NAAC Peer Team Report

on

Institutional Accreditation

of

VSM College of Engineering
Main Road, Ramachandrapuram
Andhra Pradesh- 533255

Dates of Visit: August 31, September 01-02, 2017

SUBMITTED TO

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
An Autonomous Institution of the University Grants Commission
P.O. Box No. 1075, Nagarbhavi, Bangalore – 560 072

Prof. (Dr) Md. Uddin
Chairperson

Prof. (Dr) Jogeshtha Raj V. P.
Member Coordinator

Prof. (Dr) Vinita M. Shet
Member
## Section 1: GENERAL INFORMATION

| 1.1 Name & Address of the College | VSM College of Engineering  
Main Road, Ramachandrapuram  
Andhra Pradesh- 533255 |
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<tbody>
<tr>
<td>1.2 Year of Establishment</td>
<td>2009</td>
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| 1.3 Current Academic Activities of the College | FACULTIES / SCHOOLS  
Departments / Centers  
Programs / Courses offered  
Permanent Faculty Members  
Permanent Support Staff  
No. of Students (2016-17) |
|                                 | Faculties - 01 - Engineering  
Departments - 5  
UG - 5; B. Tech in *CE, CSE, EEE, ECE and ME;  
PG - 2; M. Tech in VSLI & ES and CSE  
Permanent - 138  
Non-teaching - 49, Technical - 25  
UG Students -1944(sanctioned), 1280(admitted);  
PG Students - 72(Sanctioned), 26(admitted) |

*CE - Civil Engg., ME - Mechanical Engg., EEE - Electrical and Electronics Engg.,  
ECE - Electronics and Communication Engg., CSE - Computer Science and Engg.*
| 1.4 Three Major Features In the Institutional Context | - A co-educational college in rural area with focus on engineering UG and PG programmes  
- College offers 5 UG programmes and 2 PG programmes.  
- Good infrastructure facilities have been provided to students with green campus |
| 1.5 Dates of the visit of the Peer Team | August 31, September 01-02, 2017  
(Schedule of the visit is attached. |
| 1.6 Composition of the Peer Team which Undertook the On-site Visit |  |
| Chairperson | Prof. (Dr) Moin Uddin  
(Former Pro-Vice Chancellor)  
Delhi Technological University,  
Shahbad Daulatpur, Bawana Road,  
Delhi - 110042 |
| Member Coordinator | Prof. (Dr) Jagathy Raj V. P.  
Professor, School of Management Studies,  
Cochin University of Science and Technology,  
Kochi-682022, Kerala |
| Member | Prof. (Dr) Vinayak N. Shet  
Principal,  
Goa Government Engineering College  
Farmagudi, Ponda, Goa - 403401 |
| NAAC Coordinating Officer | Dr. M. S. Shyamasundar,  
Adviser, NAAC,  
P.O.Box No 1075, Opp to NLSIU,  
Bangalore University Campus,  
Nagarbhavi, Bangalore – 560072, Karnataka |
<table>
<thead>
<tr>
<th>Section II: CRITERION WISE ANALYSIS</th>
<th>Observations (Strengths and/or Weaknesses) on Key-aspects</th>
</tr>
</thead>
</table>
| 2.1 Curricular Aspects              | • Affiliated to Jawaharlal Nehru Technological University, Kakinada. Curricula of all the programs are as per Jawaharlal Nehru Technological University – Kakinada (JNTUK).  
• Giving feedback of all stakeholders including outside experts to BOS of the University for curriculum development  
• Academic calendar, as specified by the affiliating University, has been implemented by the College with addition of some add-on courses  
• College level academic committee is there to monitor the planning and implementing of the curriculum  
• Course files with all details are prepared by all faculty members before starting each semester and accordingly develop the action plan for implementation.  
• College provides remedial classes and bridge classes for needy students.  
• MoUs with some organizations and institutions are exists. |
| 2.1.1 Curricular Planning and Implementation |  |
| 2.1.2 Academic Flexibility | • Being an affiliated Institute, academic flexibilities are limited. However beyond the syllabus advanced topics are covered to suit industry.  
• Elective courses are offered as per JNTU curriculum which represents state of the art in Technologies and Management.  
• English proficiency courses and some useful audit courses are offered.  
• Students have some freedom to choose elective subjects.  
• There is no flexibility to increase the more no of electives |

