

# ***ANNUAL QUALITY ASSURANCE REPORT***

## **2017-2018**

**National Assessment and Accreditation Council**

**Bangalore-560 072**

**Submitted by**



**NARASARAOPETA ENGINEERING COLLEGE, NARASARAOPET**

**(Autonomous)**

**(Approved by AICTE, Permanently Affiliated to JNTUK, Kakinada.**

**Accredited by NAAC with A grade & NBA**

**Kotappakonda Road, Yellamanda (Post), Narasaraopet – 522601, Guntur district,**

**Andhra Pradesh**

**Phone No. : 08647-239904 Fax No. : 08647-239902**

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## 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

#### 1. Details of the Institution

1.1 Name of the Institution	Narasaraopeta Engineering College
1.2 Address Line 1	Kotappakonda Road
Address Line 2	Yellamanda Post
City/Town	Narasaraopet
State	Andra Pradesh
Pin Code	522601
Institution e-mail address	principal@nrtec.ac.in
Contact Nos.	9441895535
Name of the Head of the Institution:	Dr.M. Sreenivasa Kumar
Tel. No. with STD Code:	08647-239904
Mobile:	9440757039

Name of the IQAC Co-ordinator:

Dr.S.B.Venkata Siva

Mobile:

9692464540

IQAC e-mail address:

neciqac@gmail.com

1.3 NAAC Track ID (For ex. MHC0GN 18879)

APCOGN20000, dated 22.1.2014

1.4 NAAC Executive Committee No. & Date:

(For Example EC/32/A&A/143 dated 3-5-2004.  
This EC no. is available in the right corner- bottom  
of your institution's Accreditation Certificate)

EC(SC)/05/A&A/057

1.5 Website address:

www.nrtec.ac.in

Web-link of the AQAR:

<https://www.nrtec.ac.in/wp-content/uploads/2018/12/AQAR-17-18.pdf>

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 <sup>st</sup> Cycle	A	3.05	3-3 -2015	2-3-2020
2	2 <sup>nd</sup> Cycle				
3	3 <sup>rd</sup> Cycle				
4	4 <sup>th</sup> Cycle				

1.7 Date of Establishment of IQAC :

DD/MM/YYYY

20/12/2012

1.8 AQAR for the year (for example 2010-11)

2017-18

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11 submitted to NAAC on 12-10-2011))

AQAR 2015-16 submitted to NAAC on 06-09-2018.

AQAR 2016-17 submitted to NAAC on 26-10-2018.

1.10 Institutional Status

University State  Central  Deemed  Private

Affiliated College Yes  No

Constituent College Yes  No

Autonomous college of UGC Yes  No

Regulatory Agency approved Institution Yes  No

(eg. AICTE, BCI, MCI, PCI, NCI)

Type of Institution Co-education  Men  Women

Urban  Rural  Tribal

Financial Status Grant-in-aid  UGC 2(f)  UGC 12B

Grant-in-aid + Self Financing  Totally Self-financing

1.11 Type of Faculty/Programme

Arts  Science  Commerce  Law  PEI (Phys Edu)

TEI (Edu)  Engineering  Health Science  Management

Others (Specify)

1.12 Name of the Affiliating University (for the Colleges)

JNTUK

1.13 Special status conferred by Central/ State Government-- 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 Activities**

2.1 No. of Teachers

9

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 Experts

-

2.9 Total No. of members

17

2.10 No. of IQAC meetings held

2

2.11 No. of meetings with various stakeholders: No.  Faculty   
 Non-Teaching Staff  Students  Alumni  Others

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  State  Institution Level

(ii) Themes

Outcome Based Education  
 CRT Classes on Soft skills  
 CRT Classes on Career Empowerment  
 Career Opportunities for Young Engineers  
 Workshops on Learning Process and Learning Styles  
 Entrepreneurship awareness program

2.14 Significant Activities and contributions made by IQAC

Quality parameters developed for various academic / administrative activities of the institute.

1. Assessing the quality parameters and providing required suggestions for the improvement.
2. Arranging training on pedagogy (Training Teachers for Excellence) every semester for all newly admitted faculty.
3. Conducting seminars / workshops, FDPs, Guest Lectures, training / certification programmes on quality related issues
4. Encouraging R&D and Consultancy, empowerment, Establishing advanced / research labs / centres.
5. Evaluation of existing teaching learning systems and related documents
6. Arranging training on latest technologies for students.

