

### YEARLY STATUS REPORT - 2022-2023

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 its own campus?	Yes	
Phone no./Alternate phone no.	08647239903	
Mobile No:	9440757039	
Registered e-mail	principal@nrtec.ac.in	
Alternate e-mail	principal@nrtec.in	
• Address	kotappakonda road, yallamnda post	
• City/Town	Narasaraopet	
State/UT	Andhra Pradesh	
• Pin Code	522601	
2.Institutional status		
Affiliated / Constitution Colleges	Affiliated	
Type of Institution	Co-education	
• Location	Rural	
Financial Status	Self-financing	

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Name of the Affiliating University	JNTUK Kakinada
Name of the IQAC Coordinator	Dr B Venkata Siva
• Phone No.	08647239923
Alternate phone No.	08647239903
• Mobile	9692464540
• IQAC e-mail address	iqac@nrtec.in
Alternate e-mail address	mechhod@nrtec.in
3.Website address (Web link of the AQAR (Previous Academic Year)	https://www.nrtec.in/wp-content/uploads/2023/09/NAAC-AOAR-2021-22.pdf
4. Whether Academic Calendar prepared during the year?	Yes
• if yes, whether it is uploaded in the Institutional website Web link:	https://www.nrtec.in/academic- calendar/
5.Accreditation Details	1

Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	A	3.05	2015	03/03/2015	31/12/2021
Cycle 2	A+	3.29	2022	12/07/2022	11/07/2027

20/12/2012

### 6.Date of Establishment of IQAC

### 7.Provide the list of funds by Central / State Government UGC/CSIR/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.,

Institutional/Depa rtment /Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Nil	nil	nil	nil	nil

8.Whether composition of IQAC as per latest NAAC guidelines	Yes	
Upload latest notification of formation of IQAC	View File	

9.No. of IQAC meetings held during the year	4
<ul> <li>Were the minutes of IQAC meeting(s) and compliance to the decisions have been uploaded on the institutional website?</li> </ul>	Yes
• If No, please upload the minutes of the meeting(s) and Action Taken Report	No File Uploaded
10.Whether IQAC received funding from any of the funding agency to support its activities during the year?	No
• If yes, mention the amount	
11.Significant contributions made by IQAC duri	ing the current year (maximum five bullets)
Programs/Seminars conducted on OBE improvement in academics and admin	
Focused on improving the quality is periodical Academic Audit by inters	
Conducted 90+ seminars / workshops certification programs	, FDPs, Guest Lectures, training /
Renewed autonomous status for a per 2031-2032 and Received NBA (Tier-I Department	<del>-</del>
College received best rankings from	m Times Now, India Today, Career
360, the week survey	

Plan of Action	Achievements/Outcomes
It is proposed to apply for various project funding agencies.	Faculty from different departments sent 18 project proposals to DST-SERB under various schemes.
It is proposed to have MOUs with reputed organizations and industries.	1. Chairperson IQAC announced that NEC has done MoU with Entrepreneur of CSC on 08-07-2022. 2. Chairperson IQAC announced that NEC has done MoU with ExcelR Solutions on 30-07-2022. 3. Chairperson IQAC announced that NEC has done MoU with Indo-Euro Synchronization Pvt. Ltd-IES on 02-08-2022. 4. Chairperson IQAC announced that NEC has done MoU with Brainovision Solutions India Pvt Ltd on 08-08-2022. 5. Chairperson IQAC announced that NEC has done MoU with JOCIL LIMITED on 27-10-2022. 6. Chairperson IQAC announced that The Institution of Engineers (India) student chapter was established in Department of Mechanical engineering on 17-10-2022. 7. Chairperson IQAC announced that NEC has done MoU with Vision Overseas Education Consultancy 07-01-2023. 8. Chairperson IQAC announced that NEC has done MoU with Vision Overseas Education Consultancy on 24-02-2023. 9. Chairperson IQAC announced that NEC has done MoU with Andhra Pradesh Innovation Society on 3rd March, 2023. 10. Chairperson IQAC announced that NEC has done MoU with Kumar Pumps on 20-03-2023. 11. Chairperson IQAC announced that NEC has done MoU with Kumar Pumps on 20-03-2023. 11. Chairperson IQAC announced that NEC has done MoU with Kumar Pumps on 20-03-2023. 11. Skill Hub on 2-05-2023. 12.

	Chairperson IQAC announced that NEC has done MoU with celonis on 27-04-2023. 13. Chairperson IQAC announced that NEC has done MoU with Ve-Educare on 17-04-2023.
It is proposed to have technical enhancement programs for students and faculty.	Departments have conducted 90+ seminars / workshops, FDPs, Guest Lectures, training / certification programs
It is proposed to conduct International Conference by department during the month of July and August 2022.	EEE department conducted International Conferences during 22nd & 23rd July, 2022, Mechanical& ECE departments conducted International Conferences during 29th & 30th July, 2022 and Civil Engineering department conducted International Conferences during 06th & 07th August 2022
It is proposed to have 9th CAC meeting in the month of November 2022.	Chairperson IQAC informed that 9th CAC meeting was successfully conducted on 5-11-2022
It is proposed to have 17th GOB meeting in the month of December 2022.	Chairperson IQAC informed that 17th GOB meeting was successfully conducted on 10-12-2022.
It is proposed to have ISO inspection in the month of December 2023	Chairperson IQAC informed that ISO team external visit was successfully completed on 3rd December 2022 and college was ISO certified till 28th September 2023
IIC cell has proposed to conduct national level Ideathon-2022	IIC cell has conducted National level Ideathon -2022 on 16-12-2022
It is proposed to have 18th GOB in the month of March 2023	Chairperson IQAC informed that 18th GOB meeting was successfully conducted on 25/03/2023.
It is proposed that CE, ME, and EEE departments to prepare NBA	Chairperson IQAC announced that pre qualifier for NBA submitted

pre qualifier	by CE, ME, EEE Branches on 24/02/2023.
NIRF coordinator to prepare necessary documents for submission.	Chairperson IQAC informed that NEC has Submitted NIRF Data on 06/01/2023.
It is proposed to conduct International Conferences by departments	IQAC coordinator informed that the ECE department conducted International Conference during 24th & 25th March, 2023 and CSE department conducted International Conference during 17th & 18th March 2023 chairman of IQAC appreciated the departments for successfully completing the conferences. IQAC coordinator informed that the Civil Engineering Department has organized 3rd International conference on "ICETCE 2K23" during 23-6-2023 to 24-6-2023, Department of Mechanical Engineering has organized third International Conference On "Emerging Trends in Mechanical Engineering and Industrial Automation, NEC -ICETMEIA2K23" during 9th & 10th June 2023 and Dept. of B.S&H. organized a two day International virtual conference on perspective from Basic sciences and humanities from 26th to 27th May 2023. Chairmen of IQAC appreciated the departments for successfully completing the conferences.
It is proposed that CE, ME, and EEE departments to submit NBA SAR	Chairperson IQAC announced that Civil, Mechanical and EEE departments were submitted NBA- SAR document on 25-04-2023.
It is proposed to apply for Rankings like Career 360, Week, India today etc	1. Chairperson IQAC announced that NEC secured 7th rank in Andhra Pradesh in India Today Magazine survey in July-2023. 2.

	Chairperson IQAC announced that NEC got AAA+ grade in Andhra Pradesh in CAREERS360 survey in April-2023 3. Chairperson IQAC announced that NEC has secured 4th Rank in Andhra Pradesh from Times Engineering Institutes ranking survey in June-2023. 4. Chairperson IQAC announced that NEC has secured 14th Rank among best Engineering College in Andhra Pradesh from The Week survey in June-2023.
It is proposed to Alumni meet in the month of April 2023	Alumni meet 2023 was conducted at hotel Sitara Grand, Miyapur, Hyderabad, organized by NEC ALUMNI ASSOCIATION (NAA) on 30-04-2023. Chief Guest: Srikanth Sunmpudi, Head TCS-HYd & Richard King, Chatragadda region Head, Academic interface program TCS -Hyd.

### 13. Whether the AQAR was placed before statutory body?

Yes

• Name of the statutory body

Name		Date of meeting(s)
Governing B	ody	23/12/2023

### 14. Whether institutional data submitted to AISHE

Year	Date of Submission
2022-23	24/02/2024

### 15. Multidisciplinary / interdisciplinary

The Vision of National Education Policy, to provide high quality education to develop human resources in our nation as global citizens, is well taken by Narasaraopeta Engineering College (NEC). A discussion among the faculty members were initiated on the key principles of NEP such as diversity for all curriculum and pedagogy

with technological innovations in teaching and learning, encouraging logical decision making and innovation, critical thinking and creativity. In view of the NEP, NEC has initiated new interdisciplinary centres integrating different departments in addition to the existing inter/multidisciplinary research and academics. Academic programmes are redesigned to include Multidisciplinary /Interdisciplinary courses as electives. All programmes are designed in such a way that students get maximum flexibility to choose elective courses offered by other Departments. It can be said that the NEC is proactively working towards implementation of the suggestions given in the NEP. The fundamental aim of the National Educational Policy (NEP-2020) for higher education is to stop higher education fragmentation by transforming these institutions into massive interdisciplinary universities, colleges, and higher education institutions as Knowledge Hubs. The purpose of NEC, according to NEP standards, is to be accredited by the National Assessment Accreditation Board (NAAC) with a satisfactory grade and to strive for autonomy. In addition, the college's curriculum can contain multidisciplinary programmes. Our Institution, as part of its commitment to holistic and multidisciplinary education, has launched a value based course on Ethics for B.Tech, MBA, and MCA students, as well as life-skills and yoga sessions for all students on campus. Additionally, our students participate in community outreach initiatives such as organising health clinics, blood donation camp, and counselling, among other things. Leadership and effective governance and Leadership for Higher Education Institution: A) NEC is a self-finance private HEI affiliated to JNTUK, Kakinada and it aims to become independent self governing Institution pursuing innovation and excellence through accreditation and autonomy. B) NEC has astrategic Institutional development plan which is inalignment with the vision of NEP.

#### **16.**Academic bank of credits (ABC):

Academic Bank of Credits (ABC): Transforming Education The Academic Bank of Credits is a ground breaking initiative jointly undertaken by the Ministry of Electronics and Information Technology and the Ministry of Education, Government of India. This electronic platform meticulously records the academic achievements of each student, benefiting various stakeholders, including: 1. Certificate Issuers (e.g., Colleges) 2. Certificate Receivers (e.g., Students) 3. Certificate Verifiers (e.g., Companies conducting credential checks for employment purposes) As a pivotal component of the National Education Policy (NEP-2020), academic institutions are encouraged to implement the ABC system. This innovative approach not only facilitates the documentation of academic accomplishments but

also supports the broader goals of NEP-2020, such as enabling outstanding students to take a gap year for entrepreneurial pursuits. One of the notable features of the Academic Bank of Credits is its alignment with the multiple entry and multiple exit scheme of NEP-2020. This flexibility allows students to exit a course after the 1st, 2nd, or 3rd year with an Undergraduate Certificate, Diploma, or Bachelor of Science Certificate, respectively. Narasaraopeta Engineering College's Proactive Implementation: Narasaraopeta Engineering College has taken a pioneering step by initiating the implementation of the Academic Bank of Credits. The system, represented by ABC, serves as a centralized repository where students' earned academic credits are securely stored. This repository empowers students to accumulate credits from diverse courses and programs, facilitating their transfer or utilization towards various degrees or educational pathways. In line with this initiative, Narasaraopeta Engineering College has successfully registered on the official platforms, https://nad.digilocker.gov.in/ and https://www.abc.gov.in/, obtaining the necessary credentials. As a follow-up step, the college has efficiently uploaded student data for the bulk creation of ABC IDs. Currently, the college is in the process of uploading result data in CSV format, a crucial step that enables students to receive digitally signed electronic certificates. This proactive approach by Narasaraopeta Engineering College underscores its commitment to embracing cutting-edge solutions in education and empowering students with secure and accessible records of their academic journey. The implementation of the Academic Bank of Credits marks a significant stride towards a more flexible and studentcentric education system. We have also implemented online courses through National schemes like SWAYAM, NPTEL, Coursera, Udemy etc, and is considered for credits earned against elective courses.

### 17.Skill development:

In comparison to other nations, the outcome of the 12th five-year plan predicted that just 5% of Indian workers in the 19-24 age bracket got formal vocational education. The extension of vocational education in India is critical for hastening skill development. The NEP 2020 foreshadows a possibly explosive increase in skill development in the country through vocational education. All Higher Educational / Educational Institutions were expected to provide vocational education as part of their curriculum. Over the next few years, vocational education will be gradually integrated into schools and universities. NEC would walk on with an aim to ensure young students empowerment and cater to the engineering demands, NEC has a specific plan to follow: 1. In R20 regulation five skill

courses are introduced in all branches of engineering, with focus on social inclusion and inclusive education 2. In R19 regulation also skill course is introduced in all branches of engineering 3. To develop workplacerelated skills and attitudes through internship and on-the job training 4. To focus on inclusion of good practices and innovations in teaching-learning 5. Facilitating horizontal mobility of vocational students 6. To collaborate with industries for imparting practical skills and hands-on experience and design industry-relevant courses 7. To introduce new learning methods and digital tools, like Massive Open Online Courses (MOOC) and flipped classroom for training and empowering teachers 8. Developing and implementing a holistic assessment and evaluation system. 9. To measure the achievements of learning outcomes through various tools and methods as defined by outcome-based education system for 360-degree assessment and evaluation of students. NEC believes in giving equal dignity of people pursuing vocational courses and contribute in developing the workforce of a country.

### 18.Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course)

The promotion of Indian arts and culture is beneficial not only to the country but also to individuals. Because engineering is a professional course, using English as a medium of communication and conducting course work in all engineering programmes is required. The institution, on the other hand, commemorates significant dates and hosts activities in regional languages to instil a sense of regional pride. Republic Day and Independence Day are two examples of celebrations where students are addressed in their native languages. Engineers' Day and Teacher's Day are two of the most important days of the year. Women's Day is prominent day that are commemorated with cultural events. Sankranthi Sambaralu -Rangoli competition, Vinayaka Chavithi - Vinayaka idols preparation are the festivals that promote awareness of Indian National and Regional languages, as well as the culture associated with them. National commemorative days, such as Constitution Day and Yoga Day are also observed.

### 19. Focus on Outcome based education (OBE): Focus on Outcome based education (OBE):

Narasaraopeta Engineering College has adopted outcome-based education in accordance with the standards of the National Board of Accreditation with clearly stated Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs). All courses are designed with outcomes centred on cognitive abilities namely Remembering, Understanding, Applying, Analysing, Evaluating and Creating. Apart from the domain specific skills, learning

outcomes at all levels ensure social responsiveness and ethics, as well as entrepreneurial skills so that student contribute proactively to economic, environmental and social wellbeing of the nation. The Course Outcomes (COs) are also aligned to the PO-PSO philosophy. All course syllabus have been designed with due consideration to macro-economic and social needs at large so as to apply the spirit of NEP. B. Tech. programmes of NEC was accredited by NBA in the year 2009, 2013, 2017, 2022, 2023 and is implementing OBE (URL:1.https://www.nrtec.in/outcomebasededucation-obe/ 2.https://www.nrtec.in/department-ofece-co-poattainment/). Students are assessed as per OBE attainment model. Community participation and service, environmental education, and value-based education are all part of an innovative curriculum that includes credit-based courses and projects. Lab exercises and mini projects with a focus on community engagement are included in the curriculum. Professional Ethics & Human Values is a value-based education course that is introduced at the I B.Tech I Semester level. Environmental Sciences is a course that looks at all areas of environmental sustainability. Thus, NEC has various community outreach initiatives such as Student Club, National Service Scheme (NSS) which caters extension activity to community.

#### 20.Distance education/online education:

Due to Covid -19 pandemic, educational institutions in the country has increasingly involved in using the digital platforms for engaging classes, conducting conferences and meetings. Keeping aside the negative impact of lack of face to face learning, online education has broken the geographical barriers creating interaction of experts and students from distant geographies. Opening up of the economy including that of educational institutions has paved the way of adopting hybrid mode of education combining online and offline resources. This can be considered as the new normal, which is envisaged in New Education Policy as well. Due to the experience gained during the closure period of Covid-19, access to online resources by educators and students will not be a constraint anymore. Students are encouraged to do MOOC courses at NEC which promotes online education. NEC has successfully imparted all its course content delivery in online mode during the Covid-19 pandemic with tools such as Zoom, MS Teams and Google class room etc.

Extended Profile	
1.Programme	
1.1	624

File Description	Documents	
	Documents	View File
Data Template		<u>view Pile</u>
2.Student		
2.1		1041
Number of students during the year		
File Description	Documents	
Data Template		View File
2.2		903
Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year		
File Description	Documents	
Data Template		<u>View File</u>
Data Template 2.3		View File 943
	e year	
2.3	e year  Documents	
2.3  Number of outgoing/ final year students during the		
2.3  Number of outgoing/ final year students during the File Description		943
2.3  Number of outgoing/ final year students during the  File Description  Data Template		943
2.3  Number of outgoing/ final year students during the File Description  Data Template  3.Academic		943  View File
2.3  Number of outgoing/ final year students during the File Description  Data Template  3.Academic  3.1		943  View File
2.3  Number of outgoing/ final year students during the File Description  Data Template  3.Academic  3.1  Number of full time teachers during the year	Documents	943  View File
2.3  Number of outgoing/ final year students during the File Description  Data Template  3.Academic  3.1  Number of full time teachers during the year  File Description	Documents	943  View File  292

File Description	Documents
Data Template	<u>View File</u>
4.Institution	
4.1	73
Total number of Classrooms and Seminar halls	
4.2	1233.55
Total expenditure excluding salary during the year (INR in lakhs)	
4.3	1303
Total number of computers on campus for academi	c purposes

### Part B

#### **CURRICULAR ASPECTS**

### 1.1 - Curricular Planning and Implementation

1.1.1 - The Institution ensures effective curriculum delivery through a well planned and documented process

The college follows the curriculum prescribed by AICTE, APSCHE and University through its Boards of Studies. The academic calendar is prepared at the college level incorporating curricular, cocurricular and extra-curricular events in alignment with the University academic calendar. The library is informed of required books for the forthcoming academic year. Courses are allocated to the faculty members. Class-wise time tables also include time slots for Training, Seminars, mentoring, Sports & library. Individual faculty time tables are prepared reflecting his complete workload. Each faculty member prepares Course Information Sheet and Lesson Plan including teaching and learning methodology. Each faculty member prepares the course file. Content delivery new and innovative teaching techniques, in addition to the traditional lecture method are adopted to deliver the content. Periodical review on the coverage of syllabus and regularity of the students is taken by the HOD/Dean Academic followed by principal. Suggestions are invited for the improvement of the teaching-learning process through regular meetings with Class Representatives (CRs). The college collects the feedback from the faculty, students, alumni and parents. The institute introduced a CBCS and self-learning courses using MOOC's platform through SWAYAM NPTEL, etc. Students are participating in an internship and value-added courses.

