the need for faculty to utilize modern teaching tools and techniques to integrate practice with lectures, to enhance skills of today's healthcare professionals. As a result, MCI mandated the strategy to train medical education teachers and equip them with models to use their creativity.

Another constraint was that the organizing secretary had to allocate significant time and effort while establishing the centre. The training obtained by few faculty in the FAIMER program was instrumental at putting together a team, creating an office and planning a structure. MCI's nomination of MEU at SRU to guide and train 31 other medical colleges in the region was a big achievement that streamlined the whole process.

Strong and encouraging support of our management in setting up a new centre for education technologies (SRCHPE) expanded its scope to involve other colleges from SRU. All the other education units at SRU have been set up in systematic and organized manner, learning from the wisdom of MEU.

Organizational Structure of Sri Ramachandra Centre for Health Professions Education (SRCHPE)
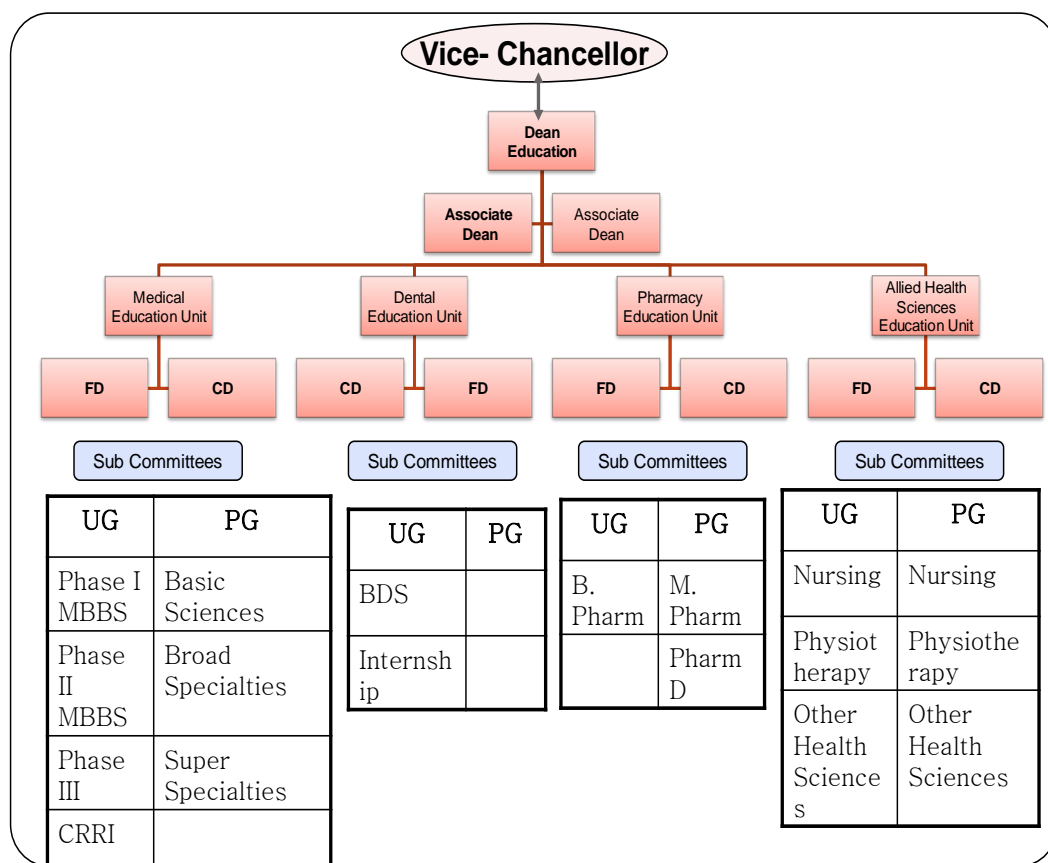
## 5. Evidence of Success

