ANNUAL QUALITY ASSURANCE REPORT

2014-2015

National Assessment and Accreditation Council Bangalore-560 072

Submitted by



SWARNANDHRA

COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)

Accredited by NAAC with 'A' Grade (3.32/4.00 CGPA), Approved by AICTE and Autonomous with JNTUK, Kakinada Seetharampuram, Narsapur – 534 280, W.G.Dist., Andhra Pradesh

INDEX

| DESCRIPTION | PAGE NOS. |
|----------------------------|-----------|
| Part-A | 3-8 |
| | Part-B |
| Criterion-I | 9, 10 |
| Criterion-II | 12- 14 |
| Criterion-III | 15- 19 |
| Criterion-IV | 20, 21 |
| Criterion-V | 22- 25 |
| Criterion-VI | 26- 30 |
| Criterion-VII | 31- 33 |
| Criterion-VIII | 34 |
| Abbreviations (Annexure-I) | 35 |
| ACADEMIC CALENDAR | 36, 37 |

The Annual Quality Assurance Report (AQAR) of the IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. (Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013)

Part - A

I. Details of the Institution

| 1.1 Name of the Institution | SWARNANDHRA COLLEGE OF EN TECHNOLOGY | GINEERING AND |
|-------------------------------------|---|---------------|
| 1.2 Address Line 1 | Seetharampuram | |
| Address Line 2 | | |
| City/Town | Narasapur | |
| | | |
| State | Andhra Pradesh | |
| Pin Code | 534280 | |
| Institution e-mail address | principal@swarnandhra.ac.in | |
| Contact Nos. | 08814-240588 | |
| Name of the Head of the Institution | Dr.M.Muralidhara Rao | |
| Tel. No. with STD Code: | 08814-240588 | |
| Mobile: | 9849053072 | |

| Name of th | e IQAC Co | o-ordinator: | Dr.K.S | S.Gowi | ri Saı | nkar | | | |
|--|------------------------------|--|-----------------------------|---------------------------|--------|--------------------|------------|----------|--|
| Mobile: | | | | 9440607984 | | | | | |
| IQAC e-m | ail address: | | S | swarnandhraiqac@gmail.com | | | | | |
| 1.3 NAAC | Track ID (| For ex. MHCO | GN 18879) | | APC | OGN15217 Dt 21 | /11/12 | | |
| (For E. This E | xample EC/3 C no. is avai | ommittee No. & 82/A&A/143 data lable in the rights Accreditation (| ed 3-5-2004 t corner- bo | | | EC/PCA&A | /64/31 Dt | 21/11/12 | |
| | te address: | www.swarnandhra.ac.in | | | | | | | |
| Web link of the AQAR: 1.6 Accreditation Details | | | | | | | | | |
| | Sl. No. | Cycle | Grade | CGI | PA | Year of | Validity | Period | |
| | 1 | 1 st Cycle | A | 3.3 | | Accreditation 2013 | 07 July | | |
| 1.7 Date of Establishment of IQAC :DD/MM/YYYY 31/01/2013 | | | | | | | | | |
| 1.8 AQAR for the year 2014-15 | | | | | | | | | |
| | of the prev on by NAA | - | AR subm | itted to | NA. | AC after the late | st Assessn | nent and | |
| 2014-15 | 9/6/2018 | | | | | | | | |

| 1.10 Institutional Status | | |
|--------------------------------------|-----------------------|---|
| University | State V Central | Deemed Private |
| Affiliated College | Yes V No | |
| Constituent College | Yes No V | |
| Autonomous college of UGC | Yes V No | |
| Regulatory Agency approved Inst | itution Yes v | No |
| (eg. AICTE, BCI, MCI, PCI, NCI) | | |
| Type of Institution Co-education | on V Men | Women |
| Urban | Rural | √ Tribal |
| Financial Status Grant-in- | | |
| Grant-in-aid + Self Financing | Totally Self –Financ | ing V |
| 1.11 Type of Faculty/Programme | | |
| Arts Science | Commerce L | aw PEI (Phys Edu) |
| TEI (Edu) Engineerin | ng 🚺 Health Scien | nce Management V |
| Others (Specify) | Master of Computer | Applications(MCA) |
| | | |
| 1.12 Name of the Affiliating Univers | ity (for the Colleges | Jawaharlal Nehru Technological University Kakinada, Kakinada |

| 1.13 Special status conferred by Central/ State Go | vernment UGC/CSIR/DST/DBT/ICMR etc |
|--|------------------------------------|
| Autonomy by State/Central Govt. / University | University & UGC |
| University with Potential for Excellence | UGC-CPE |
| DST Star Scheme | UGC-CE |
| UGC-Special Assistance Programme | DST-FIST |
| UGC-Innovative PG programmes | Any other (Specify) |
| UGC-COP Programmes | |
| 2. IQAC Composition and Activity | <u>ties</u> |
| 2.1 No. of Teachers | 7 |
| 2.2 No. of Administrative/Technical staff | 1 |
| 2.3 No. of students | 2 |
| 2.4 No. of Management representatives | 1 |
| 2.5 No. of Alumni | 2 |
| 2. 6 No. of any other stakeholder and community representatives | 1 |
| 2.7 No. of Employers/ Industrialists | 1 |
| 2.8 No. of other External Experts2.9 Total No. of members | 0 |
| 2.10 No. of IQAC meetings held | 2 |
| 2.11 No. of meetings with various stakeholders: | No. 4 Faculty 1 |

| Non-Teaching Staff students 1 Alumni 1 Other 1 |
|--|
| 2.12 Has IQAC received any funding from UGC during the year? Yes No |
| If Yes, Mention the amount - |
| 2.13 Seminars and Conferences (only quality related) |
| (i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC |
| Total Nos. International National 0 State Institution Level |
| (ii) Themes NBA-SAR Report preparation CRT Classes on Soft skills CRT Classes on Career Empowerment |
| 2.14 Significant Activities and contributions made by IQAC |
| Quality parameters developed for various academic / administrative activities of the institute. Assessing the quality parameters and providing required suggestions for the improvement. Arranging FDP'S for newly joined faculty Conducting seminars / workshops, FDPs, Guest Lectures, training / certification programmes on quality related issues Implementation of Outcomes Measurement for the courses in the Programme Evaluation of existing teaching learning systems and related documents |