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 \*

Plan of Action	Achievements
To design and develop curriculum for all departments	<ul style="list-style-type: none"> <li>Prepared syllabus and academic regulations under Autonomous scheme for all the courses.</li> </ul>
To Monitor Teaching Learning process	<ul style="list-style-type: none"> <li>Academic Audit is done at the end of every semester.</li> </ul>
To get reaccreditation by NBA for eligible B.Tech. programs	<ul style="list-style-type: none"> <li>CSE and ECE branches got accreditation by NBA.</li> </ul>
To Encourage R&D and Consultancy, Establishing advanced / research labs / centres, setting up new experiments on latest technologies.	<ul style="list-style-type: none"> <li>Mechanical Engineering, Electronics and Communication Engineering, Computer Science Engineering departments have research centres approved by JNTUK, Kakinada</li> </ul>
To obtain feedback from stake holders for designing the curriculum.	<ul style="list-style-type: none"> <li>Feedback obtained from students, Faculty, Parents, Alumni, Industry for designing curriculum under autonomous scheme.</li> </ul>
Conducting Faculty Development Programs on Emerging technologies.	<ul style="list-style-type: none"> <li>08 Faculty development Programs are organized.</li> </ul>
To offer Value added courses	<ul style="list-style-type: none"> <li>Programs were conducted on latest technologies for the benefit of the students.</li> </ul>
To Improve Co-Curricular Activities	<ul style="list-style-type: none"> <li>Workshops, seminars, industrial visits, soft skill development programmes, communication skill development programmes organised regularly.</li> </ul>
Communication with Parents	<ul style="list-style-type: none"> <li>Letters with particulars of Percentage of attendance, Mid-exam marks, SGPA and Backlogs have been sent.</li> <li>Percentage of student attendance is improved</li> </ul>
Online Certification courses	<ul style="list-style-type: none"> <li>College was recognised as NPTEL Local Chapter.</li> <li>Faculty members and Students have got around 1400 NPTEL/MOOC'S course completion certificates for various courses.</li> </ul>
To improve technical activities	<ul style="list-style-type: none"> <li>National Level Techfest "JUBILATION-2K18" was organized in January 2018</li> <li>Project Expo was organized in the institute in the month of March 2018</li> <li>International conferences was organized at college level including all branches.</li> </ul>
To send SMS alert to the parents about progress	<ul style="list-style-type: none"> <li>Alerts of Attendance and performance of students are sent to the parents.</li> <li>Communication with Parents is done through SMS.</li> </ul>



*\* Attach the Academic Calendar of the year as Annexure.*

2.15 Whether the AQAR was placed in statutory body      Yes       No

Management       Syndicate       Any other body

Provide the details of the action taken

Placed in Academic Council meeting held on 07-07-2018

## Part – B

### Criterion – I

#### 1. 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	10 M.Tech-8 MBA, MCA	-	5	-
UG	5	-	11	8
PG Diploma	-	-	-	-
Advanced Diploma	-	-	-	-
Diploma	-	-	-	-
Certificate	-	-	-	-
Others	-	-	-	-
<b>Total</b>	15	-	16	8
Interdisciplinary	-	-	-	-
Innovative	-	-	-	-

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

##### (ii) Pattern of programmes:

Pattern	Number of programmes
Semester	UG-5, PG-10
Trimester	
Annual	

1.3 Feedback from stakeholders\* Alumni  Parents  Employers  Students   
(On all aspects)

Mode of feedback : Online  Manual  Co-operating schools (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.

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

Yes, the syllabus is designed by the college under Autonomous scheme and the existing syllabus is also revised by the university from the academic year 2016-17.

The following are the few salient features of curriculum under Autonomous scheme.

- To give more choice of subjects to students 3 open electives and 5 professional electives are offered.
- Mini projects are introduced from second year itself.
- Practical training /internship is made mandatory.
- Professional skill development lab is introduced.
- Comprehensive VIVA is introduced in M.Tech program.
- Mandatory courses like quantitative aptitude and reasoning; verbal ability and advanced communication skills, MOOCS, NSS, Sports and Games, Yoga and meditation were introduced.

1.5 Any new Department/Centre introduced during the year. If yes, give details.

Incubation centre is established to promote entrepreneurship activities and convert the ideas of students in to start-ups.

