



# **SELF STUDY REPORT**

**FOR**

**2<sup>nd</sup> CYCLE OF ACCREDITATION**

**NATIONAL ENGINEERING COLLEGE**

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**628503**

**[www.nec.edu.in](http://www.nec.edu.in)**

**Submitted To**

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

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# 1. EXECUTIVE SUMMARY

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## 1.1 INTRODUCTION

National Engineering College (NEC), affiliated with Anna University, Chennai, was established by the trust formed by Chairman Kalvi Thanthai Thiru. K. Ramasamy in 1984. NEC is a self-financing Autonomous Institution, approved by the All India Council for Technical Education (AICTE), New Delhi. The college is located at Kovilpatti in the down - south district of Thoothukudi, Tamilnadu. It is situated on National Highway 44 (India), the longest-running, major northern - South National Highway from Srinagar to Kanyakumari. This institution offers six undergraduate courses and five postgraduate courses pursued by a total of 2400 students, of which 700 students are getting graduated every year. The institution has research centre status approved by Anna University, Chennai, to run doctoral research programs. Around 250 research scholars have completed and pursuing research in diverse fields in the institution.

NEC acclaimed the "Autonomous" recognition in 2011 from UGC, New Delhi, and the institute is found fit by UGC to receive central assistance as per the provisions contained in section 12(B). The college is accredited by National Assessment and Accreditation Council (NAAC). The undergraduate programs offered by the college, Mechanical Engineering, Electronics and Communication Engineering, Computer Science and Engineering, Electrical and Electronics Engineering, Electronics and Instrumentation Engineering and Information and Technology, are accredited by the National Board of Accreditation (NBA) under the Tier I category. The institution was ranked 191th among the engineering colleges in India by the National Institutional Ranking Framework (NIRF) and secured ARIIA Band A (Rank between 6th - 25th) among all Higher Education Self Financed Institutions across the country in 2020. The college has been awarded a five-star rating by the Institute Innovation Council of AICTE, New Delhi.

### Vision

Transforming lives through quality education and research with human values.

### Mission

- To maintain excellent infrastructure and highly qualified and dedicated faculty.
- To provide a conducive learning environment with an ambience of humanity, wisdom, creativity and team spirit.
- To promote the values of ethical behaviour and commitment to society.
- To partner with academic, industrial and government entities to attain collaborative research.

## 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

### **Institutional Strength**

1. Visionary and proactive management
2. Academic flexibility – outcome-based education with choice-based credit system
3. Decentralized administrative setup
4. Well equipped special laboratories
5. Faculty members with high credentials
6. Consistent placement records
7. Transparent, foolproof, and IT-enabled examination system
8. Quality research publications
9. Well established digital library
10. Globally connected strong alumni network
11. Innovative ecosystem for product development
12. Uplifting the standard of living of the rural students
13. Exclusive training for communication and soft skills
14. Dedicated mentoring system Innumerable
15. Outreach activities for societal needs

### **Institutional Weakness**

1. Student exchange program
2. Commercialization of in-house developed products
3. Lacking of student diversity
4. Lack of center of excellence laboratories
5. Preparing the students for higher studies through GATE and foreign universities
6. Preparing for the startup entrepreneur

### **Institutional Opportunity**

1. Developing MOOC courses
2. Converting the research outcomes towards societal needs
3. Collaboration with R&D institute/industry
4. Make-in India, Digital India, Startup India initiatives
5. More opportunities in the IT sector
6. More company visiting for recruitment

### **Institutional Challenge**

1. Minimum number of Industries in the region
2. Getting admission for the PG programme
3. Public sector internship for students
4. Admission for non-IT branches
5. Faculty graduated from premier Institutions.

## 1.3 CRITERIA WISE SUMMARY

### Curricular Aspects

The curriculum and syllabi under regulation 2019 are implemented based on the guidelines given by AICTE, New Delhi. The objective of the curriculum framework is to achieve excellence in the quality of education and enhance the employability skills of engineers for the welfare of the industry, society, and the nation as a whole. Each program is designed based on outcome-based education (OBE) and choice-based credit system (CBCS). The course content of each course is fixed based on the program educational objectives (PEOs), program outcomes (POs), program-specific outcomes (PSOs), and course outcomes (COs). The CBCS facilitates the students to transfer their credits earned in different departments/centres.