2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year \ast

| Plan of Action | Achievements |
|---|--|
| To Monitor Teaching Learning process | Academic Audit is done at the middle and end of the every semester. |
| To Encourage R&D and Consultancy, Establishing advanced / research labs / centres, setting up new experiments on latest technologies. | Two Major research projects was sanctioned worth of 15 lakhs One Minor research project was sanctioned |
| Conducting Faculty Development Programs on Emerging technologies. | • 5 Faculty development Programs are organised. |
| Communication with Parents | Letters with particulars of Percentage of attendance, Midexam marks, SGPA and Backlogs have been sent. Percentage of student attendance is improved |
| Online Certification courses | |
| To improve technical activities | National Level Technoscet 2K14 was organized in the month of December IETE student Chapter was inaugurated. Various workshops and FDP's were organised for Technical development |
| Curriculum(R14) | R14 Regulation was implemented for 2014 admitted batch |
| To send SMS alert to the parents about progress | Alerts of Attendance and performance of students are sent to the parents. Communication with Parents is done through SMS. |

| * Attach the Academic Calendar of the year as Annexure. Refer Annexure-A |
|--|
| 2.16 Whether the AQAR was placed in statutory body Yes No No |
| Management V Syndicate Any other body V |
| Provide the details of the action taken |
| |
| Placed in Academic Council meeting held on: 28/8/2014 & 07/09/2014 |
| |

Criterion - I

I. Curricular Aspects

1.1 Details about Academic Programmes

| Level of the Programme | Number of existing Programmes | Number of programmes added during the year | Number of self-financing programmes | Number of value added / Career Oriented programmes |
|---------------------------|-------------------------------------|--|-------------------------------------|---|
| PhD | - | - | - | - |
| PG | 7 M.Tech-5, MBA, MCA | - | 7 | - |
| UG | 6 (B.Tech) | - | 6 (B.Tech) | - |
| PG Diploma | - | - | - | - |
| Advanced Diploma | - | - | - | - |
| Diploma | 4 | - | 4 | - |
| Certificate | - | - | - | - |
| Others | - | - | - | - |
| Total | 17 | | 17 | |
| Interdisciplinary | | | | |
| Innovative | | | | |

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options

Presently, the college is offering Under Graduate Programmes in the following disciplines:

- Computer Science and Engineering (CSE)
- Electronics and communication Engineering (ECE)
- ➤ Electrical and Electronics Engineering (EEE)
- ➤ Information Technology (IT)
- ➤ Mechanical Engineering (ME)
- ➤ Civil Engineering (CE)

3.1 Structure of the Programme:

Each Programme of a Discipline or branch of study will consist of:

- i). General core courses in Basic Sciences, Engineering & Technology, Humanities, Mathematics and Management.
- ii). Interdisciplinary courses in Engineering, to impart the fundamentals of Engineering.
- iii). Compulsory core courses to impart broad based knowledge needed in the concerned branch of study.
- iv). Elective courses from the discipline or interdisciplinary areas / industry related opted by student based on his/her interest in specialization.
- v). Seminars, Technical Paper, Comprehensive Viva-Voce, Mini Project and Major Project approved by the Department to be submitted in the course of study.

Each Programme of study will be designed to have 40-45 theory courses and 16-18 laboratory courses. The distribution and types of courses offered from the above is indicated in the following table.

| General Core courses | 25-30% |
|--|--------|
| Interdisciplinary courses in engineering | 15-20% |
| Compulsory Core courses in the branch of study | 45-50% |
| Elective Courses | 5-10% |

Note: All components prescribed in the curriculum of any Programme of study will be conducted and evaluated.

Contact hours: Depending on the complexity and volume of the course the number of contact hours per week will be determined (4 to 6 hours per week per course).

Credits: Credits are assigned to each course as per norms mentioned in the following table

| Subject | Credits |
|----------------------------|---------|
| Theory Course | 03 |
| Laboratory Course | 02 |
| Seminar/ Technical Paper | 02 |
| Soft Skills / Aptitude Lab | 01 |
| Comprehensive Viva | 02 |
| Mini Project | 02 |
| Major Project | 06 |

(ii) Pattern of programmes:

| Pattern | Number of programmes |
|-----------|----------------------|
| Semester | UG-06, PG(FT)-07 |
| Trimester | NIL |
| Annual | NIL |

| 1.3 Feedback from stakeholders* (On all aspects) | Alumni | ٧ | Parents | ٧ | Employers v | Students | ٧ |
|--|--------|---|---------|---|--------------------|------------------|---|
| Mode of feedback : | Online | ٧ | Manual | ٧ | Co-operating sc | chools (for PEI) | |

- > Departments take feedback from the students on paper during the course work and also at the time of exit.
- Alumni /Employers feedback also collected through paper.
- Feedback is taken from the parents during Parents meet and during the study period of their children.
- Alumni cell will collect the feedback from the alumni during the Alumni Meets.

