

## Internal Quality Assurance Cell (IQAC)

### EXTERNAL ACADEMIC AND ADMINISTRATIVE AUDIT REPORT (ACADEMIC YEAR: 2016-17)

Date of Audit: 15-07-2017

Name and Designation of Audit Member-1: Prof. A. Sarath Babu, Dept. of Chemical Engineering  
NIT Warangal, Warangal – 506 004

Name and Designation of Audit Member-2: Prof. U. V. Ratna Kumari, Dept. of ECE, University College  
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*(The activities are to be graded on the following scale)*

Excellent	Good	Satisfactory	Needs improvement
A	B	C	D

Details of Programmes in the college:

S.No.	Name of the Programme	Sanctioned Strength	Actual Strength
<b>UG</b>			
1	Civil Engineering	120	113
2	Electrical and Electronics Engineering	120	111
3	Mechanical Engineering	240	228
4	Electronics and Communication Engineering	300	296
5	Computer Science and Engineering	180	180
6	Information Technology	60	60
<b>UG Total</b>		<b>1020</b>	<b>988</b>
<b>PG</b>			
1	ECE-Embedded Systems	18	10
2	ECE-VLSI - SD	18	05
3	EEE-Power Electricals and Electric Drives	18	07
4	Mech-CAD-CAM	18	07
5	Computer Science and Engineering	18	02
6	Computer Science	18	00
<b>PG Total</b>		<b>108</b>	<b>31</b>
<b>UG and PG Total</b>		<b>1128</b>	<b>1019</b>

<b>I. Curricular Aspects</b>				
<b>S.No.</b>	<b>Item</b>	<b>HEIs i/p</b>	<b>Grade</b>	<b>Remarks</b>
1.1	Curricula developed /adopted have relevance to the local/national /regional/global developmental needs with learning objectives including program outcomes, program specific outcomes and course outcomes of all programs offered by the Institution	R-16 (1 yr Autonomous) R-13 (JNTUK)-II, III and IV Yrs	A	Periodically updating the curriculum
1.2	Percentage of new courses introduced of the total number of courses across all programs	ECE- I year (16/63) -25.8% II, III, IV year (20/64)-31.25% EEE: 12.3% (8/65) Mech:9.375% (6/64) IT: 16.9% (12/17) CSE: 12.2% Civil: NIL	B	New courses have not been introduced in some departments
1.3	Percentage of programs in which Choice Based Credit System (CBCS) / Elective course system has been implemented	CBCS has been introduced in all the programs	A	
1.4	Institution integrates cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	ECE: Environmental studies (ES) Professional Ethics and Human values (PE & HV) EEE-ES, PE & HV Mech; ES, PE & HV CSE: ES, PE & HV IT: ES, PE & HV Civil: ES, PE & HV	A	
1.5	Number of Value-added courses imparting transferable and life skills offered	ECE: 4 courses (NPTEL-1,MOOCs-1, APSSDC-2) EEE:-2 (NPTEL, APSSDC) Mech: 1 (NPTEL) IT: Ruby on Rails CSE: 2 (NPTEL, APSSDC, MOOCs) BS&H : NPTEL	A	Promoting NPTEL, MOOCs and skill development courses
1.6	Feedback on curriculum and other aspects from stakeholders	The feedback on curriculum is collected regularly from the stakeholders (Students), Parents, Alumni and Employers	A	

