Yearly Status Report - 2019-2020

Part A	
Data of the Institution	
1. Name of the Institution	**NARASARAOPETA ENGINEERING COLLEGE**
Name of the head of the Institution	**Dr. M. Sreenivasa Kumar**
Designation	**Principal**
Does the Institution function from own campus	**Yes**
Phone no/Alternate Phone no.	**08647239903**
Mobile no.	**9440757039**
Registered Email	**principal@nrtec.ac.in**
Alternate Email	**msking2030@gmail.com**
Address	**Kotappakonda Road, Yallamanda (Post), Narasaraopet**
City/Town	**Narasaraopet**
State/UT	**Andhra Pradesh**
Pincode	**522601**

2. Institutional Status

Autonomous Status (Provide date of Conformant of Autonomous Status)	**19-Apr-2016**
Type of Institution	**Co-education**
Location	**Rural**
Financial Status	**private**
Name of the IQAC co-ordinator/Director	**Dr.S.B.Venkata Siva**
Phone no/Alternate Phone no.	**08647239923**
Mobile no.	**9692464540**
Registered Email	**neciqac@gmail.com**
Alternate Email	**venkatasivanec@gmail.com**

3. Website Address

Web-link of the AQAR: (Previous Academic Year)	https://www.nrtec.in/wp-content/uploads/2020/01/NAAC-AQAR-2018-19.pdf

4. Whether Academic Calendar prepared during the year

4. Whether Academic Calendar prepared during the year	**Yes**
if yes,whether it is uploaded in the institutional website: Weblink :	https://www.nrtec.in/academic-calendar/

5. Accrediation Details

Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
1	**A**	**3.05**	**2015**	**15-Mar-2015**	**31-Dec-2021**

6. Date of Establishment of IQAC

6. Date of Establishment of IQAC	**20-Dec-2012**

7. Internal Quality Assurance System

Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries
Carrier guidance program	**23-Jul-2019**	**300**

	1	
Carrier guidance program	30-Aug-2019 1	250
Student training program on	01-Jul-2019 6	70
conducted student training program on	22-Aug-2019 1	150
Chairperson IQAC, addressed all the faculty members on Outcome Based Education (OBE) and motivated the faculty to implement OBE while teaching respective subjects	10-Jul-2019 1	210
Internship awareness program was conducted under Internshala internship program.	19-Jul-2019 1	260
Seminar was conducted on	06-Dec-2019 1	204
Organized a guest lecture on	13-Mar-2020 1	150
Conducted guest lecture on	30-Dec-2019 1	80
IQAC has successfully conducted online FDP programs on	22-Jun-2020 3	150
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8. Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
No Data Entered/Not Applicable!!!				
No Files Uploaded !!!				

9. Whether composition of IQAC as per latest NAAC guidelines:	**Yes**
Upload latest notification of formation of IQAC	[View File](#)
10. Number of IQAC meetings held during the year :	**4**
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	**Yes**

Upload the minutes of meeting and action taken report	[View File](#)

11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	**No**

12. Significant contributions made by IQAC during the current year(maximum five bullets)

1. Assessing the quality parameters and providing required suggestions for the improvement towards OBE. 2. Arranging training on pedagogy (Training Teachers for Excellence) every semester for all faculty. 3. Conducting seminars / workshops, FDPs, Guest Lectures, training / certification programs on quality related issues and Entrepreneurship awareness programs 4. Applied for extension of NBA for CSE and ECE departments 5.Focus on improving the quality in education by conducting periodical Academic Audit by internal and external experts 6.Arranging training on latest technologies for students.

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13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year

Plan of Action	Achivements/Outcomes
To improve technical activities	National Level Techfest "JUBILATION2K20" was organized in FEB 2020 · Project Expo was organized in the institute in the month of March 2020. Participated in HACKTHON Smart INDIA SIH and GO KART Completions
To Encourage MOOCS Certification courses	College was recognised as NPTEL Local Chapter. · Faculty members and Students have got 2533 NPTEL/COURSERA course completion certificates for various courses.
Communication with Parents	Letters with particulars of Percentage of attendance, Mid exam marks, SGPA and Backlogs have been sent. · Percentage of student attendance is improved
To Improve Co-Curricular Activities	Workshops, seminars, industrial visits, soft skill development programmes, communication skill development programmes organised regularly.
To offer Value added courses	Programs were conducted on latest technologies for the benefit of the students.
Conducting Faculty Development Programs/Workshops/Orientation Programs on Emerging technologies.	More than hundred Programs are organized.
To obtain feedback from stake holders	Feedback obtained from students,

for designing the curriculum.	Faculty, Parents, Alumni, Industry for designing curriculum under autonomous scheme.
To Encourage R&D and Consultancy, Establishing advanced / research labs / centres, setting up new experiments on latest technologies.	Many proposals are applied to various agencies like AICTE, DST, SERB etc. And received grants from AICTE for FDP and STTP.
To get reaccreditation by NBA for eligible B.Tech. programs	NBA orientation programs are conducted for CSE and ECE branches to apply for extension of NBA duration.
To Monitor Teaching Learning process	Academic Audit is done at the end of every semester.
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14. Whether AQAR was placed before statutory body ?	**Yes**

Name of Statutory Body	Meeting Date
Governing Body	**27-Jan-2020**

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	**No**

16. Whether institutional data submitted to AISHE:	**Yes**

Year of Submission	**2020**

Date of Submission	**10-Mar-2020**

17. Does the Institution have Management Information System ?	**Yes**

If yes, give a brief descripiton and a list of modules currently operational (maximum 500 words)	**BEES ERP software is implemented for student attendance, marks and other related activities. Autonomous exam section activities like exam fee collection, hall ticket generation, seating plans and post processing of results are done by BET tool of BEES ERP. Learning management system (MOODLE) software is used for conducting online exams and for uploading teaching learning material. HEBEON software tool is used for self learning of programming languages like C, JAVA, PYTHON etc. Koha software is used for library automation. Firewall software is implemented for protection and secure of information software.**

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Design and Development

1.1.1 – Programmes for which syllabus revision was carried out during the Academic year

Name of Programme	Programme Code	Programme Specialization	Date of Revision
BTech	01	CE	22/07/2019
BTech	02	EEE	20/07/2019
BTech	03	ME	20/07/2019
BTech	04	ECE	20/07/2019
BTech	05	CSE	25/07/2019
MCA	1F	MCA	23/07/2019
MBA	1E	MBA	20/07/2019
Mtech	87	STRUCTURAL ENGINEERING	22/07/2019
Mtech	15	MACHINE DESIGN	20/07/2019
Mtech	21	THERMAL ENGINEERING	20/07/2019
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1.1.2 – Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year

Programme with Code	Programme Specialization	Date of Introduction	Course with Code	Date of Introduction
MBA	MBA	20/07/2019	Entrepreneurship Development -19MBA4TH02	20/07/2019
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1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the Academic year

Programme/Course	Programme Specialization	Dates of Introduction
BTech	IT	30/10/2019
	View File	

1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the College level during the Academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BTech	CE	22/07/2019
BTech	EEE	20/07/2019
BTech	ME	20/07/2019
BTech	ECE	20/07/2019
BTech	CSE	25/07/2019
MCA	MCA	23/07/2019

MBA	MBA	20/07/2019
Mtech	THERMAL ENGINEERING	20/07/2019
Mtech	MACHINE DESIGN	20/07/2019
Mtech	STRUCTURAL ENGINEERING	20/07/2019
Mtech	DECS	20/07/2019
Mtech	DSCE	20/07/2019
Mtech	CSE	25/07/2019
Mtech	P&ID	20/07/2019

1.3 – Curriculum Enrichment

1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
webinar on "ADVANCED MATERIAL PROCESSING".	06/04/2020	153
Workshop on E-TABS software	24/12/2019	81
APSSDC workshop on Revit software	02/03/2020	89
WORKSHOP ON AUTOCAD SOFTWARE	03/02/2020	87
Internet of Things Fundamentals	15/07/2019	49
Embedded systems	30/08/2019	70
SCILAB	10/01/2020	40
GUEST LECTURE on LIGHT WEIGHT COMPOSITES FOR SPACE APPLICATIONS".	20/07/2019	120
GUEST LECTURE on TYPICAL SOFTWARE OPPORTUNITIES FOR MECHANICAL ENGINEERS".	30/12/2019	135
webinar on "EVOLUTION OF CONNECTED FACTORIES".	23/05/2020	135
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1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BTech	CE	1
BTech	EEE	Nill
BTech	ME	10
BTech	ECE	13
BTech	CSE	21
MBA	MBA	61
MCA	MCA	83

1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	Yes

1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

Feedback Obtained

At the end of first month of each semester, feedback is collected from students through online mode. The online feedback is summarized and the consolidated report is handover to Principal by DEAN (Academics). The faculty with average and poor feedback are counselled by Principal in the presence of HOD. Based on the report of HOD, Principal will take the necessary action to solve the issues raised by the students through feedback. For the effective implementation of the Academic system, the following feedback methods are adopted. Direct Feedback from Students: Each Section of the department has a Class Review Committee consisting of students, class teacher and HOD. Students are invited to express their views on various subjects, pedagogical methods and academic environment of the department. Interactive Feedback: Principal and HOD interact with students directly in the absence of teachers for unbiased feedback covering performance of teachers, coverage of syllabus etc. Online Feedback: The consolidated feedback of all subjects is collected online and analysed by HOD.