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File Description	Documents
Upload relevant supporting document	No File Uploaded
Link for Additional information	https://www.nrtec.in/wp- content/uploads/2023/12/1.1.1.pdf

### 1.1.2 - The institution adheres to the academic calendar including for the conduct of Continuous Internal Evaluation (CIE)

College exam section notifies an academic calendar which contains the date of commencement, last working day of the semester and dates for end examinations.

Every department prepares its calendar by following academic calendar. Institute calendar comprises number of working days, holidays, Continuous Internal Evaluation (CIE) dates. The department calendar comprises guest lectures, workshops, industrial visits, etc.

The academic calendar help faculty members to plan their syllabus coverage under the supervision of Department Heads.

Assignments, quizzes, and descriptive tests are part of the Continuous Internal Evaluation of students. The course instructors prepare IA question papers based on the revised Bloom's Taxonomy, reviewed by the module coordinator and approved by the department Head. The internal assessment test are conducted as per the schedule. The evaluation of answer scripts, and calculation of CO-PO/PSO attainment are carried out by Course Instructors. Continuous evaluation and assessments are done for laboratory course, project work, seminars, and internships at the end of the semester as per the rubrics.

The Principal, frequently reviews the semester's progress and provides suggestions. In case of revision of academic calendar the Institute incorporates the necessary changes accordingly.

File Description	Documents
Upload relevant supporting documents	No File Uploaded
Link for Additional information	https://www.nrtec.in/wp- content/uploads/2023/12/1.1.2.pdf

1.1.3 - Teachers of the Institution participate in A. All of the above following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the year.

Academic council/BoS of Affiliating University Setting of question papers for UG/PG programs Design and Development of Curriculum for Add on/ certificate/ Diploma Courses Assessment /evaluation process of the

File Description	Documents
Details of participation of teachers in various bodies/activities provided as a response to the metric	<u>View File</u>
Any additional information	No File Uploaded

### 1.2 - Academic Flexibility

affiliating University

### 1.2.1 - Number of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented

### 1.2.1.1 - Number of Programmes in which CBCS/ Elective course system implemented

19

File Description	Documents
Any additional information	<u>View File</u>
Minutes of relevant Academic Council/ BOS meetings	<u>View File</u>
Institutional data in prescribed format (Data Template)	<u>View File</u>

### 1.2.2 - Number of Add on /Certificate programs offered during the year

### 1.2.2.1 - How many Add on /Certificate programs are added during the year. Data requirement for year: (As per Data Template)

12

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File Description	Documents
Any additional information	No File Uploaded
Brochure or any other document relating to Add on /Certificate programs	<u>View File</u>
List of Add on /Certificate programs (Data Template )	<u>View File</u>

### 1.2.3 - Number of students enrolled in Certificate/ Add-on programs as against the total number of students during the year

1418

### 1.2.3.1 - Number of students enrolled in subject related Certificate or Add-on programs during the year

### 1418

File Description	Documents
Any additional information	<u>View File</u>
Details of the students enrolled in Subjects related to certificate/Add-on programs	<u>View File</u>

#### 1.3 - Curriculum Enrichment

1.3.1 - Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

#### HumanValuesandProfessionalEthics:

Human values and professional ethics are addressed through the course "Constitution of India, Professional Ethics & human values and Essence of Indian Traditional & Knowledge "offered to engineering programme. The Students of First Year UG will undergo Student Induction Program (SIP) in which cross-cutting issues like Human Values and Professional Ethics are addressed.

### EnvironmentandSustainability:

TheissuesofEnvironmentandSustainabilityareaddressedthroughthecourse" Environmental Studies" offered to engineering students in the IIndand IIIrdsemester. Through thiscourse, students are sensitized to ecological and environmental issues connected with

land, air, andwater, withawarenessonsustainabledevelopment.

#### Genderequity:

NEC, imparting quality education to shape global leaders has firm belief ingender equitywhich is indispensable to ensuresustainable development of a country. Institute has initiatedpromising measures to sensitize and promote gender equity amongst the stakeholders throughcurricular and co-curricular activities.

TheNSS activities, Swachh Bharath Abhiyan, blood donation and health awareness camps conducted by Youth Red Cross Unitplay vital role in promoting inclusive environment towards regional and socioeconomic diversities amongstudents making a Positive difference and shaping them into whole some professionals.

File Description	Documents
Any additional information	No File Uploaded
Upload the list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum	<u>View File</u>

### 1.3.2 - Number of courses that include experiential learning through project work/field work/internship during the year

2719

File Description	Documents
Any additional information	No File Uploaded
Programme / Curriculum/ Syllabus of the courses	<u>View File</u>
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	<u>View File</u>
MoU's with relevant organizations for these courses, if any	<u>View File</u>
Number of courses that include experiential learning through project work/field work/internship (Data Template)	<u>View File</u>

### 1.3.3 - Number of students undertaking project work/field work/ internships

### 3891

File Description	Documents
Any additional information	<u>View File</u>
List of programmes and number of students undertaking project work/field work//internships (Data Template)	<u>View File</u>

### 1.4 - Feedback System

# 1.4.1 - Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders Students Teachers Employers Alumni

### A. All of the above

File Description	Documents
URL for stakeholder feedback report	<u>View File</u>
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	<u>View File</u>
Any additional information(Upload)	No File Uploaded

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### 1.4.2 - Feedback process of the Institution may A. Feedback collected, analyzed be classified as follows

and action taken and feedback available on website

File Description	Documents
Upload any additional information	No File Uploaded
URL for feedback report	https://www.nrtec.in/student-feedback- analysis-atr/

#### TEACHING-LEARNING AND EVALUATION

#### 2.1 - Student Enrollment and Profile

### 2.1.1 - Enrolment Number Number of students admitted during the year

### 2.1.1.1 - Number of sanctioned seats during the year

#### 1434

File Description	Documents
Any additional information	<u>View File</u>
Institutional data in prescribed format	<u>View File</u>

### 2.1.2 - Number of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy during the year (exclusive of supernumerary seats)

### 2.1.2.1 - Number of actual students admitted from the reserved categories during the year

903

File Description	Documents
Any additional information	<u>View File</u>
Number of seats filled against seats reserved (Data Template)	<u>View File</u>

### 2.2 - Catering to Student Diversity

2.2.1 - The institution assesses the learning levels of the students and organizes special Programmes for advanced learners and slow learners

Narasaraopeta Engineering College (NEC) provides quality education with a structured curriculum, as well as a solid foundation for the

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students' nourishment and overall development by strengthening their physical and intellectual abilities.

#### Induction/Orientation programme:

As a part of introducing the institute and the teaching staff, the Management will arrange an induction programme for the newly joined 1styear students of Engineering. This orientation programme is intended to assist students in becoming acclimated to academic life in a higher education institution. Detailed orientation classes are conducted to bridge the gap between intermediate education and the foundation required for professional education.

#### Slow Learners

The students are classified into two group's i.e., slow learners and Advanced learners. Students are classified as Advanced or Slow learners based on theirIntermediate marks, and EAMCET rankings. Students' learning abilities are assessed in subsequent semesters through midterm exams, assignments, classroom interactions, and mentoring. Students are classified as advanced or slow learners based on their performance in all of these areas.

#### Advanced Learners

The students who distinguish themselves in academics by securing more than 70% marks come under the group of the Advanced Learners. They are also encouraged to register for certain courses for their academic and professional exposure.

File Description	Documents
Link for additional Information	Nil
Upload any additional information	<u>View File</u>

### 2.2.2 - Student- Full time teacher ratio (Data for the latest completed academic year)

Number of Students	Number of Teachers
3995	292

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File Description	Documents
Any additional information	<u>View File</u>

### 2.3 - Teaching- Learning Process

2.3.1 - Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

The teaching-learning process is the main objective and strength of the institute. Modern methods of teaching are adopted which ensure student-centric and rewarding experience. Experiential learning, participatory learning and problem-solving methodologies are well adopted to ensure the overall development of students.

#### 1) Pedagogical initiatives

Pedagogical initiates are adopted to improve the quality of the teaching-learning process. The following teaching-learning methods are used in addition to 'CHALK & TALK' and 'PPT' presentations.

- ·Experiential Learning
- Problem based learning
- ·Learning Management System
- Project based Learning

#### 2. E-Learning

E-learning is a structured course or learning experience that is delivered electronically and can include performance support content. The purpose of e-learningis to enable people to learn for personal fulfilment..

- Moodle and self-learning
- 3. Collaborative learning
  - The college has several student chapters, including IEEE, IETE

Student's Forum (ISF), IE, ISTE and CSI. All the departments frequently arrange guest lectures by experts from industry, academia, and research institutions.

- •Industrial visits are arranged for the students to learn through interaction and observation of working methods.
- •In every semester workshops/seminars/guest lectures are arranged for the students.
- •Programs are conducted in collaboration with reputed organizations.

File Description	Documents
Upload any additional information	<u>View File</u>
Link for additional information	<u>Nil</u>

2.3.2 - Teachers use ICT enabled tools for effective teaching-learning process. Write description in maximum of 200 words

Narasaraopeta Engineering College (NEC) being a technical campus, encourages intensive use of ICT-enabled tools including online resources for effective teaching and learning process.

The following ICT tools are used by the Institute:

- 1. Projectors- Projectors are available in Classrooms
- 2. Desktop and Laptops are used for teaching
- 3. The laboratories, Seminar Halls, Auditorium, the conference Room and other rooms are well equipped with ICT facilities
- 4. Virtual labs are also used to conduct labs through simulations.
- 5. Learning abilities of students are enhanced with NPTEL, Guest Lectures, and Webinars.
- 6. Digital library resourcesincludeDELNET, NPTELandIEEE.

Use of ICT by Faculty:

- Online quiz examinations are conducted through Moodle Software.
- Some faculty have developed e-tutorials for specific topics

- which helped in making the students understand the concepts very clearly. These are YouTube based which enable the students to replay as and when required.
- The blended Teaching Learning Process has enabled students learning effectively beyond class hours facilitating them inthe improvement of academic performance and pass percentage.
- The overall use of ICT tools has greatly improved the teaching learning process resulting in improved academic performance of all the students.

File Description	Documents
Upload any additional information	<u>View File</u>
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	<u>Nil</u>

### 2.3.3 - Ratio of mentor to students for academic and other related issues (Data for the latest completed academic year )

#### 2.3.3.1 - Number of mentors

228

File Description	Documents
Upload, number of students enrolled and full time teachers on roll.	No File Uploaded
Circulars pertaining to assigning mentors to mentees	<u>View File</u>
mentor/mentee ratio	<u>View File</u>

### 2.4 - Teacher Profile and Quality

### 2.4.1 - Number of full time teachers against sanctioned posts during the year

292

File Description	Documents
Full time teachers and sanctioned posts for year (Data Template)	<u>View File</u>
Any additional information	No File Uploaded
List of the faculty members authenticated by the Head of HEI	<u>View File</u>

### 2.4.2 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.B Superspeciality / D.Sc. / D.Litt. during the year (consider only highest degree for count)

### 2.4.2.1 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.C Superspeciality / D.Sc. / D.Litt. during the year

76

File Description	Documents
Any additional information	<u>View File</u>
List of number of full time teachers with Ph. D. / D.M. / M.Ch./ D.N.B Super specialty / D.Sc. / D.Litt. and number of full time teachers for year(Data Template)	<u>View File</u>

### 2.4.3 - Number of years of teaching experience of full time teachers in the same institution (Data for the latest completed academic year)

### 2.4.3.1 - Total experience of full-time teachers

6

File Description	Documents
Any additional information	<u>View File</u>
List of Teachers including their PAN, designation, dept. and experience details(Data Template)	<u>View File</u>

#### 2.5 - Evaluation Process and Reforms

2.5.1 - Mechanism of internal assessment is transparent and robust in terms of frequency and mode. Write description within 200 words.

The college has transparent and robust evaluation process in terms of frequency of the examsconducted. In order to ensure transparency

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in internal assessment, the internal assessment is completed within time and the same is communicated with the students. In addition to the regular internal examination the Continuous evaluation is made through Group Discussions, Field Visit / Field Work and Seminars Presentation.

Students are encouraged to deliver the seminars of the concerned subject. Topics are given by their teachers to the students to prepare for power point presentation. For transparent and robust for internal assessment, the following mechanism implemented through internal examination committee of the individual departments.

- Question Paper Setting.
- Conduct of Examination
- Result declaration
- o Interaction with students regarding their internal assessment

The method of internal assessment helps the teachers to evaluate the students more appropriately. It has created the interest among the students to take active participation in various co-curricular and extra-curricular activities for their overall personality development. The seminar presentation improves the communication skills of the students which is very essential to face the interviews. In this way mechanism of internal assessment is transparent and robust.

File Description	Documents
Any additional information	<u>View File</u>
Link for additional information	Nil

### 2.5.2 - Mechanism to deal with internal examination related grievances is transparent, time-bound and efficient

The institute has devised an efficient mechanism to deal with examination related grievances. The college follows strictly the guidelines and rules issued by the affiliating university while conducting internals examinations.

Each department has an examination committee, comprising of a senior faculty member as convener and other teaching staff as members, is constituted to handle the issues regarding evaluation process. The teacher distributes evaluated answer scripts to students, and any clarifications or grievances are addressed by the teacher. The

internal marks are displayed on the notice board. If any discrepancy like mistakes in question paper, mark allocation, correction is noticed by thestudents, the concerned teacher will resolve the discrepancy, and the necessary corrections will be made. If any student is not satisfied with the marks awarded even after resolved by the teacher, then he may represent the same to the HOD concerned. All such representations are taken positively and are reassessed.

Parents are informed about their ward's performance through mentors. Students are counselled by the faculty, and remedial classes are conducted for students who have got low score. Re test for the internal assessment are conducted for Students who were absent for internal exams due to genuine reason following the college examination guidelines.

File Description	Documents
Any additional information	<u>View File</u>
Link for additional information	27.1
	<u>Nil</u>

### 2.6 - Student Performance and Learning Outcomes

2.6.1 - Teachers and students are aware of the stated Programme and course outcomes of the Programmes offered by the institution.

Outcome-Based Education (OBE) is an important demonstration tool for student-centred instruction that focuses on measuring student performance through outcomes. Quality assurance and improvement processes are about determining whether the set educational objectives meet a general standard of quality. Course Outcomes are the statements indicating knowledge and skills that the student is expected to acquire at the end of a course. Program outcomes represent the knowledge, skills, and attitudes the students should have at the end of the program.

In compliance with the objectives of Outcome-Based Education (OBE), the Program Outcomes (POS), Program Specific Outcomes (PSOs), and Course Outcomes (COs) are framed by the department offering the concerned program after consultation with all faculty and the stakeholders. The Course outcomes framed for each course are displayed through various means as given below.

- College Website
- Syllabus books
- Classrooms

- Laboratories and laboratory manual
- Meetings/ Interactions with employers
- Parent meet
- Faculty meetings
- Alumni meetings
- Professional Body meetings
- Library

While addressing the student's HODs create awareness on POs, PSOs, and COs. The faculty members also inform the students and create awareness on the attainment of the same. The COs of the programme are also made available in the college website.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for Additional information	Nil
Upload COs for all courses (exemplars from Glossary)	<u>View File</u>

### 2.6.2 - Attainment of Programme outcomes and course outcomes are evaluated by the institution.

The process of attainment of COs, POs, and PSOs starts from writing appropriate COs for each course of the program from the first year to the fourth year in a four-year engineering degree program.

The course outcomes are written by the respective faculty member using action verbs of learning levels suggested by Bloom and Anderson. Then, a correlation is established between COs and POs on a scale of 1 to 3, 1 being the slight (low), 2 being moderate (medium) and 3 being substantial (high). A mapping matrix is prepared in this regard for every course in the program including the elective subjects.

The CO statements are defined by considering the course content covered in each module of a course. For every course, there are maybe 5 or 6 COs. The keywords used to define COs are based on Bloom's Taxonomy

Direct attainment displays the student's knowledge and skills from their performance. It can be determined from the performance of the students in all the relevant assessment instruments like internal

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assessments, assignments, quizzes, and final examinations.