2. Teaching-Learning and Evaluation				
S.No.	Item	HEIs i/p	Grade	Remarks
2.1	Demand Ratio (% of students admitted)	ECE: 92.55% (UG: 98.66% ; PG-41.66%) EEE: 85.5% (UG-92.5%, PG-38.8%) Mech: 91% (UG-95%; PG-38.88%) CSE: 82.4% (UG-100%, PG-5.5%) Civil: 94.1% (UG-94.1%) IT:100% (UG-100%)	A	UG Admissions are very good.
2.2	Number of full-time teachers	ECE: 62; Prof. 4, Asso. Pr. 6, Asst. Pr. 52 EEE: 29; Prof. 3, Asso. Pr. 0, Asst. Pr. 26 Mech: 56 Prof. 2, Asso. Pr. 1, Asst. Pr. 53 CSE: 36, Prof. 6, Asso. Pr.10, Asst. Pr. 20 IT: 12 Prof. 1, Asso. Pr. 1, Asst. Pr. 10 BS & H: 68 Prof. 2, Asso. Pr. 5, Asst. Pr. 61 Civil: 20 Prof. 1, Asso. Pr. 0, Asst. Pr. 19	B	Faculty with Ph.D. is a concern.
2.3	Number of students enrolled	ECE: UG-296; LE: 36 Total- 332, PG-15 EEE: UG: 111; LE: 29; Total - 140, PG: 7 Mech: UG-228; LE: 55; Total - 283, PG-7 CSE: UG-180, LE: 5; Total - 185, PG-2 IT: 60; Civil: 113 LE: 26 Total: 139	A	
2.4	Student - Full time teacher ratio	ECE: 14.53:1; EEE: 15.4:1 Mech: 14.35:1; IT: 15:1, CSE: 12.55:1 BS&H: 15:1; Civil: 21.3:1	A	
2.5	No. of permanent faculty with Ph.D	ECE: 3; EEE: 3; Mech: 4 CSE: 5; IT: 1; BS&H:2, Civil:1	B	Needs improvement
2.6	Average teaching experience of full time teachers in years	ECE: 10.6; EEE: 6; Mech: 2.8 CSE:5; IT: 5.6; Civil:3 BS&H;10	A	
2.7	Total No. of teaching days	180	A	
2.8	Preparation and adherence to Academic Calendar and Teaching plans	Academic Calendar and teaching plans are adhered to without fail.	A	



2.9	Innovative processes adopted in Teaching and Learning	Power Point Presentation, Video lectures	A	
2.10	Teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources, MOODLES etc.	Yes-Using ICT facilities effectively. LMS is being used partially. (NPTEL- done by faculty )	A	
2.11	Remedial Classes for slow learners and backlog students	Remedial classes are conducted regularly for Students with less than 50% of Mid marks and with 3 backlog subjects.	A	Remedial Classes resulted in substantial improvement.
2.12	GATE Classes for Advanced Learners	---		May be conducted
2.13	Mentoring System	Yes, Mentoring system has been adopted by means of counselling by faculty mentors	A	
2.14	Adequate facilities for teaching – learning, viz., classrooms, laboratories, computing equipment, etc.	Yes, Available	A	
2.15	Advanced Research Centres	-----		Central Instrumentation centre may be set up.
2.16	Teachers attending professional development programs	ECE: 32 , EEE: 11 Mech: F- 13; FDP-5 IT: 5; CSE:17; Civil : Nil	A	
2.17	Organisation of Guest Lectures, Industrial Visits, Workshops, etc.,	ECE: Guest Lectures-3, Industrial visits – 2, Workshops- 1, APSSDC-740 students, Orientation Programmes-32 (APSSDC) EEE: GL-2; IV-2; WS-2; APSSDC: 40 Mech: GL-13, IV-5, WS-2 CSE: GL-2, WS-3, IV-1, Seminar-10 IT: GL-6, IV-1, WS-3 Civil: GL-2, Ws-1 BS&H: National Conference-1	A	