^{*}Please provide an analysis of the feedback in the Annexure

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

YES, New regulation R14 is introduced in the A.Y 2014-15. The following are the few salient points of R14 regulation:

- Mini Projects.
- Electives
- Mandatory courses
- Open Elective Course
- 1.5 Any new Department/Centre introduced during the year. If yes, give details.

Microsoft Cloud Competency center was established in CSE Department.

Criterion - II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

| Total | Asst. Professors | Associate Professors | Professors | Others |
|-------|------------------|----------------------|------------|--------|
| 205 | 157 | 34 | 14 | - |

2.2 No. of permanent faculty with Ph.D.

| 14 |
|----|
|----|

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

| Asst. | | Associa | ite | Profes | sors | Others | | Total | |
|--------|------|---------|-----|--------|------|--------|---|-------|---|
| Profes | sors | Profess | ors | | | | | | |
| R | V | R | V | R | V | R | V | R | V |
| 5 | - | 2 | 0 | 1 | - | - | - | 12 | - |

2.4 No. of Guest and Visiting faculty and Temporary faculty

| - | - | - |
|---|---|---|
| | | |

2.5 Faculty participation in conferences and symposia:

| No. of Faculty | International level | National level | State level |
|------------------|---------------------|----------------|-------------|
| Attended | - | 15 | - |
| Presented papers | 12 | 13 | - |
| Resource Persons | - | - | 2 |

- 2.6 Innovative processes adopted by the institution in Teaching and Learning:
 - Use of ICT and modern pedagogical techniques.
 - > Special arrangement of classes on Aptitude and communication skills.
 - A good number of video lessons (NPTEL & MOOCS) are available and they are being used for the better understanding of the subjects.
- 2.7 Total No. of actual teaching days during this academic year

195

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions) Provision is given for Revaluation

- Bar coding
- Paper setting and Valuation is done by External Faculty

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

40

2.10 Average percentage of attendance of students

2.11 Course/Programme wise distribution of pass percentage :

| Title of the Programme | Total no. of students | Division | | | | | |
|------------------------|-----------------------|---------------|-------|------|-------|--------|--|
| Trogramme | appeared | Distinction % | I % | II % | III % | Pass % | |
| B.Tech Civil | 72 | 30.50 | 33.3 | 16.6 | | 80.50 | |
| B.Tech EEE | 123 | 32.50 | 42.2 | 13.0 | | 87.80 | |
| B.Tech CSE | 131 | 36.60 | 44.20 | 9.1 | | 90.00 | |
| B.Tech Mech | 141 | 34.0 | 41.1 | 9.9 | | 85.10 | |
| B.Tech ECE | 208 | 34.6 | 42.7 | 9.1 | | 86.50 | |
| B.Tech IT | 56 | 19.6 | 42.8 | 10.7 | | 73.20 | |
| MBA | 49 | 61.2 | 38.7 | | | 100 | |
| MCA | 38 | 73.6 | 21.0 | | | 94.70 | |

- 2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:
 - Monitors and evaluates the Teaching and learning processes by way of conducting the periodical meetings.
 - Collects the project reports randomly from the departments and evaluates the quality of reports and same will be submitted for the discussion at IQAC department.
 - ❖ Collects course files randomly and assesses the process followed and the attainment of Course Outcomes
 - ❖ Identifies the new methods of teaching adopted by the faculty and shares the same among the faculty
 - Conducts workshops on the teaching-learning process
 - Prepares action Report and the Principal takes necessary steps to implement them.
- 2.13 Initiatives undertaken towards faculty development

| Faculty / Staff Development Programmes | Number of faculty benefitted |
|--|---------------------------------|
| Refresher courses | |
| UGC – Faculty Improvement Programme | |
| HRD programmes | |
| Orientation programmes | 3 |
| Faculty exchange programme | |
| Staff training conducted by the university | 1 |
| Staff training conducted by other institutions | |
| Summer / Winter schools, Workshops, etc. | 40 |
| Others | 30 |

2.14 Details of Administrative and Technical staff

| Category | Number of Permanent Employees | Number of Vacant Positions | Number of permanent positions filled during the Year | Number of positions filled temporarily |
|----------------------|-------------------------------------|----------------------------------|--|--|
| Administrative Staff | 183 | - | - | - |
| Technical Staff | 40 | - | - | - |

Criterion - III

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

Composition of Research Advisory Committee (RAC) for guiding the research activities of the institution: Our institution has been leading as a best education to create the engineers for next generation. Our institute is the 1st institute holding semi-conductor clean room facility throughout the state & college level. Our goal is to involve the entire faculties on research project and motivate for further research career by the way of PhD's. on various projects. As a part of institute we are providing good infrastructure, equipments, journals, seminars, workshops to meet the needs of research work. We are timely organizing seminar with internal source to see the program of the research and provide proper guidance. We are also providing financial assistance to the researchers where ever required such as conference registration, workshops and contingency. All these activities is monitored by our strong research advisory committee. The member of RAC is listed below:

Details of R&D activities: The College has taken several steps to promote The College has taken several steps to promote research culture among both the faculty and students, this includes the enhancement of infrastructural facilities, setting up instrumentation center, augmentation of the laboratory and library facilities, subscription to research/e-journals, provision of free access to internet, etc. It is commendable that the college provides seed money for the deserving candidates to carry research. The project work is organized for the students in the curriculum of PG and UG courses which helps the students to imbibe research aptitude and broaden their perspective on their subjects. We have made collaborations with various research organizations and universities such as UGC-DAE, CSIR laboratory, RRCAT-INDORE, NORTH MAHARASTRA (JALGAON), AURAGABAD UNIVERSITY, VIT VELLORE, PUNE UNIVERSITY, GUJARAT UNIVERSITY, ARCI LABHYD, Namibia University (Africa).By organizing guest lectures by eminent Professors and personal contacts, the students and research scholars gets the opportunity to work in the respective laboratories to fulfil their objectives. Our broad area of research includes, Solar cells (Si based), Porous materials, Dye Sensitized Solar cells (DSSC), Thin films, Nanomaterials, Electrospun nanofibers, Sensors, Super capacitors etc.

