PEER TEAM REPORT ON
Institutional Assessment and Re-Accreditation of
SHRI SHIVAJI EDUCATION SOCIETY, AMRAVATI'S SCIENCE COLLEGE
CONGRESS NAGAR, NAGPUR-440 012, MAHARASHTRA

Section I: GENERAL

<table>
<thead>
<tr>
<th>Information</th>
<th>SHRI SHIVAJI EDUCATION SOCIETY, AMRAVATI'S SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR-440 012, MAHARASHTRA</th>
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</thead>
<tbody>
<tr>
<td>1.1 Name &amp; Address of the institution</td>
<td>SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR-440 012, MAHARASHTRA</td>
</tr>
<tr>
<td>1.2 Year of Establishment</td>
<td>01-07-1967</td>
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<td>1.3 Current Academic Activities at the Institution (Numbers):</td>
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<tr>
<td>• Faculties/ Schools</td>
<td>Science-01</td>
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<tr>
<td>• Departments/Centres</td>
<td>14</td>
</tr>
<tr>
<td>• Programmes/Courses offered</td>
<td>UG:13 PG:04, M.Phil:02, Certificate Courses:07, Add on Courses (COP): 03, Post PG Diploma: 01</td>
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<tr>
<td>• Permanent Faculty Members</td>
<td>Sanctioned:48 Filled: 39</td>
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<td>• Permanent Support Staff</td>
<td>Sanctioned:72 Filled: 63</td>
</tr>
<tr>
<td>• Students</td>
<td>UG: 946 PG: 236 Post PG Diploma: 09 Total: 1191</td>
</tr>
<tr>
<td>1.4 Three major features in the institutional Context (As perceived by the Peer Team)</td>
<td>Urban Co-educational Science College affiliated to Rashtrasant Tukadoji Maharaj (RTM) Nagpur University</td>
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<td></td>
<td>Committed management with sincere dedicated efforts</td>
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<td>College with Potential for Excellence - 2004</td>
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<td>1.5 Dates of visit of the Peer Team (A detailed visit schedule may be included as annexure)</td>
<td>January 21st - 23rd, 2010. Detailed visit schedule attached</td>
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<td>1.6 Composition of the Peer Team which undertook the on-site visit:</td>
<td></td>
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<tr>
<td>Chairperson and Coordinator</td>
<td>Prof. M. Abdul Rahiman</td>
</tr>
<tr>
<td></td>
<td>Former Vice Chancellor, Kannur and Calicut Universities, 'Haleyon' Kaprigudda New Road</td>
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<tr>
<td></td>
<td>Mangalore, Karnataka-575 001</td>
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<tr>
<td>Member</td>
<td>Prof. C. Muthamizhchelvan</td>
</tr>
<tr>
<td></td>
<td>Associate Director</td>
</tr>
<tr>
<td></td>
<td>Faculty of Engineering &amp; Technology</td>
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<td></td>
<td>SRM University</td>
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<td></td>
<td>SRM Nagar, Kattankulathur-603 203- T.N.</td>
</tr>
<tr>
<td>Member</td>
<td>Prof. Amrit Gogoi</td>
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<td></td>
<td>Principal</td>
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<td></td>
<td>Duliajan College</td>
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<tr>
<td></td>
<td>Dibrugarh-786 602, Assam</td>
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<tr>
<td>NAAC Officer</td>
<td>Dr. Sujata P. Shanbhag, Assistant Advisor, NAAC, Bangalore-560 072</td>
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## SECTION II : CRITERION- WISE ANALYSIS

### 2.1 Curricular Aspects:

#### 2.1.1 Curricular Design & Development:
- Being an affiliated college, it follows the curriculum of the RTM Nagpur University, Nagpur.
- Seven faculty members are in the BOS of different subjects and they contribute in the framing of syllabus.
- One faculty is the Dean of Science faculty and Management Council Member of RTM Nagpur University.
- Participation of Faculty in the workshops related to curricular design.
- The College offers three Ad-on courses in Hydrology, Web-Technology and Landscaping - Floriculture.

#### 2.1.2 Academic Flexibility:
- 13 UG Programmes, 04 PG Programmes, 2 M.Phil Programmes, 01 Post PG Diploma Course 7 Certificate courses and 3 Add-on COP courses are offered.
- Annual System is followed in all courses except MCA.
- Limited Academic Flexibility.