CRITERION II – TEACHING- LEARNING AND EVALUATION

2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
MCA	Computer Applications	120	15	4
MBA	Management	180	100	85
Mtech	Engineering and Technology	150	50	32
BTech	Engineering and Technology	960	750	688

2.2 – Catering to Student Diversity

2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses

| 2019 | 688 | 121 | 245 | 42 | 5 |

2.3 – Teaching - Learning Process

2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Numberof smart classrooms	E-resources and techniques used
292	292	5	60	1	10
View File of ICT Tools and resources					
View File of E-resources and techniques used					

2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

The college has well established mentoring system for all round development of students. From the date of joining the institution, the students are monitored on regular basis to excel in Academic Curricular, Co curricular and Extra Curricular activities. A group of 15 to 20 students are allotted a faculty counsellor to personally monitor all round development of the students. The counsellors inform the attendance details and academic performance of the students to their parents, weekly once. Also faculty member counsel the students weekly once and guide them on various academic and curricular aspects. The progress report of the students is sent to the parents through letters after each mid exam and after the announcement of University results.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
3299	292	1:11

2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
292	292	Nill	60	51

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2020	Dr. S.V.N. Srinivasu	Professor	Best Research Paper
2019	K.V.PRATAP	Assistant Professor	BEST YOUNG TEACHER INTERNATIONAL AWARD
2019	K.V.PRATAP	Assistant Professor	I2OR OUTSTANDSING EDUCATOR AWARD
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2.5 – Evaluation Process and Reforms

2.5.1 – Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-	Date of declaration of results of semester-

			end examination	end/ year- end examination
BTech	CIVIL	II/IV	19/09/2020	15/10/2020
BTech	EEE	II/IV	19/09/2020	15/10/2020
BTech	MECHANICAL	II/IV	19/09/2020	15/10/2020
BTech	ECE	II/IV	19/09/2020	15/10/2020
BTech	CSE	II/IV	19/09/2020	15/10/2020
MBA	MBA	IV/II	15/09/2020	15/10/2020
Mtech	Mtech	I/I	07/02/2020	09/03/2020
MCA	MCA	I/I	29/01/2020	09/03/2020
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2.5.2 – Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
429	5702	0.075

2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

https://www.nrtec.in/wp-content/uploads/2021/08/EEE_R19-Syllabus-book-updated-with-cover-page.pdf

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
Civil	BTech	Civil	82	68	82.93
EEE	BTech	EEE	35	31	81.57
Mechanical	BTech	Mechanical	93	74	79.5
ECE	BTech	ECE	180	165	91.67
CSE	BTech	CSE	220	210	95.40
MCA	MCA	MCA	82	82	100
M.Tech	Mtech	CSE	4	1	25
M.Tech	Mtech	MD	3	3	100
M.Tech	Mtech	TE	3	3	100
M.Tech	Mtech	PID	2	1	50
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2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

https://www.nrtec.in/wp-content/uploads/2021/08/1.Student-Satisfactory-Survey.pdf

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Promotion of Research and Facilities

3.1.1 – The institution provides seed money to its teachers for research

Yes
Name of the teacher getting seed money
Dr.M.Sreenivasa Kumar
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3.1.2 – Teachers awarded National/International fellowship for advanced studies/ research during the year

Type	Name of the teacher awarded the fellowship	Name of the award	Date of award	Awarding agency
No Data Entered/Not Applicable !!!				
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3.2 – Resource Mobilization for Research

3.2.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Industry sponsored Projects	3	DST NIMAT	80000	80000
Projects sponsored by the University	730	AICTE	1671000	1336800
Projects sponsored by the University	365	AICTE	410000	410000
Industry sponsored Projects	3	JSQUARE TECHNOLOGIES	252000	252000
Projects sponsored by the University	5	MNIT JAIPUR	93000	93000
Projects sponsored by the University	7	MNIT JAIPUR	102300	102300
Projects sponsored by the University	7	NITTTR KOLKATA	22525	22525
Projects sponsored by the University	14	NITTTR KOLKATA	25500	25500

3.2.2 – Number of ongoing research projects per teacher funded by government and non-government agencies during the years

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No Data Entered/Not Applicable !!!

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3.3 – Innovation Ecosystem

3.3.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
Virtual reality (VR) and 3D Scanner by APSSDC	MECHANICAL ENGINEERING	10/02/2020
INDUSTRIAL DRONE MAKING	MECHANICAL ENGINEERING	03/02/2020
A one week workshop on AUTOCAD by APSSDC	MECHANICAL ENGINEERING	23/12/2019
Industrial Robotics and Field Instruments Workshop by AGIIT, Chennai	MECHANICAL ENGINEERING	26/11/2019
Angular 2 Framework	MCA	12/10/2019
A Five Day FDP on IoT Application Development using Advanced Processors	ECE	03/06/2019
A Five Day FDP on VLSI Chip Design Hands on using open Source EDA Tool	ECE	08/07/2019
AICTE sponsored Two Week FDP on Emerging Trends in Machine Learning for Biomedical Applications	ECE	27/07/2019
One day workshop on eSim, a First course in the IoT Series	ECE	21/09/2019
Recent Trends in IC Design Using Mentor Graphics EDA Tools	ECE	08/11/2019
VLSI Chip Design Hands on using Open Source EDA Tools.	ECE	16/12/2019
One day workshop on C and CPP	ECE	29/02/2020
Workshop on E-TABS software	CIVIL	24/12/2019
Workshop on Revit software	CIVIL	02/03/2020
Workshop on Autocad design software	CIVIL	03/02/2020

A Three Day Workshop On "C Programming Concepts"	CSE	22/06/2020
A Three Day Workshop On "C Programming Concepts	CSE	15/06/2020
A One Day seminar on "Big Data vs Data Analytics vs Data Science"	CSE	08/06/2020
A One Day seminar on "MACHINE LEARNING IN MEDICAL IMMAGE ANALYSIS: RECENT ADVANCES AND FUTURE TRENDS	CSE	06/06/2020
A One Day seminar on "Machine Learning	CSE	07/06/2020
A Three 3 DAY Workshop on" Python Programming	CSE	27/05/2020
A One Day Expert Talk On" FUTURE SKILLS-2030:HOW TO PREPARE FOR TOMORROW'S JOBS(INDUSTTRY 4.0)	CSE	13/03/2020
A One Day Program On" International Women's Day"	CSE	08/03/2020
A One Week Work Shop On "Angular JS-Phase11"	CSE	24/02/2020
A One Day Program On " National Science Day "	CSE	28/02/2020
JUBILATION 2020	CSE	14/02/2020
A One Day Work Shop On " C and C"	CSE	29/02/2020
A One Day seminar on "Startup Talks By Wission Talks "	CSE	04/02/2020
A Ten Days Work Shop On "Angular JS-Phase1"	CSE	03/02/2020
A One week Work shop On" Infytq Python Training "	CSE	27/01/2020
A Three 3 DAY Workshop on" Artificial Intelligence"	CSE	27/01/2020
A Six-Day Workshop on "SALES FORCE"	CSE	09/12/2019
A Three-Day Workshop on " RAPTOR TOOL"	CSE	05/12/2019
A One-Day Workshop on "R Programming"	CSE	09/11/2019

"Red Hat Linux"	CSE	06/11/2019
A One-Day Workshop on "RENDEZVOUS"	CSE	05/11/2019
A Three-Day Workshop on "Entrepreneurship Awareness Camp"	CSE	15/10/2020
Short Term Training Program On "Laboratory Safety Management(ICTSPL02)"	CSE	23/09/2020
A One-Day Workshop on "LINUX"	CSE	23/08/2019
A Five-Day Short Term Course on "Rural Development through Technical Institutions"	CSE	29/07/2019
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3.3.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
Infrastructure	Institution	TIMES Survey	10/12/2019	National
Institution Innovation Council (Three star rating)	Institution	MHRD Innovation cell	22/09/2020	National
I2OR OUTSTANDSING EDUCATOR AWARD	K.V.PRATAP	INTERNATIONAL INSTITUTE OF ORGANIZED RESEARCH	10/01/2020	NATIONAL
BEST RESEARCH PAPER AWARD	Dr.S.V.N.sRINIVASU	PADMAVATHI MAHILA UNIVERSITY	07/01/2020	INTERNATIONAL
BEST YOUNG TEACHER INTERNATIONAL AWARD	K.V.PRATAP	IRDP	24/08/2019	NATIONAL
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3.3.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
Narasaraopeta Engineering College (Autonomous)	Dassault Systems Lab	APSSDC	Dassault Systems Lab	Students Software Training	02/11/2019
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3.4 – Research Publications and Awards

3.4.1 – Ph. Ds awarded during the year

Name of the Department	Number of PhD's Awarded
No Data Entered/Not Applicable !!!	