Research centres are established in the departments of CSE, ECE and ME with approval from JNTUK.

## Criterion – II

### 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
315	225	62	28	

2.2 No. of permanent faculty with Ph.D.

28

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

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
38		2		2				42	

2.4 No. of Guest and Visiting faculty and Temporary faculty

-

5

-

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	40	3	
Presented papers	46	3	-
Resource Persons	1	1	

2.6 Innovative processes adopted by the institution in Teaching and Learning:

- NPTEL lectures are made available in digital library to encourage self learning
- Display of detailed teaching plans with Course outcomes and evaluation mechanism is encouraged
- Use of ICT and modern pedagogical techniques.
- Online courses from Schollars university USA
- Spoken tutorials from IIT Bombay.
- Skill development training programs from APSSDC and other industries.
- 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.
- Programmes are designed by Outcome based approach.

2.7 Total No. of actual teaching days during this academic year 184

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

- Continuous evaluation on day to day basis is adopted. Assignments, online tests, mini projects are introduced.
- Weightage for two mid examinations rather taking the best mid performance.
- Paper setting and evaluation is done by external faculty.
- Online test with multiple choice are introduced.
- Bar coding is adopted.

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop 75

2.10 Average percentage of attendance of students 82

2.11 Course/Programme wise distribution of pass percentage :

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
B.Tech Mechanical	106	22	23	0	0	45
B.Tech ECE	151	42.3	22.5	-	-	64.8
B.Tech CSE	108	22	45	1	-	63
B.Tech EEE	31	29.03	29.03	-	-	58.06
B.Tech Civil	94	23.40	24.46	-	-	47.9
MCA	65	43	18	-	-	94
MBA	84	62	22			100
M.Tech DECS	2	100	-	-	-	100
M.Tech DSCE	2	50	50	-	-	100
M.Tech P&ID	01	-	-	-	-	Waiting for vivo
M.Tech PEED	00	-	-	-	-	-
M.Tech CAD/CAM	1	100	-	-	-	100
M.Tech TE	3	100	-	-	-	100
M.Tech CSE	5	80	20	-	-	100
M.Tech Structural	4	75	25			100

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 of BOS etc.
- Collects the project reports randomly from the departments and evaluates the quality of reports and same will be submitted for the discussion at IQAC meetings
- 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

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	0
UGC – Faculty Improvement Programme	0
HRD programmes	0
Orientation programmes	0
Faculty exchange programme	0
Staff training conducted by the university	0
Staff training conducted by other institutions	84
Summer / Winter schools, Workshops, etc.	162
Others	11

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	42			
Technical Staff	39			

## Criterion – III

### 3. Research, Consultancy and Extension

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

The goal is to involve the entire faculties on research activities and motivate them for further improvement in research career. Encouraging young faculty to register for their doctoral degree. As a result four faculty have received Ph.D degrees in this academic year and around 28 faculties are pursuing their Ph.D program in different universities. The institute is providing good infrastructure, equipment's, journals, guest lectures by eminent Professors, seminars, workshops, digital library with required internet facility etc, to meet the needs of research work. It is commendable that the college provides seed money for the deserving candidates to carry research. We are also providing financial assistance to the researchers where ever required such as conference registration, workshops and contingency. All these activities are monitored by our strong research advisory committee.

Recognizing the above the JNTUK has approved research centres in the departments of ECE, CSE, ME. This will enable the senior professors to guide the scholars thus improving the research environment in the college.

The College has taken several steps to promote research culture among both the faculty and students. The project work is organized for the students in the curriculum of PG and UG courses which helps the students to absorb research aptitude and broaden their perspective on their subjects. Students are encouraged to present their research papers in different symposia/conferences organized by the college as well as outside. As a result our UG students have presented around 95 papers and won many prizes. Our PG students have presented their research papers in international conferences.

Our broad area of research includes, data mining, network security, mobile computing, global positioning system, embedded systems, VLSI, image and signal processing, power systems and power electronics, composite materials, biofuels, Geo polymers, Waste material utilization in concrete etc.