- ❖ Each department has a Department research committee, which convene periodical meetings to review synopsis presented by Masters' students.
- ❖ Encouraging the faculty to pursue higher education.
- Encouraging faculty to publish quality research papers in referred journals and conferences etc.
- ❖ Categorization of the projects undertaken by the final year students into three catergoies: Industry based, Research based and Automation based.
- ❖ QEEE(Quality Enhancement in Engineering Education) Lectures delivered in the institute in almost all the branches of UG

3.2Details regarding major projects

| | Completed | Ongoing | Sanctioned | Submitted |
|---------------------|-----------|---------|------------|-----------|
| Number | 1 | 2 | 1 | 1 |
| Outlay in Rs. Lakhs | 20 | 32.81 | 7 | 14.3 |

3.3Details regarding minor projects

| | Completed | Ongoing | Sanctioned | Submitted |
|---------------------|-----------|---------|------------|-----------|
| Number | - | - | 1 | - |
| Outlay in Rs. Lakhs | - | - | 4.7 | - |

3.4 Details on research publications

| | International | National | Others |
|--------------------------|---------------|----------|--------|
| Peer Review Journals | 51 | - | - |
| Non-Peer Review Journals | 3 | - | - |
| e-Journals | - | - | - |
| Conference proceedings | 12 | 13 | - |

| 3.5 Details on | Impact factor of | publications: | | | | | |
|----------------|------------------|---------------|-------|-----------|-----|----------------|---|
| Range | 0-2.728 | Average | 0.977 | *h-index* | 144 | Nos. in SCOPUS | 3 |
| | | | | ! | | | |

3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

| Nature of the Project | Duration Year | Name of the funding Agency | Total grant sanctioned | Received |
|--|------------------|----------------------------|------------------------|----------|
| Major projects | 3 | UGC-DAE (CSR) | 7 | 7 |
| Minor Projects | 2 | UGC | 4.7 | 4.7 |
| Interdisciplinary Projects | - | - | - | - |
| Industry sponsored | - | - | - | - |
| Projects sponsored by the University/ College | - | - | - | - |
| Students research projects (other than compulsory by the University) | - | - | - | - |
| Any other(Specify) | - | - | ı | |
| Total | 5 | 2 | 11.7 | 11.7 |

| 3.7 No. of books published | i) With ISBN No. | 1 | Chapters in Edite | d Books | 1 |
|-----------------------------|----------------------|-----|-------------------|-----------------|---|
| 3.8 No. of University Depar | ii) Without ISBN No. | | - | | |
| | UGC-SAP _ DPE _ | CAS | DST-F | IST cheme/funds | - |

| 3.9 For colleges | For colleges Autonomy INSPIRE | | | | | | 3T Star S | Scheme | |
|--|-------------------------------|---------|-----------|----------------------|-------------|-----------|-----------|------------|---------|
| 3.10 Revenue generated through consultancy - | | | | | | | | | |
| 3.11 No. of conferences | ſ | Leve | <u></u> | Internation | al N | Vational | State | University | College |
| 3.11 Tvo. of conferences | Ē | Numb | | | | 5 | State | | |
| organized by the Institu | ıtion | | soring | | Self | | | | |
| | | agenc | _ | | | | | | |
| 3.12 No. of faculty served | as expe | | | ns or resourc | e pers | sons | 1 | | |
| 3.13 No. of collaborations | | Iı | nternatio | onal 1 | Natio | onal 4 | | Any other | |
| 3.14 No. of linkages create | d durin | g this | year | 1 | | | | | |
| 3.15 Total budget for resear | rch for | curren | t year ir | ı lakhs : | | | | | |
| From Funding agency | 44. | .51 | From | Managemen | t of U | niversity | //College | | |
| Total | 44. | 51 | | | | | | | |
| 3.16 No. of patents receiv | ed this | year | Type | e of Patent | | | Nu | mber | |
| | | | Nationa | | App | lied | | - | |
| | | | Nationa | aı | Grai | | | - | |
| | | | Interna | tional | App Grai | | | - | |
| | | | | | App | | | - | |
| | | | Commo | ercialised | Granted - | | | - | |
| 3.17 No. of research award Of the institute in the | - | gnition | s receiv | ed by faculty | and 1 | research | fellows | | |
| Total Internation | al Nat | tional | State | University | Dist | Colleg | ge | | |
| | - | | - | - | - | - | | | |
| 3.18 No. of faculty from the who are Ph. D. Guides and students registered3.19 No. of Ph.D. awarded | under tl | hem | om the I | 2 2 nstitution | | 2 | | | |
| | | | | | | | | | |
| 3.20 No. of Research scho | l | _ | the Fell | - | • | rolled + | | | |
| JRF 2 | S | SRF | - | Project Fe | llows | _ | Any o | ther | NIL |

| 3.21 No. of students Participated in NSS events: | | | | |
|--|------------------|-----|---------------------|-----|
| | University level | - | State level | 300 |
| | National level | - | International level | - |
| 3.22 No. of students participated in NCC events: | | | | |
| | University level | - | State level | - |
| | National level | - | International level | - |
| 3.23 No. of Awards won in NSS: | *** | | 011 | |
| | University level | - | State level | - |
| | National level | - | International level | - |
| 3.24 No. of Awards won in NCC: | | | | |
| | University level | - | State level | - |
| | National level | - | International level | - |
| 3.25 No. of Extension activities organized | | | ' | |
| University forum - College for | rum 15 | | | |
| NCC - NSS | 32 | Any | other | |