2.18	Online Certification Programmes	ECE: Institute has been accorded with all India rank with 'AA' grade by NPTEL Faculty-8; Students- 94 EEE: Faculty-Nil; Students-46 Mech: NPTEL; S-16 IUCEE-F-87, S-61, Webinares-5 IT: F-5; S-48; BS&H: S-20 Civil-S-1, BS&H-Nil; CSE- Nil	A	
2.19	Student Professional Society Chapter and Association Activities	ECE: IETE – 7; GL-4 Seminar-1; Workshop-2 EEE: ISTE-12; Mech: ISTE-4 CSE: CSI & ISTE- 7, Pragsoft-19; IT-CSI-5; ISTE-7	A	
2.20	No. of Students undertaking field projects / internships	ECE: 132 (internships) EEE: 28; Mech:36; CSE: 413 IT: Nil; Civil: 1, BS&H-Nil	A	
2.21	Dissemination of PEOs, POs, PSOs, COs	Disseminated at prominent places such as: Institute Website, Notice Boards, Department Offices, Library etc.	A	
2.22	Attainment of COs, POs, PSOs	Attainment of 1 to 5 POs and all PSOs is satisfactory. However, attainment levels of 6-12 are not satisfactory.	B	Steps may be taken to improve the attainment level of POs from 6-12.
2.23	Online student satisfaction survey	Teaching-Learning survey is taken three times in a semester along with Course end feedback	A	

<b>3.Research and Innovation</b>				
<b>S.No.</b>	<b>Item</b>	<b>HEIs i/p</b>	<b>Grade</b>	<b>Remarks</b>
3.1	The institution has a well-defined policy for promotion of research	Incentives are provided for publications, patent filing, Results, Professional Body memberships, Attending conferences and Faculty retention.	A	
3.2	The institution provides seed money to its teachers	Not in practice	C	Management is advised to introduce this to fresh teachers
3.3	Teachers recognised as research guides	Mech: 1 (JNTUK) BS&H: 1 (JNTUK & AU)	B	All eligible professors need to be

				recognized.
3.4	Sponsored research Projects and consultancy	BS&H: BRNS, BARC, Mumbai: Major Research project-1	C	Absence of Sponsored Research Projects.
3.5	Workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices	A mandatory audit course on IPR & Patents for all students is introduced.	A	
3.6	Research Publications	ECE: UGC Approved – 3, Others-17 EEE: SCI-1; UGC-11 Mech: UGC-2, CSE: Scopus-3; UGC-37 BS&H: UGC-20 IT: Scopus-2; UGC-5	B	Quality Research Publications need substantial improvements.
3.7	No. of Faculty participated in conferences and symposia	ECE-3; EEE: Nil; CSE-5, Mech-2 IT-0; BS & H: 32, Civil-0	A	

3.8	Books and chapters in edited volumes / books published, and papers in national/international conference-proceedings.	ECE:3 (papers in national/international conference-proceedings) EEE: Nil; Mech: 2; Conferences – 2, CSE: Book Chapters: 3, Book: 1, Patent:1 IT: 1 Civil : Nil	B	Needs improvement.
3.9	Revenue generated from Consultancy	-----	D	Consultancy activity is absent.
3.10	Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc.	ECE: 2 (Siemens lab-1, APSSDC-1) EEE-1( Siemens Lab); IT & CSE: APSSDC, HYDSPIN, Deloitte Mech-1( APSSDC)-Nil Civil-Nil	A	
3.11	Functional MoUs	ECE: 6; EEE-3; IT-1 CSE & IT--TCS, TCS ion, CYIENT, E&ICT, Mission R&D, Deloitte, Intensala Mech : Nil, Civil - Nil	B	MoUs with organizations related to the core areas to be strengthened.



#### 4. Central library Facility

S.No.	Item	HEIs i/p	Grade	Remarks
4.1	Library is automated using Integrated Library Management System (ILMS)	Yes	A	
4.2	Collection of rare books, manuscripts, special reports or any other knowledge resource for library enrichment	Yes	B	
4.3	Does the institution have the following: e – journals, e-ShodhSindhu, Shodhganga membership, e-books, Databases	Yes N List Delnet	A	
4.4	Expenditure for purchase of books and journals	8,95,434/-	A	
4.5	Availability of digital library with a provision for remote access on intranet	Yes 25 (Systems Available)	A	
4.6	Per day usage of library by teachers and students	250	A	
4.7	No. Of Titles, Volumes and Print Journals (As on 1.7.2017)	Titles: 10108 Volumes: 48885 Print Journals: 28	A	