Prof.:[Dr] Mohd. Sahin
Chairperson

Prof.:[Dr] Jagathy Raj V. P.
Member Coordinator

Prof.:[Dr] Vinayak N. Shet
Member
2.1.3 Curriculum Enrichment

- Curriculum update is done periodically by JNTUK and is properly followed by the College.
- Limited curriculum enrichment is done. However, NPTEL materials are available.
- Encourage teachers to participate workshops/conference to enrich their capabilities
- Provision for **industry exposure** to students is limited. However, it needs to be enhanced.
- Professional skills need to be improved among students
- **Limited use of ICT applications**

2.1.4 Feedback system

- Feedback on curriculum and other activities from all stakeholders are taken and accordingly remedial actions taken.
- Feedback about Univ. curriculum is collected from the students / employers/alumni and the same is communicated to University, subsequently.
- Feedback system should further be strengthened and streamlined by including experts from National institutes and Industries.

2.2 Teaching – Learning & Evaluation

2.2.1 Student Enrolment and Profile

- Wide publicity is given in popular Print and Electronic media
- Admissions executed as per the Govt. and University norms
- Students coming from reserved category women students, and other differently abled categories are being admitted as per the Government norms.

2.2.2 Catering to Students Diversity

- Student diversity is well maintained.
- Adequate financial support to students of following category – SC, ST and OBC are provided by the Govt.
<table>
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<tr>
<th>2.2.3 Teaching – Learning Process</th>
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<tbody>
<tr>
<td>• Teaching-learning process follows University academic calendar.</td>
</tr>
<tr>
<td>• Course files and lab manuals for various subjects are maintained by respective departments. Accordingly teaching plan is prepared.</td>
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<tr>
<td>• Conventional class room teaching is strengthened by ICT enabled teaching, which however, needs improvement.</td>
</tr>
<tr>
<td>• Communication and Soft skill classes enable the student to inculcate more values</td>
</tr>
<tr>
<td>• Lecture method supplemented by student’s seminars, project work, field work, practical sessions, and invited lectures used in teaching – learning process</td>
</tr>
<tr>
<td>• Internal Quality Audit Cell exists to monitor the quality of the teaching &amp; learning process. The audit reports are submitted through HoD’s periodically to Governing Council for necessary corrective actions if necessary.</td>
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<th>2.2.4 Teacher Quality</th>
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<tr>
<td>• Cadre Ratio is poor and STR is not satisfactory.</td>
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<tr>
<td>• Acute shortage of qualified and experienced faculty.</td>
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<td>• Sixth pay commission are not implemented to faculty.</td>
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<tr>
<th>2.2.5 Evaluation Process and Reforms</th>
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<tbody>
<tr>
<td>• Evaluation of academic performance of students is carried out by considering weights for different evaluation components as per JNTUK norms for UG and PG programs.</td>
</tr>
<tr>
<td>• The College adheres to the academic calendar of the University for conduct of examinations.</td>
</tr>
<tr>
<td>• Continuous internal assessment through SAM and FAM as per the University norms.</td>
</tr>
<tr>
<td>• The College has an effective mechanism for redressal of grievances pertaining to examinations.</td>
</tr>
</tbody>
</table>
2.2.6 Student Performance and Learning Outcomes

- The institution encourages all its departments to clearly state Course outcomes, Programme Outcomes and Programme Specific Outcomes of its programmes.
- College encourages students to participate in various activities to enable them show their skills and academic strength.
- Structured teaching, learning strategies to measure the learning outcome; however its full implementation needs to be addressed.
- Overall results in the University examinations are satisfactory. Academic performance needs to be improved. More encouragement is needed for Internships/Projects.
- Student learning may be enhanced through industrial visits, study tours, and innovative projects etc.
- Limited deployment of New technologies like ICT, smart class rooms by the Institution to enrich student learning and to be further enhanced through industrial visits, study tours, and innovative projects etc.