Indirect methods access opinions or thoughts about the graduate's knowledge or skills.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional information	<u>Nil</u>

### 2.6.3 - Pass percentage of Students during the year

### 2.6.3.1 - Total number of final year students who passed the university examination during the year

943

File Description	Documents
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	<u>View File</u>
Upload any additional information	<u>View File</u>
Paste link for the annual report	Nil

### 2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire) (results and details need to be provided as a weblink)

https://www.nrtec.in/wp-content/uploads/2023/12/2.7.1.pdf

### RESEARCH, INNOVATIONS AND EXTENSION

- 3.1 Resource Mobilization for Research
- 3.1.1 Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)
- 3.1.1.1 Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)

19.40

File Description	Documents
Any additional information	No File Uploaded
e-copies of the grant award letters for sponsored research projects /endowments	<u>View File</u>
List of endowments / projects with details of grants(Data Template)	<u>View File</u>

### 3.1.2 - Number of departments having Research projects funded by government and non government agencies during the year

### 3.1.2.1 - Number of departments having Research projects funded by government and non-government agencies during the year

3

File Description	Documents
List of research projects and funding details (Data Template)	<u>View File</u>
Any additional information	No File Uploaded
Supporting document from Funding Agency	<u>View File</u>
Paste link to funding agency website	Nil

### 3.1.3 - Number of Seminars/conferences/workshops conducted by the institution during the year

### 3.1.3.1 - Total number of Seminars/conferences/workshops conducted by the institution during the year

49

File Description	Documents
Report of the event	<u>View File</u>
Any additional information	No File Uploaded
List of workshops/seminars during last 5 years (Data Template)	<u>View File</u>

### 3.2 - Research Publications and Awards

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### 3.2.1 - Number of papers published per teacher in the Journals notified on UGC website during the year

### 3.2.1.1 - Number of research papers in the Journals notified on UGC website during the year

#### 133

File Description	Documents
Any additional information	No File Uploaded
List of research papers by title, author, department, name and year of publication (Data Template)	<u>View File</u>

### 3.2.2 - Number of books and chapters in edited volumes/books published and papers published in national/international conference proceedings per teacher during the year

### 3.2.2.1 - Total number of books and chapters in edited volumes/books published and papers in national/international conference proceedings during the year

#### 293

File Description	Documents
Any additional information	<u>View File</u>
List books and chapters edited volumes/ books published (Data Template)	<u>View File</u>

#### 3.3 - Extension Activities

3.3.1 - Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the year

Narasaraopeta Engineering College was allotted a National Service Scheme (NSS) Unit in 2002 by Jawaharlal Nehru Technological University, Kakinada with 100 students enrolled as NSS Volunteers. The motto of NSS is "Not Me But You "as stated by Swami Vivekananda. It means service to mankind is service to god. Imparting such values and attitude into the minds of students is the main aim of organization. Trusting in this, the institute carries out a number of extension activities in the neighborhood community. Our NSS Unit organized several service oriented activities at University level and state level since its inception.

Extension activities in the neighborhood community during the accreditation period:

Clean and Green Programs like SwatchBharath and plantation was conducted at Yallamanda, Guravayapalem and Kesanupalli the nearby villages and our NSS volunteers explained the importance of cleanliness and its impact on health. Implementing several Chlorination Programs in the village and explained the importance of hygiene to protect the health.

File Description	Documents
Paste link for additional information	<u>Nil</u>
Upload any additional information	<u>View File</u>

- 3.3.2 Number of awards and recognitions received for extension activities from government / government recognized bodies during the year
- 3.3.2.1 Total number of awards and recognition received for extension activities from Government/government recognized bodies during the year

3

File Description	Documents
Any additional information	No File Uploaded
Number of awards for extension activities in last 5 year(Data Template)	<u>View File</u>
e-copy of the award letters	<u>View File</u>

- 3.3.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organized in collaboration with industry, community and NGOs ) during the year
- 3.3.3.1 Number of extension and outreach Programs conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the year

31

File Description	Documents
Reports of the event organized	<u>View File</u>
Any additional information	<u>View File</u>
Number of extension and outreach Programmes conducted with industry, community etc for the last year (Data Template)	<u>View File</u>

### 3.3.4 - Number of students participating in extension activities at 3.3.3. above during the year

## 3.3.4.1 - Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations through NSS/NCC/ Red Cross/ YRC etc., during the year

4378

File Description	Documents
Report of the event	<u>View File</u>
Any additional information	No File Uploaded
Number of students participating in extension activities with Govt. or NGO etc (Data Template)	<u>View File</u>

#### 3.4 - Collaboration

### 3.4.1 - The Institution has several collaborations/linkages for Faculty exchange, Student exchange, Internship, Field trip, On-the-job training, research etc during the year

30

File Description	Documents
e-copies of linkage related Document	<u>View File</u>
Details of linkages with institutions/industries for internship (Data Template)	<u>View File</u>
Any additional information	No File Uploaded

- 3.4.2 Number of functional MoUs with national and international institutions, universities, industries, corporate houses etc. during the year
- 3.4.2.1 Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. during the year

File Description	Documents
e-Copies of the MoUs with institution./ industry/corporate houses	<u>View File</u>
Any additional information	No File Uploaded
Details of functional MoUs with institutions of national, international importance, other universities etc during the year	<u>View File</u>

#### INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 - Physical Facilities

4.1.1 - The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

The institution has a total Built-uparea of 31,362 square meters. There are adequate facilities for teaching and learning. Separate Boys and Girls hostels are maintaining. There are fully equipped seminar halls with a good public address system, Wi-Fi, and different seating capacities for conducting seminars/workshops/FDPs and guest lectures. The institution has research centers to caterthe needs of research scholars.

CAMU software is implemented for student attendance, marks and activities in autonomous exam section Learning management system (MOODLE) software is used for conducting online exams and for uploading teaching learning material. Kohasoftware is used for library automation. Sonic Firewall is using for protection and security of information software.

For academic purpose the institution has provided1303computers for3995students. The campus has free Wi-Fi with bandwidth of 1GBPS. Many of the class rooms and seminar halls have LCDs and Wi-Fi as ICT facilities. For uninterrupted power supply, two generator and 21 UPS are available.

The institute has established several cells to create an eco-system of quality improvement, research, and innovation. The Training & Placement Cell provides students with campus recruitment training as well as soft skills and interview skills, as well as organizing

#### campus drives.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	Nil

4.1.2 - The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga centre etc.

College has provided a number of facilities to support extracurricular activities related to culture, creativity, arts, and recreation. For conductingliterary and cultural events, one AC seminar hall with a seating capacity of 300 was established.

The college organizes events through various clubs. Throughout the year, the team actively organizes various events under various clubs. Every year the institute organizes JUBILATION (National level technical, cultural and sports fest), a Student-Parent meet, Fresher's Day celebrations, and Annual Day celebrations.

NEC has adequate facilities for sports and games (indoor and outdoor), as well as a Gymnasium. To train and monitor all sports and games activities, a well-qualified Physical Director and female Physical Directors were appointed.

Yoga master is available for Yoga training. International Yoga day is celebrated every year with major participation of students and Faculty.

Treadmills, stationary bicycles, dumbbell sets, and Multi station Gym are available in the campus.

Students are encouraged to participate in events at the regional, university, national, and international levels by the institute

The college teams in cricket, volleyball, and other sports won the majority of the tournaments. Many of our students have competed in JNTUK Interuniversity Tournaments and broughtlaurelsto the Institute.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	Nil Nil

### 4.1.3 - Number of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc.

73

### 4.1.3.1 - Number of classrooms and seminar halls with ICT facilities

**57** 

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/4.1.3.pdf
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	<u>View File</u>

### 4.1.4 - Expenditure, excluding salary for infrastructure augmentation during the year (INR in Lakhs)

### 4.1.4.1 - Expenditure for infrastructure augmentation, excluding salary during the year (INR in lakhs)

238.32

File Description	Documents
Upload any additional information	No File Uploaded
Upload audited utilization statements	<u>View File</u>
Upload Details of budget allocation, excluding salary during the year (Data Template)	<u>View File</u>

### 4.2 - Library as a Learning Resource

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### 4.2.1 - Library is automated using Integrated Library Management System (ILMS)

The Central Library meets the needs of the college's faculty and students. The library hasa circulation section, a lending books section, a reference section, SC/ST book bank section and project discussion rooms. KOHA software is using which includes all aspects of the library management system, with a seating capacity of 200 spread across 1200 square meters. Books search can be done with in the campus through OPAC. The timingsare 8:00 a.m. to 8:00 p.m. on weekdays and 9.00 a.m. to 5:00 p.m. on holidays.

The digital library has e-resources like DELNET, N-List, NDLI, NPTEL, e-Shodh Sindhu

and collection of e-books. The digital library is also equipped with 40 computers

withmultimediaand Internetfacility with 100 Mbps connectivity

LibraryInformation:

Titles

10902

TotalNo. ofVolumes

65,638(IncludingSC/STBookBank& MCA)

BookBankforSC(volumes)

4758

BookBankforSC(Titles)

610

BookBankforST(volumes)

617

BookBankforST(Titles)

224

10902
E-Journals
2(DELNET& NLIST)
E-Books
34,38,000 ( N-List)
DigitalDatabases
1(DELNET)
PrintJournals
93
Magazines
03
ProjectReports
1313
CD&Videos
2045
E Learning Material available
16 TBofNPTELVideolectureson502 subjects
NPTELWeb Courseson433 subjects

ReferenceBooks

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional Information	<u>Nil</u>

# 4.2.2 - The institution has subscription for the following e-resources e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access toe-resources

File Description	Documents
Upload any additional information	<u>View File</u>
Details of subscriptions like e- journals,e-ShodhSindhu, Shodhganga Membership etc (Data Template)	<u>View File</u>

# ${\bf 4.2.3-Expenditure\ for\ purchase\ of\ books/e-books\ and\ subscription\ to\ journals/e-journals\ during\ the\ year\ (INR\ in\ Lakhs)}$

# 4.2.3.1 - Annual expenditure of purchase of books/e-books and subscription to journals/e-journals during the year (INR in Lakhs)

#### 4.53

File Description	Documents
Any additional information	No File Uploaded
Audited statements of accounts	<u>View File</u>
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	No File Uploaded

# 4.2.4 - Number per day usage of library by teachers and students ( foot falls and login data for online access) (Data for the latest completed academic year)

#### 4.2.4.1 - Number of teachers and students using library per day over last one year

#### 401

File Description	Documents
Any additional information	No File Uploaded
Details of library usage by teachers and students	<u>View File</u>

#### 4.3 - IT Infrastructure

4.3.1 - Institution frequently updates its IT facilities including Wi-Fi

The institute has IT policy with clearly stating the procedures to be adopted for all IT facilities that are made available in the campus. The institution's IT infrastructure, including Wi-Fi, is updated on a regular basis. There are 1410 computers, 80 projectors and 44 printers are available. The CAMPUS has Wi-Fi access to meet the needs of academic and research. The campus has a 1.00 Gbps dedicated line internet facility through AIRTEL and a 40 Mbps bundled bandwidth through BSNL, Sonic Fire Wall (SGS600) worth Rs.1200000/- that protect the NEC networks from hackers.

AP CM's Skill Excellence Centre, ARC, DASSAULT 3D was established in the institution association with APSSDC and IoT labs were also established.

The institute has an intranet with a 1Gbps fiber optic backbone network and three DIGISOL manageable switches, as well as Wi-Fi support from 41 access points that is available 24/7. There are 128 surveillance cameras on campus.

The institute has Microsoft Azure campus license. This license facilitates regular updating of 9 system softwareand 27application software including Office365 and MS Teams for all students and faculty.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://www.nrtec.in/wp-content/uploads/2023 /12/4.3.1-supporting-document.pdf

#### 4.3.2 - Number of Computers

#### 1303

File Description	Documents
Upload any additional information	<u>View File</u>
Student – computer ratio	<u>View File</u>

### 4.3.3 - Bandwidth of internet connection in the A. ? 50MBPS Institution

File Description	Documents
Upload any additional Information	No File Uploaded
Details of available bandwidth of internet connection in the Institution	<u>View File</u>

#### 4.4 - Maintenance of Campus Infrastructure

- 4.4.1 Expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the year (INR in Lakhs)
- 4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component during the year (INR in lakhs)

#### 267.61

File Description	Documents
Upload any additional information	No File Uploaded
Audited statements of accounts.	<u>View File</u>
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	<u>View File</u>

4.4.2 - There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

To ensure optimal usage and maintenance of physical, academic and support facilities, institution has well well-defined maintenance policy.

In Central Library the requirement of booksfor the upcoming academic year is received from the concerned department HODsat the end of every academic year and forwarded to the principal for approval.

Lab in-charge of every lab in each department, maintains the stock register byphysicallyverifyingthe items round theyear and get signed by the HOD and principal. For the repair of any equipment, a proposal will be sent by the lab in-charge to the Principal through proper channel.

Regular maintenance of computer laboratory equipment and updating of software is done by laboratory assistants along with laboratory

attendant and they are headed by the faculty in-charge.ICT enabled classrooms and seminar Halls are maintained under the supervision of the system administrator.

Allthe UPS in the campus are under Annual maintenance contract (AMC) to avoid breakdown and ensure reliable powersupply.

Thesportscommitteeconductsmeetingstodiscuss about the conduction of collegiatetournamentsforeach academic year and forward the proposals to the principal for approval.

Regular cleaning and electrification are maintained by institute concerned staff.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	<u>Nil</u>

#### STUDENT SUPPORT AND PROGRESSION

#### **5.1 - Student Support**

# 5.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year

## 5.1.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year

#### 2717

File Description	Documents
Upload self attested letter with the list of students sanctioned scholarship	<u>View File</u>
Upload any additional information	<u>View File</u>
Number of students benefited by scholarships and free ships provided by the Government during the year (Data Template)	<u>View File</u>

## 5.1.2 - Number of students benefitted by scholarships, free ships etc. provided by the institution / non-government agencies during the year

# 5.1.2.1 - Total number of students benefited by scholarships, free ships, etc provided by the institution / non- government agencies during the year

81

File Description	Documents
Upload any additional information	<u>View File</u>
Number of students benefited by scholarships and free ships institution / non- government agencies in last 5 years (Date Template)	<u>View File</u>

# 5.1.3 - Capacity building and skills enhancement initiatives taken by the institution include the following: Soft skills Language and communication skills Life skills (Yoga, physical fitness, health and hygiene) ICT/computing skills

A. All of the above

File Description	Documents
Link to institutional website	https://www.nrtec.in/wp- content/uploads/2023/12/5-1-3.pdf
Any additional information	<u>View File</u>
Details of capability building and skills enhancement initiatives (Data Template)	<u>View File</u>

# 5.1.4 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

609

# 5.1.4.1 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

609

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File Description	Documents
Any additional information	<u>View File</u>
Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	<u>View File</u>

# 5.1.5 - The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases Implementation of guidelines of statutory/regulatory bodies Organization wide awareness and undertakings on policies with zero tolerance Mechanisms for submission of online/offline students' grievances Timely redressal of the grievances through appropriate committees

#### A. All of the above

File Description	Documents
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	<u>View File</u>
Upload any additional information	No File Uploaded
Details of student grievances including sexual harassment and ragging cases	<u>View File</u>

#### **5.2 - Student Progression**

#### 5.2.1 - Number of placement of outgoing students during the year

#### **5.2.1.1** - Number of outgoing students placed during the year

685

File Description	Documents
Self-attested list of students placed	<u>View File</u>
Upload any additional information	<u>View File</u>

#### 5.2.2 - Number of students progressing to higher education during the year

#### 5.2.2.1 - Number of outgoing student progression to higher education

59

File Description	Documents
Upload supporting data for student/alumni	<u>View File</u>
Any additional information	No File Uploaded
Details of student progression to higher education	<u>View File</u>

- 5.2.3 Number of students qualifying in state/national/ international level examinations during the year (eg: JAM/CLAT/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations)
- 5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations) during the year

162

File Description	Documents
Upload supporting data for the same	<u>View File</u>
Any additional information	<u>View File</u>

#### 5.3 - Student Participation and Activities

- 5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national / international level (award for a team event should be counted as one) during the year
- 5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at university/state/ national / international level (award for a team event should be counted as one) during the year.

28

File Description	Documents
e-copies of award letters and certificates	<u>View File</u>
Any additional information	No File Uploaded
Number of awards/medals for outstanding performance in sports/cultural activities at univer sity/state/national/international level (During the year) (Data Template)	<u>View File</u>

5.3.2 - Institution facilitates students' representation and engagement in various administrative, cocurricular and extracurricular activities (student council/ students representation on various bodies as per established processes and norms)

NARASARAOPETA ENGINEERING COLLEGE (NEC) provides a platform for students to actively participate in various Committees like

- Internal Quality Assurance Cell (IQAC)
- 2. Class Review committee
- 3. Disciplinary Committee
- 4. Canteen Committee
- 5. Transport Committee
- 6. Extracurricular activities Committee
- 7. libraryCommittee
- 8. Women Empowerment Committee
- 9. National Service Scheme(NSS) Committee
- 10. National Cadet Corps (NCC) Committee
- 11. Entrepreneurship and Development Committee (EDC)
- 12. Placement Cell Committee
- 13. Sexual Harassment Prevention Committee (SHPC)
- 14. College hostel Committee
- 15. SC/ST Committee
- 16. Sports Committee

IQAC Committee sets benchmarks for various academic and administrative activities of NEC. The college has an efficient antiragging committee to create awareness in the students on the 'evil effects' of ragging. EDC motivates students to develop their own start-ups. The Library committee considers policy matters regarding Central Library/Departmental libraries including the policy for procurement of books and journals.

NSS Committee makes education more relevant to the present situation by bringing them face to face with rural situation. The SHPC prevents discrimination and sexual harassment against women. Transport Committee provides transport facilities for students and staff.

File Description	Documents
Paste link for additional information	<u>Nil</u>
Upload any additional information	<u>View File</u>

## 5.3.3 - Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions)

# 5.3.3.1 - Number of sports and cultural events/competitions in which students of the Institution participated during the year

23

File Description	Documents
Report of the event	<u>View File</u>
Upload any additional information	No File Uploaded
Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions (Data Template)	<u>View File</u>

#### 5.4 - Alumni Engagement

5.4.1 - There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

The Narasaraopeta Engineering College takes immense pride in its distinguished Alumni, who boast an impressive track record of successful placements and have made their mark in various key positions across different fields. The institution's commitment to nurturing this rich network of alumni led to the establishment of the Narasaraopeta Engineering College Alumni Association (NAA) with Ref No. 275 of 2021 in the Office of the Registrar of Societies, Narasaraopet. NAA's objective is to unite all former students with their peers and beloved alma mater. It actively engages alumni in numerous events and initiatives to bolster the institution's progress. The association connects Telegram group also.