- 3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility
 - ➤ Blood activity was conducted for first year B.Tech Students.
 - Personality development programme was conducted for all NSS students by Mr.Hari Prasad in the campus
 - ➤ Mass plantation was done by NSS unit on 20th Nov 2014
 - ➤ "Mana Desam Mana Geetham" programme was voluntered by NSS students on 10th Dec 2014
 - ➤ Teachers day celebrations was conducted in the campus on 5th September 2014
 - ➤ One day orientation programme on "Life Skills" was organised in the campus.
 - ➤ Engineers day celebrations was conducted in the campus on 15th September 2014
 - One day Meditation and Yoga programme was organised on 17th October 2014
 - Awareness programme "Against Usage of Plastic products" was conducted
 - Free Eye Camp and dental camps were conducted in the campus
 - ➤ "Voter Awareness programme" was conducted on 25th Jan 2015
 - ➤ Awareness programme on the usage of Indian products was conducted in lakshmaneswaram by NSS unit on 27th April 2015
 - Free Dental Camp was organised on a special campaign in the nearby villages
 - ➤ Swachh Bharat w was conducted by NSS Unit in Lakshmaneswaram village on 2nd May 2015

Criterion - IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

| Facilities | Existing | Newly created | Source of Fund | Total |
|---|----------------|---------------|-----------------------|-------|
| Campus area | 25.06 Acres | | Internal Resources | |
| Class rooms | 66 | | Do | |
| Laboratories | 44 | | Do | |
| Seminar Halls | 3 | | Do | |
| No. of important equipments purchased | | | Internal | |
| (≥ 1-0 lakh) during the current year. | | | Resources | |
| Value of the equipment purchased during | | | Internal | |
| the year (Rs. in Lakhs) | | | Resources | |
| | Total | | | |
| | Hostel-5 | | | |
| Other | Boys | | Internal | |
| Others | Hostel-3 | | Resources | |
| | Girls | | | |
| | Hostel-2 | | | |

4.2 Computerization of administration and library

- All the computers in the office have internet facility both wired and Wi-Fi.
- Automation of library administration is under the process
- > The students and faculty can also take photocopies of the books and journals from Central Library. Digital Library
- Wi-Fi facility for the Library.

4.3 Library services:

| | Existing | | Newl | y added | Total | | |
|------------------|----------|---------|------|---------|-------|-----------|--|
| | No. | Value | No. | Value | No. | Value | |
| Text Books | 33424 | 7339887 | 44 | 11792 | 33468 | 73,51,679 | |
| Reference Books | 5775 | 1275112 | 28 | 7478 | 5803 | 12,82,590 | |
| e-Books | | | | | | | |
| Journals | | | | | 24 | 32,280 | |
| e-Journals | | | | | 265 | 3,84,293 | |
| Digital Database | DELNET | 11,500 | | | | 11,500 | |
| CD & Video | 2000GB | | | | | | |
| Others (specify) | | | | | | | |

4.4 Technology up gradation (overall)

| | Total Computers | Computer Labs | Internet | Browsing Centres | Computer Centres | Office | Depart- ments | Others |
|----------|--------------------|------------------|------------|---------------------|---------------------|--------|------------------|--------|
| Existing | 852 | 23 | 42 Mbps | | 1 | 20 | 15 | |
| Added | | | | | - | | | |
| Total | 852 | 23 | 42 Mbps | | 1 | 20 | 15 | |

- 4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)
 - > Students are encouraged to use internet for their project work.
 - ➤ We have EZ School Software in the Institution for e-Governance of students, faculty and staff.
- 4.6 Amount spent on maintenance in lakhs:

i) ICT 5,10,000

ii) Campus Infrastructure and facilities 3,16,80,788

iii) Equipments 15,17,542

iv) Others 3,45,64,524

Total: 6,82,72,854

Criterion - V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

Canteen

Clean Hygienic cafeteria 4 nos. is available for both students and faculty providing nutritious food for supporting studying in shift system

Stationary Shop

Two Stationary Shops are available in campus. The basic requirements like stationeries, lab books are kept for sales in college premises.

Others

- > Training programs are conducted periodically to create the awareness and to enhance the entrepreneurial skills
- ➤ Publishing college/Department Newsletter to encourage the new trends and events happened in the institute level.
- > CRT Programmes was conducted to enhance the skill develop in the students.
- > Printed information available in college calendar/college website
- 5.2 Efforts made by the institution for tracking the progression
 - > Day to day attendance in theory & lab classes and intimation to the parents **Counseling Mechanism:**
 - Each Faculty member was allocated by twenty students.
 - > The Counselor maintains the complete record of the student.
 - They also work hand in hand by bringing upto date on their academic progression.
 - All the student counselors are involved in both academic and personal counseling for a group of 20 students.
 - A separate counseling period was allocated.
 - > Suggestions and feedback are the index to understand the progression of students.
- 5.3 (a) Total Number of students

| UG | PG | Ph. D. | Others(Diploma) |
|------|-----|--------|-----------------|
| 2026 | 492 | - | 630 |