Each department has a Department research committee, which convene periodical meetings to review project reports and other research papers presented by PG/UG 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 categories: 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

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	-	-	-	-
Outlay in Rs. Lakhs	-	-	-	-

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	-	-	-	-
Outlay in Rs. Lakhs	-	-	-	-

3.4 Details on research publications

	International	National	Others
Peer Review Journals	<b>81</b>	<b>2</b>	-
Non-Peer Review Journals		-	-
e-Journals	<b>21</b>	-	-
Conference proceedings	<b>45</b>	<b>6</b>	-

3.5 Details on Impact factor of publications:

Range  Average  h-index  Nos. in SCOPUS

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	-	-	-	-
Minor Projects	-	-	-	-
Interdisciplinary Projects	-	-	-	-
Industry sponsored	-	-	-	-
Projects sponsored by the University/ College	-	-	-	-
Students research projects <i>(other than compulsory by the University)</i>	-	-	-	-
Any other(Specify)	2Week FDP	AICTE	5,99,700	5,99,700
	MODOROBS	AICTE	4,82,000	4,82,000
Total			10,81,700	10,81,700

3.7 No. of books published i) With ISBN No.  Chapters in Edited Books

ii) Without ISBN No.



3.8 No. of University Departments receiving funds from

UGC-SAP  CAS  DST-FIST   
 DPE  DBT Scheme/funds

3.9 For colleges

Autonomy  CPE  DBT Star Scheme   
 INSPIRE  CE  Any Other (specify)

3.10 Revenue generated through consultancy

3.11 No. of conferences

organized by the Institution

Level	International	National	State	University	College
Number	1	-	-	-	
Sponsoring agencies	college				

3.12 No. of faculty served as experts, chairpersons or resource persons

3.13 No. of collaborations

International  National  Any other

3.14 No. of linkages created during this year

3.15 Total budget for research for current year in lakhs :

From Funding agency  From Management of University/College

Total

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	
	Granted	
International	Applied	
	Granted	
Commercialised	Applied	
	Granted	

3.17 No. of research awards/ recognitions received by faculty and research fellows  
Of the institute in the year

Total	International	National	State	University	Dist	College
-	-	-	-	-	-	-

3.18 No. of faculty from the Institution who are Ph. D. Guides   
and students registered under them

3.19 No. of Ph.D. awarded by faculty from the Institution

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF  SRF  Project Fellows  Any other

3.21 No. of students Participated in NSS events:

University level  State level   
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:

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	<input type="text"/>	College forum	<input type="text"/>		
NCC	<input type="text"/>	NSS	<input type="text" value="3"/>	Any other	<input type="text"/>

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

- NSS volunteers participated in Inter District Youth Exchange Program at Chittoor in coordination with Society for training and empowerment promotion, Guntur on 06-07-2017.
- NSS unit organized Vanam Manam program in coordination with Narasaraopet Municipal office on 22-07-2017.
- NSS unit conducted an awareness program to Mentors on Social Skills in coordination with Ullas Trust, Hyderabad on 08-08-2017
- Organized Medical Check-up and Blood Donation in Campus on 16-11-2017
- Organized Clean and Green Program in the campus
- Teachers day was celebrated on 05-09-2017
- Engineering day was celebrated on 15-09-2017
- Mathematics day was celebrated on 22-12-2017
- International Women Day was celebrated on 08-03-2018
- World Water day was celebrated on 22-03-2018
- Third International Yoga Day was celebrated on 21<sup>st</sup> June, 2018

## 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	12.04 Acres	-	-	12.04 Acres
Class rooms	63	-	Self Financing	63
Laboratories	64	-	Self Financing	64
Seminar Halls	7	-	Self Financing	7
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.		08	6-Self Financing and 2-AICTE under MODOROB	08
Value of the equipment purchased during the year (Rs. in Lakhs)		17.72 lakhs	12.90 Lakh Self Financing and 4.82 Lakh AICTE under MODOROB	17.72 lakhs
Others				

#### 4.2 Computerization of administration and library

- All the computers in the office have internet facility both wired and Wi-Fi.
- All library process is automated by using LIBSYS Software
- Procured an ERP software – BEES for implementation of E-Governance.
- All the accounts are computerized by using EZ software
- Digital Library for E-Journals
- Wi-Fi facility for the Library.