*Feedback:*

Three sets of feedback are routinely obtained- one based on a MCI approved format. Another structured to assess entry level awareness of participants and the impact of such programs on their progress are analysed as shown below indicating their importance.
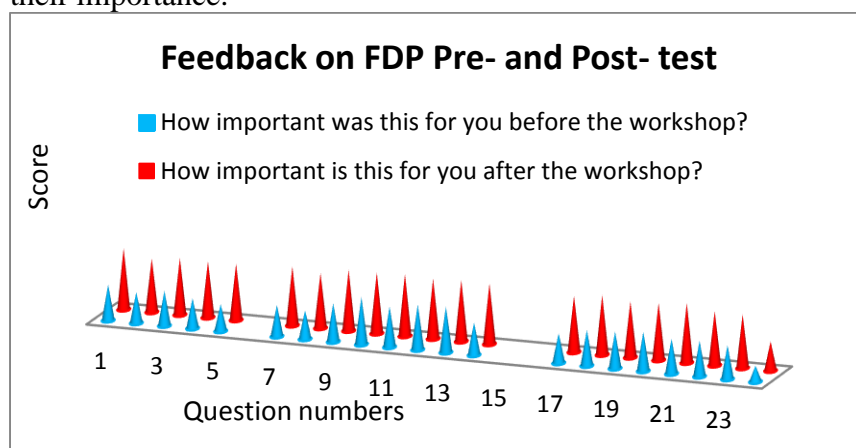
In the chart below, the number of participants who benefited shows the increasing number of participants from other colleges in the region.
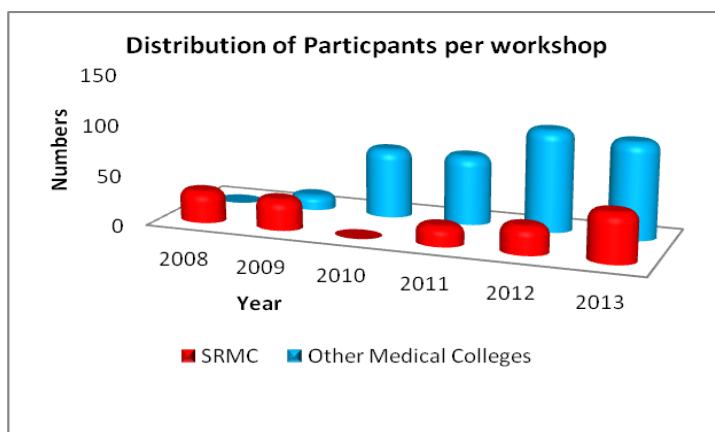


Total number of faculty trained:
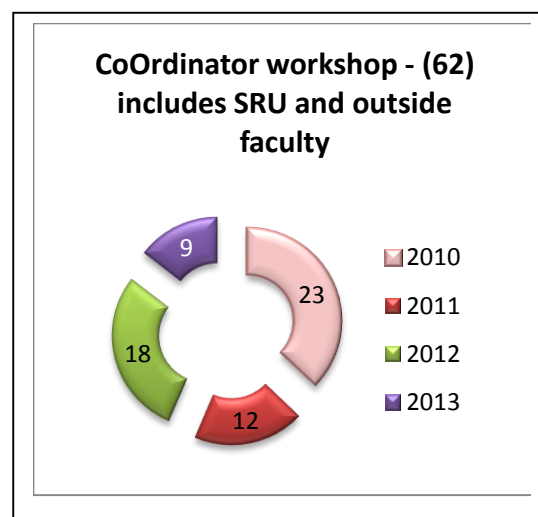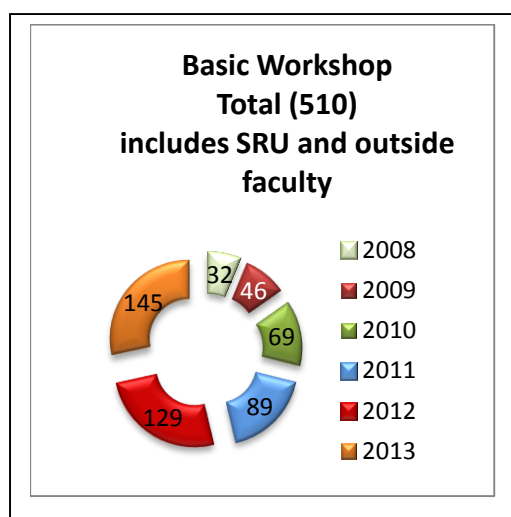




**Milestones Achieved:**

- It gained recognition from a small need- based program started in 1995
- Soon recognized by MCI as an essential capacity building exercise
- In 2009, it was identified as a Regional centre by MCI and included 29 institutions under its purview.
- It was upgraded as a Nodal l Centre for Medical Education Technologies by MCI in 2011.
- Now about 31 have been enlisted and the program is scheduled thrice a year
- The pivotal role of these efforts have led SRU to constitute a centre – SRCHPE during 2011 – 2012.
- Extension of these structured programs to other faculties of our University has led to the constitution of:
  - Dental Education Unit

- Pharmacy Education Unit
- Education Unit - Allied Health Science Colleges

Replication of a healthy practice and the creation of an administrative support system have been the hallmark of such a teacher education workshop.