The governing body comprises of President, Vice-President, Secretary, Treasurer and Joint Secretary for oversees meetings, financial matters and event coordination etc. Notably, NAA alumni have excelled in prestigious companies like CGI, TCS, Infosys and more, holding roles such as Software Engineers, R&D Engineers, NDT Engineers etc. and other Government organizations. NAA continually encourages alumni to contribute through technical lectures, career guidance sessions and support for student excellence. Awards and prizes are presented to outstanding students. NAA facilitates campus placements, project support, employee referrals, industrial visits, etc. for institution's ongoing success and development.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	<u>View File</u>

# 5.4.2 - Alumni contribution during the year C. 3 Lakhs - 4Lakhs (INR in Lakhs)

File Description	Documents
Upload any additional information	<u>View File</u>

#### GOVERNANCE, LEADERSHIP AND MANAGEMENT

#### 6.1 - Institutional Vision and Leadership

- 6.1.1 The governance of the institution is reflective of and in tune with the vision and mission of the institution
  - The institutional faculty met several times to develop and cultivate a strong and meaningful vision and mission. The following components were also used to finalize the mission.

Quality Education

Professional career

Higher Education

Life- long learning

Our dedication and commitment are to achieve long-term and

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unrivalled excellence in Technical Education. To that end, we are pursuing continuous infrastructure development and upgrading state-of-the-art equipment in order to provide our students with a technologically advanced and intellectually stimulating environment for learning, research, creativity, innovation, and professional activity, as well as instil ethical and moral values in them.

#### Vision:

To emerge as a centre of excellence in technical education with a blend of effective student centric teaching learning practices as well as research for the transformation of lives and community.

#### Mission:

- Provide the best class infrastructure to explore the field of engineering and research
- Build a passionate and a determined team of faculty with student centric teaching imbibing experimental innovative skills.
- Imbibe lifelong learning skills entrepreneurial skills and ethical values in students for addressing societal problems.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.1.1.pdf
Upload any additional information	<u>View File</u>

- 6.1.2 The effective leadership is visible in various institutional practices such as decentralization and participative management.
- ·Provides a frame work for effectiveness and sense of direction
- ·Outlines the goals and measurable targets
  - Is useful for guiding day-to-day actions
- ·Helps in evaluating progress and changing approaches when moving forward

The plan is developed to establish deep roots that provide firm

foundation for the constantUp-gradation of the institution, as well as to energize the drive of experimentation and innovation, keeping the focus onInstitutionvision and mission. The strategic plan sets out a frame work of priorities for theInstitution.

Departments play a pivotal for the institution; hence each department worked out on their vision, mission and short, mid & long-term goals. The implementation plan for the departments also reflected all details such as budget, resources needed as well as leader responsible with time lines. HODs form the core team for implementing departmental goals under the guidance of Deans/Principal.

The final draft document was discussed with GB and after its detailed review; the suggestions were incorporated towards its effective implementation. This comprehensive plan forms the guiding plan for the years 2018-2023.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.1.2.pdf
Upload any additional information	No File Uploaded

#### 6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/perspective plan is effectively deployed

The institution has a solid strategic plan with well-defined goals.

- 1. Effective teaching and learning process.
- 2.Student and faculty development and participation
- 3.Accreditation from statutory bodies.
- 4.Internal Quality Assurance System
- 5. Research and Development Work.
- 6. Social engagement and Community service.
- 7. Industrial and Alumni Interaction.
- 8.Physical infrastructure and facility.

- 9. Placement and Training.
- 10. Entrepreneurship.
- 11. Incubation Centers and Start-Ups.

The Strategic Plan ensures that the targets are accomplished through an accountability process that includes review, evaluation, reporting, and re-planning.

A strategic plan is an important tool for a college to effectively manage itself because it

- ·Provides a frame work for effectiveness and sense of direction
- •Outlines the goals and measurable targets
  - Is useful for guiding day-to-day actions
- ·Helps in evaluating progress and changing approaches when moving forward

As illustrated in below Figure, it is an iterative process at both stages, namely when framing and when implementing.

File Description	Documents
Strategic Plan and deployment documents on the website	<u>View File</u>
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.2.1.pdf
Upload any additional information	No File Uploaded

6.2.2 - The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, etc.

The institute has a clearly defined organizational hierarchy and structure to support clear and consistent decision-making processes that support effective decision making. Through the involvement of stakeholders on various Boards (Governing Body, Academic council, Board of Studies and Finance Committee's), the organizational

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structure lends itself to the maintenance of institutional capacity and educational effectiveness.

The organization has a well-organized administrative structure, with the Governing Body serving as the highest decision-making body, as well as other functional bodies and committees.

Service rules, Procedures, Recruitment and Promotional Policies:

Narasaraopeta Engineering College has defined policies that were developed with the participation of various stakeholders such as the Principal, members of Management, and members of the Governing Body. The policy has been revised, and new policy amendments have been introduced for the benefit of stakeholders.

To raise awareness among employees and students, the documents are published and made available in the institute library as well as in all departments.

The detailed information on the above policies and procedures is available in the Service Rules and Regulations & Administrative Manual, which is linked to for more information.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.2.2.pdf
Link to Organogram of the Institution webpage	https://www.nrtec.in/about-us/#vision
Upload any additional information	No File Uploaded

6.2.3 - Implementation of e-governance in areas of operation Administration Finance and Accounts Student Admission and Support Examination

A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning)Document	<u>View File</u>
Screen shots of user interfaces	<u>View File</u>
Any additional information	<u>View File</u>
Details of implementation of e- governance in areas of operation, Administration etc (Data Template)	<u>View File</u>

#### 6.3 - Faculty Empowerment Strategies

#### 6.3.1 - The institution has effective welfare measures for teaching and non-teaching staff

The Institution provides effective welfare measures to both teaching and non-teaching staff. To the satisfaction of the employees, various monetary and non-monetary measures toward personal and professional growth are being implemented to fosters a friendly environment and improves work efficiency.

The list of existing welfare measures for teaching and non-teaching staff:

- 1. The 6th Pay Commission recommendations are implemented.
- 2. General Insurance covers all teaching and non-teaching staff.
- 3. Non-teaching employees are covered by EPF & ESI.
- 4. All teaching and non-teaching staff are granted maternity and medical leaves.
- 5. Providing 12 casual, 12 earned leaves and 12 vacation leaves to all teaching and non-teaching staff for one academic year.
- 6. The availability of free transportation for all employees.
- 7. Financial incentives for all employees who publish papers in reputable journals and obtain patents, to attend conferences/workshops and professional body memberships.
- 8. Providing uniforms and Festival bonus for all non-teaching staff in class IV.
- 9. The institute introduces new laboratory equipment and software to improve practical skills and allow students to advance in their professional careers.
- 10. The institution has signed Memorandums of Understanding (MOUs) with a number of organisations to improve staff technical skills.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.3.1.pdf
Upload any additional information	No File Uploaded

- 6.3.2 Number of teachers provided with financial support to attend conferences/ workshops and towards membership fee of professional bodies during the year
- 6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the year

#### 144

File Description	Documents
Upload any additional information	<u>View File</u>
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	<u>View File</u>

- 6.3.3 Number of professional development /administrative training programs organized by the institution for teaching and non-teaching staff during the year
- 6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff during the year

27

File Description	Documents
Reports of the Human Resource Development Centres (UGCASC or other relevant centres).	No File Uploaded
Reports of Academic Staff College or similar centers	No File Uploaded
Upload any additional information	<u>View File</u>
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	<u>View File</u>

6.3.4 - Number of teachers undergoing online/face-to-face Faculty development Programmes (FDP) during the year (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course etc.)

#### 6.3.4.1 - Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course during the year

137

File Description	Documents
IQAC report summary	<u>View File</u>
Reports of the Human Resource Development Centres (UGCASC or other relevant centers)	No File Uploaded
Upload any additional information	<u>View File</u>
Details of teachers attending professional development programmes during the year (Data Template)	<u>View File</u>

#### 6.3.5 - Institutions Performance Appraisal System for teaching and non-teaching staff

The performance of Teaching and Non- Teaching staff employee is assessed annually after completion of one year of service. All services in a post on time scale of pay shall count for increments in that time scale provided the faculty meet the performance indicators as per the self-appraisal form.

#### Teaching Staff

- The performance of each faculty member is assessed according to the Annual Self-Assessment for the Performance Based Appraisal System (PBAS).
- The Institute accords appropriate weightage for the overall contributions in their overall assessment
- The PBAS proforma filled by the Faculty Member is checked and verified by the Heads of the Departments, followed by the Dean, Secretary, IQAC and the Director.

#### Non-Teaching Staff

- All non-teaching staff are also assessed throughannual confidential performanceappraisal.
- Each one of them is graded on a Five-point scale, i.e., Excellent, Very Good, Good, Satisfactory and Poor. The overall assessment is based on the cumulative grade by the Reporting Officer/HoD, which is then forwarded to the Director.

ThePerformance Appraisal Systemand theAnnual Confidential Performancehas significantly helped in the evaluation of the performance of employees, in motivating them, analyzing their strengths and weaknesses and ensuring better performance.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.3.5.pdf
Upload any additional information	No File Uploaded

#### 6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly Enumerate the various internal and external financial audits carried out during the year with the mechanism for settling audit objections within a maximum of 200 words

Finance is the lifeblood of any organization. Regular auditing of financial transactions will ensure effective financial management. Every fiscal year, NEC has a system of both internal and external audits for all financial transactions carried out in the institute. Financial planning and review are done on a regular basis by the Finance Committee, which is chaired by the principal and includes

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members from administration and accounting. The Finance Committee meets twice a year to review the income expenditure statements and make recommendations for future action. Management examines income and expenditure patterns through the Governing Body, and pragmatic recommendations are made.

.Financial rules are in place at the Institute, and the "No-Cash" Transaction System is used to the greatest extent possible. Internal audits are carried out on an annual basis by the internal audit committee, which is chaired by the Principal. Internal audits are performed on a sampling basis to ensure the accuracy of the Institution's financial transactions and statement affairs. Chartered accountants conduct statutory external audits on a yearly basis. External Audit: With all statutory obligations met, there were no major audit objections until the most recent audit.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.4.1.pdf
Upload any additional information	No File Uploaded

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

# 6.4.2.1 - Total Grants received from non-government bodies, individuals, Philanthropers during the year (INR in Lakhs)

0

File Description	Documents
Annual statements of accounts	No File Uploaded
Any additional information	No File Uploaded
Details of Funds / Grants received from of the non- government bodies, individuals, Philanthropers during the year (Data Template)	<u>View File</u>

6.4.3 - Institutional strategies for mobilization of funds and the optimal utilization of resources

Mobilization of Funds:

The primary goal of the institution is to improve its quality and

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reputation. The annual fee collected from students is the college's primary source of revenue. The fee is collected in accordance with the fee and guidelines established by the AP State fee regulatory authority. Funds are also mobilized through sponsored projects from National funding Agencies such as UGC, AICTE and DST. Funds are also raised through consulting and philanthropic donations.

RESOURCE MOBILISATION The following are the different ways of mobilizing the funds in the Institution:

Tuition fees: Tuition fees collected from students are the primary source of revenue generation. The Fee RegulatoryAuthority of the Government determines the appropriate fee in accordance with the rules.

#### RESOURCE MANAGEMENT

According to the approved budget, the resources are used for the following purposes:

- Employee Salaries and benefits are a major component of expenditure
- Furniture, Laboratory Equipment, Consumables, etc.
- R & D and Incentives
- Training & Placement
- Software procurement, Wi-Fi, Internet & Networking
- Student Services- NCC, NSS, Sports
- Travel and conveyance
- Repair, Replacements, and Maintenance
- Taxes and licenses
- Sanitation-housekeeping
- Gardening and security charges

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.4.3.pdf
Upload any additional information	No File Uploaded

#### 6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

The IQAC initiated Academic Audit and Administrative Audit (AAA) for the purpose to ensure the implementation of OBE in all programmes of institutions as well as to identify the resources requiredforeffective implementation of OBE. It includes assessment policies, strategies, and functions ofvariousadministrative departments.

The action was taken for continuous improvement and examine qualitative report will submit to IQAC cell which in turn provide suggestions to the respective departments. The external audit team conducts a comprehensive audit covering all aspects of the institution. The suggestions given by the external audit team are discussed with the principal and action taken is prepared

#### Incremental Initiatives

- Conduct of Faculty development programmes
- Promoting research by faculty
- Financial support is extended partially for attending workshops /conferences/ FDPs out side the college.
- Organizing workshops/seminars/conferences/FDPs by the institution.
- Dedicated training programs for improvement in terms of Soft Skills, Programming Skills, and Technical Skills have been arranged for students resulting in better placements.
- Establishment of Industry Institution Interaction Cell and Advanced labs, English Communication Skills lab, Centre for Innovation, Incubation, and Entrepreneurship have been strengthened.
- All classrooms, laboratories, and Seminar halls are ICT enabled.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.5.1.pdf
Upload any additional information	No File Uploaded

6.5.2 - The institution reviews its teaching learning process, structures & methodologies of operations

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and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

IQAC deployed standard structures and methodologies for the review of the teaching-learning processand learning outcomes at periodic intervals. Regarding the review of the teaching-learning process, the IQAC has set up the following practices at our institution.

#### Internal Academic Audit:

In a semester, every department is audited thrice every semester by two auditors from other departments nominated by the Chairperson of IQAC (Principal). The auditors will verify the following parameters and submit the compliance to IQAC.

- Course Objectives and Course Outcomes (COs).
- Course articulation matrix (Mapping of COs, POs, and PSOs).
- Lesson Plan Schedules.
- Syllabus coverage as per the schedule
- I-Mid, II-Mid, and End Semester Question Papers and Scheme of valuation.

#### Initiatives implemented

- Autonomous -OBE Curriculum for holistic education.
- Effective mentoring system for the all-round development of students.
- Green Campus, Innovative Best Practices like Bodhana, Sadhana, Nipuna, and Ekalavya
- More than 30 MOU's industrial and academic.
- With industry support, AP CM's Excellence Centre, Collaboration with ICT academy, advanced laboratories like Advanced RobotControl lab, Dassault 3D experience lab, and IOT labs are established.
- IPR cell was established and motivated faculty towards IPR activities. As a result, 35 books andmore than 25 patents are published.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.5.2.pdf
Upload any additional information	No File Uploaded

# 6.5.3 - Quality assurance initiatives of the institution include: Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analyzed and used for improvements Collaborative quality initiatives with other institution(s) Participation in NIRF any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

#### A. All of the above

File Description	Documents
Paste web link of Annual reports of Institution	https://www.nrtec.in/wp- content/uploads/2023/12/6.5.3-1.pdf
Upload e-copies of the accreditations and certifications	<u>View File</u>
Upload any additional information	<u>View File</u>
Upload details of Quality assurance initiatives of the institution (Data Template)	<u>View File</u>

#### INSTITUTIONAL VALUES AND BEST PRACTICES

#### 7.1 - Institutional Values and Social Responsibilities

7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

Gender equality is one of key challenges facing in society today. Gender sensitivity is an inherent value in the cultural ethos of the institute, as is evident by the following facilities,

#### A.Safety & Security:

The Institution has special cell calledStudent Grievances Redressal Cellthrough which addresses student's grievances related to academic and non-academic problems.

#### B.Hi-Tech Surveillance system:

E- Surveillance with cameras through 24X7 to track activity of every student thus ensuring their safety inside the campus.

#### C. Hostels:

Students are monitored under well-defined rules and guidelines of wardens. Wi-Fi enabled reading room is available in women's hostel.

#### D. Medical Facilities:

Health centre with a qualified doctor and nurse is available in campus to provide medical care. Specialists are also invited to visit the campus if necessary.

#### E. Girls Rest Room:

In each block of the campus, girl's waiting room is available with all facilities.

#### F. Counselling:

NEC has consistently strived to address contemporary issues like gender sensitization, women concern, teasing, ragging etc. under the anti-ragging committee to counsel them amicably.

File Description	Documents
Annual gender sensitization action plan	<u>Nil</u>
Specific facilities provided for women in terms of: a. Safety and security b. Counseling c. Common Rooms d. Day care center for young children e. Any other relevant information	https://www.nrtec.in/wp- content/uploads/2023/12/7.1.1.pdf

# 7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation measures Solar energy Biogas plant Wheeling to the Grid Sensorbased energy conservation Use of LED bulbs/power efficient equipment

A. 4	or	All	of	the	above
A. 4	or	AII	OI	tne	apove

File Description	Documents
Geo tagged Photographs	<u>View File</u>
Any other relevant information	<u>View File</u>

7.1.3 - Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 200 words) Solid waste management Liquid waste management Biomedical waste management E-waste management Waste recycling system

#### Hazardous chemicals and radioactive waste management

- Solid waste management
- Liquid waste management
- E-wastemanagement
- Chemical Waste

ØThe importance of waste management and methods of waste disposal mechanism is taught to students through courses such as Environmental Studies, Solid waste Management etc. in NEC.

#### Solid Waste Management

Dustbins are positioned in each classroom, laboratory, restroom, canteen, and atdifferent places in the campus. Sweepers are allotted to manage all of the waste generated in the campus. All waste/garbage from college and hostel is segregated at source and disposed of in a proper manner. The collected foodwaste is deposited in the biogas plants.

#### Liquid waste Management

The collegehas aproper drainage facility to drain off the excess liquid waste and R.O. plant waste water is utilised for gardening purpose.

#### E-Waste Management

E-waste generated in the campus is collected via themaintenance teamand is appropriately disposed of through vendors.