#### 4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	45158	9528520	1346	5,06,287	46504	1,00,3480 7
Reference Books	7086	1541030	306	91,526	7452	16,32,556
e-Books	1000	13750	500	72000	1500	85,950
Journals	132	229200	05	11,000	137	2,40,200
e-Journals	300	1107512	250	72000	750	11,79,512
Digital Database	DELNET	11500	ASCE	-	-	-
CD & Video	1500	-	500	-	1700	
Others (specify)	National Digital Library  NPTEL 8TB audio Lessons					

#### 4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	1114	23	64Mbps	4	2	Yes	ALL	-
Added	-	-	-	-	-	-	-	-
Total	1114	23	64Mbps	4	2	Yes	ALL	-

#### 4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

- Internet access is provided to all faculty and students with 64 Mbps connectivity with Wi-Fi facility.
- Students are encouraged to use internet for their project work.
- We have EZ School Software and also procured BEES ERP in the Institution for e-Governance of students, faculty and staff.

4.6 Amount spent on maintenance in lakhs :

i) ICT	52.30
ii) Campus Infrastructure and facilities	172.27
iii) Equipments	73.30
iv) Others	250.99
<b>Total :</b>	548.86

## Criterion – V

### 5. Student Support and Progression

#### 5.1 Contribution of IQAC in enhancing awareness about Student Support Services

- Awareness programs are conducted on Autonomous scheme and OBE.
- 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.
- Incubation centre is established in the campus to promote startups.
- Training has been provided to convert the ideas into startups.
- Four startups were launched.
- Four students of our college (2 from ECE and 2 from CSE) have attended Universal Innovation Fellow (UIF) spring at Stanford University, USA with financial assistance from the management.
- Students have participated in AICTE Hackthon and presented their ideas.
- Personality development programs are arranged.
- 1198 students have participated in Spoken Tutorials under MOOCS through remote class room organized by IIT Mumbai some of the faculty are secured even 100% of score and all got certified.
- 140 students have achieved MTA certification by Microsoft
- 70 papers have been presented by our students in different symposia organized at different institutions.
- IE and ISTE student chapters are established.
- CRT Programs were conducted to enhance the skill develop in the students.

#### Canteen

- Clean Hygienic cafeteria is available for both students and faculty providing nutritious food for supporting day scholar students.
- A computer lab with internet facility is provided in girls hostel inside the campus.
- More number of bus services provided from different areas in addition to existing services.

#### Stationary Shop

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

#### Others

Repographic facilities are enhanced in addition to existing facility.

## 5.2 Efforts made by the institution for tracking the progression

- Day to day attendance in theory & lab classes and intimation to the parents
- In case of absent to the classes the same was informed to the parents by telephone/sms on the same day.
- Each Faculty member is appointed as a mentor for twenty students.
- The mentor maintains the complete record of the student.
- 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.
- Result analysis after each mid and semester examinations.
- Conducting carrier guidance programs.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
762	208		

(b) No. of students outside the state

-

(c) No. of international students

-

	No	%		No	%
Men	735	75.77	Women	235	24.22

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
452	92	6	265	-	815	560	126	14	270	-	970

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.
- Eminent resource persons were invited to train in communication skills.
- Study material for competitive examinations is made available in library.

No. of students beneficiaries

412

5.5 No. of students qualified in these examinations

NET	<input type="text"/>	SET/SLET	<input type="text"/>	GATE	<input type="text" value="1"/>	CAT	<input type="text"/>
IAS/IPS etc	<input type="text"/>	State PSC	<input type="text"/>	UPSC	<input type="text"/>	Others	<input type="text" value="17"/>

5.6 Details of student counselling and career guidance

- Student counseling and career guidance is done.
- Awareness programs on opportunities of higher education in India and abroad by In house team and by external professional agencies.
- Personality development programs are organized.
- Student counselling 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.
- Counselling by psychologist and psychiatrist on personal problems.
- Counselling is provided to the new comers for choosing a better branch during their admission.