## 6. Problems Encountered and Resources Required.

The major problems to support such a practice are:

- Setting up of a well-knit working unit which is by consensus- the organizational element.
- Supportive secretarial assistance.
- Structuring the training and implementing adult learning techniques.
- Keeping the participant's interest and involvement
- Preparing the ICT-savvy course materials
- Providing recognition and credit for the preparation and conduction of such capacity building workshops.
- Setting up of audio- video facilities and interactive learning class rooms

With the support of the management, many of the infrastructural resources have been provided. With repeated conduction of programs, systematic organization has become a sustainable endeavour, now being replicated by other institutions.

## Best Practice – 2

## 1. Title of the Practice:

*"A single window academic, administrative and financial governance of University Research & Consultancy through Central Research Facility".*

## 2. Objective of the Practice:

- Create a user friendly research promoting ambience, resources and practices in order to obtain high quality research outcome.
- Remove the conventional bureaucratic hurdles and delays in management of sponsored research project funds and to provide timely Utilization Certificates and Audited Statement of Accounts.
- Create a system of quality assessment and enhancement of research outputs in terms of publications/patents etc., and a performance linked incentivizing mechanism.
- Maximize the utilization of sophisticated research infrastructure through university – industry interaction platforms, R & D projects, consultancies and clinical trials.
- Motivate undergraduates, post graduates and researchers to undertake research projects both as curricular and co-curricular components in order to nurture research temper among students.
- Develop a Research Management Information System (R-MIS) software to facilitate seamless flow of academic, administrative and financial governance of research in Sri Ramachandra University.

## 3. Context:

It is observed in all universities in general and Medical/Health Sciences universities in particular that procuring grants for major research proposals is highly competitive and requires hi-tech infrastructure and high-level research expertise

among faculty members. Clinical researchers in medical institutions, in view of their higher load of patient-care, hesitate to take up major / funded research projects largely due to the additional load of administrative / financial burden of handling these projects by themselves involving purchases, manpower management and on time submission of Utilization Certificates and Audited Statement of Accounts through the general system of university administrative setup.

It was believed that if an umbrella structure is evolved encompassing all activities connected with research proposal development by university faculty and researchers, their submission to funding agencies; facilitating their implementation, when granted, on day to day basis; monitoring their time-bound conduction, initiating and sustaining research promotional schemes at the university level; assessing the research outcomes using internationally adopted tools and technologies and meeting the objectives outlined above through well defined norms, powers and functions, the research dimension of the Medical & Allied Sciences university will have a significant boost.

Accordingly, the entire proposal was considered by the management in May 2007 and approved with an infrastructure grant of Rs. 30.00 crores. With the due approval of the Board of Management of Sri Ramachandra University, the "Central Research Facility' with the above domains of responsibilities started functioning during the year 2008-09.

## 4. The Practice:

### 4.1. Infrastructure development

A fully air-conditioned Central Research Facility with sophisticated hi-tech facilities has been established with a plinth area of 25,000sq.ft in an exclusive area of the University. It has a sophisticated instrumentation laboratory, clinical research/clinical trials unit, epidemiology division, project development / analysis and documentation unit; Herbal & Indian Systems of Medicine, Research Laboratory (HIMRL) and Tissue Engineering & Stem cell Laboratory. The sophisticated instrumentation centre houses the high end equipment, walk in cold room ($+4^o$C ), walk in incubator ( $+37$ $^o$C) cryo-preservation unit (-$80^o$C & -$146^o$ C ), deep freezers, digital library, university industry liaison centre with the IPR/patents cell and an administrative office, certified central animal house of this unit is situated as a separate block as an asset for this facility.

A Central Animal Facility called 'Centre for Toxicology and Developmental Research (CEFT) as a separated building of 1500 sq.ft with all GLP compliant facility has also been established as a COPSEA certified facility. Details of Centralised facilities and Centres of Research are provided below:

| Table 7.0: Centralised facilities | | |
|---|---|---|
| S. No | Categories | Status |
| 1 | Central Research Facility (CRF) established in 2007 | Fully functional since 2009 |
| 2 | Epidemiology Research Division | Recognized by DST as PURSE –HIS Centre for endovascular diseases in 2009: |