(b) No. of students outside the state

--

(c) No. of international students

--

Men

| No | % |
|------|------|
| 1967 | 62.5 |

Women

| No | % |
|------|-------|
| 1181 | 37.50 |

| Last Year | | | | | | T | his Year | • | | | |
|-----------|----|----|-----|--------------------------|------|---------|----------|----|-----|------------------------------|------|
| General | SC | ST | OBC | Physically Challenged | | General | SC | ST | OBC | Physically Challenge d | |
| | | | | | 3476 | 1688 | 460 | 6 | 994 | 0 | 3148 |

Demand ratio Dropout %

- 5.4 Details of student support mechanism for coaching for competitive examinations (If any)
 - > Personality development courses and student practice courses are part of the curriculum.
 - > In-house GATE coaching classes were conducting by internal and external subject experts.

| > | experts. Eminent resource persons were invited to train in communication skills. | | | | | |
|----------------|--|--|--|--|--|--|
| No. of stude | ents beneficiaries 500 | | | | | |
| 5.5 No. of stu | dents qualified in these examinations | | | | | |
| NET | - SET/SLET - GATE - CAT - | | | | | |
| IAS/IPS 6 | etc _ State PSC _ UPSC _ Others 20 | | | | | |
| 5.6 Details of | student counselling and career guidance | | | | | |
| > | Student counseling and career guidance of each and every student is done. | | | | | |
| > | Counselling process is followed continuously | | | | | |
| > | This process has successfully resulted in improved student performance | | | | | |
| > | Training and Placement Cell conducted CRT classes for better employment of students | | | | | |
| > | Students are motivated to participate in various competitions conducted by different Universities and colleges | | | | | |
| No. of stude | ents benefitted 500 | | | | | |

5.7 Details of campus placement 2014-15(B.TECH/MBA/MCA/DIPLOMA)

| | Off Campus | | |
|---------------------------------------|------------------------------------|------------------------------|---------------------------|
| Number of Organizations Visited | Number of Students Participated | Number of Students Placed | Number of Students Placed |
| 73 | 610 | 355 | 16 |

| 5. | 8 | Details | of | gender | sensitization | programmes |
|----|---|---------|----|--------|---------------|------------|
| | | | | | | |

- ➤ Women empowerment and grievances cell was formed in the college
- ➤ International Women's day was conducted on 08-03-2015.
- > Student competitions on women empowerment was conducted.

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

| | State/ University level | 10 | National level | 10 | International level | - |
|---------|----------------------------|------------|-------------------|-----------|---------------------|---|
| | No. of students participa | ated in cu | ltural events | | | |
| | State/ University level | 10 | National level | - | International level | - |
| 5.9.2 | No. of medals /awards v | won by st | udents in Sports, | Games and | d other events | |
| Sports | : State/ University level | 5 | National level | 3 | International level | - |
| Cultura | l: State/ University level | - | National level | - | International level | - |

5.10 Scholarships and Financial Support

| | Number of students | Amount |
|--|--------------------|-------------|
| Financial support from institution | 100 | 4,56,675 |
| Financial support from government | 2325 | 6,37,50,000 |
| Financial support from other sources | | |
| Number of students who received International/ National recognitions | | |

| 5.11 Student organised / initiative | S | | |
|-------------------------------------|------------------|---|-----------------------|
| Fairs : State/ University level | - National level | _ | International level - |
| Exhibition: State/ University level | National level | - | International level _ |
| 5.12 No. of social initiatives unde | 25 | | |
| 5 13 Major grievances of students (| | | |

Criterion - VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

Vision:

To provide the society with Center of Learning in Technical Education and Research that motivates the students to evolve into dynamic professionals.

Mission:

- Providing quality education, student cantered teaching learning process and state of the art infrastructure for professional aspirants hailing from both rural and urban areas.
- **Evolving this organization into a center of Academic and Research Excellence.**
- Imparting Technical Education that encourage independent thinking, develops strong domain knowledge and positive attitude towards holistic growth of young minds.
- 6.2 Does the Institution has a management Information System

Yes

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

- Appointing industry personnel and alumni as members of Board of Studies.
- > Curriculum revision will be done as if required.
- Receiving feedback from the employers and alumni on existing curriculum for the required improvement and innovation
- ➤ Board of Studies (BOS) meetings are conducted every year to frame/ revise the syllabus.

6.3.2 Teaching and Learning

- > Promoting the usage of ICT.
- ➤ Remedial classes were conducted for slow learners.
- > Expert Lectures and NPTEL Lectures were arranged to create wide exposure.
- > Arranging training on pedagogy and assessing its impact on teaching-learning.
- Arranging Guest Lectures or Workshop to fill curriculum gaps and content beyond syllabus.
- > Encouraging Faculty and students towards online certification course.

6.3.3 Examination and Evaluation

- Autonomous end semester examination papers are being set and evaluated by external experts
- > Continuous internal evaluation
- > Display of internal answer sheets to the students.
- Result will be declared within three weeks from the last date of exam.
- Uploading of provisional result in individual login of students
- Display of consolidated internal marks to the students in respective department notice board.

6.3.4 Research and Development

- ➤ R&D Cell with convener was established to give support in applying for funding agencies.
- > Encouraging faculty to register for Ph.D
- ➤ Providing incentives to faculty for presentation of research papers, attending conferences, workshops, etc.
- Conducting various awareness programs by experts.

6.3.5 Library, ICT and physical infrastructure / instrumentation

Library

- ➤ OPAC Software for library management
- ➤ The college joined as an institutional member of DELNET. DELNET connects all libraries of the technical institutions approved by AICTE in the country.
- ➤ NPTEL (National Programme on Technology Enhanced Learning), web courses and video courses are being used by staff and students to enhance their skills
- Wi-Fi connectivity is provided in the campus
- Digital Library for twenty students was established
- Providing access to E-journals such as Springer, ASME and ASCE.