3.4.2 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
International	MECHANICAL	6	3.19
International	EEE	2	5.67
International	MBA	4	0
International	MCA	2	0
International	ECE	22	4.4
International	CIVIL	17	3.25
International	CSE	32	0.48
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3.4.3 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
MECHANICAL	2
MCA	1
CIVIL	3
CSE	3
ECE	4
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3.4.4 – Patents published/awarded during the year

Patent Details	Patent status	Patent Number	Date of Award
Modulation method for FSO system under influence of different atmospheric and Fog conditions	Published	202041004488	07/02/2020
SAR based System for Reducing the Effect of Cellular Phone Radiation According to the user health Parameters	Published	201941047253	29/11/2019
Noise Removal System In Thoracic Electrical Bioimpedance Signals Using Normalized Clipped Logarithmic Adaptive Artifact Canceller	Published	202041027264 A	10/07/2020

Smart Self Adjusting Toilet Seat	Published	202041050780 A	04/12/2020
Smart Hand Santizier making and Dispensing machine	Published	202041029571	31/07/2020
Retinal Vascular disease Detection from Retinal Fundus images using Machine Learning	Published	2020101450	12/08/2020
Low cost Public Transport Disinfection and Sterilization system	Published	202041034076	04/09/2020
Computer-Implemented System for Optimizing Placement and Routing in Very Large Scale Integrated Circuit (VLSIC) Design	Published	201941021599A	09/08/2019
Peak to Average Power Ratio Reduction Method for MIMO-OFDM System	Published	202041049074A	13/11/2020

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3.4.5 – Bibliometrics of the publications during the last academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
Impact of Service Quality Dimenstion of Digital ization on Customer Satisfactio n in Banking Sector	I.Sridhar	Scopus Journal of Test Engin eering Man agement, Volume 83, ISSN No.01 93-4120.	2020	0	NARASARA OPETA ENGI NEERING COLLEGE	Nill
HRD – Banks in the ICT Era a Focus on	Dr. S. Venkata Ramana	Web of sciences (ESCI) Vol.14 Issue No.	2019	0	NARASARA OPETA ENGI NEERING COLLEGE	Nill

Private sector Banks" web of sciences (ESCI)		– 5 ISSN: 0973-8975.					
Implementation of Photovoltaic Energy Conversion system with MPPT based P O	P.D.V.S.K.Kishore	JASC: Journal of Critical Reviews	2019	2	NARASARAOPETA ENGINEERING COLLEGE	2
A Case Study of Wind Turbine Loads and Performance using Steady State Analysis of BEM	Dr. D.Jagadish	International Journal of Sustainable Energy	2020	1	NARASARAOPETA ENGINEERING COLLEGE	Nill
Influence of modifier oxides on spectroscopic features of Nd2O3 doped PbO-Mo2O3-WO3-B2O3 glasses(with Ro2O3 Sb2O3, Al2O3, and Bi2O3)"	Dr.SB. Venkata Siva	Journal of Luminescence	2020	2	NARASARAOPETA ENGINEERING COLLEGE	1
Comparative performance and emission studies of the CI engine with Nodularia Spumigena microalgae biodiesel versus different	Dr. D.Jagadish	SN Journal of Applied Sciences	2020	0	NARASARAOPETA ENGINEERING COLLEGE	Nill

Title	Author	Journal	Year		College	
vegetable oil derived biodiesel						
Computational fluid dynamic analysis of Nodularia Spumigena Microalgae Biodiesel and Karanja biodiesel blends using ANSYS in CI engine	Dr. D.Jagadish	MATERIAL STODAY PROCEEDINGS	2020	0	NARASARA OPETA ENGINEERING COLLEGE	Nill
The Numerical Research of Bubble Growth and Bubble Frequency in Pool Boiling using Metal Oxide Nano Fluid	P Sravani	International Journal of Innovative Technology and Exploring Engineering	2020	6.3	NARASARA OPETA ENGINEERING COLLEGE	Nill
Experimental Analysis of Vapour Compression Refrigeration System	Shaik Bajan	International Journal Of Creative Research Thoughts	2020	7.97	NARASARA OPETA ENGINEERING COLLEGE	Nill
Harmonics and Voltage Quality in Post Fault Recinfigured 7-level Diode Clamped Multilevel inverters	SK.MD.shareef	JASC: Journal of Critical Reviews	2019	2	NARASARA OPETA ENGINEERING COLLEGE	2
[View File](#)						

3.4.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
HRD – Banks in the ICT Era a Focus on Private sector Banks" web of sciences (ESCI)	Dr. S. Venkata Ramana	Web of sciences (ESCI) Vol.14 Issue No. – 5 ISSN: 0973-8975.	2019	Nill	Nill	NARASARA OPETA ENGI NEERING COLLEGE
Harmonics and Voltage Quality in Post Fault Recinfigured 7-level Diode Clamped Multilevel inverters	SK.MD.shareef	JASC: Journal of Critical Reviews	2019	Nill	Nill	NARASARA OPETA ENGI NEERING COLLEGE
Influence of modifier oxides on spectroscopic features of Nd2O3 doped PbO-Mo2O3-WO3-B2O3 glasses(with Ro2O3 Sb2O3, Al2O3, and Bi2O3)"	Dr.SB. Venkata Siva	Journal of Luminescence	2020	110	1	NARASARA OPETA ENGI NEERING COLLEGE
A Case Study of Wind Turbine Loads and Performance using Steady State Analysis of BEM	Dr. D.Jagadish	International Journal of Sustainable Energy	2020	27	1	NARASARA OPETA ENGI NEERING COLLEGE

Title	Author	Journal	Year			College
Comparative performance and emission studies of the CI engine with Nodularia Spumigena microalgae biodiesel versus different vegetable oil derived biodiesel	Dr. D.Jagadish	SN Journal of Applied Sciences	2020	Nill	Nill	NARASARAOPETA ENGINEERING COLLEGE
Computational fluid dynamic analysis of Nodularia Spumigena Microalgae Biodiesel and Karanja biodiesel blends using ANSYS in CI engine	Dr. D.Jagadish	MATERIAL STODAY PROCEEDINGS	2020	27	Nill	NARASARAOPETA ENGINEERING COLLEGE
The Numerical Research of Bubble Growth and Bubble Frequency in Pool Boiling using Metal Oxide Nano Fluid	P Sravani	International Journal of Innovative Technology and Exploring Engineering	2020	40	Nill	NARASARAOPETA ENGINEERING COLLEGE
Experimental Analysis of Vapour Compression Refrigeration System	Shaik Bajan	International Journal Of Creative Research Thoughts	2020	Nill	Nill	NARASARAOPETA ENGINEERING COLLEGE

"Impleme ntation of Photovolta ic Energy Conversion system with MPPT based P O	P.D.V.S. K.Kishore	JASC: Journal of Critical Reviews	2019	2	1	NARASARA OPETA ENGI NEERING COLLEGE
Harmonics and Voltage Quality in Post Fault Recinfigur ed 7-level Diode Clamped Multilevel inverters	SK.MD.sh areef	JASC: Journal of Critical Reviews	2019	2	1	NARASARA OPETA ENGI NEERING COLLEGE

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3.4.7 – Faculty participation in Seminars/Conferences and Symposia during the year

Number of Faculty	International	National	State	Local
Attended/Semi nars/Workshops	5	14	Nill	Nill
Presented papers	6	6	Nill	Nill
Resource persons	3	Nill	Nill	Nill

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3.5 – Consultancy

3.5.1 – Revenue generated from Consultancy during the year

Name of the Consultan(s) department	Name of consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)
MECHANICAL	Stir Casting Machine	RVR JC engineering College	1500
MECHANICAL	Stir Casting Machine	Sai Tirumala NVR Engineering College	1500
MECHANICAL	Pollution Test Center	VEHICLE OWNER	2200
ECE	Maintenance of fibre seen sapphire	M/S Mittapalli Spinners Limited, NRT	10000
ECE	Calibration of RH and Temperature sensors	M/S Mittapalli Spinners Limited, NRT	10000
ECE	Eraction of Digital humidity sensors	M/S Mittapalli Spinners Limited, NRT	10000