#### 5. Examination Section

S.No.	Item	HEIs i/p	Grade	Remarks
5.1	Number of days from the date of last semester-end/ year- end examination till the declaration of results	4 weeks	A	
5.2	Percentage of student complaints/grievances about evaluation against total number appeared in the examinations	No Complaints 4.43% (Revaluation)	A	
5.3	Percentage of applications for revaluation leading to change in marks	1.35%	A	
5.4	Status of automation of Examination division along with approved Examination Manual	Yes 100% Automation	A	

5.5	Pass percentage of outgoing students	76.09%	A	
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### 6. Amenities and Sports facilities

S.No.	Item	HEIs i/p	Grade	Remarks
6.1	The institution has adequate facilities for sports, games (indoor, outdoor, gymnasium, yoga centre etc.) and cultural activities	Out Door: Kho-Kho; Kabadi, Volley Ball, Basket Ball, Cricket, Throw Ball, Tennicoit Gym & Yoga Centre Present	A	
6.2	Awards/medals for outstanding performance in sports, Yoga /cultural activities at national/international level	National-3 State level-171	A	
6.3	Number of sports, Yoga and cultural activities / competitions organised at the institution level.	Sports-9, Games-11 Yoga-yes	A	

### 7. Internet Connectivity

S.No.	Item	HEIs i/p	Grade	Remarks
7.1	Institution frequently updates its IT facilities including Wi-Fi	Wi-Fi enabled campus	A	
7.2	Student - Computer ratio	Total number of computers for academic purpose: 862  <b>Student - Computer ratio: 4.5:1</b>	A	
7.3	Available bandwidth of internet connection in the Institution	190 Mbps	A	
7.4	Facilities for e-content development such as Media centre, recording facility, Lecture Capturing System (LCS)	No	A	



<b>8.Placements and Higher Education</b>				
<b>S.No.</b>	<b>Item</b>	<b>HEIs i/p</b>	<b>Grade</b>	<b>Remarks</b>
8.1	Capability enhancement and development schemes	<ul style="list-style-type: none"> <li>• CRT Program</li> <li>• Mock interviews by industry experts</li> <li>• Company Specific training</li> </ul>	A	
8.2	No of students benefited by guidance for competitive examinations and career counselling offered by the institution	Higher Studies: 39	A	
8.3	Number of placements of outgoing students	522 Offers 471 students	B	Core placements need substantial improvement.
8.4	Students Qualified in Competitive Examinations	-----		Data not available.

### **9.Alumni Engagement:-----**

<b>S.No.</b>	<b>Item</b>	<b>HEIs i/p</b>	<b>Grade</b>	<b>Remarks</b>
9.1	The Alumni Association / Chapters	PEC AA established in 2006.	A	
9.2	Alumni contributions	Guest Lectures Mock Interviews	B	Alumni may be involved in establishing gold medals.
9.3	Alumni Association / Chapters meetings Conducted	Alumni meet is conducted once in a year	A	

### **10.Social service and Extension activities**

<b>S.No.</b>	<b>Item</b>	<b>HEIs i/p</b>	<b>Grade</b>	<b>Remarks</b>
10.1	Initiatives taken to engage with and contribute to local community	10 NSS Volunteers participated digital India Programme at JNTUK, Kakinada on 29-08-2016.	A	