2.3 Research, Consultancy & Extension

2.3.1 Promotion of Research

- R & D facilities need to be established and promoted.
- No department of the Institution is recognized by the affiliating University as a research center.
- Teachers are advised to take up externally funded research projects.
- The college is advised to provide seed money to the faculty for conducting research activities in the College on need basis.
- Efforts to establish research collaborations with different organizations need enhancement.

2.3.2 Resource Mobilization for research

- Very limited budget provision is provided for Research and Development activities.
- Budget allocation for Research needs to be enhanced and communicated to the departments.
- More efforts are required for sponsored projects from funding agencies.

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Prof.(Dr.) Moinuddin
Chairperson

Prof.(Dr.) Jagathy Raj V. P.
Member Coordinator

Prof.(Dr.) Vinayak N. Shet
Member
| **2.3.3 Research facilities** | • Collaborative R&D activities with research organizations and institutions of higher learning to be aggressively pursued.  
• Research facilities in the college need augmentation for high-end research.  
• Efforts are necessary to get recognitions from JNTU as research centers to all the departments. |
| **2.3.4 Research publications and awards** | • Numbers of Publications in reputed journals are very less.  
• The faculty may be encouraged to take up research projects from various funding agencies.  
• Awards/recognitions may be given to faculty members publishing research papers in good quality journals.  
• Research publication by faculty jointly with students may be encouraged. |
| **2.3.5 Consultancy** | • Industry-Institute Interaction Cell is established by the College.  
• Marginal consultancy activity exists in the college. However, consultancy activities and resource mobilization through consultancy needs to be strengthened.  
• Needs to explore the possibility of the students to undergo in-plant training/take-up project works. |
| **2.3.6 Extension Activities and Institutional Social Responsibility** | • Participation in various community related activities through NSS and NCC are in place.  
• Students take part in extension and extracurricular activities.  
• College conducted few outreach programmes committed with social responsibilities like Blood donation and environment awareness programme in addition to tree plantation and other activities.  
• Participation of students in community related activities be made mandatory to make them socially responsible citizens.  
• Activities for the empowerment of the underprivileged sections of the society are initiated. |
2.3.7 Collaborations

- College have signed MOUs with some organizations and academic institutions.
- Some eminent persons from Industry and reputed institutions have been invited for delivering lectures.
- More collaboration with national and international institutions and organizations may be established.

2.4 Infrastructure and Learning Resources

2.4.1 Physical Facilities

- Adequate infrastructure facilities as mandated by AICTE and the University are made available for academic, co-curricular and extra-curricular activities.
- Well-equipped computer laboratories with moderate ICT facilities are available in all the Departments.
- Health centre, Auditorium, canteen, gymnasium, RO plant, Power backup facilities, solar plant and recreation facilities are available.
- For boys and girls, separate hostel facilities are provided by the college, but need up-gradation.
- Infrastructure facilities for indoor and outdoor sports are in place, but need upgradation.
- Class rooms and Staff rooms may be modernized.

2.4.2 Library as a Learning resource

- College library is not automated.
- Book bank facility is in place.
- Library committee exists.
- Limited digital Library and e-resources are available.
- INFLIBNET, DELNET and OPAC facilities are available.
- College shall subscribe to the on-line publications of IEEE and other publications.
- Library budget needs enhancement.
### 2.4.3 IT Infrastructure
- Internet facility with 50 Mbps speed is made available in the campus. Wi-Fi facilities are not provided to students.
- Sufficient computing facilities are available.
- Software resources are insufficient for undergraduate and post graduate projects.
- Multimedia Teaching Facility may be provided in all the class rooms.
- College has to establish integrated campus wide information system for efficient and effective academic and administrative functions.
- Institute may consider to avail NKN (National Knowledge Network) facility.
- The ICT learning resources need to be enhanced to meet the requirements of all students of the college.
- The college has to develop a comprehensive IT policy for the optimum utilization of ICT facilities.