Civil Engineering	Soil Testing	Secretary Gram Panchayati, Minnekallu	3500
Civil Engineering	Soil Testing	Secretary Gram Panchayati, Tangedumalli	3500
Civil Engineering	Soil Testing	Secretary Gram Panchayati, Adavipalem	3500
Civil Engineering	Soil Testing	Secretary Gram Panchayati, Makkinavaripalem-2	3500
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3.5.2 – Revenue generated from Corporate Training by the institution during the year

Name of the Consultan(s) department	Title of the programme	Agency seeking / training	Revenue generated (amount in rupees)	Number of trainees
CSE	Project Training	JSquare Technologies	160000	16
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3.6 – Extension Activities

3.6.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Conducted Free Eye Check-Up Camp	NSS Unit in co-ordination with Nayana Eye Hospital, Vijayawada	6	42
Spiritual Session by Sri.B.K..Dil Reddy, (Raja Yogi) Mount Abu, Rajasthan	NSS Unit in co-ordination with Brahmakumari's Organisation, NRT	6	60
Organized Awareness on Traffic Control Signals	NSS Unit in co-ordination with Traffic Police Station, Narasaraopet	6	62
Vanam – Manam Program	NSS Unit with MPDO office, Narasaraopet	6	40
Conducted Essay Writing Competition on the eve of 150th Birth Anniversary of Mahatma Gandhi	NSS UNIT coordinated with JNTU Kakinada	6	40
Conducted Debate	NSS Unit	6	15

Competition on water crisis in India	coordinated with MHRD		
Conducted Awareness Program on Career Guidance	NSS Unit	6	60
Conducted Blood Donation Program	NSS Unit in co-ordination with Govt.Hospital, NRT	6	34
Conducted International Day of Yoga	NSS Unit in co-ordiantion with Sri Venkateswara Yoga Seva Kendram, NRT	6	64
Conducted International Waters Day	NSS Unit	6	60
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3.6.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
Participation in "Mahasivaratri Local Festival" at Kotappakonda	Appreciation from DSP Narasaraopeta	DSP office, Narasaraopeta	90
Vanam – Manam Program	Appreciation from MPDO office, Narasaraopet	MPDO office, Narasaraopet	40
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3.6.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activites	Number of students participated in such activites
Conducted a Rally on Plastic Waste Pollution	NSS Unit	Rally on Plastic Waste Pollution	6	80
Participation in a Rally in support of DISA Act	Traffic Police, DSP Office	Rally in support of DISA Act	8	80
Vanam – Manam Program	Appreciation from MPDO office, Narasaraopet	MPDO office, Narasaraopet	6	40
Conducted Awareness Program on Career Guidance	NSS Unit	Career guidance	6	60

Free eye session	Nayana Eye Hospital, Vijayawada	Eye check up	9	42
Blood Donation Program	NRT Blood Bank	Blood Donation camp	6	150

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3.7 – Collaborations

3.7.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
No Data Entered/Not Applicable !!!			
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3.7.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Internship	Internship	Jayabheri Automotive Pvt Ltd	06/02/2020	06/05/2020	J. Manikanta
Internship	Internship	Jayabheri Automotive Pvt Ltd	06/02/2020	06/05/2020	K Ashok Ch akraravarthi
Internship	Internship	Sundaram Fasteners Ltd	05/02/2020	05/05/2020	Sk. Jani Basha
Internship	Internship	Sundaram Fasteners Ltd	05/02/2020	05/05/2020	P Pavan Kumar
Internship	Internship	Sundaram Fasteners Ltd	05/02/2020	05/05/2020	B Sukendar Reddy
Internship	Internship	Hindustan Aeronautical Ltd	20/05/2019	12/06/2019	M Venkata Hemanth Kumar
Internship	Internship	Hindustan Aeronautical Ltd	06/11/2019	16/11/2019	Sk Jani Basha
Internship	Internship	Hindustan Aeronautical Ltd	06/11/2019	16/11/2019	Prayaga NVSSS Datta Kiran
Internship	Internship	Hindustan Aeronautical Ltd	06/11/2019	16/11/2019	Goli Rushikesh Maruthi
Internship	Internship	Hindustan	06/11/2019	16/11/2019	Mandava

		Aeronautical Ltd			Venkata Hemanth Kumar

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3.7.3 – MoUs signed with institutions of national, international importance, other institutions, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
NARASARAOPETA ENGINEERING COLLEGE	27/10/2020	Software Training (CATIA, DELMIA, SIMULIA)	406
M/S BYTEXL INDIA PRIVATE LIMITED	16/10/2020	To set up a Centre Of Excellence (COE) within the campus to train students in the field of Cyber Security.	120
NARASARAOPETA ENGINEERING COLLEGE	11/07/2019	TCS-ION through AICTE	406
NARASARAOPETA ENGINEERING COLLEGE	01/01/2019	JSquare Technologies, 2-58/JOC/B-406, Jayabheri Orange County , Gachibowli, Hyderabad TG 500032	450

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CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
572	569.21

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Campus Area	Existing
Class rooms	Existing
Laboratories	Newly Added
Seminar Halls	Existing
Classrooms with LCD facilities	Existing
Seminar halls with ICT facilities	Existing
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added

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4.2 – Library as a Learning Resource

4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or patially)	Version	Year of automation
LIPSYS	Fully	7.0	2008

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	47468	10337785	346	183433	47814	10521218
Reference Books	7392	1632556	96	47070	7488	1679626
e-Books	1500	13750	4000	5600	5500	19350
Journals	74	124830	53	78868	127	203698
e-Journals	1	13750	1	5600	2	19350
Digital Database	1	13750	1	13570	2	27320
CD & Video	1500	Nill	500	Nill	2000	Nill

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4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
No Data Entered/Not Applicable !!!			
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4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/ GBPS)	Others
Existing	1184	25	1184	2	4	10	20	64	0
Added	40	1	40	0	0	0	0	0	0
Total	1224	26	1224	2	4	10	20	64	0

4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

146 MBPS/ GBPS

4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility

Media center with Lecture Capture system-SONY Camera, Recording Facility-SONY CAMCORDER, Tripod, Collar Mike	https://www.nrtec.in/wp-content/uploads/2021/08/4.3.3-e-content.pdf

4.4 – Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurredon maintenance of physical facilites
93	93	124	123

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website)

The college ensures optimal allocation and utilization of the available financial recourses for maintenance and upkeep of different facilities by holding regular meetings of various committees constituted for this purpose and using the grants received the college as per the requirements in the interest of students. • Laboratory: Record of maintenance account is maintained by lab technicians, Lab-in-charge and supervised by HODs of the concerned departments. • Maintenance of laboratories are as follows:- The calibration, repairing and maintenance of sophisticated lab equipment's are done by the technicians of related owner enterprises. • Library:- 1. The requirement and list of books is taken from the concerned departments and HOD's are involved in the process. The finalized list of required books is duly approved and signed by the Principal. 2. Suggestion box is installed inside the reading room to take users feedback. Their continuous feedback helps a lot in introducing new ideas regarding library enrichment. 3. To ensure return of books, 'no dues' from the library is mandatory for students before appearing in exam. 4. Other issues such as weeding out of old titles, schedule of issue/ return of books etc. are chalked out / resolved by the library committee. 5. LIBSYS software is used in Library. • Sports: - Physical Director will maintain the sports equipment regularly. • Computers: - 1. Centralized computer laboratory established to enrich the students. 2. ERP software is used for maintaining faculty and students details. 3. Each Department having appropriate computer for their requirements. 4. Internet and WIFI Enabled campus. 5. Open access journals facilities are available. • Classrooms: - 1. The college has various committees for maintenance and upkeep of infrastructure. At the departmental level, HODs submit their requirements to the Principal regarding classroom furniture and other. 2. Administrative officers will take in charge for student's academic requirements. • Additionally: - 1. There is lab instructors in every department, who maintains the stock register by physically verifying the items round the year. 2. Department wise annual stock verification is done by concerned Head of the Department. 3. Regular maintenance of Computer Laboratory equipment's are done by Laboratory Assistant along with Laboratory attendant and they are headed by the faculty in-charge. 4. Regular cleaning of water tanks, proper garbage disposal, pest control, landscaping and maintenance of lawns is done by Institute Concern Employees. 5. College campus maintenance is monitored through regular inspection. 6. Upkeep all facilities and cleanliness of environment in men's and women's hostel is maintained through Hostel monitoring committee. 7. Outsourcing is done for maintenance and repairing of IT infrastructure such as computers, internet facilities including Wi-Fi and broadband. The institution has a dedicated hard ware team headed by HOD CSE to oversee the procurement, maintenance, repairs and replacement of equipment like computers, laptops, projectors and others in the domain area of information technology across the institution. 8. Updating of software's is done by lab

assistants. 9. Outsourcing is done for the maintenance of wooden, furniture, electrification, and plumbing.