10.2	No. of Activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national social cohesion as well as for observance of fundamental duties integration and communal harmony	<p>1. A Blood Donation camp was organized in the college campus in association with Indian Red Cross Society, Kakinada on 03-03-2017. A total of 216 donors donated their blood.</p> <p>2. On 26-11-2016 the NSS Unit conducted Constitution Day Programme with 39 volunteers.</p> <p>3. On 27-08-2016 the NSS Unit conducted International ozone day. 150 students participated</p> <p>4. The NSS Unit conducted Vanam Manam Plantation Programme in our college on 29.08.2016 with 100 volunteers.</p> <p>5. On 21-06-2016 the NSS Unit Organized International Yoga Day in association with NCC with 50 volunteers.</p>	A	A mandatory audit course on Social responsibility for all students. Every student participates in social responsibility activities.
10.3	Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development	The NSS Unit of Pragati College organized Domalapai Dandayatra-Parisarala Parisubratha programme on 24-09-2016 with 100 volunteers at surampalem village	A	Every student participates in social responsibility activities.
10.4	Awards and recognition received for extension activities	IAB Blind Empowerment Champions 2016 Silver Zone awarded	A	

		for voluntary contributions for Visually Challenged Children		
10.5	Extension and outreach programs conducted in collaboration Government Organisations, Non-Government Organisations	•NSS Unit is collaborating with Indian Red Cross Society, Rotary Blood Camp and Govt General Hospital Blood Banks for immediate blood requirements to local people	A	
10.6	Number of students participating in extension activities	665	A	
10.7	Village adaptation	Surampalem is the adapted village under JNTUK, Kakinada	A	
10.8	NCC (Awards)	'B' Certificates awarded-36 'C' Certificates awarded-21	A	

<b>11. Administrative Procedures</b>				
<b>S.No.</b>	<b>Item</b>	<b>HEIs Input</b>	<b>Grade</b>	<b>Remarks</b>
11.1	Budget allocation, excluding salary for infrastructure augmentation	Rs. 17,28,25,000	A	
11.2	Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component	Rs. 17,16,45,872	A	
11.3	Established systems and procedures for maintaining and utilizing physical, academic and support facilities -laboratory, library, sports complex, computers, classrooms etc.	Standard procedures are being followed.	A	Good campus upkeep and maintenance.
11.4	Students benefited by scholarships and freeships provided by the	2252 students are benefited	A	



	Government.			
11.5	Students benefited by scholarships, freeships, etc. provided by the institution besides government schemes	488 students are benefited. Rs. 72.70 lakhs has been spent by the Management	A	Very good initiative from the management, benefitting a number of students.
11.6	Support to differently abled students	Facilities like ramps at all important places is in place. Also, wheel chair is made available in the ground floor.	A	
11.7	Transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases	All statutory provisions are in place.	A	
11.8	Presence of an active Student Council & representation of students on academic & administrative bodies/committees	Student representation in: IQAC, Anti-ragging, Transport and Hostel committees. Also, active Class representative and girl representative system is in place.	A	
11.9	Professional development / administrative training programs organized by the Institution for teaching and non-teaching staff	Faculty are encouraged to attend FDPs/Training programmes. Regn. Fee, travel are provided by the Management and On-duty permission is given.	A	

## 12. Governance, Leadership and Management

S.No.	Item	HEIs Input	Grade	Remarks
12.1	Governance of the institution is reflective of an effective leadership in tune with the vision and mission of the Institution	Governing Body of the college meets twice in a year to discuss various issues and aspects related to the development of the college. Governing Body considers the	A	

		recommendations of Academic Council, Finance Committee, Boards of Studies, etc and chalks out a roadmap to achieve the goals of the institution. After every meeting, minutes are recorded and circulated to all members. Also, the Action Taken Report is also prepared and shared with the members		
12.2	Decentralization and participative management	Proactive and participative management is in place.  Various academic and administrative activities in the college are decentralized and assigned to faculty members, viz, Examinations, Career guidance Cell, R&D, Training & Placement Cell, Sports, etc.	A	
12.3	Perspective/Strategic plan and deployment documents	Selective agenda items of strategic plan are discussed in governing body meeting and decisions are circulated to all the departments.	A	
12.4	Organizational structure of the Institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism	All are in place.	A	
12.5	Implementation of e-governance in areas of operation	e-governance is in place in the following areas of operation:  Administration  Finance and Accounts  Student Admission and Support  Examination	A	
12.6	Effectiveness of various bodies/ cells/ committees is evident through minutes of meetings and implementation of their	Implemented effectively.	A	