### 2.4.4 Maintenance of Campus Facilities
- Adequate maintenance facilities are provided in the campus.
- AMC to maintain computer and related accessories.
- Generator back up, UPS facilities are available. 150 KW solar power plant is installed and operational.
- Rain water harvesting facility is available.

### 2.5 Student Support and Progression

#### 2.5.1 Student Mentoring and Support
- Student mentoring and counseling system exists. However Mentor-Mentee system to be strengthened further.
- Grievance Redressal Cell, Counseling and Career Guidance Cell, anti-ragging committee, sexual harassment committee, Women Protection Cell etc. are in place.
- Psychological mentoring by outside experts may be provided to needy students.
- College organizes co-curricular and extra-curricular activities to sharpen the skills of the
2.5.2 Student Progression

- Results profile of students at University examinations is poor. Drop-out rate of the students is high.
- Academic support to reserved category students and slow learners are provided by the college
- Guidance may be given to the students to pursue higher education and job opportunities in various sectors of job markets other than IT sector
- Career guidance cell and placements committees are formed. However, Career counseling facilities need to be strengthened

2.5.3 Student Participation and Activities

- Students are encouraged to participate in inter-collegiate sports and cultural competitions; some students have secured medals in Inter-Collegiate competitions.
- Opportunities are given to students to participate in community outreach activities however it may be strengthened
- Alumni interaction needs to be enriched
- College collects feedback from students for improving support services
- Students representatives are included in various committees and decision making bodies
- Industrial interaction needs to be improved and promoted.
### 2.6 Governance, Leadership and Management

#### 2.6.1 Institutional Vision and Leadership

- Vision, Mission and Goals are widely disseminated
- The effective administration with the coordination and leadership of the Principal and governing body is visible.
- Decentralization and delegation of powers exist. However, the same may be improved.
- The college promotes a culture of participative style of management with cordial relationship maintained with all stakeholders.
- Establish awards and recognition for bringing quality in teaching-learning process.
- BOG may be further strengthened with inclusion of representatives from various Industry sectors and National Institutes.
- Faculty and Students involvement in decision making bodies are need to be strengthened further.

#### 2.6.2 Strategy Development and Deployment

- Strategic plan for the overall development of the college is not exists.
- Academic calendar, add-on courses and value addition programs are implemented in consultation with faculty members.
- College has an effective feedback system involving all stakeholders and used for strategy development.
- Students' feedback on Institution performances are collected which needs to be formalised and connected with institutional goals.
- MOUs with good institutes and industries for the development of the college need to be initiated.
- Structured external Academic audit by peer groups need to be conducted for more effective recommendations for Teaching-learning improvement.
- Networking with stake holders to evolve and review quality oriented educational policies and practices to be strengthened.
- The IQAC support in monitoring quality policy
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<tr>
<th>2.6.3 Faculty Empowerment Strategies</th>
<th>needs to be strengthened further</th>
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<tbody>
<tr>
<td>- Selection of Teaching and non-teaching Staff done as per Govt., UGC and AICTE norms</td>
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<td>- Several FDPs are arranged by the management for empowerment of the faculty.</td>
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<tr>
<td>- College takes feedback from HoDs and students about the performance of teachers. The feedback is used as an input parameter for improving the quality of teaching – learning process.</td>
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<tr>
<td>- Self-appraisal system for the faculty members has been introduced. Assessment of teachers based on Academic Performance Indicators as per UGC is to be initiated.</td>
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<tr>
<td>- Eminent professionals are needs to be recruited on invitation basis</td>
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<td>- An effective strategy may be adopted to attract qualified and talented faculty.</td>
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<tr>
<th>2.6.4 Financial Management and Resource Mobilization</th>
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<tr>
<td>- Finance management activities are satisfactory. Computerized accounts are maintained and audited regularly.</td>
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<tr>
<td>- Resource Mobilization through various funding agencies limited; needs to be improved.</td>
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<tr>
<td>- Generation of resources through consultancy activities and alumni need to be further strengthened</td>
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<td>- Sufficient operating budget are to be assigned for research</td>
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<th>2.6.5 Internal Quality Assurance System</th>
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<td>- IQAC exists, but it needs strengthening.</td>
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<td>- Regular academic audits are to be monitored and peer review may be strengthened.</td>
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<tr>
<td>- Annual academic audit is conducted and continuously reviewed the teaching –learning process</td>
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<tr>
<td>- Outcome based teaching programme are to be designed and developed.</td>
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<tr>
<td>- Frequency of IQAC meetings may be increased to make it more effective.</td>
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<tr>
<td>- Starting of need-based courses, values added certificate courses, soft skill program etc. are</td>
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## 2.7 Innovations and Best Practices