Infrastructure

- Providing required computational facilities with sufficient number of computer and peripherals.
- ➤ Providing the various amenities such as canteen, indoor and outdoor game facilities, Gym centre, medical centre, hostels and transport.
- > CCTV cameras have been installed within and around the campus for security purposes

6.3.6 Human Resource Management

http://swarnandhra.ac.in/images/downloads/Human-Resources.pdf

| 6.3.7 Faculty and Staff recruitment |
|-------------------------------------|
|-------------------------------------|

➤ Whenever there are vacancies advertisements are made through news papers and the recruitment is done by the Management through college staff selection committee as per the rules and regulations.

6.3.8 Industry Interaction / Collaboration

- > MOUs are signed with local industries for mutual benefit
- > Students are encouraged to undergo internships

6.3.9 Admission of Students

> 70% of the admissions are done by the Convener, EAMCET, Govt. of Andhra Pradesh Remaining 30% of the seats are filled by the Management based on the guidelines given by Govt. of Andhra Pradesh

6.4 Welfare schemes for

| Teaching | Concession for Hostel & Transport facility Maternity Leave will be provided for female faculty Laptops are provided for HOD's Special CL for Research study Group Insurance Scheme is provided to teaching staff |
|--------------|---|
| Non teaching | Employee provident Fund (EPF) will be provided for Non teaching staff Maternity Leave will be provided for female Non teaching staff Group Insurance Scheme is provided to teaching staff |
| Students | Offering financial support from college management for poor & deserve students Cash prizes will be given to student for Academic toppers. Sponsoring the students to participate in co-curricular and extracurricular activities. Group Insurance Scheme is provided . |

| - | | n . 1 | | C 1 | . 1 |
|----|------|-------|--------|------|-----------|
| h. | .) i | Fotal | corpus | fund | generated |

| 6.6 Whether annual financial audit has been done | Yes | ٧ | No | |
|--|-----|---|----|--|
|--|-----|---|----|--|

6.7 Whether Academic and Administrative Audit (AAA) has been done?

| Andit Type | Ex | External | | Internal | |
|----------------|--------|----------|--------|-----------|--|
| Audit Type | Yes/No | Agency | Yes/No | Authority | |
| Academic | No | - | Yes | IQAC | |
| Administrative | No | - | Yes | IQAC | |

| 6.8 Does the University/ Autonomous Colle | ege declares results within 30 days? |
|---|--|
| For UG Programm | nes Yes 🗸 No |
| For PG Programm 6.9 What efforts are made by the University | nes Yes V No Autonomous College for Examination Reforms? |
| Provision is given for Revaluation Bar coding Paper setting and Valuation is done | by External Faculty |
| 6.10 What efforts are made by the Universi | ty to promote autonomy in the affiliated/constituent colleges |
| 1 | inates its representatives and subject experts for academic he curriculum and provide suggestions to improve the |
| 6.11 Activities and support from the Alumn | i Association |
| It is extending technical help to Alumni meets are conducted perplacements Members of BOS of Departmen Financial support from Alumni | riodically to get feedback and to improve the number of t. |
| | |

6.12 Activities and support from the Parent – Teacher Association

- ➤ Parent teacher meet is conducted every year with principal, staff and management members, where the discussion is open on any academic and administrative matters.
- > Feed back is taken from parent and analyzed for further improvement
- ➤ Parents meet the respective counsellors and HOD's regularly and make necessary suggestions

- > ICT training and encouraging for Higher studies.
- > Supporting staff are encouraged to go for training at various places for updation of skills.

6.14 Initiatives taken by the institution to make the campus eco-friendly

a) Energy Conservation

- Awareness among the students and staff on energy conservation is created by displays at appropriate places.
- > Switching off all the electrical utilities whenever and wherever they are not required.
- ➤ All the departments are equipped with appliances and equipment that consume low power.
- > The buildings are fitted with glass windows for maximum utilization of natural light.
- ➤ The college has widespread arrangements for power distribution with a Control panel and Power room.

b) Use of Renewable Energy

> Steps are being taken for the utilization of solar power in the college campus.

c) Water Harvesting

To minimize the wastage of water resources and to improve the water table, the rain water is led into the pond located in the campus.

d) Efforts for Carbon neutrality

Care is taken to restrict vehicle entry into the campus and specific parking area is allotted for faculty and students.

Green campus

Plantation/Greening Drives

- ➤ Plantation programme has been taken up by the NSS unit for increasing the Green Cover in the college and nearby villages.
- ➤ The NSS unit regularly conducts awareness programmes on plastic free environment in and around the village.

e) Hazardous Waste Management and e-Waste Management

- The condemned batteries are disposed through outside agencies
- Awareness programmes are initiated on waste management.