https://www.nrtec.in/wp-content/uploads/2021/08/2.Policies-for-Maintaining-and-Utilizing.pdf

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	Financial Support from institution	0	0
Financial Support from Other Sources			
a) National	Government tution fee reinbursement Scheme	2510	108000000
b)International	Nill	Nill	0
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5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implemetation	Number of students enrolled	Agencies involved
"Internship Awareness programme" Carrier Guidance programmes Carrier Guidance "Spiritual Knowledge" "Mindfulness Program"	19/07/2019	300	narasaraopet engineering college
Carrier Guidance programmes	23/07/2019	320	narasaraopet engineering college
Carrier Guidance	30/08/2019	300	narasaraopet engineering college
"Spiritual Knowledge"	11/10/2019	300	narasaraopet engineering college
"Mindfulness Program"	13/12/2019	280	narasaraopet engineering college
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5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passedin the comp. exam	Number of studentsp placed
2019	Gate coaching	15	2	5	Nill

2019	CRT	150	130	125	55
2020	Gate coaching	25	5	3	Nill
2020	CRT	180	25	33	35
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5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
Nill	Nill	Nill

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Nameof organizations visited	Number of students participated	Number of stduents placed	Nameof organizations visited	Number of students participated	Number of stduents placed
MULTIC4:F24PLIER SOLUTIONS	350	7	IBM	110	2
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5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Depratment graduated from	Name of institution joined	Name of programme admitted to
2019	1	B.TECH	MECH	Hochschule Kaiserslautern, University of Applied Sciences	M.S
2019	1	B.TECH	MECH	Otto-von-Guericke Universitat Magdeburs	M.S
2019	2	B.Tech	EEE	ACHARYA NAGARJUNA UNIVERSITY	M.E
2019	1	B.Tech	CSE	Univercity central mizari	M.S
2019	1	B.Tech	CSE	NJIT	M.S
2019	1	B.Tech	CSE	CQ Univercity Australia	M.S
2019	1	B.Tech	CSE	JNTU KAKINADA	M. Tech

2019	7	B.Tech	CIVIL	JNTU KAKINADA	M. Tech
2019	6	B. Tech	ECE	JNTU KAKINADA	M. Tech
2019	2	B. Tech	Mechanical	JNTU KAKINADA	M. Tech
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5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
GATE	1
GRE	2
Any Other	Nill
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5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
CRICKET	NATIONAL	15
VOLLEYBALL	NATIONAL	15
BASKETBALL	NATIONAL	15
CARROMS	NATIONAL	25
CHESS	NATIONAL	25
100 MTS(RUNNING)	NATIONAL	10
FOLK DANCE	NATIONAL	10
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5.3 – Student Participation and Activities

5.3.1 – Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2020	1st place volley ball	National	1	Nill	NEC CIVIL DEPTNEC CIVIL DEPT	NEC civil DEPT
2020	2nd place volley ball	National	1	Nill	NEC ME DEPT	NEC ME DEPT
2020	1st place Kabaddi	National	1	Nill	NEC CIVIL DEPT	NEC CIVIL DEPT
2020	2nd place Kabaddi	National	1	Nill	NEC ECE DEPT	NEC ECE DEPT
2020	1st	National	1	Nill	NEC CSE	NEC CSE

						DEPT	DEPT
2020	1st place Chess	National	1	Nill	19471A05E6	G.V.KART HIK
2020	1st place CARROMS	National	1	Nill	16471A05G2	P.SAI KRISHNA
2020	1st place TENNIKOIT (Girls)	National	1	Nill	17471A05E3	R.PRASANNA
Nill	1st place TENNIKOIT (Girls)	National	1	Nill	18471A05H9	V.RAMYA
2020	1st place SHUT TLE- BADMINTON (Girls)	National	1	Nill	18471A0596	N.ANUSHA

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5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

Class review committee: Students will be representing the syllabus coverage, feed back and other academic problems to the committee. IQAC members: Students will be nominated as IQAC members and suggestions will be considered for improving the quality in education. Innovation cell: Students in the cell conducts various innovative programs in every year. Entrepreneurship Development Cell: Students are actively participated in entrepreneurship awareness camp and workshops. Women empowerment cell: All the women students will be discuss with their problems on periodical basis. Bhuvana Vijayam club: Extra curricular activities will be organized by this cell. Painting and photography club: workshops will be conducted to elicit the art of students on world photography day and also to motivate the students for painting drawing classes will be conducted with external art master. Models and Prototype club: workshops are organizing to develop idols with waste materials in the occasionof vinayaka chavithi. Dance Club: For entertainment of the students dance club is actively organizing different training sessions and programs for identifying the best performer in the dance and culture. The institution has a practice of identifying student representatives for each class and nominates them to the student council. The members from this council are adopted for different administrative bodies. The council is responsible for conduct of any activity in the campus including curricular, cocurricular and extracurricular activities. The activities of the council would be supported by the participation of all the faculty members. The required funding for conduct of such events is met by the management of the institution. The institution has staffstudent consultant committee to discuss and solve problems related to academic, cocurricular activities, extracurricular activities, industry interaction and research.

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

No

5.4.2 – No. of registered Alumni:

5.4.3 – Alumni contribution during the year (in Rupees) :

5.4.4 – Meetings/activities organized by Alumni Association :

22-11-2020

CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 – Institutional Vision and Leadership

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

The institute practice decentralization and participative management. 1. COVID-19 Counter Initiatives Safety Security along with excellence in academics and RD became the top priority during the outbreak of COVID 19. A team was constituted under the supervision of HoD, CSE department to find the best solutions for completing the pending syllabus in the even semester of the academic year 2019-20 and conduction of internal examinations through online mode using Microsoft Teams to handle the pandemic situation. The principal constituted a committee to look after the sanitization and covid-19 preventive actions in the campus effectively under the supervision of the administrative officer. The principal constituted a team under the supervision of HoD, CSE department to provide free access to COURSERA MOOCs platform for students and faculty to upgrade their skills during lockdown period succeeded in getting fruitful results. • Explored on innovative online resources for teaching and learning. • Facilitated Network, Wi-Fi, Connectivity with adequate Bandwidth to continue academic activities such as online teaching learning, Assessment and for Assignment examinations, project reviews and virtual laboratories for Lab based Courses using Google meet, Zoom app, WebEx. • Sanitization of physical infrastructure, classrooms, corridors, washrooms, office areas, distribution of masks, maintenance of hygiene. • Health Safety COVID specific advisories, posters, signage and instructions are displayed at important places in the campus to bring out awareness and reinforce responsible behaviour • Capacity Building of student and Teachers with Online Education Resources such as coursera, webinars from professors of reputed Institutions • Robust Mentor Mentee System for Student counseling on Internships and placement activities, Parents Interaction Forum • Screening and social distance protocol w.r.t temperature reading and sanitization is followed. 2. Innovative Practices adopted for more number of placements with better packages in addition to existing mechanism Various innovative activities are taken up for improving number of placements with high packages in the academic year 2019-20 : • Competitive Coding Labs: Competitive Coding Lab has equipped with E-Box tool have been introduced in the institute for developing coding skills in students, that helped the students to improve problem solving skills, getting expertise in software Design and programming languages and as well expanding creativity in coding abilities. • Students were motivated towards design thinking, innovative practices, prototyping of a model through workshops, seminars and guest lectures etc. The Innovation and Incubation Cell (IIC) introduced Innovation day on 15th October 2019 to display the student's innovative ideas in memory of Dr A.P.J Abdul Kalam. The innovative models developed and exhibited at various platforms helped the students in getting good placement. •

> **The faculty member from each department started assisting training and placement officer through identifying the core industries for the respective departments and succeeded in getting new core companies to the campus for placement drive.**