#### 2.1.3 Feedback on Curriculum:
- Feedback from students is analyzed & processed.
- Suggestions from all stakeholders are taken and furnished to the faculty for their perusal.

#### 2.1.4 Curriculum Update:
- Syllabi are revised once in five years as per university rules.
- Some minor modifications in practical courses are done.
- Little opportunity for inter disciplinary training.

#### 2.1.5 Best Practices in Curricular Aspects (If any):
- Introduction of three Add-on courses which are Vocational in nature.
- Seven job oriented certificate courses.
- Post PG Diploma in Nanotechnology.
- ICT included in the curriculum.

### 2.2 Teaching Learning & Evaluation:

#### 2.2.1 Admission Process and Student Profile:
- Admission is based on the rules and regulations of Government of Maharashtra and RTM Nagpur University.
- Transparent and Fair Admission Process for all courses.
- About 50% of students are from middle/lower socio-economic background.

#### 2.2.2 Catering to the Diverse Needs:
- The faculty helps and takes interest to meet the needs of the students.
<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
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| 2.2.3 Teaching – Learning Process: | - Remedial classes for weaker sections of students funded by UGC.  
- College has mentoring system.  
- Academic calendar of faculty, optional subjects and examination schedules is available.  
- ICT integration in teaching is done in all subjects.  
- Project – based learning for Science Students.  
- 01 International & 04 National Conferences, 11 Workshops and 06 seminars conducted. |
| 2.2.4 Teacher Quality: | - 81% of faculty positions are filled. 01 teacher possess D.Sc, 23 teachers possess Ph.D and 06 M.Phil degree.  
- Adhoc/Contributory qualified teachers to meet the work load of vacant positions.  
- Faculty members are attending seminars/workshops and conferences.  
- Incentives given for publishing papers in refereed journal |
| 2.2.5 Evaluation Process and Reforms: | - Exam committee mentors all the procedure of evaluation of students.  
- Internal Assessment is done as per the University rules.  
- Question Bank is maintained by all departments and teachers. |
| 2.2.6 Best Practices in Teaching- Learning and Evaluation (If any): | - English language laboratory helps the student to improve their communication skill.  
- ICT is one of the teaching tools having LCD, Laptops and Internet facility in all departments.  
- Computer training to non-computer students, teaching and non-teaching staff. |
| 2.3 RESEARCH, CONSULTANCY & EXTENSION: |  
| 2.3.1 Promotion of Research: | - Few teachers are actively involved in research work.  
- At present one teacher is on FIP of UGC.  
- One lakh seed money is kept for research by the Management.  
- 26 Research scholars have registered for Ph.D |
| 2.3.2 Research and Publication Output: | - 24 teachers are recognized research guides by RTM Nagpur and SGB Amravati Universities.  
- 09 students awarded Ph.D. Degree under the guidance of college faculty. |
### Consulting:

- Free consultancy provided to the farmers for groundwater analysis, Mushroom cultivation, low cost chemical products.
- Consultancy service publishes through brochures.

### Extension Activities:

- Senior Division unit NCC cadets and NSS volunteers are involved in different outreach programmes.
- NCC cadets selected for Scuba Diving 2006 held in Mumbai.
- 07 NCC Cadets have attended Republic Day Parade in New Delhi since 2003.

### Collaborations:

- Collaborations with Industries and Research institutions like NEERI, Lambent Technologies, IBM, Zensoft Pune, e-Trix Data Solutions, Nagpur etc.
- Collaboration with farmers regarding groundwater survey, Mushroom cultivation etc.

### Best Practices in Research, Consultancy & Extension:

- Collaboration with local farmers.
- Students and faculties visits to different institutions
- MOU with Vidarbha Academy of Science, Lambent Technologies, Material Science Academy

### Infrastructure and Learning Resources:

#### 1. Physical Facilities for Learning:

- College has adequate numbers of class rooms of various sizes, well equipped laboratories, Library, seminar halls, Mini Auditorium, Audio Visual room, Botanical garden with medicinal plants.
- Adequate Sports and Games facilities
- Administrative block, Principal chamber, Staff rooms, Girls common room, etc are available.
- Central facilities like multi gym, auditorium of capacity 1200, Guest house, Playground exists
- Two generators of 35 KVA each in place for power back-up
### 2.4.2 Maintenance of Infrastructure:
- The maintenance of infrastructure and cleanliness are good.
- Annual Maintenance Contract for computers and other instruments.
- Overall campus maintenance is good.