Criterion - VII

7. Innovations and Best Practices

- 7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.
 - 1. Involvement of students in various committees has been increased.
 - 2. Practice of conducting Guest lectures, Industrial visits and Industrial training has been increased
 - 3. More Practical orientation is supported through Mini-projects, Technical seminars.
 - 4. Continuous inputs from all stakeholders like Alumni, Academicians and Industry experts are taken to improve the curriculum on regular basis.
 - 5. Additional Training on communication skills and soft skills is further increased.
 - 6. Research attitude among the students is inculcated through project implementations.
 - 7. Improved Membership in various professional bodies like IEEE, CSI, ISTE, IETE
 - 8. Improved class room facilities with ICT tools.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

| Plain of Action | Action Taken | | | | |
|---|--|--|--|--|--|
| Nominating academic coordinators for each year at UG level to look after the progress of students and their class attendance along with the class teachers. | attendance and progress record are closely | | | | |
| Grouping the faculty members in to three or four based on specialization in each department. | In every department faculty members were grouped into three or four depending on their specialization. Each group was headed by a Senior Faculty. The course files, assignments, etc. prepared by the junior faculty members were verified and suitable guidance for improvement was provided by the group leaders. | | | | |
| Allocating the Course coordinators for courses of multi section program. | Course coordinators are allocated for courses of multi section program. | | | | |
| Organising subject based seminars and subject based workshops. Involving students in various committees. | Subject based seminars and subject based workshops are organized by the departments. Involved students in various committees for better | | | | |

| | improvement in the system. | | | |
|--|--|--|--|--|
| Exposing students to various industrial processes. | Exposed students to various industrial processes through Guest lectures, Industrial visits and Internship. | | | |

7.3 Give two Best Practices of the institution (please see the format in the NAAC Self-study Manuals)

- > Supplementary exams are conducting without losing the class work.
- > Enhancing student skills by active learning tools

*Provide the details in annexure (annexure need to be numbered as i, ii,iii)

7.4 Contribution to environmental awareness / protection

- Environmental Awareness Programme are organised for students as well as faculty from time to time.
- > Separate cell i.e. Ground & Gardening exists for protection of environment and keep the trees alive and green and to feed them with manure.
- E-waste is followed as per Govt. policy.
- > Solar system is in place in the form of street lights etc.
- > Dustbins have been kept at all prominent places to keep environment eco-friendly.
- > Water harvesting system is in process.
- No vehicles are allowed to enter in academic area.

| 7.5 | Whether environmental audit was conducted? Ye | s | ٧ | No | |
|-----|---|---|---|----|--|
|-----|---|---|---|----|--|

7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)

SWOT Analysis of Institute:

Strength

- ➤ One of the most preferred, engineering colleges situated in a serene rural place of coastal Andhra Pradesh.
- ➤ Learned, pro-active and visionary management readily responding to the needs and aspirations of all stake holders towards quality education, placements and good governance.
- A highly decentralized administration, governed by a well defined and transparent quality policy. Managed by different committees formulated satisfying the requirements of statutory bodies with Governing Body (GB) as the highest policy making body.
- ➤ College was accorded permanent affiliation by JNTUK, Kakinada in 2010, 2013 and also in 2016 for a period of three years consequently.
- > 50% of the young faculty members have undergone pedagogical training programs on various subjects.

- National Board of Accreditation (NBA) accorded the status of Accreditation for 3 years to the eligible UG B.Tech programs in 2008 and reaccredited in 2012 under Tier-II.
- ➤ NAAC Accreditation
- ➤ Good financial discipline through appropriate budgeting and allocation.
- Aesthetically designed, spacious and fully computerized library.
- Feedback taken periodically from students, parents, alumni and other stake holders is given due weightage for taking corrective measures to strengthen the teaching learning process.
- > Semester system with continuous assessment.
- ➤ Effective Teaching-learning process with use of ICT with E- resources.
- > Good ambience through infrastructure facilities.
- > Teaching learning process in accordance with accreditation bodies like NBA, NAAC, ABET Etc.
- ➤ Value based Education system.

Weakness

- Lack of Industry- Institute interaction in a purposeful manner as college located in rural area.
- Inadequate mechanism of industrial exposure for faculty and staff which can update the latest technical knowledge and skill being used by the industry.

Opportunities

- > Starting recognized research centres for departments to enhance research activity.
- Library enhancement to access international knowledge resources.
- Inculcating the culture of entrepreneurship to rural youth through technology transfer.
- > Enhanced support from Alumni in institutional development and placement opportunities.

Threat

- > Recruiting Ph.D qualified faculty
- Escalation of cost of education prohibiting the underprivileged section (rural students) of the society to opt for the technical education
- ➤ Merit of incoming students is getting affected due to opening of many new engineering colleges in the region.
- > Bright students not opting teaching as profession thus making difficult in replacing the retired teacher with an equally intelligent new entrant, thus declining the supply of quality faculty

8. Plans of institution for next year

- ➤ Undertaking funded R&D major projects and consultancy works.
- > Increasing the number of journal and conference publications.
- Strengthens alumni association.
- Planning to introduce certificate courses, workshops, short term courses & internships.
- > Enhancing the student's communication skills.
- ➤ Planning to increase the number participation in online certification courses such as NPTEL Etc.
- Improving the security and discipline in the campus.
- > Adapting innovative delivery methods
- ➤ Obtaining NBA Accreditation for UG programs of ECE, CSE, ME and EEE.
- Organizing Campus Recruitment Training programs to Engineering students to enhance their employability skills
- ➤ Increasing of intake in U.G.Programme.

Name <u>Dr.K.S.Gowri Sankar</u> Name <u>Dr.A.Gopi Chand</u>

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

PRINCIPAL
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(AUTONOMOUS)
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Annexure I

Abbreviations:

CAS - Career Advanced Scheme

CAT - Common Admission Test

CBCS - Choice Based Credit System

CE - Centre for Excellence

COP - Career Oriented Programme

CPE - College with Potential for Excellence

DPE - Department with Potential for Excellence

GATE - Graduate Aptitude Test

NET - National Eligibility Test

PEI - Physical Education Institution

SAP - Special Assistance Programme

SF - Self Financing

SLET - State Level Eligibility Test

TEI - Teacher Education Institution

UPE - University with Potential Excellence

UPSC - Union Public Service Commission