#### Chemical Waste

Indiscriminate use ofchemical compounds is discouragedall through practical training and laboratory liquid chemical wastes are effectively disposed of. Inorganic wastes which include concentrated acidic or alkaline solutions are neutralized before disposal.

File Description	Documents
Relevant documents like agreements/MoUs with Government and other approved agencies	<u>View File</u>
Geo tagged photographs of the facilities	https://www.nrtec.in/wp-content/uploads/2023 /12/7.1.3-Geotagging-Photos.pdf
Any other relevant information	<u>View File</u>

7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus

A. Any 4 or all of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	<u>View File</u>
Any other relevant information	<u>View File</u>

#### 7.1.5 - Green campus initiatives include

# 7.1.5.1 - The institutional initiatives for greening the campus are as follows:

- A. Any 4 or All of the above
- 1. Restricted entry of automobiles
- 2. Use of Bicycles/ Battery powered vehicles
- 3. Pedestrian Friendly pathways
- 4. Ban on use of Plastic
- **5. landscaping with trees and plants**

File Description	Documents
Geo tagged photos / videos of the facilities	<u>View File</u>
Any other relevant documents	<u>View File</u>

#### 7.1.6 - Quality audits on environment and energy are regularly undertaken by the institution

# 7.1.6.1 - The institutional environment and energy initiatives are confirmed through the

A. Any 4 or all of the above

# following 1.Green audit 2. Energy audit 3.Environment audit 4.Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	<u>View File</u>
Certification by the auditing agency	<u>View File</u>
Certificates of the awards received	<u>View File</u>
Any other relevant information	<u>View File</u>

7.1.7 - The Institution has disabled-friendly, barrier free environment Built environment with ramps/lifts for easy access to classrooms. Disabled-friendly washrooms Signage including tactile path, lights, display boards and signposts Assistive technology and facilities for persons with disabilities (Divyangjan) accessible website, screen-reading software, mechanized equipment 5. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading

B. Any 3 of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	<u>View File</u>
Policy documents and information brochures on the support to be provided	<u>View File</u>
Details of the Software procured for providing the assistance	No File Uploaded
Any other relevant information	No File Uploaded

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 200 words).

Narasaraopeta Engineering College remains exemplary in executing

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cultural and social activities by providing an inclusive environment for the students. Everyone has freedom to express his/her own opinions and is given equal opportunity to participate in teaching, learning, work and social activities.

The Institute affirms pristine transparency by meritorious admissions indeed unbiased and keeps chances equally open to all students irrespective of the cast, creed, regions, and religion. Anti-ragging cell exerts to keep up harmony, tolerance and ready to take any measures. The renowned institute maintains the sense of respect towards all cultural and technical activities such as Jubilation.

Our Institution commemorates Sri Mokshagundam Visvesvarayya birth anniversary, honouring teachers on Teachers Day by reminding the great guru Dr.Sarvepalli Radhakrishnan and awareness programmes, Blood denotation camps, planting trees in nearby villages to safe guard environment.

Besides curriculum, additional communication and soft skills classes along with team bounding activities are conducted to communicate professionally with technically jargons. Pongal celebrations are celebrated with great ease and enthusiasm.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	<u>View File</u>
Any other relevant information	No File Uploaded

7.1.9 - Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens

Narasaraopeta Engineering College (NEC) Sensitizes students and employees to the Constitutional obligations about Values, rights, duties and responsibilities of citizens. The students at NEC are sheltered under teacher's guidance and motivation. They are nurtured in self-learning and pave way for creative thinking and entrepreneurship.

Students in autonomous community can make aware through curriculum and extra-curricular activities. In this regard, students focus on various concepts related to Artificial Intelligence, Cyber Space, and the Indian IT act serves as the electives. Celebration of

National Festivals, the commemoration of Birth and Death Anniversaries of great Indian Personalities takes place every year in the Institute with enthusiasm.

College is conducted different activities like International Women's Day on 8thMarch is observed every year and a lady Police Officer is invited as Chief Guest to address the female students on selfdefense and encouraged how importance the Disha App is and threw light on the installation of the App.

The students are inspired by participating in various programs on culture, traditions, Values, duties and responsibilities by inviting eminent people.

Guest lectures and workshops are arranged by eminent personalities to deliver lectures on ethics, values, duties and responsibilities and on saving the environment.

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	<u>View File</u>
Any other relevant information	<u>View File</u>

7.1.10 - The Institution has a prescribed code A. All of the above of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff Annual awareness programmes on Code of **Conduct are organized** 

File Description	Documents
Code of ethics policy document	<u>View File</u>
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	<u>View File</u>
Any other relevant information	No File Uploaded

### 7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

Narasaraopeta Engineering College as an institute of certain pristine principles and objectives guided by the Principal,
Management and Faculty. There are some important wings which are inclined to conduct some National festivals, Birth/ Death anniversaries of National leaders, Independence Day and Republic day etc... The National festivals are celebrated with reverence to build unity, among people of different racial and cultural backgrounds. It creates awareness on Nationalism and patriotism among the students communicaty. On these auspicious days eminent guests are invited as spokesperson to share views and throw light on their sacrifices laid for the wellbeing of the Nation.

The institute conducts technical fest and engineers day annually where students exhibits their hidden talents by involving in different technical activities such as poster presentation, Group discussion and Seminars.

Women's day is being observed on March 8 as a mark of respect to women owing to their courageous endeavour in personal and professional life.

International Yoga day is also observed every year, students and staff participate whole heartedly.

File Description	Documents
Annual report of the celebrations and commemorative events for the last (During the year)	<u>View File</u>
Geo tagged photographs of some of the events	No File Uploaded
Any other relevant information	<u>View File</u>

#### 7.2 - Best Practices

7.2.1 - Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

Title of the Practice:

Bodana-Sadhana-Nipuna-Programme(BSNP)

The NEC features a robust campus infrastructure focused on nurturing exemplary models through its innovative Bodana-Sadhana-Nipuna Programme. Starting in the second year, students engage in miniprojects to create unique technological marvels, guided by experienced academicians, ensuring a profound educational journey. ByutilizingSkill labs i.e IoT lab and 3D lab, students developed remarkable modelslike Hand-Controlled Robot Car, 3D-printed MIG 29-k Fighter Jet, Brain Tumor Detection System, Machine Learning for Lung Cancer Detection, and the Intricate Steering Gear Mechanism for Electric Vehicles etc..

BEST PRACTICE - II

Title of the Practice:

Ekalavya Programme (Encouraging students for self-learning)

NEC, In its commitment to holistic education and cutting-edge learning methodologies, NEC endeavors to transcend traditional academic boundaries. Upholding the core values of "Promoting Self-Learning" and "Collaborative Learning," the institution continuously encourages students to engage in online certification courses from prestigious platforms like NPTEL and MOOCs. The resounding success

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of these efforts is evident in the profound impact on the knowledge landscape, with over 1,193 students and faculty benefitting from NPTEL courses and an impressive 481+ students completing certifications from other MOOCsempowering students to embrace a culture of continuous and innovative learning.

File Description	Documents
Best practices in the Institutional web site	<u>View File</u>
Any other relevant information	<u>View File</u>

#### 7.3 - Institutional Distinctiveness

7.3.1 - Portray the performance of the Institution in one area distinctive to its priority and thrust within 200 words

The Institute has a distinction by establishing several Centres of Excellence (CoE), Industry collaborative laboratories and special training centre.

#### TECH HUB TRAINING CENTRE:

Tech Hub Training centre offers a cutting-edge facility with an immersive environment, useful for special training classes.

#### CENTERS OF EXCELLENCE (CoE):

Andhra Pradesh State Skill Development Corporation (APSSDC), Government of Andhra Pradesh sanctioned a "CM's Skill Excellence Centre" to bridge the skill gap between the academic and the industry requirement.

Dassault Systems and ARC Labsandan Indo-European skilling Centre for Mechatronics & Industria Robotics labwere established by APSSDC in collaboration with GC German Centre for Engineering & Mgt. studies, Germany & ECM APS GmBH Aachen.

#### ICT ACADEMY:

ICT Academyis an initiative of the Government of India in collaboration with the state Governments and Industries, which provides a consultancy and training through industry experts.

#### E-YANTRA / EMBEDDED SYSTEMS AND ROBOTICS LAB:

The college takes relevant measures to improve research culture among the students and faculty in the field of Robotics. This lab is established in association with IIT Bombay.

#### DOCTORITE APP:

Through this app students can connect and share their feelings anonymously and useful to know the mental health of the students for further counselling.

#### Part B

#### **CURRICULAR ASPECTS**

#### 1.1 - Curricular Planning and Implementation

1.1.1 - The Institution ensures effective curriculum delivery through a well planned and documented process

The college follows the curriculum prescribed by AICTE, APSCHE and University through its Boards of Studies. The academic calendar is prepared at the college level incorporating curricular, co-curricular and extra-curricular events in alignment with the University academic calendar. The library is informed of required books for the forthcoming academic year. Courses are allocated to the faculty members. Class-wise time tables also include time slots for Training, Seminars, mentoring, Sports & library. Individual faculty time tables are prepared reflecting his complete workload. Each faculty member prepares Course Information Sheet and Lesson Plan including teaching and learning methodology. Each faculty member prepares the course file. Content delivery new and innovative teaching techniques, in addition to the traditional lecture method are adopted to deliver the content. Periodical review on the coverage of syllabus and regularity of the students is taken by the HOD/Dean Academic followed by principal. Suggestions are invited for the improvement of the teaching-learning process through regular meetings with Class Representatives (CRs). The college collects the feedback from the faculty, students, alumni and parents. The institute introduced a CBCS and self-learning courses using MOOC's platform through SWAYAM NPTEL, etc. Students are participating in an internship and value-added courses.

File Description	Documents
Upload relevant supporting document	No File Uploaded
Link for Additional information	https://www.nates.in/w
	https://www.nrtec.in/wp- content/uploads/2023/12/1.1.1.pdf

1.1.2 - The institution adheres to the academic calendar including for the conduct of Continuous Internal Evaluation (CIE)

College exam section notifies an academic calendar which contains the date of commencement, last working day of the semester and dates for end examinations.

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Every department prepares its calendar by following academic calendar. Institute calendar comprises number of working days, holidays, Continuous Internal Evaluation (CIE) dates. The department calendar comprises guest lectures, workshops, industrial visits, etc.

The academic calendar help faculty members to plan their syllabus coverage under the supervision of Department Heads.

Assignments, quizzes, and descriptive tests are part of the Continuous Internal Evaluation of students. The course instructors prepare IA question papers based on the revised Bloom's Taxonomy, reviewed by the module coordinator and approved by the department Head. The internal assessment test are conducted as per the schedule. The evaluation of answer scripts, and calculation of CO-PO/PSO attainment are carried out by Course Instructors. Continuous evaluation and assessments are done for laboratory course, project work, seminars, and internships at the end of the semester as per the rubrics.

The Principal, frequently reviews the semester's progress and provides suggestions. In case of revision of academic calendar the Institute incorporates the necessary changes accordingly.

File Description	Documents
Upload relevant supporting documents	No File Uploaded
Link for Additional information	https://www.nrtec.in/wp- content/uploads/2023/12/1.1.2.pdf

1.1.3 - Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the year. Academic council/BoS of Affiliating University Setting of question papers for UG/PG programs Design and Development of Curriculum for Add on/ certificate/ Diploma Courses Assessment /evaluation process of the affiliating University

A. All of the above

File Description	Documents
Details of participation of teachers in various bodies/activities provided as a response to the metric	<u>View File</u>
Any additional information	No File Uploaded

### 1.2 - Academic Flexibility

### 1.2.1 - Number of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented

### 1.2.1.1 - Number of Programmes in which CBCS/ Elective course system implemented

19

File Description	Documents
Any additional information	<u>View File</u>
Minutes of relevant Academic Council/ BOS meetings	<u>View File</u>
Institutional data in prescribed format (Data Template)	<u>View File</u>

### 1.2.2 - Number of Add on /Certificate programs offered during the year

### 1.2.2.1 - How many Add on /Certificate programs are added during the year. Data requirement for year: (As per Data Template)

12

File Description	Documents
Any additional information	No File Uploaded
Brochure or any other document relating to Add on /Certificate programs	<u>View File</u>
List of Add on /Certificate programs (Data Template )	<u>View File</u>

### 1.2.3 - Number of students enrolled in Certificate/ Add-on programs as against the total number of students during the year

1418

### 1.2.3.1 - Number of students enrolled in subject related Certificate or Add-on programs during the year

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#### 1418

File Description	Documents
Any additional information	<u>View File</u>
Details of the students enrolled in Subjects related to certificate/Add-on programs	<u>View File</u>

#### 1.3 - Curriculum Enrichment

1.3.1 - Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

#### HumanValuesandProfessionalEthics:

Human values and professional ethics are addressed through the course "Constitution of India, Professional Ethics & human values and Essence of Indian Traditional & Knowledge "offered to engineering programme. The Students of First Year UG will undergo Student Induction Program (SIP) in which cross-cutting issues like Human Values and Professional Ethics are addressed.

#### EnvironmentandSustainability:

TheissuesofEnvironmentandSustainabilityareaddressedthroughthecour se"Environmental Studies" offered to engineering students in the IIndand IIIrdsemester. Through thiscourse, students are sensitized to ecological and environmental issues connected with land,air,andwater,withawarenessonsustainabledevelopment.

#### Genderequity:

NEC, imparting quality education to shape global leaders has firm belief ingender equitywhich is indispensable to ensuresustainable development of a country. Institute has initiatedpromising measures to sensitize and promote gender equity amongst the stakeholders throughcurricular and co-curricular activities.

TheNSS activities, Swachh Bharath Abhiyan, blood donation and health awareness campsconducted by Youth Red Cross Unitplay vital role in promoting inclusive environment towards regional and socioecon omic diversities among students making a Positive difference and shaping the content of the

### emintowholesome professionals.

File Description	Documents
Any additional information	No File Uploaded
Upload the list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum	<u>View File</u>

### ${\bf 1.3.2 \cdot Number\ of\ courses\ that\ include\ experiential\ learning\ through\ project\ work/field\ work/internship\ during\ the\ year}$

### 2719

File Description	Documents
Any additional information	No File Uploaded
Programme / Curriculum/ Syllabus of the courses	<u>View File</u>
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	<u>View File</u>
MoU's with relevant organizations for these courses, if any	<u>View File</u>
Number of courses that include experiential learning through project work/field work/internship (Data Template)	View File

### 1.3.3 - Number of students undertaking project work/field work/ internships

### 3891

File Description	Documents
Any additional information	<u>View File</u>
List of programmes and number of students undertaking project work/field work//internships (Data Template)	<u>View File</u>

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### 1.4 - Feedback System

# 1.4.1 - Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders Students Teachers Employers Alumni

### A. All of the above

File Description	Documents
URL for stakeholder feedback report	<u>View File</u>
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	<u>View File</u>
Any additional information(Upload)	No File Uploaded

### **1.4.2 - Feedback process of the Institution** may be classified as follows

A. Feedback collected, analyzed and action taken and feedback available on website

File Description	Documents
Upload any additional information	No File Uploaded
URL for feedback report	https://www.nrtec.in/student-feedback- analysis-atr/

#### TEACHING-LEARNING AND EVALUATION

### 2.1 - Student Enrollment and Profile

### 2.1.1 - Enrolment Number Number of students admitted during the year

### 2.1.1.1 - Number of sanctioned seats during the year

File Description	Documents
Any additional information	<u>View File</u>
Institutional data in prescribed format	<u>View File</u>

## 2.1.2 - Number of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy during the year (exclusive of supernumerary seats)

### 2.1.2.1 - Number of actual students admitted from the reserved categories during the year

903

File Description	Documents
Any additional information	<u>View File</u>
Number of seats filled against seats reserved (Data Template)	<u>View File</u>

### 2.2 - Catering to Student Diversity

2.2.1 - The institution assesses the learning levels of the students and organizes special Programmes for advanced learners and slow learners

Narasaraopeta Engineering College (NEC) provides quality education with a structured curriculum, as well as a solid foundation for the students' nourishment and overall development by strengthening their physical and intellectual abilities.

Induction/Orientation programme:

As a part of introducing the institute and the teaching staff, the Management will arrange an induction programme for the newly joined 1styear students of Engineering. This orientation programme is intended to assist students in becoming acclimated to academic life in a higher education institution. Detailed orientation classes are conducted to bridge the gap between intermediate education and the foundation required for professional education.

Slow Learners

The students are classified into two group's i.e., slow learners and Advanced learners. Students are classified as Advanced or Slow learners based on theirIntermediate marks, and EAMCET rankings. Students' learning abilities are assessed in subsequent semesters through midterm exams, assignments, classroom interactions, and mentoring. Students are classified as advanced or slow learners based on their performance in all of these areas.

Advanced Learners

The students who distinguish themselves in academics by securing more than 70% marks come under the group of the Advanced Learners. They are also encouraged to register for certain courses for their academic and professional exposure.

File Description	Documents
Link for additional Information	<u>Nil</u>
Upload any additional information	<u>View File</u>

### 2.2.2 - Student- Full time teacher ratio (Data for the latest completed academic year)

Number of Students	Number of Teachers
3995	292

File Description	Documents
Any additional information	<u>View File</u>

### 2.3 - Teaching- Learning Process

2.3.1 - Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

The teaching-learning process is the main objective and strength of the institute. Modern methods of teaching are adopted which ensure student-centric and rewarding experience. Experiential learning, participatory learning and problem-solving methodologies are well adopted to ensure the overall development of students.

### 1) Pedagogical initiatives

Pedagogical initiates are adopted to improve the quality of the teaching-learning process. The following teaching-learning methods are used in addition to 'CHALK & TALK' and 'PPT' presentations.

Experiential Learning

- Problem based learning
- ·Learning Management System
- •Project based Learning

#### 2. E-Learning

E-learning is a structured course or learning experience that is delivered electronically and can include performance support content. The purpose of e-learningis to enable people to learn for personal fulfilment..