No. of students benefitted

500

5.7 Details of campus placement

<i>On campus</i>			<i>Off Campus</i>
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
26	495	259	45

### 5.8 Details of gender sensitization programmes

- Women empowerment and grievances cell was formed in the college
- International Women’s day was conducted on 08-03-2018
- 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  National level  International level

#### No. of students participated in cultural events

State/ University level  National level  International level

#### 5.9.2 No. of medals /awards won by students in Sports, Games and other events

Sports : State/ University level  National level  International level

Cultural: State/ University level  National level  International level

### 5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution		
Financial support from government	2437	8,94,82,000
Financial support from other sources		
Number of students who received International/ National recognitions		

5.11 Student organised / initiatives

Fairs : State/ University level  National level  International level

Exhibition: State/ University level  National level  International level

5.12 No. of social initiatives undertaken by the students

5.13 Major grievances of students (if any) redressed: \_\_\_\_\_ NILL \_\_\_\_\_

## Criterion – VI

### **6. Governance, Leadership and Management**

#### 6.1 State the Vision and Mission of the institution

##### **Vision of the Institute:**

- To Groom Narasaraopeta Engineering College, the first Engineering college in Palnadu region of Andhra Pradesh, as a Technological Hub and Gateway of knowledge with Indian values and Universal standards.

##### **Mission of the institute:**

- To employ faculty and staff with performance of Excellence and Dedication.
- To develop advanced state-of-the-art Technological Laboratories with latest equipment and infrastructure.
- To establish huge and world class Library with International and National Journals and Books.
- To have Advanced R&D through interaction with highly reputed industries and academically premier institutes.
- To start more post graduate programs in thrust areas and finally go to the Deemed University status.

#### 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

- Training the faculty to adopt the new OBE system for preparing curriculum under Autonomous scheme.
- Feed backs are obtained from all stake holders on existing JNTU Kakinada curriculum to take necessary steps to fill the gaps in the curriculum to be designed by the college under Autonomous scheme.
- Constituted BOS for all branches to design the curriculum.
- Necessary steps are taken to include the latest topics in the curriculum to suit to the needs of the industry as well as to develop the knowledge and skills of the students.

### 6.3.2 Teaching and Learning

- Encouraging practical assignments and project based learning by including mini projects from second year onwards.
- Industry internship/ industrial training is made mandatory to give practical exposure to the students.
- Increasing self-learning component
- Remedial classes for slow learners
- Involving fast learners in research activities
- Promoting the usage of ICT.
- Implementing OBE
- Introduced MOOCS
- Introduced online classes from scholars university USA and IIT Bombay.
- 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

- Continuous internal evaluation
- Assignments are introduced and given weightage.
- Weightage given for both mid examinations
- Question papers are prepared by external faculty
- Valuation of answer scripts are done by external faculty
- Display of internal answer sheets to the students.
- Display of consolidated internal marks to the students in respective department notice board.
- Phase wise evaluation of project work.

#### 6.3.4 Research and Development

- 104 journal publications in peer-reviewed journals.
- Incentives for publications
- Study leaves for research programmers,
- Digital library with E-Journals and internet facility
- Upgraded the labs by providing additional equipment and software.
- JNTUK approved research centres are established in CSE, ECE and ME.
- Encouraging faculty to register for Ph.D
- Four faculty members are awarded Ph.D
- 28 Faculty are pursuing Ph.D in different universities.
- 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**

- Journals and digital databases are subscribed through IEL online, DELNET, INFLIBNET, ASME, ASCE.
- OPAC Software for library management
- NPTEL web courses and video courses are being used by staff and students to enhance their skills
- Digital Library with 30 systems was established

##### **Infrastructure**

- Established E- class rooms in all departments.
- Providing required computational facilities with sufficient number of computer and peripherals.
- Wi-Fi connectivity is provided in the campus
- 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

- Decentralisation of Powers
- Faculty are being deputed for Management capacity enhancement programmes
- Faculty are encouraged to improve their qualifications.
- Faculty development programs are organised to enhance their knowledge and skills.
- Many of the faculty are involved in academic, administrative and social responsible Activities

### 6.3.7 Faculty and Staff recruitment

- To maintain the faculty as per the approved SFR Whenever there are vacancies notifications are given through newspapers and the recruitment is done by the Management through college staff selection committee as per the rules and regulations.
- Well qualified and experienced faculties are recruited as per the norms of AICTE.
- The appointment of faculty will be ratified by the university through a duly constituted selection committees.