| | | II Phase of PURSE – HIS centre launched in 2012 |
|---|---|---|
| 3 | Clinical Research Division | Recognised by PFIZER as Preferred Clinical Research Centre from 2009 US-FDA audited clinical trial facility since 2012 |
| 4 | Sophisticated Instrumentation Laboratory | Caters to SRMC & RI and other universities, faculty and industries since 2009 |
| 5 | A single window – automated Research administration division | Novel methodology yielded increased research funding since 2007 and also increased research outcome |
| 6 | Centre For Toxicology & Experimental Research (CEFT) | CPCSEA certified small animal research facility since 2009; Applied for GLP accreditation in 2012; Pre audited in 2013. Awaits final audit in the beginning of 2014. |

| Sri Ramachandra University - Centers of Research fully supported by the University | | |
|---|---|---|
| S.No | Categories | Current Status |
| | Centre for Indian systems of Medicine Quality Assurance & standardization | 08.10.2011 (BoM) launched in 2012 |
| | Centre for life style diseases & prevention | 08.10.2011 (BoM) ; launched in 2012 |
| | Centre for Regenerative Medicine & Stem cell Research | 08.10.2011 (BoM); launched in 2012 |
| | Centre for Biomedical Nanotechnology. | 08.10.2011 (BoM); Launched in 2012 |
| | Centre for Pre-clinical Toxicology & Translational Research | 08.10.2011 (BoM); launched in 2012 |
| | Centre for sports & Exercise Sciences | 08.10.2011 (BoM); launched in 2012 |
| | Centre for Health Professions Education & Faculty Development | 08.10.2011 (BoM); launched in 2012 |
| | Centre for Global collaboration | 08.10.2011 (BoM); launched in 2012 |
| | Centre for Healthcare quality & Patients safety | 08.10.2011 (BoM); launched in 2012 |

| | Perinatal Centre of Excellence | 08.10.2011 (BoM); launched in 2012 |
| --- | --- | --- |
| | Sri Ramachandra Centre for International Patient Care Services | Functioning since 2007 |

While the creation and maintenance of these Central facilities are fully supported by the University management, Projects based research in these facilities are supported by national and international grants obtained from various funding agencies like WHO, Fogarty, NIH, ICMR, DST, DBT, DRDO, CSIR, MOEF, MOES, DAE, BNRS, etc. All these facilities are available to students/ Ph D scholars and scientists

*4.2. Research Promotion Schemes.*
*Institutional Research grants & supportive measures*
*Research grants:*

- Travel grant to present papers in national and international conferences
- Re-imbursements of expenses for publication of manuscripts in peer-reviewed & indexed journals with impact factors.
- Fifty percent reduction in user charges of sophisticated investigations at SRU for research fellows and faculty doing Ph D and other Ph D/PG students.
- Research starter grant called 'GATE' grant by the university to all eligible young faculty members.
- Chancellor Research Fellowships to meritorious Ph D students getting selected through entrance examination.
- Chancellor Summer Research Fellowships for under graduate students of all constituent colleges.
- Facilitation for ICMR – Integrated MD-Ph D – Fellowships and other Ph D fellowships through funding agencies.
  *Leave:* Encouragement for higher studies (Ph D - Part time & Post-doctoral training) by providing study leave, deputation for training in specialized area of research and special leave for presenting papers in conferences and others.

*Supportive measures:*

- Collaborative Institutional Training Initiative (CITI-India) program in partnership with University of Miami for providing research ethics education to PGs, Ph D scholars and all faculty members of the university.
- Institutional support for conducting CMEs/ workshops/ conferences (national/international), training programmes and telemedicine programmes. (Refer 3.1.6 and 2.3.17).
- Awards and recognition for publications with high impact factor
- Administrative facilitation to submit and present project proposals to National & International funding agencies and utilization of funds through a separate hassle-free accounting and auditing process at CRF.
- Access to collect clinical data from the medical record division.

- Recognition of faculty members to guide graduate/ postgraduate students and PhD programmes
- MoUs with (as in December, 2013) 52 international, national universities / institutions and industries, providing opportunities to all for inter-institutional and interdisciplinary research (refer 3.1.13).

**4.3. Proactive mechanisms to improve grant sanction rates of funded projects and for their smooth implementation:**

- Annual Training/Workshops and funding for faculty members to write major research proposals besides special programmes.
- Advancing funds for sanctioned projects pending release of grants from funding agencies.
- Providing seed money as Research Starter Grant for young and entry-level faculty to generate preliminary results for major research proposal.
- Simplification of procedures relating to sanctions/purchases to be made to enable Principal Investigators to place direct orders.
- Immediate appointment of project staff after project sanction even before the grants being received from funding agency.
- On time auditing and submission of utilization certificates and audited statement of accounts.
- Facilitation of use of all sophisticated equipment/instruments at CRF by all needy students and researchers with the help of trained, dedicated scientists at Central Research Facility.