### 2.7.1 Environment Consciousness

- Some Initiatives for Environment Consciousness are in place; however it has been strengthened more.
- Efforts for carbon neutrality has to be done.
- Eco friendly campus; Water harvesting system is functional in the institution.
- Solar power generation and solar water heater are available and thereby attempts are made to reduce power consumption.
- E-waste management system initiated; need to be strengthened.
- College has to conduct some outreach and social programs to make students more Environmental consciousness ready engineers.
- Green audit may be formalized to include all areas of the Institution.

### 2.7.2 Innovations

- College has an opportunity to start some more need based innovative programs.
- Innovation-centric teaching learning process may be encouraged.
- Few good industry oriented UG projects are visible.
- College has to start some more need based innovative programmes
- Collaborations and research centre with leading industries may be enhanced

### 2.7.3 Best Practices

- College is making efforts for overall development of students
- Efforts are made for Inculcating Social Responsibilities and Skill Development of the students.
- Giving important to outreach activities and

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**Signatures:**
- Prof. (Dr) Moin Uddin
  Chairperson
- Prof. (Dr) Jagathy Raj V. P.
  Member Coordinator
- Prof. (Dr) Vinayak N. Shit
  Member
| Training for competitive examinations  
| Academic and personal counseling, Personality and skill development programmes  
| Use of technology for dissemination of academic activities exists.  
| Efforts are made to improve the quality of Staffs and Students.  
| Input from various stakeholders is noted for curriculum development |

### Section III OVER ALL ANALYSIS

| Harmonious relationship exists between College and all the stakeholders.  
| College is located in the rural area and playing key role in nation building  
| Experienced, efficient and effective administration of the institution. Proactive and supportive Management.  
| Good infrastructure and Healthy financial status are available  
| Facilities for sports and athletics are good.  
| Good placements.  
| Good policies for extracurricular activities and personality development.  
| Very good language lab  
| Conducted many seminars and workshops under FDP.  
| Invited lectures are organized regularly |

#### 3.1 Institutional Strengths

- College has no freedom to update curriculum as it is an affiliated college.
- Consultancy activities are limited. Research centres may be evolved with the help of affiliating University and industries.
- Streamlining of the long term strategic plan for up gradation and development of the college may be made more effective.
- Less number of national and international programmes organized.
- Lack of senior experienced faculty.
### 3.3 Institutional Opportunities

- No good R&D facilities exist. Research ambience and research facilities need to be enhanced.
- Location disadvantage for attracting high profile companies for placement.
- Limited opportunity for skill up-gradation of non-teaching staff.
- Insufficient number of faculty with PhDs.
- Non availability of sophisticated equipments for R & D need to be augmented.
- Publications in Journals with high impact factor are not visible.
- Skill development and Entrepreneur oriented activities are minimal.