### 6.3.8 Industry Interaction / Collaboration

- Experts from Industry are invited for BOS and Academic council meetings
- Interaction is integrated for all programs
- Guest lectures are arranged from industries and academicians
- 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 Govt. of Andhra Pradesh through web counseling.
- Vacancies if any will be filled through spot admissions.
- 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	<ul style="list-style-type: none"><li>• Free transport facilities for local faculty</li><li>• Concession for Hostel &amp; Transport facility for outstation faculty</li><li>• Maternity Leave will be provided for female faculty</li><li>• Laptops are provided for HOD's</li><li>• Special CL for Research study</li></ul> Group Insurance Scheme is provided to teaching staff
Non teaching	<ul style="list-style-type: none"><li>• Free transport, Medical leaves etc.,</li><li>• Employee provident Fund (EPF) and ESI will be provided for Non-teaching staff</li></ul>

	<ul style="list-style-type: none"> <li>• Maternity Leave will be provided for female Non-teaching staff</li> </ul>
Students	<ul style="list-style-type: none"> <li>• Concessional bus transport and scholarships</li> <li>• Offering financial support from college management for poor &amp; deserving students</li> <li>• Gold medals and Cash prizes will be given to student for Academic toppers.</li> <li>• Sponsoring the students to participate in co-curricular and extracurricular activities.</li> <li>• Canteen facility with subsidized rates.</li> </ul>

6.5 Total corpus fund generated

6.6 Whether annual financial audit has been done

Yes  No

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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	A two member committee	Yes	IQAC
Administrative	Yes	A two member committee	Yes	IQAC

6.8 Does the University/ Autonomous College declares results within 30 days?

For UG Programmes Yes  No

For PG Programmes Yes  No

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

- Indigenous software tool for Examination system
- Revaluation facility is provided
- Bar coding
- Paper setting and Valuation is done by External Faculty
- Encrypted question papers will be provided by the university which will be decrypted before one hour of the schedule time of the examinations.



6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

- Since UGC/JNTUK has accorded Autonomous status to the college, university has nominated experts as nominees in statutory bodies like governing body, CAC, BOS under Autonomous scheme status from the academic year 2016-17
- The nominees of the university on Board of studies helped to design the curriculum and provide the suggestions to improve the quality of education in the college
- Nominees of governing body and CAC have provided proper guidance for successful implementation of Autonomy.
- University representatives visiting the institution periodically
- Granted research centres to motivate and promote research activities
- Encouraging innovations in teaching, learning and research activities
- The affiliating University, JNTUK nominates its representatives and subject experts for academic council.

6.11 Activities and support from the Alumni Association

- Alumni nominated as members in BOS of all the departments
- Participated in all the meetings and provided suggestions for designing the new curriculum under Autonomous scheme
- Active registered alumni association is present.
- Alumni interactions through website and when they visit the campus.
- Guest lectures are conducted by Alumni
- Extending technical help to students
- Alumni meets are conducted periodically to get feedback and to improve the number of placements

6.12 Activities and support from the Parent – Teacher Association

- Parents are invited to provide suggestion designing the curriculum under Autonomous scheme.
- Parent Teacher interactions at department level are conducted
- Feedback from parents is collected.
- Parent teacher meet is conducted every year with principal, staff and management members, where the discussion is open on any academic and administrative matters.
- Feedback is taken from parent and analyzed for further improvement
- Parents meet the respective counsellors and HOD's regularly and made necessary suggestions

### 6.13 Development programmes for support staff

- Staff are deputed for domain related hands on training programmes
- ICT training and encouraging for Higher studies.
- Supporting staff are encouraged to go for training takes place at various places for updation.

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

#### **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.

#### ***Use of Renewable Energy***

- Steps are being taken for the utilization of solar power in the college campus
- Solar plant has been installed in the campus with a capacity of 200 KW.
- Solar car prepared by students as a live project is being used for internal mobility with in the campus.
- Solar system is established for hot water facility at hostels.

#### ***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.

#### ***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***

- Dedicated horticulturist to develop adequate greenery on the campus.
- 40% green covers on campus.
- 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.

#### ***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.

- Performance appraisal for faculty
- Financial Incentives for research publications
- Increased students participations in workshops and Conferences
- Involvement of students in various committees has been increased.
- Practice of conducting Guest lectures, Industrial visits and Industrial training has been enhanced.
- Value addition by certification programs as well as technology training is focused by various departments.
- More Practical orientation is supported through Mini-projects, Technical seminars.
- Industry Internship is encouraged for all students
- Continuous inputs from all stakeholders like Alumni, Academicians and Industry experts are taken to identify the curriculum gaps on regular basis and take necessary actions.
- Additional Training on communication skills and soft skills is further increased.
- Research aptitude among the students is inculcated through project implementations.
- Improved Membership in various professional bodies.
- 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
To design and develop a dynamic curriculum	Designed and developed a dynamic curriculum for 3 <sup>rd</sup> and 4 <sup>th</sup> year B.Tech. by constituting BOS for different subjects/branches.
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.