	resolutions			
12.7	Welfare measures for teaching and non-teaching staff	<ul style="list-style-type: none"> <li>• 10 / 15 years service awards</li> <li>• Group Insurance</li> <li>• Free transport</li> <li>• Paid Maternity and Medical leave</li> <li>• PF &amp; ESI facility.</li> <li>• Academic leave</li> </ul>	A	
12.8	Performance Appraisal System for teaching and non-teaching staff	<p>Both Self and Performance appraisal is done once in a semester.</p> <p>Best performers are rewarded by additional incentives.</p>	A	
12.9	Institutional strategies for mobilisation of funds and the optimal utilisation of resources	All departments and units of the college ensure proper Budget proposal, sanction and Utilisation.	A	
12.10	Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies	<p>Cash incentives are paid for faculty publications in reputed National/International journals.</p> <p>On Duty is provided for faculty presenting papers in National/ International conferences</p>	A	

13. IQAC				
S.No.	Item	HEIs Input	Grade	Remarks
13.1	Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes	Significant Contributions are made	A	
13.2	The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at	Yes, as per norms	A	



	periodic intervals through IQAC set up as per norms			
13.3	Quality initiatives by IQAC for promoting quality culture	Self Appraisals, Providing suggestions for improvements and Training Programmes for newly selected faculty	A	

### Best Practices followed in the Institute:

1. Value addition by certification programs as well as technology training is focused through Skill Development Centre (APSSDC, IITB-RC, NPTEL, Spoken tutorial, Swayam Prabha).
2. The practice of conducting Guest lectures, Industrial visits and Industrial training has been enhanced.
3. More Practical orientation is supported through Mini-projects, Technical seminars.
4. Program electives, Open electives and Mandatory courses as well as MOOCs are incorporated.
5. Continuous inputs from all stakeholders like Alumni, Academicians and Industry experts are taken to improve the curriculum on regular basis.
6. To ensure a good character with better ethical values among the students, professional ethics course has been introduced in the curriculum for all the students
7. Research aptitude among the students is inculcated through project implementations.
8. An Advisory Committee has been formulated for every department with suitable external members.
9. A regular monitoring of Academic growth is taken care by the College Advisory Board (CAB)
10. Improved Membership in various professional bodies like IEEE, CSI, ISTE, IE, IETE, ISHRE
11. Improved class room facilities with ICT tools.
12. Employee friendly working environment with good retention
13. Fifty percent membership fee is reimbursed by the management in professional bodies.
14. Free transport facility to faculty.
15. Incentives for quality research publications.
16. Financial and promotional incentives for faculty obtaining PhD.
17. Merit Scholarships, Gold medals, Best project, Innovative project are supported by Management.
18. Ladies waiting hall and rest room in each department.
19. Revised Curriculum based on OBE is in place. CBCS is also implemented.

### Suggestions for improvement:

1. Sponsored research and consultancy is very poor. Most of the Departments have been continuously applying for projects without much success. The Institute may take steps such as: conducting training/workshops on how to write good research proposals by inviting eminent researchers.

2. Research output by a way of publications in SCI / Scopus indexed journals needs a substantial improvement. Publishers such as Elsevier / Scopus etc. may be invited to address the faculty on aspects of writing good research papers.
3. Motivate the faculty without PhD to pursue the PhD as a priority.
4. Though the Campus placements are good, efforts must be made to increase the average salary package. Need to attract core companies for campus placement.
5. A Centre of excellence with advanced Instruments may be established for carrying out quality research.
6. A separate Industry-Interaction Cell at the Institute level may be established with a special effort to take-up industry related problems as consultancy projects.
7. Alumni visibility is poor. Well established Alumni may be approached to support the departments or the Institute.
8. MOUs with higher level institutions with an objective of deputing faculty for carrying out PhD shall be encouraged.



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