All these efforts outlined under 4.1, 4.2 and 4.3 (of Best Practice -2) are unique and novel not usually practiced in many of the universities but felt as a dire need by experts in higher education. The Central Research Facility methodology of Sri Ramachandra University is now being emulated in almost all Deemed Universities and some Government Universities as well.

*The constraints/limitations* are (i) the increasing recurrent financial requirements for maintenance of all the sophisticated equipment through Annual Maintenance contracts etc., (ii) limitations within the Governmental funding agencies to support private, self-funded universities for their research projects sponsored.
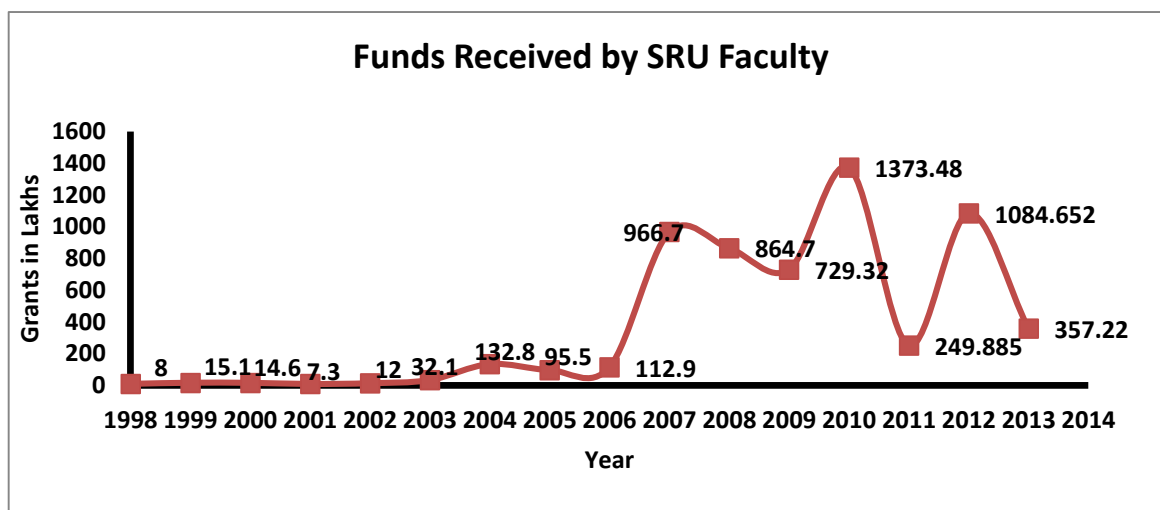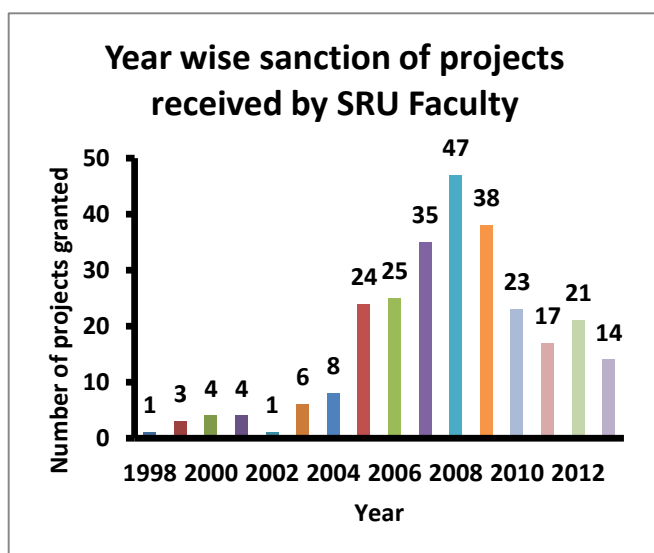
**4.4. Quality enhancement initiatives implemented through Central Research Facility.**

- Revision of PhD Regulations of the university to produce quality Ph Ds
- Quality enhancing measures to increase the number and percentage of publications in indexed and high-impact factor journals
- Promotion of IPR and Strengthening of University – Industry Interaction activities through UIIC, IPR-cell and Consultancy Rules.
- Institutional mechanisms to promote responsible conduct of research through Institutional Ethics Committees, Publication Oversight Committee, etc.,
- Research Ethics online education to all researchers through CITI – INDIA programmes and their certification.
- Allocation of separate budget for "Research"