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

6.2 – Strategy Development and Deployment

6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details
Curriculum Development	• **To revise the curriculum of all the UG and PG Programmes according to the revision proposed by AICTE which is the blend of Technological, Ethical, Environmental, Program Specific and Societal aspects. • To redesign the curriculum to inculcate the concepts that can offer the solutions for the industrial problems. • To increase student-centered activities that involves them more in the design and implementation of curricular, cocurricular and extra-curricular activities, so the students can excel in multi-disciplinary dimensions. • To incorporate the concepts of Blooms Taxonomy in revising the course structure and syllabus to have a well explained and aimed course outcomes Open electives and mandatory courses are introduced in the curriculum.**
Teaching and Learning	**The day to day classroom delivery is through modern pedagogy evenly balancing the traditional methodology. The classrooms are equipped with the required infrastructure to facilitate the new modes of delivery. • The faculty are trained on the ICT methodologies and continuous apprise of the same is provided through conduct and participation in faculty development programmes, workshops and seminars. • Exclusive E-learning Centers are developed for the online as well as ICT based trainings, and also to support teaching fraternity with the advanced communication facilities to facilitate the trainings on effective teaching – learning processes. The measures are taken for the benefit of students. Tutorial/Remedial classes are conducted for the slow learners based on their performance in external exams and after the first internals. Students are motivated regularly for better**

	performance in the academics and for higher studies and university ranks. Technical quizzes are conducted for the students. Industrial visits are conducted at least once a year to reduce the gap between industry and institute. Workshops are organized to help the students to understand concepts beyond curriculum Identification of bright and weak students is done and the weak students are motivated to attend remedial classes. Bright students are encouraged to attend more workshops, conferences and contests GATE classes are conducted for the GATE aspirants.
Examination and Evaluation	• Question Papers are set by outside subject experts from reputed Institutions. • 40 of the marks are considered as internal marks through continuous evaluation. • Semester end examination evaluation is done by external faculty • Declaration of results of semester end examinations within two weeks by conducting spot valuation • Revaluation facility is provided. .
Research and Development	• Motivating faculty students and driving them towards research and providing the required technical as well as financial assistance • Encouraging the students to come up with smart and new ideas for working with utmost interest in the respective research labs and incubation centers towards the new innovations and inventions • Conducting concerted research in multi disciplines by proper interaction with Industry and RD institutes. • Students should be given access to visit industries and identify the recurring problems so they can conduct a rigorous research and come with best possible solution
Library, ICT and Physical Infrastructure / Instrumentation	The college provides central library and department libraries through which students get access to books, various series of learning videos, lectures, inspirational talks on variety of disciplines covering the academic, employability and entrepreneurial skill sets • Library is automated with Libsys Soft for library management • Access to e-content • seminar halls are available The class rooms are provided with LCD projector facility. Also,

Human Resource Management	Teaching staff are encouraged to attend faculty development programmes, workshops/training programmes and conferences by sponsoring registration fee, TA and DA • Performance based appraisal system is adopted • Financial assistance is provided to carry out research projects.
Industry Interaction / Collaboration	• Planning the Industrial Visits Periodically by organizing industrial visits • Motivating Students towards internships that will help the students for having the real time work experience and will help them to get placements • Organizing Workshops and Seminars in collaboration with industry Industry experts are members in the academic committees of the departments. MOUs are signed with the industries for providing training and Placements
Admission of Students	Admission of students into the institute are made through common entrance test based on the rank as per Government norms • 70 of seats are filled based examination rank under category-A quota • 30 of seats are filled under category-B quota •Participating in NBA, NIRF, ARIIA , times and other agencies survey and Improving the perception about the institution by giving wide publicity through various channels

6.2.2 – Implementation of e-governace in areas of operations:

E-governace area	Details
Finance and Accounts	Fee collection and other related payments are done through online (Digital transaction).
Student Admission and Support	Admission procedure is done through BEES software. Student attendance, marks are communicated through SMS.
Examination	Exam fee collection,generation of hall tickets, preparation of seating plan, declaration of results and printing of mark sheets etc are done through BEES software.
Planning and Development	• SMS system for dissemination of information including regular notice to all stakeholders is implemented. • Office is digitalized maintaining complete database of students, faculty and staff etc. • Library is automated using 'Lib Soft' version 9.8 of Environ Software, Bangalore.

Administration	Signage Boards are provided to display notices for students and other stakeholder. • PFMS portal is uploaded regularly with expenditure related to Govt. fund. • Notices and circulars are uploaded in the college website and communicated to different departments through e-mail from the office of the Principal • Salary of faculty members and staff is transferred directly to the bank account.

6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2019	K.V.PRATAPH	NATIONAL WORKSHOP ON RECENT TREND IN CIVIL ENGINEERING	NA	500
2019	K.V.PRATAPH	AP SCIENCE CONGRESS 2019	NA	2000
2019	Dr.G.BABU RAO	AP SCIENCE CONGRESS 2019	NA	2000
2019	Dr.G.BABU RAO	HYDRAULICS AND HYDRALOGY	NA	500
2019	Dr.G.BABU RAO	ICSET-2K19	NA	2000
2019	Mr.SK.ZuberBasha	Applied Robotics Control Lab Faculty Development Program:2.0	NA	400
2019	Mr.V.Rama Krishna Reddy	Student Induction	NA	500
2019	Mr.SK.ZuberBasha	Basic Robotics	APSSDC – SIEMENS	1165
2019	Dr.P.LAKSHMAN	MODELING AND REAL TIME IMPLEMENTATION OF ELECTRICAL SYSTEM	NITTTR CHANDIGHAR	5500
2019	M.CHANDRA SEKHAR	MODELING AND REAL TIME IMPLEMENTATION OF ELECTRICAL SYSTEM	NITTTR CHANDIGHAR	5500
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6.3.2 – Number of professional development / administrative training programmes organized by the Colleges for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2019	Effective Teaching	Nill	15/07/2019	19/07/2019	5	Nill
2020	INDUSRIAL ROBOTICS FIELD INST RUMENTS	Nill	26/11/2019	30/11/2019	22	Nill
2020	Control Panel Designing Field Inst ruments"	Nill	04/02/2020	08/02/2020	20	Nill
2019	One Day Workshop on "Koha and Library Automation	One Day Workshop on "Koha and Library Au tomation"	12/10/2019	12/10/2019	10	5
2020	Nill	Training on MS-office	13/03/2020	13/03/2020	Nill	10
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6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
EFFECTIVE TEACHING	65	15/07/2019	19/07/2019	5
RURAL DEVELOPMENT THROUGH TECHNICAL INSTITUTION	95	29/07/2019	02/08/2019	8
ADVANCES IN MANUFACTURING	40	09/09/2019	13/09/2019	5
DESIGN AND MANUFACTURING ON 3D EXPERIENCE PLATFORM	37	19/11/2019	23/11/2019	5

INDUSRIAL ROBOTICS FIELD INSTRUMENTS WORKSHOP	34	26/11/2019	30/11/2019	5
IOT IN MANUFACTURING -NITTTR	32	06/01/2020	10/01/2020	5
GREEN MANUFACTURING -NITTTR	31	03/02/2020	07/02/2020	5
RESENT TRENDS IN AUTOMOBILE TECHNOLOGY	33	24/02/2020	28/02/2020	5

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6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
60	60	12	12

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
Life Insurance for faculty members E	EPF for non teaching staff	Fee concession for eligible students

6.4 – Financial Management and Resource Mobilization

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

The college has the mechanism of both internal and external audits for all the financial activities carried out in the Institution every Year. Accounts department headed by Deputy Manager (Accounts) maintains financial accounts daily and prepares all financial statements and submits them to all statutory bodies like AICTE, UGC and State Government as and when required. The college has both Internal and External audit system. Internal Audit: The Principal constitutes an Internal Audit Committee with three members. The audit is conducted on a Sampling basis to check the correctness of the financial transactions and statement affairs of the Institution. The Committee verifies Cashbook, Bank accounts, Ledgers, Bills, Vouchers, and statement of cash position and cash flow physically and conducts sample check on the heads of various accounts, balance dates, and postings. External Audit: M/S Muralikrishna and Co., Narasaraopet, have been auditors for the Institution from the past decade. An annual external audit is conducted, and the reports are submitted to the management. The Finance Committee ratifies these reports. Audit of funds received from Government and Non-Government research funding agencies Consultancy is duly done as per the guidelines of the funding agencies as and when required.

6.4.2 – Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
MANAGEMENT	250173	Project works

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6.4.3 – Total corpus fund generated

6.5 – Internal Quality Assurance System

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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	Two Professors from different colleges and universities	Yes	IQAC team
Administrative	Yes	Two Professors from different colleges and universities and one auditor	Yes	IQAC team

6.5.2 – Activities and support from the Parent – Teacher Association (at least three)

Parent teacher meeting is conducted and student progress is informed Daily SMS is sent to the parents of the student absentees Parents of students who have attendance shortage and academically weak are called to the college and informed of their wards performance. Feedback given by parents is used to improve teaching learning process. Parents are included in various committees and their suggestions are implemented. Parents support is taken improve social responsibility in students. Annual meeting is conducted to identify the problems and issues related to students. Regular meetings with parents helps in improvement of performance of students.