Organizing subject based seminars and subject based workshops.	Subject based seminars and subject based workshops are organized by the departments.
To introduce innovative evaluation methods	Innovative evaluative methods are introduced under Autonomous scheme.
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*)

<p><b>Need based curriculum</b></p> <ul style="list-style-type: none"> <li>• Courses beyond curriculum are offered to filled the curricular gaps for</li> <li>• Enhancing student skills by active learning tools</li> </ul> <p><b>Mentoring program</b></p> <ul style="list-style-type: none"> <li>• Mentoring program is effectively implemented to encourage student for regular interactions with the faculty to provide solutions for their academic and non-academic problems</li> </ul>
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7.4 Contribution to environmental awareness / protection

<ul style="list-style-type: none"> <li>• Observance of world population day programme was organized by NSS on 11-7-17</li> <li>• Adult literacy drive was conducted at adopted village</li> <li>• Observance of world human rights day is conducted on 10-12-17</li> <li>• Rotary club conducted a rally on AIDS day during 1-12-17</li> <li>• Environmental Awareness Programme are organised for students as well as faculty from time to time.</li> <li>• Separate cell i.e. Ground &amp; Gardening exists for protection of environment and keep the trees alive and green and to feed them with manure.</li> <li>• E-waste is followed as per Govt. policy.</li> <li>• Solar system is in place in the form of street lights etc.</li> <li>• Dustbins have been kept at all prominent places to keep environment eco-friendly.</li> <li>• Water harvesting system is in process.</li> <li>• No vehicles are allowed to enter in academic area.</li> </ul>
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7.5 Whether environmental audit was conducted?    Yes     No

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

**Strengths:**

- Well qualified faculty
- Autonomous college with existence of 19 years.
- Research centres to promote research activities.
- One of the most preferred, engineering colleges situated in a serene rural place of Palnadu region of 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 2014
- 50% of the young faculty members have undergone pedagogical training programs on various subjects.
- National Board of Accreditation (NBA) accorded the status of Accreditation thrice to the eligible UG B.Tech programs in 2009, 2013 and 2018.
- 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 scheme with continuous assessment.
- Effective Teaching-learning process with use of ICT.
- Good ambience through infrastructure facilities.
- Ed-Vantage platinum partner of Microsoft and established an innovation centre
- MOUs with Industries.

**Weaknesses:**

- Lack of international exposure to compete at global level
- Lack of Industry- Institute interaction in a purposeful manner as college located in rural area.
- Inadequate research activities such as sponsored research projects

### **Opportunities**

- Introduction of new P.G programmes in thrust areas
- Enhanced Industry Institute interaction
- Library enhancement to access international knowledge resources.
- Inculcating the culture of entrepreneurship to rural youth through incubation centre.
- Enhanced support from Alumni in institutional development and placement opportunities.
- Situated very near to state capital of newly divided Andhra Pradesh by establishment of more industries.

### **Threat**

- Competition from other educational institutions
- Financial management because of fees reimbursement scheme under A.P state government
- 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.
- Planning to collaborate with foreign universities.
- In order to promote entrepreneurship skills of students proposed to establish venture development centre.
- Planning to initiate preparations for preparing R19 syllabus for 160 credits as per AICTE guide lines.
- Planning to implement open library software/BEES software.
- Strengthens alumni association.
- Planning to introduce certificate courses, workshops, and short term courses.
- To establish government authorized pollution test centre in the college.
- Enhancing the student's communication skills.
- Planning to increase the number participation in online certification courses such as NPTEL, MOOC'S Etc.
- Improving the security and discipline in the campus.
- Preparation of AQAR for the year 2018-19.
- Adapting innovative teaching and learning methods.
- Organizing Campus Recruitment Training programs to Engineering students to enhance their employability skills
- To establish hostel facility for boys in the campus.

Name Dr. S. B. Venkata Siva



Signature of the Coordinator, IQAC

Name DR. M. Sreenivasa Kumar



Signature of the Chairperson, IQAC

PRINCIPAL  
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