- Opportunity for more usage of ICT.
- The Services of Ph.D qualified teachers may be utilized for establishing research centers in all the Departments.
- Establishment of more awards and recognitions to encourage teachers and students for participating in industrial and research activities.
- Try to acquire autonomous status to enable introduce many courses which are not included in University curriculum.
- Job oriented courses for students and tailor made programs for industry personnel can be conducted during evening hours.
- More academic tie-ups with higher education organizations and industries can be established.
- To get research center recognition to all departments to enhance research activities.
- Strengthening more summer training programmes to students.
- Can start more number of value added programmes and job oriented courses for students.
- More placement activities.
- Submission of proposals for grant of 2(f) and 12(b) status to UGC.
### 3.4 Institutional Challenges

- Establishing tie-ups with national and international higher education and research institutions.
- More tie-ups and collaborations with industries.
- Possibility of launching skill intensive programs under NSQF of AICTE.
- To compete with urban engineering colleges.
- Empowerment of rural students to increase their employability and skills.
- Providing more facilities for innovative research and its commercial use.
- Inspiring teachers to take up research and consultancy activities in emerging Engineering Fields.
- Opportunity for strengthening the existing PG programmes.
- Entrepreneurship and e-governance programmes to be updated.
- To achieve better number of research publications in good quality journals.
- To start more innovative and need based programs for students.
- To attract more meritorious students at First year level.
- Inspiring Faculty to submit proposal under sponsored schemes to AICTE, UGC, DST and State Govt. organizations.
- Raising financial resources to meet challenges for the overall development.
- Interdisciplinary activities to bring creativity and innovation in teaching-learning process and to increase the employability of the students.
Section IV: Recommendation for Quality Enhancement of the Institution

- Try to get autonomy in academic activities.
- Faculty may be further encouraged to practice more ICT enabled teaching-learning methods including e-learning resources.
- Encourage faculty members to take up research and consultancy projects; Innovations and research talents of the faculty be explored to be converted into Patents.
- Academic audit and Peer team evaluation by external experts may be undertaken periodically
- Appointment of qualified and experienced faculty.
- IQAC should be strengthened for all-round development of the Institution with quality consciousness
- Strengthen entrepreneurship development cell to guide and assist the out-going students in becoming entrepreneurs. Technology Business Incubation centre may be established to promote students' start up projects.
- Proper cabins with necessary facilities to be provided to all faculty members.
- Automation of library shall be undertaken
- Modernization of laboratories with latest equipments.
- Sports facility shall be enhanced.
- Job oriented courses like Artificial intelligence, Big Data Analytics, IOT, Cloud Computing, Machine learning, Cyber security, Cyber forensics, Robotics process automation, Mobile application development etc to be started.
- The Institute may go for MoUs with premier academic institutions for innovative teaching learning methods and research.
- To establish more tie-up and collaboration with national and international research institutions and industries and establish high end research facilities by taking up sponsored research projects
- Campus wide integrated information system to be established for effective academic and administrative management
- Allocate more funds for the research and development work on creative and innovative programmes
- Establish department wise research laboratories and facilities to foster linkages with other institutions, industries and research sponsoring agencies.
- More PG and Ph.D programmes to be started
- Enhance faculty development programs and activities.
- Introduce more add-on and skilled courses in respective fields.
- Enhance possibilities of co-curricular activities on the campus.
- Strengthen Alumni Association for overall development of the college.
- Moral education, training in yoga and meditation, training in martial arts etc. be organized for interested students.
- Allocate more funds for the Research and Development activities on creative and innovative programmes and establish awards and recognition to promote Research and Development
- To start an incubation centre and enhance entrepreneurship activities for motivating students to become prospective Entrepreneurs
- Provide better facilities in boys and Girls hostels.
- Implementation of Sixth pay commission recommendations to teaching and non-teaching staff.

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

Prof.(Dr) A. Sri Hari Prasad, Principal
(Signature and seal of the Head of the Institution)

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<tr>
<th>Name</th>
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<th>Signature with Date</th>
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<td>NAAC Coordinator</td>
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Place: Ramachandrapuram, Andhra Pradesh
Date: 2nd September, 2017.