• Moodle and self-learning

#### 3. Collaborative learning

- The college has several student chapters, including IEEE, IETE Student's Forum (ISF), IE, ISTE and CSI. All the departments frequently arrange guest lectures by experts from industry, academia, and research institutions.
- ·Industrial visits are arranged for the students to learn through interaction and observation of working methods.
- •In every semester workshops/seminars/guest lectures are arranged for the students.
- •Programs are conducted in collaboration with reputed organizations.

File Description	Documents
Upload any additional information	<u>View File</u>
Link for additional information	Nil
	<u>Nil</u>

2.3.2 - Teachers use ICT enabled tools for effective teaching-learning process. Write description in maximum of 200 words

Narasaraopeta Engineering College (NEC) being a technical campus,

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encourages intensive use of ICT-enabled tools including online resources for effective teaching and learning process.

The following ICT tools are used by the Institute:

- 1. Projectors Projectors are available in Classrooms
- 2. Desktop and Laptops are used for teaching
- 3. The laboratories, Seminar Halls, Auditorium, the conference Room and other rooms are well equipped with ICT facilities
- 4. Virtual labs are also used to conduct labs through simulations.
- 5. Learning abilities of students are enhanced with NPTEL, Guest Lectures, and Webinars.
- 6. Digital library resourcesincludeDELNET, NPTELandIEEE.

Use of ICT by Faculty:

- Online quiz examinations are conducted through Moodle Software.
- Some faculty have developed e-tutorials for specific topics which helped in making the students understand the concepts very clearly. These are YouTube based which enable the students to replay as and when required.
- The blended Teaching Learning Process has enabled students learning effectively beyond class hours facilitating them inthe improvement of academic performance and pass percentage.
- The overall use of ICT tools has greatly improved the teaching learning process resulting in improved academic performance of all the students.

File Description	Documents
Upload any additional information	<u>View File</u>
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	<u>Nil</u>

### 2.3.3 - Ratio of mentor to students for academic and other related issues (Data for the latest completed academic year )

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### 2.3.3.1 - Number of mentors

#### 228

File Description	Documents
Upload, number of students enrolled and full time teachers on roll.	No File Uploaded
Circulars pertaining to assigning mentors to mentees	<u>View File</u>
mentor/mentee ratio	<u>View File</u>

### 2.4 - Teacher Profile and Quality

### 2.4.1 - Number of full time teachers against sanctioned posts during the year

#### 292

File Description	Documents
Full time teachers and sanctioned posts for year (Data Template)	<u>View File</u>
Any additional information	No File Uploaded
List of the faculty members authenticated by the Head of HEI	<u>View File</u>

### 2.4.2 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.B Superspeciality / D.Sc. / D.Litt. during the year (consider only highest degree for count)

### 2.4.2.1 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.C Superspeciality / D.Sc. / D.Litt. during the year

76

File Description	Documents
Any additional information	<u>View File</u>
List of number of full time teachers with Ph. D. / D.M. / M.Ch./ D.N.B Super specialty / D.Sc. / D.Litt. and number of full time teachers for year(Data Template)	<u>View File</u>

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### 2.4.3 - Number of years of teaching experience of full time teachers in the same institution (Data for the latest completed academic year)

### 2.4.3.1 - Total experience of full-time teachers

6

File Description	Documents
Any additional information	<u>View File</u>
List of Teachers including their PAN, designation, dept. and experience details(Data Template)	<u>View File</u>

#### 2.5 - Evaluation Process and Reforms

2.5.1 - Mechanism of internal assessment is transparent and robust in terms of frequency and mode. Write description within 200 words.

The college has transparent and robust evaluation process in terms of frequency of the examsconducted. In order to ensure transparency in internal assessment, the internal assessment is completed within time and the same is communicated with the students. In addition to the regular internal examination the Continuous evaluation is made through Group Discussions, Field Visit / Field Work and Seminars Presentation.

Students are encouraged to deliver the seminars of the concerned subject. Topics are given by their teachers to the students to prepare for power point presentation. For transparent and robust for internal assessment, the following mechanism implemented through internal examination committee of the individual departments.

- Question Paper Setting.
- Conduct of Examination
- Result declaration
- Interaction with students regarding their internal assessment

The method of internal assessment helps the teachers to evaluate the students more appropriately. It has created the interest among the students to take active participation in various cocurricular and extra-curricular activities for their overall personality development. The seminar presentation improves the

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communication skills of the students which is very essential to face the interviews. In this way mechanism of internal assessment is transparent and robust.

File Description	Documents
Any additional information	<u>View File</u>
Link for additional information	<u>Nil</u>

### 2.5.2 - Mechanism to deal with internal examination related grievances is transparent, time-bound and efficient

The institute has devised an efficient mechanism to deal with examination related grievances. The college follows strictly the guidelines and rules issued by the affiliating university while conducting internals examinations.

Each department has an examination committee, comprising of a senior faculty member as convener and other teaching staff as members, is constituted to handle the issues regarding evaluation process. The teacher distributes evaluated answer scripts to students, and any clarifications or grievancesare addressed by the teacher. The internal marks are displayed on the notice board. If any discrepancy like mistakes in question paper, mark allocation, correction is noticed by thestudents, the concerned teacher will resolve the discrepancy, and the necessary corrections will be made. If any student is not satisfied with the marks awarded even after resolved by the teacher, then he may represent the same to the HOD concerned. All such representations are taken positively and are reassessed.

Parents are informed about their ward's performance through mentors. Students are counselled by the faculty, and remedial classes are conducted for students who have got low score. Re test for the internal assessment are conducted for Students who were absent for internal exams due to genuine reason following the college examination guidelines.

File Description	Documents
Any additional information	<u>View File</u>
Link for additional information	
	<u>Nil</u>

### 2.6 - Student Performance and Learning Outcomes

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### 2.6.1 - Teachers and students are aware of the stated Programme and course outcomes of the Programmes offered by the institution.

Outcome-Based Education (OBE) is an important demonstration tool for student-centred instruction that focuses on measuring student performance through outcomes. Quality assurance and improvement processes are about determining whether the set educational objectives meet a general standard of quality. Course Outcomes are the statements indicating knowledge and skills that the student is expected to acquire at the end of a course. Program outcomes represent the knowledge, skills, and attitudes the students should have at the end of the program.

In compliance with the objectives of Outcome-Based Education (OBE), the Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs) are framed by the department offering the concerned program after consultation with all faculty and the stakeholders. The Course outcomes framed for each course are displayed through various means as given below.

- College Website
- Syllabus books
- Classrooms
- Laboratories and laboratory manual
- Meetings/ Interactions with employers
- Parent meet
- Faculty meetings
- Alumni meetings
- Professional Body meetings
- Library

While addressing the student's HODs create awareness on POs, PSOs, and COs. The faculty members also inform the students and create awareness on the attainment of the same. The COs of the programme are also made available in the college website.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for Additional information	Nil
Upload COs for all courses (exemplars from Glossary)	<u>View File</u>

### 2.6.2 - Attainment of Programme outcomes and course outcomes are evaluated by the institution.

The process of attainment of COs, POs, and PSOs starts from writing appropriate COs for each course of the program from the first year to the fourth year in a four-year engineering degree program.

The course outcomes are written by the respective faculty member using action verbs of learning levels suggested by Bloom and Anderson. Then, a correlation is established between COs and POs on a scale of 1 to 3, 1 being the slight (low), 2 being moderate (medium) and 3 being substantial (high). A mapping matrix is prepared in this regard for every course in the program including the elective subjects.

The CO statements are defined by considering the course content covered in each module of a course. For every course, there are maybe 5 or 6 COs. The keywords used to define COs are based on Bloom's Taxonomy

Direct attainment displays the student's knowledge and skills from their performance. It can be determined from the performance of the students in all the relevant assessment instruments like internal assessments, assignments, quizzes, and final examinations.

Indirect methods access opinions or thoughts about the graduate's knowledge or skills.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional information	<u>Nil</u>

### 2.6.3 - Pass percentage of Students during the year

### 2.6.3.1 - Total number of final year students who passed the university examination during the year

943

File Description	Documents
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	<u>View File</u>
Upload any additional information	<u>View File</u>
Paste link for the annual report	<u>Nil</u>

### 2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire) (results and details need to be provided as a weblink)

https://www.nrtec.in/wp-content/uploads/2023/12/2.7.1.pdf

### RESEARCH, INNOVATIONS AND EXTENSION

- 3.1 Resource Mobilization for Research
- 3.1.1 Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)
- 3.1.1.1 Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)

19.40

File Description	Documents
Any additional information	No File Uploaded
e-copies of the grant award letters for sponsored research projects /endowments	<u>View File</u>
List of endowments / projects with details of grants(Data Template)	<u>View File</u>

3.1.2 - Number of departments having Research projects funded by government and non government agencies during the year

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### 3.1.2.1 - Number of departments having Research projects funded by government and non-government agencies during the year

3

File Description	Documents
List of research projects and funding details (Data Template)	<u>View File</u>
Any additional information	No File Uploaded
Supporting document from Funding Agency	<u>View File</u>
Paste link to funding agency website	Nil

### 3.1.3 - Number of Seminars/conferences/workshops conducted by the institution during the year

### 3.1.3.1 - Total number of Seminars/conferences/workshops conducted by the institution during the year

49

File Description	Documents
Report of the event	<u>View File</u>
Any additional information	No File Uploaded
List of workshops/seminars during last 5 years (Data Template)	View File

### 3.2 - Research Publications and Awards

- 3.2.1 Number of papers published per teacher in the Journals notified on UGC website during the year
- 3.2.1.1 Number of research papers in the Journals notified on UGC website during the year

File Description	Documents
Any additional information	No File Uploaded
List of research papers by title, author, department, name and year of publication (Data Template)	<u>View File</u>

### 3.2.2 - Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during the year

### 3.2.2.1 - Total number of books and chapters in edited volumes/books published and papers in national/international conference proceedings during the year

293

File Description	Documents
Any additional information	<u>View File</u>
List books and chapters edited volumes/ books published (Data Template)	<u>View File</u>

#### 3.3 - Extension Activities

3.3.1 - Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the year

Narasaraopeta Engineering College was allotted a National Service Scheme (NSS) Unit in 2002 by Jawaharlal Nehru Technological University, Kakinada with 100 students enrolled as NSS Volunteers. The motto of NSS is "Not Me But You "as stated by Swami Vivekananda. It means service to mankind is service to god. Imparting such values and attitude into the minds of students is the main aim of organization. Trusting in this, the institute carries out a number of extension activities in the neighborhood community. Our NSS Unit organized several service oriented activities at University level and state level since its inception.

Extension activities in the neighborhood community during the accreditation period:

Clean and Green Programs like SwatchBharath and plantation was conducted at Yallamanda, Guravayapalem and Kesanupalli the nearby villages and our NSS volunteers explained the importance of cleanliness and its impact on health. Implementing several

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Chlorination Programs in the village and explained the importance of hygiene to protect the health.

File Description	Documents
Paste link for additional information	<u>Nil</u>
Upload any additional information	<u>View File</u>

- 3.3.2 Number of awards and recognitions received for extension activities from government / government recognized bodies during the year
- 3.3.2.1 Total number of awards and recognition received for extension activities from Government/government recognized bodies during the year

3

File Description	Documents
Any additional information	No File Uploaded
Number of awards for extension activities in last 5 year(Data Template)	<u>View File</u>
e-copy of the award letters	<u>View File</u>

- 3.3.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organized in collaboration with industry, community and NGOs ) during the year
- 3.3.3.1 Number of extension and outreach Programs conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the year

31

File Description	Documents
Reports of the event organized	<u>View File</u>
Any additional information	<u>View File</u>
Number of extension and outreach Programmes conducted with industry, community etc for the last year (Data Template)	<u>View File</u>

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- 3.3.4 Number of students participating in extension activities at 3.3.3. above during the year
- 3.3.4.1 Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations through NSS/NCC/ Red Cross/ YRC etc., during the year

4378

File Description	Documents
Report of the event	<u>View File</u>
Any additional information	No File Uploaded
Number of students participating in extension activities with Govt. or NGO etc (Data Template)	<u>View File</u>

#### 3.4 - Collaboration

3.4.1 - The Institution has several collaborations/linkages for Faculty exchange, Student exchange, Internship, Field trip, On-the- job training, research etc during the year

30

File Description	Documents
e-copies of linkage related Document	<u>View File</u>
Details of linkages with institutions/industries for internship (Data Template)	<u>View File</u>
Any additional information	No File Uploaded

- 3.4.2 Number of functional MoUs with national and international institutions, universities, industries, corporate houses etc. during the year
- 3.4.2.1 Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. during the year

File Description	Documents
e-Copies of the MoUs with institution./ industry/corporate houses	<u>View File</u>
Any additional information	No File Uploaded
Details of functional MoUs with institutions of national, international importance, other universities etc during the year	<u>View File</u>

#### INFRASTRUCTURE AND LEARNING RESOURCES

#### 4.1 - Physical Facilities

4.1.1 - The Institution has adequate infrastructure and physical facilities for teaching-learning. viz., classrooms, laboratories, computing equipment etc.

The institution has a total Built-uparea of 31,362 square meters. There are adequate facilities for teaching and learning. Separate Boys and Girls hostels are maintaining. There are fully equipped seminar halls with a good public address system, Wi-Fi, and different seating capacities for conducting seminars/workshops/FDPs and guest lectures. The institution has research centers to caterthe needs of research scholars.

CAMU software is implemented for student attendance, marks and activities in autonomous exam section Learning management system (MOODLE) software is used for conducting online exams and for uploading teaching learning material. Kohasoftware is used for library automation. Sonic Firewall is using for protection and security of information software.

For academic purpose the institution has provided1303computers for3995students. The campus has free Wi-Fi with bandwidth of 1GBPS. Many of the class rooms and seminar halls have LCDs and Wi-Fi as ICT facilities. For uninterrupted power supply, two generator and 21 UPS are available.

The institute has established several cells to create an ecosystem of quality improvement, research, and innovation. The Training & Placement Cell provides students with campus recruitment training as well as soft skills and interview skills, as well as organizing campus drives.

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File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	Nil

4.1.2 - The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga centre etc.

College has provided a number of facilities to support extracurricular activities related to culture, creativity, arts, and recreation. For conductingliterary and cultural events, one AC seminar hall with a seating capacity of 300 was established.

The college organizes events through various clubs. Throughout the year, the team actively organizes various events under various clubs. Every year the institute organizes JUBILATION (National level technical, cultural and sports fest), a Student-Parent meet, Fresher's Day celebrations, and Annual Day celebrations.

NEC has adequate facilities for sports and games (indoor and outdoor), as well as a Gymnasium. To train and monitor all sports and games activities, a well-qualified Physical Director and female Physical Directors were appointed.

Yoga master is available for Yoga training. International Yoga day is celebrated every year with major participation of students and Faculty.

Treadmills, stationary bicycles, dumbbell sets, and Multi station Gym are available in the campus.

Students are encouraged to participate in events at the regional, university, national, and international levels by the institute

The college teams in cricket, volleyball, and other sports won the majority of the tournaments. Many of our students have competed in JNTUK Interuniversity Tournaments and broughtlaurelsto the Institute.

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File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	Nil

### 4.1.3 - Number of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc.

73

### 4.1.3.1 - Number of classrooms and seminar halls with ICT facilities

57

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/4.1.3.pdf
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	<u>View File</u>

### 4.1.4 - Expenditure, excluding salary for infrastructure augmentation during the year (INR in Lakhs)

### **4.1.4.1 -** Expenditure for infrastructure augmentation, excluding salary during the year (INR in lakhs)

238.32

File Description	Documents
Upload any additional information	No File Uploaded
Upload audited utilization statements	<u>View File</u>
Upload Details of budget allocation, excluding salary during the year (Data Template)	View File

### 4.2 - Library as a Learning Resource

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### 4.2.1 - Library is automated using Integrated Library Management System (ILMS)

The Central Library meets the needs of the college's faculty and students. The library hasa circulation section, a lending books section, a reference section, SC/ST book bank section and project discussion rooms. KOHA software is using which includes all aspects of the library management system, with a seating capacity of 200 spread across 1200 square meters. Books search can be done with in the campus through OPAC. The timingsare 8:00 a.m. to 8:00 p.m. on weekdays and 9.00 a.m. to 5:00 p.m. on holidays.

The digital library has e-resources like DELNET, N-List, NDLI, NPTEL, e-Shodh Sindhu

and collection of e-books. The digital library is also equipped with 40 computers

withmultimediaand Internetfacility with 100 Mbps connectivity

LibraryInformation:

Titles

10902

TotalNo. ofVolumes

65,638(IncludingSC/STBookBank& MCA)

BookBankforSC(volumes)

4758

BookBankforSC(Titles)

610

BookBankforST(volumes)

617

BookBankforST(Titles)

ReferenceBooks		
10902		
-Journals		
2(DELNET& NLIST)		
E-Books		
34,38,000 ( N-List)		
DigitalDatabases		
1(DELNET)	l(DELNET)	
PrintJournals		
93		
Magazines		
03		
ProjectReports		
1313		
CD&Videos		
2045		
E Learning Material available		
16 TBofNPTELVideolectureson502 subjects		
NPTELWeb Courseson433	NPTELWeb Courseson433 subjects	
File Description	Documents	

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional Information	<u>Nil</u>

4.2.2 - The institution has subscription for the following e-resources e-journals e-ShodhSindhu Shodhganga Membership ebooks Databases Remote access toeresources A. Any 4 or more of the above

File Description	Documents
Upload any additional information	<u>View File</u>
Details of subscriptions like e- journals,e-ShodhSindhu, Shodhganga Membership etc (Data Template)	<u>View File</u>

### 4.2.3 - Expenditure for purchase of books/e-books and subscription to journals/e- journals during the year (INR in Lakhs)

### 4.2.3.1 - Annual expenditure of purchase of books/e-books and subscription to journals/e-journals during the year (INR in Lakhs)

### 4.53

File Description	Documents
Any additional information	No File Uploaded
Audited statements of accounts	<u>View File</u>
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	No File Uploaded

### 4.2.4 - Number per day usage of library by teachers and students ( foot falls and login data for online access) (Data for the latest completed academic year)

### 4.2.4.1 - Number of teachers and students using library per day over last one year

401

File Description	Documents
Any additional information	No File Uploaded
Details of library usage by teachers and students	<u>View File</u>

### 4.3 - IT Infrastructure

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### 4.3.1 - Institution frequently updates its IT facilities including Wi-Fi

The institute has IT policy with clearly stating the procedures to be adopted for all IT facilities that are made available in the campus. The institution's IT infrastructure, including Wi-Fi, is updated on a regular basis. There are 1410 computers, 80 projectors and 44 printers are available. The CAMPUS has Wi-Fi access to meet the needs of academic and research. The campus has a 1.00 Gbps dedicated line internet facility through AIRTEL and a 40 Mbps bundled bandwidth through BSNL, Sonic Fire Wall (SGS600) worth Rs.1200000/- that protect the NEC networks from hackers.