6.5.3 – Development programmes for support staff (at least three)

M.S Office KOHA Library software IOT workshop on Arduino Installation Laboratory Safety Management Rural Development through technical education

6.5.4 – Post Accreditation initiative(s) (mention at least three)

• New titles are added in the Library book bank. • Provision of free access to COURSERA MOOCs platform for students and faculty to upgrade their skills during the lockdown period. • Provision of precautions/measures in the campus against COVID-19 unlock was initiated. • Participation in NIRF, ARIIA, TIMES of India. • Boy's hostel built-up area of two floors extended with a capacity of 150 students. in the campus. • Wifi facility is provided in the hostels. • Number of research publications are improved in qualified journals. • Recruited Ph.D qualified faculty for strengthening the Academics and improving the Research and development activities • Many of the faculty members are upgraded their skills in new technology. National conference was organized by the institute Jan 2019 Remote center of IIRS-Isro for conducting outreach programs. To handle the pandemic situation, pending syllabus in the even semester of academic year 2019-20 is completed and remaining internal examinations are conducted in online mode. Provision of free access to courser moocs platform for students and faculty to upgrade their skills during the lockdown period is initiated and 8387 courses are completed by faculty/ students. Provision of hardware and software facilities to conduct the classwork for 2020-21 academic year through online mode was initiated. Provision of precautions measures in the campus against covid-19 unlock was initiated. Initiated extension activity by

involving technical expertise under Unnat Bharat Abhiyan.

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b)Participation in NIRF	Yes
c)ISO certification	Nill
d)NBA or any other quality audit	Yes

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2019	Carrier guidance program	23/07/2019	23/07/2019	23/07/2019	300
2019	Carrier guidance program	30/08/2019	30/08/2019	30/08/2019	250
2019	Student training program on " Employabilit y Skills" in association with Nandi (NGO) Foundation, Mahindra Mahindra and APSSDC	01/07/2019	01/07/2019	06/07/2019	70
2019	conducted student training program on "Role Intellectual Property Rights in Innovation Management and Academia Industry Col laboration" association with M/s Novel Patent Service Private Limited, Vizag	22/08/2019	22/08/2019	22/08/2019	150
2019	Chairperson IQAC, addressed all the	10/07/2019	10/07/2019	10/07/2019	210

	faculty members on Outcome Based Education (OBE) and motivated the faculty to implement OBE while teaching respective subjects				
2019	internship awareness program was conducted under Internshala internship program.	19/07/2019	19/07/2019	19/07/2019	260
2019	Seminar was conducted on 'OBE" by IQAC	06/12/2019	06/12/2019	06/12/2019	204
2020	Organized a guest lecture on "Future Skills-2030: How to prepare for Tomorrows Jobs (Industry 4.0)", resource person for the above program is Dr.P.SreenivasaRao, Global Head, Technical Training, CYIENT, Hy	13/03/2020	13/03/2020	13/03/2020	150
2019	Conducted guest lecture on "Typical software opportunities for Mechanical Engineers"	30/12/2019	30/12/2019	30/12/2019	80

	in association with General Electric India Industrial Pvt Ltd, Bangalore				
2020	IQAC has successfully conducted online FDP programs on "An Insight into Revised Accreditation Framework of NAAC"	22/06/2020	22/06/2020	24/06/2020	150

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CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 – Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
Womens day Celebrations	08/03/2020	08/03/2020	150	25
Disha Act	19/12/2019	19/12/2019	120	30
Stress Maagement	10/11/2019	10/11/2019	170	30
Women Mental Health	01/01/2020	01/01/2020	125	30

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources
55.48, Power requirement met by renewable energy sources: 233570 kWH Total power requirement kWH: 420958 Renewable energy source: Solar

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Ramp/Rails	Yes	Nill
Scribes for examination	Yes	5
Rest Rooms	Yes	1
Physical facilities	Yes	Nill

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address	Number of initiatives taken to	Date	Duration	Name of initiative	Issues addressed	Number of participating students

	locational advantages and disadvantages	engage with and contribute to local community					and staff
2019	1	1	21/06/2019	1	International Day of Yoga	International Day of Yoga	64
2019	2	2	08/07/2019	1	Blood Donation Program	Blood Donation Program	32
2019	3	3	20/07/2019	1	Awareness Program on Career Guidance	Awareness Program on Career Guidance	60
2019	4	4	13/09/2019	1	Free Eye Check-Up Camp	Free Eye Check-Up Camp	42
2019	5	5	15/09/2019	1	Blood Grouping Test	Blood Grouping Test	45
2019	6	6	16/09/2019	1	Awareness on Plastic Waste Pollution Control Program	Awareness on Plastic Waste Pollution Control Program	25
2019	7	7	17/09/2019	1	Ralley on Plastic Waste Pollution in Narasaraopeta Town	Ralley on Plastic Waste Pollution in Narasaraopeta Town	85
2019	8	8	26/09/2019	1	Fund Collection and Donation to a Kidney Diseased student	Fund Collection and Donation to a Kidney Diseased student	42
2019	9	9	11/12/2019	1	Vanam – Manam Program	Vanam – Manam Program	200
2019	10	10	Nill	1	Constitutional Week	Constitutional Week	150

7.1.5 – Human Values and Professional Ethics		
Title	Date of publication	Follow up(max 100 words)
Code of conduct for Students	02/01/2020	• Hand books on code of conduct of students are distributed to students and widely publicized and students are expected to maintain the highest standards of discipline and dignified manner of behavior inside as well as outside the College campus. • If any student violates the rules and regulations of the College, he/she is warned and counseled if necessary.
Code of conduct for Staff	02/01/2020	• Hand books on code of conduct of staff are distributed to staff and widely publicized and staff are expected to maintain the highest standards of discipline and dignified manner of behavior inside as well as outside the College campus.

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Free Eye Check-Up Camp	13/09/2019	13/09/2019	42
Awareness on Plastic Waste Pollution Control Program	16/09/2019	16/09/2019	25
Vanam – Manam Program	19/09/2019	19/09/2019	42
Road safety Helmet awareness	11/12/2019	11/12/2019	150

7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

1. Solid Waste Management – Establishment of Compost plant Weekly one-day faculty will attend college by sharing the vehicles to reduce the pollution. 2. Plastic free campus 3. Generation of Solar Energy in campus 4. Students, staff using a) Bicycles b) Public Transport c) Pedestrian friendly roads 5. Paperless office 6. Green landscaping with trees and plants 7. Rainwater harvesting 8. College has established In-house pollution testing centre to test pollution levels of student and faculty vehicles

7.2 – Best Practices
7.2.1 – Describe at least two institutional best practices

Best Practice – 1 Title of the Practice: Teaching and Learning Process Objectives of the Practice: Narasaraopeta Engineering College (NEC) desires to impart appropriate knowledge, skill and training to enable the students become qualitative practitioners of their profession. Teaching and learning process is the focal point in the whole of educational activity. Changing face of education and rapid advancement of technology on one hand and changing perceptions among the millennial students as well as induction of new generation of teachers on the other hand challenge the whole gamut of teaching learning process. The crux of this practice is to train the facilitators in better teaching learning processes for enhanced deliverance of learning. The Context: In the past few decades, there has been a paradigm shift in teaching methodologies. It has moved from teacher centric approach where the learner is a passive participant to student centric approach where a teacher is just a facilitator to student's learning. In addition, the massive advancement of science and technology coupled with the expectation from native millennial student generation, has impacted and shaken the concept of teaching. Often, those joining the teaching community recently are also of millennial generation. In this context, it is imperative that the teachers are trained appropriately to carry forward the teaching learning process in an effective and smooth way. The shift in generational outlook, that is, the young tech savvy brigade joining the ranks of teaching and older generation teachers who need to become more versed with technology, can be achieved only through timely and interventional training. The Practice: Since its inception, Narasaraopeta Engineering College (NEC) has taken measures to ensure that teachers are adequately trained in the teaching methodologies. In this regard, faculty development programmes for teacher training are continuously conducted the resource persons for these programmes from reputed Educational Institutions or the senior faculty members within the campus. Sometimes, teachers are given an opportunity to attend such programmes outside the campus. At NEC, newly recruited faculty members having less than two years teaching experience are given orientation by the senior professors. During the orientation programme, the participants are given an opportunity to have practice teaching sessions along with teaching methodologies. All new members are encouraged to observe and be a part of classroom proceedings of senior faculty classes. In 2019, the institute has organised a teacher training programme on Effective Teaching along with the National Institute of Technical Teachers Training and Research (NITTTR) Kolkata. Fifty faculty members along with newly recruited, attended the programme. The feedback on the programme suggests that the training session was productive in terms of supporting teachers understanding their perceptions of class room teaching, methods of assessment and evaluation. Similar programmes are conducted through in house Teaching Learning Centre (TLC). The institute became a consortium member of IUCEE (Indo Universal Collaboration for Engineering Education) in 2018. As a consortium member, the faculty got a chance to attend a series of webinars for self-awareness and up gradation in all disciplines. Faculty has participated in a week long faculty development programme as a part of Teaching Learning centre initiative with IUCEE collaboration. Dr. Rao Vemuri, University of California, Davis was the resource person for the FDP on "Artificial Intelligence" held from 23rd September to 27th September 2019. In this FDP, the faculty were introduced to many concepts of AI courses in UG Level. Faculty are encouraging to do MOOCs courses like SWAYAM / NPTEL. Evidences of Success: The faculty with less than two years become more confident in handling the classes. The perspective shift from a student to a faculty is visible as most often, the newly joined faculty are also millennial. They are tech savvy but their outlook towards teaching is not a very informed one. The lockdown during pandemic was a game changer. The above