## 5. Evidence of Success
### 5.1. *Mobilisation of Research grants*

The university has mobilized a total grant of Rs. 3794.56 lakhs during 2009-2013 through 113 major research projects funded by national and international funding agencies and industries as against Rs. 1991.56 lakhs through 90 major research projects during 2001-2008. The increase is significant as shown below:

**Year wise sanction of projects received by SRU Faculty**

Bar chart showing Number of projects granted (y-axis, 0 to 50) vs Year (x-axis, 1998 to 2012):
1998: 1, 1999: 3, 2000: 4, 2001: 4, 2002: 1, 2003: 6, 2004: 8, 2005: 24, 2006: 25, 2007: 35, 2008: 47, 2009: 38, 2010: 23, 2011: 17, 2012: 21, 2013: 14

**Funds Received by SRU Faculty**

Line chart showing Grants in Lakhs (y-axis, 0 to 1600) vs Year (x-axis, 1998 to 2014):
1998: 8, 1999: 15.1, 2000: 14.6, 2001: 7.3, 2002: 12, 2003: 32.1, 2004: 132.8, 2005: 95.5, 2006: 112.9, 2007: 966.7, 2008: 864.7, 2009: 729.32, 2010: 1373.48, 2011: 249.885, 2012: 1084.652, 2013: 357.22

**5.2. Ph D candidates demand ratio has increased from 1:1.5 in 2008 to 1:3.6 in 2013.**

5.3. The undergraduate Summer Research Fellowships launched in 2011 with 27 applicants has increased to 76 in 2013.

5.4. The Research Starter grants (GATE Projects) increased from 7/20 applicants in 2008 to 23/42 in 2013.

5.5. Quality enhancement of manuscripts for publication through Publication Oversight Committee established in 2011 showed steady increase in receipt of manuscripts from 23 in 2011 to 197 in 2013.

## *5.6. Publication output*

i. The quantum jump in quality of publications as shown by increase in number from 240 in 2008 to 459 in 2012; indexed journal publication from 60% in 2008 to 76% in 2012; citations of Sri Ramachandra University publications from 320 in 2008 to 4102 by Scopus and 2375 by Web of Science in 2012.

ii. The 'h' index of Sri Ramachandra University publications have also showed significant improvement from 14 & 12 by Scopus and Web of Science in 2008 to 28 by Scopus, 26 by Web of Science and 41 by Google Scholar data bases.

iii. Award & applications for patents have increased from one in 2008 to 9 by 2013 including one US Patent awarded & technology transferred to an industry.

## 5.7. Efficient Financial Management:

In view of computerization of all project accounts, there has been no delay in submission of utilization certificates and audited statement of accounts to funding agencies. Till date, there are no audit objections either by the internal audit group of the university or from funding agencies.

## 6. Problems encountered and Resources Required.

6.1. The above research-enabling schemes for UG students, PG students, Ph.D scholars and faculty members, lessening their administrative burden, has visibly attracted more number of students/faculty to pursue research. Proportionate upward revision of institutional budget for 'Research' is being necessitated.

6.2. Additional budget is also required for maintenance of hi-tech facilities and sophisticated equipment.

6.3. Alternate revenue generating models are required through maximum use of these facilities by industries and R & D institutes on chargeable basis and through contract projects.

6.4. Accreditation and GLP certification of both CRF and CEFT would increase the opportunity of undertaking high value R & D projects from industries.

## 7. Any other information that may be relevant for adopting/implementing the Best Practice in other institutions.

Several higher education reforms are now implemented by Government of India to enhance quality, where involvement of faculty in research has become mandatory. They are

- Implementation of Academic Performance Indicators for teacher appointment/promotion as per "UGC – Minimum requirement for appointment and promotion of teachers and other measures for maintenance of standards in Higher Education Institutions, 2010 in addition to other UGC-Regulations.

- Presently the Statutory Councils like MCI, DCI, PCI, AICTE and INC have mandated research outputs by faculty as an important requirement for appointment/Promotions.
- Research prominence is also required for the internationally acclaim able higher education towards top-ranking of universities.

In view of the above, a research ambience coupled with an international model of research administration with decentralisation of powers and functions as achieved by the "Sri Ramachandra University Central Research Facility model" is worthy of adoption/implementation as a Best Practice.

# LIST OF APPENDICES