AP CM's Skill Excellence Centre, ARC, DASSAULT 3D was established in the institution association with APSSDC and IoT labs were also established.

The institute has an intranet with a 1Gbps fiber optic backbone network and three DIGISOL manageable switches, as well as Wi-Fi support from 41 access points that is available 24/7. There are 128 surveillance cameras on campus.

The institute has Microsoft Azure campus license. This license facilitates regular updating of 9 system softwareand 27application software including Office365 and MS Teams for all students and faculty.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://www.nrtec.in/wp-content/uploads/20 23/12/4.3.1-supporting-document.pdf

### 4.3.2 - Number of Computers

#### 1303

File Description	Documents
Upload any additional information	<u>View File</u>
Student – computer ratio	<u>View File</u>

# 4.3.3 - Bandwidth of internet connection in the Institution A. ? 50MBPS

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File Description	Documents
Upload any additional Information	No File Uploaded
Details of available bandwidth of internet connection in the Institution	View File

### 4.4 - Maintenance of Campus Infrastructure

- 4.4.1 Expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the year (INR in Lakhs)
- 4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component during the year (INR in lakhs)

#### 267.61

File Description	Documents
Upload any additional information	No File Uploaded
Audited statements of accounts.	<u>View File</u>
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	<u>View File</u>

4.4.2 - There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

To ensureoptimalusage and maintenance of physical, academicand support facilities, institution has well well-defined maintenance policy.

In Central Library the requirement of booksfor the upcoming academic yearis received from the concerned department HODsat the end of every academic year and forwardedtotheprincipalforapproval.

Lab in-charge of every lab in each department, maintains the stock register byphysicallyverifyingthe items round theyear and get signed by the HOD and principal. For the repair of any equipment, a proposal will be sent by the lab in-charge to the Principal through proper channel.

Regular maintenance of computer laboratory equipment and updating

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of software is done by laboratory assistants along with laboratory attendant and they are headed by the faculty incharge.ICT enabled classrooms and seminar Halls are maintained under the supervision of the system administrator.

Allthe UPS in the campus are under Annual maintenance contract (AMC) to avoid breakdown and ensure reliable powersupply.

Thesportscommitteeconductsmeetingstodiscuss about the conduction of collegiatetournamentsforeach academic year and forward the proposals to the principal for approval.

Regular cleaning and electrification are maintained by institute concerned staff.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	Nil

#### STUDENT SUPPORT AND PROGRESSION

#### **5.1 - Student Support**

### 5.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year

### 5.1.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year

#### 2717

File Description	Documents
Upload self attested letter with the list of students sanctioned scholarship	<u>View File</u>
Upload any additional information	<u>View File</u>
Number of students benefited by scholarships and free ships provided by the Government during the year (Data Template)	<u>View File</u>

### 5.1.2 - Number of students benefitted by scholarships, free ships etc. provided by the institution / non- government agencies during the year

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### 5.1.2.1 - Total number of students benefited by scholarships, free ships, etc provided by the institution / non- government agencies during the year

81

File Description	Documents
Upload any additional information	<u>View File</u>
Number of students benefited by scholarships and free ships institution / non- government agencies in last 5 years (Date Template)	<u>View File</u>

5.1.3 - Capacity building and skills enhancement initiatives taken by the institution include the following: Soft skills Language and communication skills Life skills (Yoga, physical fitness, health and hygiene) ICT/computing skills

A. All of the above

File Description	Documents
Link to institutional website	https://www.nrtec.in/wp- content/uploads/2023/12/5-1-3.pdf
Any additional information	<u>View File</u>
Details of capability building and skills enhancement initiatives (Data Template)	<u>View File</u>

5.1.4 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

609

5.1.4.1 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

File Description	Documents
Any additional information	<u>View File</u>
Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	<u>View File</u>

5.1.5 - The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases Implementation of guidelines of statutory/regulatory bodies Organization wide awareness and undertakings on policies with zero tolerance Mechanisms for submission of online/offline students' grievances Timely redressal of the grievances through appropriate committees

A. All of the above

File Description	Documents
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	<u>View File</u>
Upload any additional information	No File Uploaded
Details of student grievances including sexual harassment and ragging cases	View File

### **5.2 - Student Progression**

### 5.2.1 - Number of placement of outgoing students during the year

### 5.2.1.1 - Number of outgoing students placed during the year

File Description	Documents
Self-attested list of students placed	<u>View File</u>
Upload any additional information	<u>View File</u>

### 5.2.2 - Number of students progressing to higher education during the year

### 5.2.2.1 - Number of outgoing student progression to higher education

59

File Description	Documents
Upload supporting data for student/alumni	<u>View File</u>
Any additional information	No File Uploaded
Details of student progression to higher education	<u>View File</u>

- 5.2.3 Number of students qualifying in state/national/ international level examinations during the year (eg: JAM/CLAT/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations)
- 5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations) during the year

162

File Description	Documents
Upload supporting data for the same	<u>View File</u>
Any additional information	<u>View File</u>

### 5.3 - Student Participation and Activities

- 5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national / international level (award for a team event should be counted as one) during the year
- 5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at university/state/ national / international level (award for a team event should be counted as one) during the year.

File Description	Documents
e-copies of award letters and certificates	<u>View File</u>
Any additional information	No File Uploaded
Number of awards/medals for outstanding performance in sports/cultural activities at univ ersity/state/national/internationa l level (During the year) (Data Template)	<u>View File</u>

5.3.2 - Institution facilitates students' representation and engagement in various administrative, cocurricular and extracurricular activities (student council/ students representation on various bodies as per established processes and norms)

NARASARAOPETA ENGINEERING COLLEGE (NEC) provides a platform for students to actively participate in various Committees like

- 1. Internal Quality Assurance Cell (IQAC)
- 2. Class Review committee
- 3. Disciplinary Committee
- 4. Canteen Committee
- 5. Transport Committee
- 6. Extracurricular activities Committee
- 7. libraryCommittee
- 8. Women Empowerment Committee
- 9. National Service Scheme(NSS) Committee
- 10. National Cadet Corps (NCC) Committee
- 11. Entrepreneurship and Development Committee (EDC)
- 12. Placement Cell Committee
- 13. Sexual Harassment Prevention Committee (SHPC)
- 14. College hostel Committee
- 15. SC/ST Committee
- 16. Sports Committee

IQAC Committee sets benchmarks for various academic and administrative activities of NEC. The college has an efficient anti-ragging committee to create awareness in the students on the 'evil effects' of ragging. EDC motivates students to develop their own start-ups. The Library committee considers policy matters regarding Central Library/Departmental libraries including the policy for procurement of books and journals.

NSS Committee makes education more relevant to the present situation by bringing them face to face with rural situation. The

SHPC prevents discrimination and sexual harassment against women. Transport Committee provides transport facilities for students and staff.

File Description	Documents
Paste link for additional information	<u>Nil</u>
Upload any additional information	<u>View File</u>

- 5.3.3 Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions)
- 5.3.3.1 Number of sports and cultural events/competitions in which students of the Institution participated during the year

23

File Description	Documents
Report of the event	<u>View File</u>
Upload any additional information	No File Uploaded
Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions (Data Template)	<u>View File</u>

#### 5.4 - Alumni Engagement

5.4.1 - There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

The Narasaraopeta Engineering College takes immense pride in its distinguished Alumni, who boast an impressive track record of successful placements and have made their mark in various key positions across different fields. The institution's commitment to nurturing this rich network of alumni led to the establishment of the Narasaraopeta Engineering College Alumni Association (NAA) with Ref No. 275 of 2021 in the Office of the Registrar of Societies, Narasaraopet. NAA's objective is to unite all former students with their peers and beloved alma mater. It actively engages alumni in numerous events and initiatives to bolster the institution's progress. The association connects Telegram group

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also.

The governing body comprises of President, Vice-President, Secretary, Treasurer and Joint Secretary for oversees meetings, financial matters and event coordination etc. Notably, NAA alumni have excelled in prestigious companies like CGI, TCS, Infosys and more, holding roles such as Software Engineers, R&D Engineers, NDT Engineers etc. and other Government organizations. NAA continually encourages alumni to contribute through technical lectures, career guidance sessions and support for student excellence. Awards and prizes are presented to outstanding students. NAA facilitates campus placements, project support, employee referrals, industrial visits, etc. for institution's ongoing success and development.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	<u>View File</u>

### 5.4.2 - Alumni contribution during the year (INR in Lakhs)

C. 3 Lakhs - 4Lakhs

File Description	Documents
Upload any additional information	<u>View File</u>

#### GOVERNANCE, LEADERSHIP AND MANAGEMENT

### 6.1 - Institutional Vision and Leadership

- 6.1.1 The governance of the institution is reflective of and in tune with the vision and mission of the institution
  - The institutional faculty met several times to develop and cultivate a strong and meaningful vision and mission. The following components were also used to finalize the mission.

Quality Education

Professional career

Higher Education

#### Life- long learning

Our dedication and commitment are to achieve long-term and unrivalled excellence in Technical Education. To that end, we are pursuing continuous infrastructure development and upgrading state-of-the-art equipment in order to provide our students with a technologically advanced and intellectually stimulating environment for learning, research, creativity, innovation, and professional activity, as well as instil ethical and moral values in them.

#### Vision:

To emerge as a centre of excellence in technical education with a blend of effective student centric teaching learning practices as well as research for the transformation of lives and community.

#### Mission:

- Provide the best class infrastructure to explore the field of engineering and research
- Build a passionate and a determined team of faculty with student centric teaching imbibing experimental innovative skills.
- Imbibe lifelong learning skills entrepreneurial skills and ethical values in students for addressing societal problems.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.1.1.pdf
Upload any additional information	<u>View File</u>

- 6.1.2 The effective leadership is visible in various institutional practices such as decentralization and participative management.
- ·Provides a frame work for effectiveness and sense of direction
- ·Outlines the goals and measurable targets
  - Is useful for guiding day-to-day actions
- ·Helps in evaluating progress and changing approaches when moving

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#### forward

The plan is developed to establish deep roots that provide firm foundation for the constantUp-gradation of the institution, as well as to energize the drive of experimentation and innovation, keeping the focus onInstitutionvision and mission. The strategic plan sets out a frame work of priorities for theInstitution.

Departments play a pivotal for the institution; hence each department worked out on their vision, mission and short, mid & long-term goals. The implementation plan for the departments also reflected all details such as budget, resources needed as well as leader responsible with time lines. HODs form the core team for implementing departmental goals under the guidance of Deans/Principal.

The final draft document was discussed with GB and after its detailed review; the suggestions were incorporated towards its effective implementation. This comprehensive plan forms the guiding plan for the years 2018-2023.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.1.2.pdf
Upload any additional information	No File Uploaded

### 6.2 - Strategy Development and Deployment

#### 6.2.1 - The institutional Strategic/perspective plan is effectively deployed

The institution has a solid strategic plan with well-defined goals.

- 1. Effective teaching and learning process.
- 2.Student and faculty development and participation
- 3.Accreditation from statutory bodies.
- 4. Internal Quality Assurance System
- 5.Research and Development Work.

- 6. Social engagement and Community service.
- 7. Industrial and Alumni Interaction.
- 8. Physical infrastructure and facility.
- 9. Placement and Training.
- 10. Entrepreneurship.
- 11. Incubation Centers and Start-Ups.

The Strategic Plan ensures that the targets are accomplished through an accountability process that includes review, evaluation, reporting, and re-planning.

- A strategic plan is an important tool for a college to effectively manage itself because it
- ·Provides a frame work for effectiveness and sense of direction
- •Outlines the goals and measurable targets
  - Is useful for guiding day-to-day actions
- ·Helps in evaluating progress and changing approaches when moving forward

As illustrated in below Figure, it is an iterative process at both stages, namely when framing and when implementing.

File Description	Documents
Strategic Plan and deployment documents on the website	<u>View File</u>
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.2.1.pdf
Upload any additional information	No File Uploaded

6.2.2 - The functioning of the institutional bodies is effective and efficient as visible from policies,

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administrative setup, appointment and service rules, procedures, etc.

The institute has a clearly defined organizational hierarchy and structure to support clear and consistent decision-making processes that support effective decision making. Through the involvement of stakeholders on various Boards (Governing Body, Academic council, Board of Studies and Finance Committee's), the organizational structure lends itself to the maintenance of institutional capacity and educational effectiveness.

The organization has a well-organized administrative structure, with the Governing Body serving as the highest decision-making body, as well as other functional bodies and committees.

Service rules, Procedures, Recruitment and Promotional Policies:

Narasaraopeta Engineering College has defined policies that were developed with the participation of various stakeholders such as the Principal, members of Management, and members of the Governing Body. The policy has been revised, and new policy amendments have been introduced for the benefit of stakeholders.

To raise awareness among employees and students, the documents are published and made available in the institute library as well as in all departments.

The detailed information on the above policies and procedures is available in the Service Rules and Regulations & Administrative Manual, which is linked to for more information.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.2.2.pdf
Link to Organogram of the Institution webpage	https://www.nrtec.in/about-us/#vision
Upload any additional information	No File Uploaded

6.2.3 - Implementation of e-governance in
areas of operation Administration Finance
and Accounts Student Admission and
Support Examination

A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning)Document	<u>View File</u>
Screen shots of user interfaces	<u>View File</u>
Any additional information	<u>View File</u>
Details of implementation of e- governance in areas of operation, Administration etc (Data Template)	<u>View File</u>

#### **6.3 - Faculty Empowerment Strategies**

#### 6.3.1 - The institution has effective welfare measures for teaching and non-teaching staff

The Institution provides effective welfare measures to both teaching and non-teaching staff. To the satisfaction of the employees, various monetary and non-monetary measures toward personal and professional growth are being implemented to fosters a friendly environment and improves work efficiency.

The list of existing welfare measures for teaching and non-teaching staff:

- 1. The 6th Pay Commission recommendations are implemented.
- 2. General Insurance covers all teaching and non-teaching staff.
- 3. Non-teaching employees are covered by EPF & ESI.
- 4. All teaching and non-teaching staff are granted maternity and medical leaves.
- 5. Providing 12 casual, 12 earned leaves and 12 vacation leaves to all teaching and non-teaching staff for one academic year.
- 6. The availability of free transportation for all employees.
- 7. Financial incentives for all employees who publish papers in reputable journals and obtain patents, to attend conferences/workshops and professional body memberships.
- 8. Providing uniforms and Festival bonus for all non-teaching staff in class IV.
- 9. The institute introduces new laboratory equipment and software to improve practical skills and allow students to advance in their professional careers.
- 10. The institution has signed Memorandums of Understanding (MOUs) with a number of organisations to improve staff technical skills.

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File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.3.1.pdf
Upload any additional information	No File Uploaded

- 6.3.2 Number of teachers provided with financial support to attend conferences/ workshops and towards membership fee of professional bodies during the year
- 6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the year

144

File Description	Documents
Upload any additional information	<u>View File</u>
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	<u>View File</u>

- **6.3.3** Number of professional development /administrative training programs organized by the institution for teaching and non-teaching staff during the year
- 6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff during the year

27

File Description	Documents
Reports of the Human Resource Development Centres (UGCASC or other relevant centres).	No File Uploaded
Reports of Academic Staff College or similar centers	No File Uploaded
Upload any additional information	<u>View File</u>
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	View File

6.3.4 - Number of teachers undergoing online/face-to-face Faculty development Programmes (FDP) during the year (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course etc.)

# 6.3.4.1 - Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course during the year

#### 137

File Description	Documents
IQAC report summary	<u>View File</u>
Reports of the Human Resource Development Centres (UGCASC or other relevant centers)	No File Uploaded
Upload any additional information	<u>View File</u>
Details of teachers attending professional development programmes during the year (Data Template)	<u>View File</u>

#### 6.3.5 - Institutions Performance Appraisal System for teaching and non-teaching staff

The performance of Teaching and Non- Teaching staff employee is assessed annually after completion of one year of service. All services in a post on time scale of pay shall count for increments in that time scale provided the faculty meet the

performance indicators as per the self-appraisal form.

#### Teaching Staff

- The performance of each faculty member is assessed according to the Annual Self-Assessment for the Performance Based Appraisal System (PBAS).
- The Institute accords appropriate weightage for the overall contributions in their overall assessment
- The PBAS proforma filled by the Faculty Member is checked and verified by the Heads of the Departments, followed by the Dean, Secretary, IQAC and the Director.

#### Non-Teaching Staff

- All non-teaching staff are also assessed throughannual confidential performanceappraisal.
- Each one of them is graded on a Five-point scale, i.e., Excellent, Very Good, Good, Satisfactory and Poor. The overall assessment is based on the cumulative grade by the Reporting Officer/HoD, which is then forwarded to the Director.