initiatives helped the faculty to adapt online teaching in no time during the pandemic. The faculty became versatile in implementing active teaching learning methodologies using the technology. The awareness ignited the adaptability and explorative nature of the faculty that was evident in the successful implementation of online teaching learning. The reluctance to use technology or collaborative teaching methods among the seniors has slowly given way to a more positive acceptance. They are implementing quiz, peer teaching, group or team learning and flipped classroom methods. Blended classroom has been a boon in the post COVID situation. Classes were conducted in both online and off line format. Problems encountered: Many problems are encountered while implementing teaching learning development activities. 1.In flipped class room, students may not be given to advance preparation of the topic. They may skip the pre task assigned by the faculty thereby attending the class with zero prior knowledge that leads ineffectual learning. 2. Prior preparation by the students may create or promote unhealthy digital divide among the students. 3. Use of technology in blended learning can cause cognitive overload on the learners. 4. Also, IT literacy among the faculty is one of major disadvantages in adapting new technology in learning. 5. The faculty may not be able to keep pace with the student's learning who has advance knowledge of the topics. 6. All students may not have suitable access to technology or internet bandwidth. Despite adapting latest methods in teaching learning, we cannot ignore the fundamental chalk and talk method. NEC tries to maintain a fine balance between the old and new versions of teaching learning. Best Practice II Title of the Practice: Go Green Campus Goal Environmental issues bring about thoughtful questions on the roles of Institutes in society. Irrespective of whether they are contributing to a better environment or worsening it, Institutions have to acknowledge environmental or green issues through impact research and measurement. Based on the approach NEC has significant Green Initiatives to 1. Promote sustainability by creating awareness 2. Share knowledge expertise - Expert talks about environmental problems and possible solutions Deploy eco-friendly technologies for greening and cleaning our campuses The context The main contexts are (i) Water Management, (ii) Waste management, (iii) Energy (conservation and generation) and (iv) Landscaping and Trees. (v) Beyond the Campus Environmental promotional activities. (vi) Green, Environment and Energy Audits. The Practice Energy conservation 1. The Internal stakeholders take all measures to save the power. 2. More than 60 lighting requirements are met through LED sources and efforts are under progress to improve it further Use of renewable energy Interactive solar power generating system of 200 KWp is provided on the roof top of the academic buildings. With the installation of this system 45 to 50 of the total electricity requirement is met. Water harvesting: Water conservation is the practice of using water efficiently to reduce unnecessary water usage. According to reports, water conservation is important because fresh clean water is a limited resource, as well as a costly one. Conservation of this natural resource is critical for the environment. The goals of water conservation efforts include: Ensuring availability of water for future generations where the withdrawal of fresh water from an ecosystem does not exceed its natural replacement rate. Energy conservation as water pumping, delivery and wastewater treatment facilities consume a significant amount of energy. According to recent researches 15 of total electricity consumption is devoted to water management. Rainwater Harvesting Water is the most important yet neglected resource. The reason is being very low cost. But over period of years, water is gaining its importance. Entire country is facing a tremendous stress due to water scarcity. Irregular rainfall, depleting ground water table, inefficient usage and leakages etc are all forcing people to adopt water management activities. NEC has always paid special care and attention towards water consumption in their buildings. To tackle the issue at source, rain water harvesting systems have implemented across the campus to conserve, capture and aid effective aquifer recharge. To ensure effective capture and aquifer

recharge, the rainwater harvesting pit in the campus at proper place. The water collected is used for plantation purposes at a later stage. Efforts for carbon neutrality By conserving and reusing energy the need for excessive use off oil fuels can greatly reduce, thus reducing carbon emissions. Installing solar panels helps in reducing carbon emissions. The installation of 200 KWp solar power system has saved the amount of carbon dioxide released into the air. Thus the emission of carbon dioxide is well controlled with these efforts in the institute to achieve carbon neutrality. Plantation Every year students along with the garden staff plant trees. Plantation Drives are organized by NSS. Due to this program over the years the campus has become lush and green. E-waste management E-waste generated is first reused in the campus itself and replaced with buy back policy. Apart from the above following activities are promoted to ensure green campus: • Sensor based Environmental monitoring system prepared by students: • Sensor based Automatic Street light • Beyond the campus environmental promotional activities(NSS) • Green, Environment and Energy Audits • Wheeling to Grid

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link
https://www.nrtec.in/wp-content/uploads/2021/08/4.Best-Practices.pdf

7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

INSTITUTIONAL DISTINCTIVENESS: Out of the thrust areas mentioned above the Institute has a distinction by establishing several Centres of Excellence (CoE) and Industry Collaborative Laboratories. The institute has established 4CoEs and the details are described below. CENTERS OF EXCELLENCE (CoE): Andhra Pradesh State Skill Development Corporation (APSSDC), Govt. of A.P. sanctioned a "CM's Skill Excellence Centre "to bridge the skill gap between the colleges and the industry requirement. This CoE is equipping students with the required competencies to suit industry needs expectations. 37 laptops were provided under this scheme. Students were trained in courses like Python, IOT, Revit structures, Auto CAD, PCB PLC, Embedded Systems etc.. APSSDC in collaboration with Dassault systems, setup a 3D-EXPERIENCE centre to make students industry ready in the field of Automotive, Aerospace Defence and shipbuilding. The center enhances the employability skills of engineering students by making them industry ready through skill enhancement and certification on the 3D-EXPERIENCE platform consisting of 3 modules-Catia, Simulia Delimia which are useful for 3D design, analysis simulation of objects. An Indo-European skilling Centre for Mechatronics Industrial Robotics lab was established on 2nd November, 2019 by APSSDC in collaboration with GC German Centre for engineering Management studies, Germany European Centre for Mechatronics APS GmBH Aachen to establish a framework for initiating innovation models. It consists of 3 modules- ARC 1.0,2.0 3.0. ECE, EEEME students of 85 members are undergone training on ARC Modules. Faculty members are sent to RWTH University, Aachen, Germany for training on ARC Modules. Microsoft Innovation Centre: The College has MOU with Microsoft Pvt Ltd for established Microsoft Innovation Centre. It has equipped with the Promotional material, Technical content and educational content curriculum. Microsoft provide the royalty free licence software like Microsoft Office 365, Microsoft Visual Studio, SQL Server, Windows server, etc. and to use the Microsoft trade mark solely as part of the Microsoft innovation centre organised Technical Training certification Programmes. Faculty are trained on Microsoft Azure Cloud Module. ICTACADEMY: ICT Academy is an initiative of the Government of India in collaboration with the state Governments and Industries. ICT Academy is a not-for-profit society, the first of its kind pioneer venture under the Public-Private-Partnership (PPP) model that endeavours to train the

higher education teachers and students thereby exercises on developing the next generation teachers and industry ready students. To bridge the Industry-Academia skill gap, and to develop the next generation teachers students. ICT Academy providing consultancy and training through industry specific research thereby creating a new generation of talent pool. IUCEE (Indo Universal Collaboration in Engineering Education): NEC has a consortium member of IUCEE in 2018. As a consortium member Faculty got a chance to attend a series of webinars to upgrade Technology and Teaching Learning Process Faculty Outcomes Total IPRs are 11 out of which 10 published and 2 are granted 6 Ph.Ds are awarded under our faculty Research papers published in the Journals and conferences are 85. 248 Faculty are completed MOOCs

Provide the weblink of the institution
https://www.nrtec.in/wp-content/uploads/2021/08/3.Institutional-Distinctiveness.pdf

8.Future Plans of Actions for Next Academic Year

• Planning to Improve Funded R and D projects and consultancy works from various industries/agencies/societies. • Planning to increase more number of MOUs with industries. • Increasing the number of journal and conference publications. • Creating awareness on intellectual property rights among faculty and motivating them to apply for patents. • Preparing documentation for NBA TIER I as per NBA guidelines. • Planning to participate in national ranking system conducted by Government and other reputed agencies. • Planning to apply for reorganization of JNTUK kakinada research center for MECH, ECE and CSE branches. • Planning to conduct awareness programs like workshops seminars on Innovation, Start-up and entrepreneurship through Intuition Innovation Council (IIC). • Planning to strengthen research and development by subscribing various International Journals. • Planning to organize more certificate courses, workshops, and short term courses. • Planning to increase the number participation in online certification courses such as SWAYAM NPTEL, MOOC'S Etc. • Organizing Campus Recruitment Training programs to the students to enhance their employability skills. • Introduction to offer Minor Degree along with major B.Tech Degree • Improving Industry – Institute interaction • Encouraging the departments to establish incubation centers • Planning to complete the construction of new floor in Block 3 and two floors of Boys hostel.