### 2.4.3 Library as a Learning Resources:
- Partial automation of Central Library with CCTV camera.
- Follows open access system and have support facilities like 7 Personal Computers with Broadband Internet connections and Reprographic machine.
- 28333 Volumes, 06 International & 15 National Journals and 15 dailies and free access to e-journals subscribes.

### 2.4.4 ICT as Learning Resource.
- Library and all departments have Internet connections.
- Website i.e. [www.shivajisciencecollegenagpur.in](http://www.shivajisciencecollegenagpur.in)
- Advanced Computing Centre and two computer laboratories.
- 255 personal computers are available and connected through LAN.
- Audio Visual facilities in the seminar hall.
- LCD projectors and Laptops in all departments.

### 2.4.5 Other Facilities:
- Facilities like Water purifiers, Canteen, Girls common room, Guest house, parking space, Health care centre are available.
- Ramp and wheelchair available for physically challenged students.
- Girls hostel under construction – One Crore grant by UGC and 50 Lakhs by the Management.

### 2.4.6 Best Practices in infrastructure and Learning Resources (if any)
- Maintenance of infrastructure – gives good academic ambience in the campus.
- Students faculty exchange programme with few institutions located in Amritsar, Guntur etc.,
- Optimum utilization of available space.
- Girls participation in sports is encouraged and they have participated in national levels.

### 2.5 STUDENT SUPPORT AND PROGRESSION:

#### 2.5.1 Student Progression:
- Dropout rate is around 28% in UG courses and 3% in PG.
- One student of B.Sc. (PCSM) secured 11 Gold Medals of Nagpur University in 2008.
- 19 students have secured First merit positions in B.Sc. final examination and few also secured merit positions in PG exam.
### 2.5.2 Student Support
- Percentage of passing in UG & PG programmes is above 80%.
- Management gives Scholarships for deserving meritorious students / Government Scholarships are available to SC, ST, BC and OBC students.
- Campus selection is done by many companies like Asian Paints, Wipro, e-caliber etc.,
- Career Guidance and Counseling is done.
- Coaching and Guidance for the competitive exams is done by providing library and ICT facility.

### 2.5.3 Student Activities
- Few students own Medals at University, State and National levels in different sports activities like swimming, Roller skating etc.
- One student took part in XXIV UNIVERSIADE Swimming competition, 2007 at Bangkok
- One student is the National Champion in Atya-Patya game continuously for a period of five years 2004-09.
- One student participated in the First Youth National Super Seven Cricket Championship held at Chandrapur Maharashtra, 2003 and he was selected for the Ranji Trophy tournament of Vidarbha, 2005

### 2.5.4 Best Practices in Student Support and Progression (If any):
- "Bharti Annual College Magazine
- English Language Laboratory helped improve communication skills
- Alumni render financial support for the improvement of infrastructure.

### 2.6 GOVERNANCE AND LEADERSHIP:

#### 2.6.1 Institutional Vision and Leadership:
- Vision and Mission is clear to give and achieve quality and excellence through value based education.
- Principal and Management gives a good leadership for the overall development.

#### 2.6.2 Organizational Arrangements:
- The college is functioning under Shri Shivaji Education Society, Amravati and under which there are 269 educational institutions.
- Shri Shivaji Education Society is the recipient of three awards of the State Government for its remarkable contribution in education and Social activities.
- College has internal co-ordination and monitoring mechanism.