ThePerformance Appraisal Systemand theAnnual Confidential Performancehas significantly helped in the evaluation of the performance of employees, in motivating them, analyzing their strengths and weaknesses and ensuring better performance.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.3.5.pdf
Upload any additional information	No File Uploaded

#### 6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly Enumerate the various internal and external financial audits carried out during the year with the mechanism for settling audit objections within a maximum of 200 words

Finance is the lifeblood of any organization. Regular auditing of financial transactions will ensure effective financial management. Every fiscal year, NEC has a system of both internal

and external audits for all financial transactions carried out in the institute. Financial planning and review are done on a regular basis by the Finance Committee, which is chaired by the principal and includes members from administration and accounting. The Finance Committee meets twice a year to review the income expenditure statements and make recommendations for future action. Management examines income and expenditure patterns through the Governing Body, and pragmatic recommendations are made.

Financial rules are in place at the Institute, and the "No-Cash" Transaction System is used to the greatest extent possible. Internal audits are carried out on an annual basis by the internal audit committee, which is chaired by the Principal. Internal audits are performed on a sampling basis to ensure the accuracy of the Institution's financial transactions and statement affairs. Chartered accountants conduct statutory external audits on a yearly basis. External Audit: With all statutory obligations met, there were no major audit objections until the most recent audit.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.4.1.pdf
Upload any additional information	No File Uploaded

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

# 6.4.2.1 - Total Grants received from non-government bodies, individuals, Philanthropers during the year (INR in Lakhs)

0

File Description	Documents
Annual statements of accounts	No File Uploaded
Any additional information	No File Uploaded
Details of Funds / Grants received from of the non- government bodies, individuals, Philanthropers during the year (Data Template)	<u>View File</u>

#### 6.4.3 - Institutional strategies for mobilization of funds and the optimal utilization of resources

#### Mobilization of Funds:

The primary goal of the institution is to improve its quality and reputation. The annual fee collected from students is the college's primary source of revenue. The fee is collected in accordance with the fee and guidelines established by the AP State fee regulatory authority. Funds are also mobilized through sponsored projects from National funding Agencies such as UGC, AICTE and DST. Funds are also raised through consulting and philanthropic donations.

RESOURCE MOBILISATION The following are the different ways of mobilizing the funds in the Institution:

Tuition fees: Tuition fees collected from students are the primary source of revenue generation. The Fee RegulatoryAuthority of the Government determines the appropriate fee in accordance with the rules.

#### RESOURCE MANAGEMENT

According to the approved budget, the resources are used for the following purposes:

- Employee Salaries and benefits are a major component of expenditure
- Furniture, Laboratory Equipment, Consumables, etc.
- R & D and Incentives
- Training & Placement
- Software procurement, Wi-Fi, Internet & Networking
- Student Services- NCC, NSS, Sports
- Travel and conveyance
- o Repair, Replacements, and Maintenance
- Taxes and licenses
- Sanitation-housekeeping
- Gardening and security charges

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.4.3.pdf
Upload any additional information	No File Uploaded

#### 6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

The IQAC initiated Academic Audit and Administrative Audit (AAA) for the purpose to ensure the implementation of OBE in all programmes of institutions as well as to identify the resources requiredforeffective implementation of OBE. It includes assessment policies, strategies, and functions of orderiousadministrative departments.

The action was taken for continuous improvement and examine qualitative report will submit to IQAC cell which in turn provide suggestions to the respective departments. The external audit team conducts a comprehensive audit covering all aspects of the institution. The suggestions given by the external audit team are discussed with the principal and action taken is prepared

#### Incremental Initiatives

- Conduct of Faculty development programmes
- Promoting research by faculty
- Financial support is extended partially for attending workshops /conferences/ FDPs out side the college.
- Organizing workshops/seminars/conferences/FDPs by the institution.
- Dedicated training programs for improvement in terms of Soft Skills, Programming Skills, and Technical Skills have been arranged for students resulting in better placements.
- Establishment of Industry Institution Interaction Cell and Advanced labs, English Communication Skills lab, Centre for Innovation, Incubation, and Entrepreneurship have been strengthened.
- All classrooms, laboratories, and Seminar halls are ICT enabled.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.5.1.pdf
Upload any additional information	No File Uploaded

6.5.2 - The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

IQAC deployed standard structures and methodologies for the review of the teaching-learning processand learning outcomes at periodic intervals. Regarding the review of the teaching-learning process, the IQAC has set up the following practices at our institution.

#### Internal Academic Audit:

In a semester, every department is audited thrice every semester by two auditors from other departments nominated by the Chairperson of IQAC (Principal). The auditors will verify the following parameters and submit the compliance to IQAC.

- Course Objectives and Course Outcomes (COs).
- Course articulation matrix (Mapping of COs, POs, and PSOs).
- Lesson Plan Schedules.
- Syllabus coverage as per the schedule
- I-Mid, II-Mid, and End Semester Question Papers and Scheme of valuation.

#### Initiatives implemented

- Autonomous -OBE Curriculum for holistic education.
- Effective mentoring system for the all-round development of students.
- Green Campus, Innovative Best Practices like Bodhana, Sadhana, Nipuna, and Ekalavya
- More than 30 MOU's industrial and academic.
- With industry support, AP CM's Excellence Centre, Collaboration with ICT academy, advanced laboratories like Advanced RobotControl lab, Dassault 3D experience lab, and IOT labs are established.
- IPR cell was established and motivated faculty towards IPR activities. As a result, 35 books andmore than 25 patents

#### are published.

File Description	Documents
Paste link for additional information	https://www.nrtec.in/wp- content/uploads/2023/12/6.5.2.pdf
Upload any additional information	No File Uploaded

# 6.5.3 - Quality assurance initiatives of the institution include: Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analyzed and used for improvements Collaborative quality initiatives with other institution(s) Participation in NIRF any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

#### A. All of the above

File Description	Documents
Paste web link of Annual reports of Institution	https://www.nrtec.in/wp- content/uploads/2023/12/6.5.3-1.pdf
Upload e-copies of the accreditations and certifications	<u>View File</u>
Upload any additional information	<u>View File</u>
Upload details of Quality assurance initiatives of the institution (Data Template)	<u>View File</u>

#### INSTITUTIONAL VALUES AND BEST PRACTICES

#### 7.1 - Institutional Values and Social Responsibilities

7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

Gender equality is one of key challenges facing in society today. Gender sensitivity is an inherent value in the cultural ethos of the institute, as is evident by the following facilities,

#### A.Safety & Security:

The Institution has special cell calledStudent Grievances Redressal Cellthrough which addresses student's grievances related to academic and non-academic problems.

#### B.Hi-Tech Surveillance system:

E- Surveillance with cameras through 24X7 to track activity of every student thus ensuring their safety inside the campus.

#### C. Hostels:

Students are monitored under well-defined rules and guidelines of wardens. Wi-Fi enabled reading room is available in women's hostel.

#### D. Medical Facilities:

Health centre with a qualified doctor and nurse is available in campus to provide medical care. Specialists are also invited to visit the campus if necessary.

#### E. Girls Rest Room:

In each block of the campus, girl's waiting room is available with all facilities.

#### F. Counselling:

NEC has consistently strived to address contemporary issues like gender sensitization, women concern, teasing, ragging etc. under the anti-ragging committee to counsel them amicably.

File Description	Documents
Annual gender sensitization action plan	<u>Nil</u>
Specific facilities provided for women in terms of: a. Safety and security b. Counseling c. Common Rooms d. Day care center for young children e. Any other relevant information	https://www.nrtec.in/wp- content/uploads/2023/12/7.1.1.pdf

# 7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation measures Solar energy

A. 4 or All of the above

#### Biogas plant Wheeling to the Grid Sensorbased energy conservation Use of LED bulbs/ power efficient equipment

File Description	Documents
Geo tagged Photographs	<u>View File</u>
Any other relevant information	<u>View File</u>

- 7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 200 words) Solid waste management Liquid waste management Biomedical waste management E-waste management Waste recycling system Hazardous chemicals and radioactive waste management
  - Solid waste management
  - Liquid waste management
  - E-wastemanagement
  - Chemical Waste

ØThe importance of waste management and methods of waste disposal mechanism is taught to students through courses such as Environmental Studies, Solid waste Management etc. in NEC.

#### Solid Waste Management

Dustbins arepositionedineachclassroom, laboratory, restroom, canteen, and atdifferent places in thecampus. Sweepers areallottedtomanageall of thewaste generated in thecampus. All waste/garbagefromcollegeand hostel is segregated atsourceand disposed of in apropermanner. Thecollected foodwaste is deposited in thebiogas plants.

#### Liquid waste Management

The collegehas aproper drainage facility to drain off the excess liquid waste and R.O. plant waste water is utilised for gardening purpose.

#### E-Waste Management

E-waste generated in the campus is collected via themaintenance teamand is appropriately disposed of through vendors.

#### Chemical Waste

Indiscriminate use ofchemical compounds is discouragedall through

practical training and laboratory liquid chemical wastes are effectively disposed of. Inorganic wastes which include concentrated acidic or alkaline solutions are neutralized before disposal.

File Description	Documents
Relevant documents like agreements/MoUs with Government and other approved agencies	<u>View File</u>
Geo tagged photographs of the facilities	https://www.nrtec.in/wp-content/uploads/20 23/12/7.1.3-Geotagging-Photos.pdf
Any other relevant information	<u>View File</u>

# 7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus

A. Any 4 or all of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	<u>View File</u>
Any other relevant information	<u>View File</u>

#### 7.1.5 - Green campus initiatives include

# 7.1.5.1 - The institutional initiatives for greening the campus are as follows:

- A. Any 4 or All of the above
- 1. Restricted entry of automobiles
- 2. Use of Bicycles/ Battery powered vehicles
- 3. Pedestrian Friendly pathways
- 4. Ban on use of Plastic
- **5. landscaping with trees and plants**

File Description	Documents
Geo tagged photos / videos of the facilities	<u>View File</u>
Any other relevant documents	<u>View File</u>

#### 7.1.6 - Quality audits on environment and energy are regularly undertaken by the institution

- 7.1.6.1 The institutional environment and energy initiatives are confirmed through the following 1.Green audit 2. Energy audit 3.Environment audit 4.Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities
- A. Any 4 or all of the above

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	<u>View File</u>
Certification by the auditing agency	<u>View File</u>
Certificates of the awards received	<u>View File</u>
Any other relevant information	<u>View File</u>

- 7.1.7 The Institution has disabled-friendly, barrier free environment Built environment with ramps/lifts for easy access to classrooms. Disabled-friendly washrooms Signage including tactile path, lights, display boards and signposts Assistive technology and facilities for persons with disabilities (Divyangjan) accessible website, screenreading software, mechanized equipment 5. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading
- B. Any 3 of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	<u>View File</u>
Policy documents and information brochures on the support to be provided	<u>View File</u>
Details of the Software procured for providing the assistance	No File Uploaded
Any other relevant information	No File Uploaded

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 200 words).

Narasaraopeta Engineering College remains exemplary in executing cultural and social activities by providing an inclusive environment for the students. Everyone has freedom to express his/her own opinions and is given equal opportunity to participate in teaching, learning, work and social activities.

The Institute affirms pristine transparency by meritorious admissions indeed unbiased and keeps chances equally open to all students irrespective of the cast, creed, regions, and religion. Anti-ragging cell exerts to keep up harmony, tolerance and ready to take any measures. The renowned institute maintains the sense of respect towards all cultural and technical activities such as Jubilation.

Our Institution commemorates Sri Mokshagundam Visvesvarayya birth anniversary, honouring teachers on Teachers Day by reminding the great guru Dr.Sarvepalli Radhakrishnan and awareness programmes, Blood denotation camps, planting trees in nearby villages to safe guard environment.

Besides curriculum, additional communication and soft skills classes along with team bounding activities are conducted to communicate professionally with technically jargons. Pongal celebrations are celebrated with great ease and enthusiasm.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	<u>View File</u>
Any other relevant information	No File Uploaded

7.1.9 - Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens

Narasaraopeta Engineering College (NEC) Sensitizes students and employees to the Constitutional obligations about Values, rights, duties and responsibilities of citizens. The students at NEC are sheltered under teacher's guidance and motivation. They are nurtured in self-learning and pave way for creative thinking and entrepreneurship.

Students in autonomous community can make aware through curriculum and extra-curricular activities. In this regard, students focus on various concepts related to Artificial Intelligence, Cyber Space, and the Indian IT act serves as the electives. Celebration of National Festivals, the commemoration of Birth and Death Anniversaries of great Indian Personalities takes place every year in the Institute with enthusiasm.

College is conducted different activities like International Women's Day on 8thMarch is observed every year and a lady Police Officer is invited as Chief Guest to address the female students on self-defense and encouraged how importance the Disha App is and threw light on the installation of the App.

The students are inspired by participating in various programs on culture, traditions, Values, duties and responsibilities by inviting eminent people.

Guest lectures and workshops are arranged by eminent personalities to deliver lectures on ethics, values, duties and responsibilities and on saving the environment.

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	<u>View File</u>
Any other relevant information	<u>View File</u>

7.1.10 - The Institution has a prescribed code | A. All of the above of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. The **Code of Conduct is displayed on the website** There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff 4. Annual awareness programmes on Code of Conduct are organized

File Description	Documents
Code of ethics policy document	<u>View File</u>
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	<u>View File</u>
Any other relevant information	No File Uploaded

### 7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

Narasaraopeta Engineering College as an institute of certain pristine principles and objectives guided by the Principal, Management and Faculty. There are some important wings which are inclined to conduct some National festivals, Birth/ Death anniversaries of National leaders, Independence Day and Republic day etc... The National festivals are celebrated with reverence to build unity, among people of different racial and cultural backgrounds. It creates awareness on Nationalism and patriotism among the students communicaty. On these auspicious days eminent guests are invited as spokesperson to share views and throw light on their sacrifices laid for the wellbeing of the Nation.

The institute conducts technical fest and engineers day annually where students exhibits their hidden talents by involving in different technical activities such as poster presentation, Group discussion and Seminars.

Women's day is being observed on March 8 as a mark of respect to women owing to their courageous endeavour in personal and professional life.

International Yoga day is also observed every year, students and staff participate whole heartedly.

File Description	Documents
Annual report of the celebrations and commemorative events for the last (During the year)	<u>View File</u>
Geo tagged photographs of some of the events	No File Uploaded
Any other relevant information	<u>View File</u>

#### 7.2 - Best Practices

7.2.1 - Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

Title of the Practice:

Bodana-Sadhana-Nipuna-Programme (BSNP)

The NEC features a robust campus infrastructure focused on nurturing exemplary models through its innovative Bodana-Sadhana-Nipuna Programme. Starting in the second year, students engage in mini-projects to create unique technological marvels, guided by experienced academicians, ensuring a profound educational journey. ByutilizingSkill labs i.e IoT lab and 3D lab, students developed remarkable modelslike Hand-Controlled Robot Car, 3D-printed MIG 29-k Fighter Jet, Brain Tumor Detection System, Machine Learning for Lung Cancer Detection, and the Intricate Steering Gear Mechanism for Electric Vehicles etc..

BEST PRACTICE - II

Title of the Practice:

Ekalavya Programme (Encouraging students for self-learning)

NEC, In its commitment to holistic education and cutting-edge learning methodologies, NEC endeavors to transcend traditional academic boundaries. Upholding the core values of "Promoting Self-Learning" and "Collaborative Learning," the institution continuously encourages students to engage in online certification courses from prestigious platforms like NPTEL and MOOCs. The resounding success of these efforts is evident in the profound impact on the knowledge landscape, with over 1,193 students and faculty benefitting from NPTEL courses and an impressive 481+ students completing certifications from other MOOCsempowering students to embrace a culture of continuous and innovative learning.

File Description	Documents
Best practices in the Institutional web site	<u>View File</u>
Any other relevant information	<u>View File</u>

#### 7.3 - Institutional Distinctiveness

7.3.1 - Portray the performance of the Institution in one area distinctive to its priority and thrust within 200 words

The Institute has a distinction by establishing several Centres of Excellence (CoE), Industry collaborative laboratories and special training centre.

#### TECH HUB TRAINING CENTRE:

Tech Hub Training centre offers a cutting-edge facility with an immersive environment, useful for special training classes.

#### CENTERS OF EXCELLENCE (CoE):

Andhra Pradesh State Skill Development Corporation (APSSDC), Government of Andhra Pradesh sanctioned a "CM's Skill Excellence Centre" to bridge the skill gap between the academic and the industry requirement.

Dassault Systems and ARC Labsandan Indo-European skilling Centre for Mechatronics & Industria Robotics labwere established by APSSDC in collaboration with GC German Centre for Engineering & Mgt. studies, Germany & ECM APS GmBH Aachen.

#### ICT ACADEMY:

ICT Academyis an initiative of the Government of India in collaboration with the state Governments and Industries, which provides a consultancy and training through industry experts.

#### E-YANTRA / EMBEDDED SYSTEMS AND ROBOTICS LAB:

The college takes relevant measures to improve research culture among the students and faculty in the field of Robotics. This lab is established in association with IIT Bombay.

#### DOCTORITE APP:

Through this app students can connect and share their feelings anonymously and useful to know the mental health of the students for further counselling.

File Description	Documents
Appropriate web in the Institutional website	<u>View File</u>
Any other relevant information	No File Uploaded

#### 7.3.2 - Plan of action for the next academic year

To increase external funding from various organizations and industries

To have more functional MOUs with reputed institutions and industries

To increase publications in SCI/Scopus indexed journals

To start new courses in emerging areas

To Enhance employment Potential by introducing innovative courses

To increase the number participation in online certification courses such as SWAYAM NPTEL, MOOCs etc.,

To Organize Campus Recruitment Training with reputed organizations to enhance employability skills of the students

To increase internships and industry related projects

To have industry supported laboratories to bridge the gap between academia and industry

Strengthening Placement cell through TECH-HUB centre

Initiatives to be taken for implementation of NEP 2020

To become university