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*Shri Shivaji Education Society, Amravati's Science College Congress Nagar, Nagpur*
| 2.6.3 Strategy Development and Deployment: | • College office has adequate staff and space  
• Administration is decentralized with 04 committees and 45 subcommittees.  
• Feedback is obtained from students, faculty, alumni and other stakeholders.  
• Self appraisal by teaching staff. |
| 2.6.4 Human Resource Management: | • Self appraisal by the teachers and their evaluation of performance by the management.  
• Annual Teacher’s evaluation by students.  
• Management contribution as per requirements  
• Loan Facilities are available under co-operative credit society.  
• Appointments are made as per rules of university and Government. |
| 2.6.5 Financial Management and Resource Mobilization: | • Account section of college office is computerized.  
• Optimum utilization of available finances.  
• Good Finance Management.  
• Audit mechanism exists. |
| 2.6.6 Best Practices in Governance and Leadership(if any): | • Management provides financial support for the overall development of campus.  
• Best Teacher and Best Service award by the Management.  
• Teachers are benefited by the “Co-operative credit society.” |
| 2.7 INNOVATIVE PRACTICES: | |
Many alumni occupy prominent positions like the Post of Vice-Chancellor, MLA, State services etc.

**SECTION III: OVERALL ANALYSIS**

<table>
<thead>
<tr>
<th>Observations</th>
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<tbody>
<tr>
<td>College with Potential for Excellence by UGC during 2004 and received a grant of Rs. 1.70 Crores.</td>
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<td>13 Science subjects with well equipped laboratories.</td>
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<td>Alumni and parents are supportive.</td>
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<td>Adequate infrastructure facilities.</td>
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<td>ICT adds for the academic strength of the college.</td>
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<td>UGC sanctioned Rs.4.16 Crores in all during the during Post Accreditation period.</td>
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<td>A corpus fund of 3 crores is available with the Society</td>
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<td>Management fund for research is not adequate.</td>
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<td>More locally relevant and applied subjects to be introduced.</td>
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<td>Research activities by senior faculty is low.</td>
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<td>Vacant teaching positions to be filled.</td>
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<td>No Hostel facility but Girls hostel is under construction.</td>
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<tr>
<td>Attracting more students for basic science subjects.</td>
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<td>Motivating Teachers to enhance their academic qualifications.</td>
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<td>Training students to appear for State and National level competitive examinations.</td>
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<td>More Research projects by the teachers.</td>
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<td>College should be recognized as a research center.</td>
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<td>To prepare the students to face the challenges in science subjects to meet the global competition.</td>
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<td>More collaboration and linkages with industries in and around Nagpur.</td>
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<td>Scope for more PG courses.</td>
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<td>Utilization of resources of supportive management.</td>
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<td>Multidisciplinary / interdisciplinary approach in research activities.</td>
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<td>More research projects by the faculty from National bodies such as UGC, DST, ICMR, DBT, DOE etc.,</td>
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SECTION IV: RECOMMENDATIONS FOR QUALITY ENHANCEMENT OF THE INSTITUTION

- PG Programmes in Applied Mathematics, Physics and Biotechnology and in locally relevant subjects to be started.
- Fill up the vacant teaching positions at the earliest.
- More space may be provided for all the departments for the future expansion with special reference to research labs.
- Linkages with more institutions may be explored for collaborative research, teaching and consultancy.
- Library and college office to be fully automated.
- More space may be provided for reading room in the library.
- College may start coaching classes for competitive examinations such as UPSC, NET, SET, MPSC etc.
- Renovation of the Multi Gym building may be undertaken.
- Management may render financial assistance / fellowships to the meritorious research students.

I agree with the observations of the Peer Team as mentioned in this report.

Seal of the institution
23.01.2010

Signature of the Head of the institution
Principal

<table>
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<tr>
<th>Name and Designation</th>
<th>Signature with date</th>
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</table>
| Prof. Abdul Rahiman M
Former V.C. of Kannur and Calicut Universities
‘Halcyon’, Kaprigudda New Road,
Mangalore 575 001, Karnataka | M. Abdul Raha 23/01/2010 |
| Prof. C. Muthamizhchelvan
Faculty of Engineering & Technology
SRM University
SRM Nagar, Kattankulathur-603203, T.N | M. Abdul Raha 23/01/2010 |
| Prof. Amrit Gogoi
Principal
Duliajan College, Duliajan
Dibrugarh-786602, Assam | M. Abdul Raha 23/01/2010 |
| Dr Sujata P Shanbhag
Assistant Adviser, NAAC
Bangalore 560 072 | M. Abdul Raha 23/01/2010 |

Place: Nagpur Maharashtra-440012

Date: 23/01/2010