The framework of our curriculum encompasses the components of employability and the newly emerging research areas in engineering that address the needs of our society. Therefore the curriculum has the necessity of constant update and gets equipped with advanced technology. This academic flexibility of our curriculum is an important feature, obtained through the academic council and the board of studies of our institution, headed by the Principal and Academic Dean. The academic council and board of studies, involving internal and external academic experts from various industries, have contributed to designing and conducting periodic revisions of the curriculum and syllabus. Both the bodies will take their guidelines from the feedback given by students, alumnae, and academic experts based on which the necessary modifications will be done in the curriculum.

The employability, innovation, and research of the curriculum design and development are ensured by involving industry professionals in curriculum development and syncing the curriculum with industry practices. The curriculum and syllabus of each program will be updated as the guidelines given by the academic council and board of studies of our institution to ensure the continuing sustainability, adequacy, and effectiveness in satisfying our institution's requirements and vision, mission, and quality policy. The curriculum and syllabus under each regulation will be for four years. However, the academic council of the college receives the right to revise or change or amend the regulation, the scheme of examination, the curriculum, and syllabi from time to time if found necessary.

### Teaching-learning and Evaluation

Students are admitted into the institution as per the norms of the state government of Tamil Nadu. The Tamil Nadu Engineering Admissions Committee (TNEA) fills up government quota seats as per the government's reservation policy through centralized counseling. The institute follows the ratio of 1:15 for the UG program. The tutorship is maintained with a ratio of not more than 1:20 to pay attention to the students individually and solve the issues related to academics and other psychological issues. Of around 200 faculty members, 68 have PhD qualification, 63 are pursuing Ph.D., and 70% of the faculty members are with more than seven years of teaching experience.

Various teaching methodologies such as experiential learning, participative learning, self-learning, role plays, problem-solving techniques, activity-based learning, and project-based learning are adopted. Faculty members are trained to make use of ICT teaching tools effectively. Flexible Hybrid/blended teaching-learning process is adopted in our institution using Moodle online teaching management system. The institution has a well-defined organizational structure and delineation of essential functions. Every academic year, various committees are constituted to organize the teaching-learning process and learning activities and ensure efficient and effective

teaching quality across the institution.

Time table committee, Exam Wing, Moderation Committee, and the Class Committee of each department are the institution's fundamental functional unit. Before each semester gets started, the year-wise academic calendar and timetable are planned. Timetable contains the details of the courses offered and other details that include course instructors, class hours, and venues. Students are encouraged to be active participants in the classroom as well as in the other teaching-learning environment. In this student-centric approach of teaching, teachers become facilitators or partners in the students' learning. The following participatory learning activities are adopted to make the teaching-learning process effective and suitable for students.

- Encouraging participation in classroom discussion/seminars/workshops.
- Solving challenging problems in the GATE/aptitude classes and practicing active learning sessions
- Giving assignments in the emerging areas related to the course
- Arranging field visits.
- Facilitating industry internship

Making them do various activities for the improvement of their communication skills.

### **Research, Innovations and Extension**

Various initiatives are taken to promote the research climate in the institution. Faculty members and research scholars are encouraged to undertake the research projects, and immense support is extended by our institution's research and development cell. They are encouraged to attend seminars, workshops, and conferences. The staff members can enroll in any program to familiarize themselves with the current trends and the future direction in their respective disciplines. The institute offers funds and is on-duty for the faculty members to attend seminars, workshops, orientation programs, refresher courses to update their existing knowledge and procure additional information. The management extends their maximum support for the faculty members in various research activities. Faculty members are trained in innovative thinking, design thinking, pedagogy, research activities, and project proposal writing.

The Principal Invigilator and Co-Invigilator of the funded project are provided with 50% of the Overhead charge of the project as an incentive to promote the funded project activities in the Institute. Faculty members who publish their research findings in reputed journals with an impact factor of 1.5 and above, 0.5 to 1.5, and less than 0.5 are motivated with an incentive amount of Rs. 10000, Rs. 5000 and Rs. 2000, respectively. The institution provides incentives to the faculty members doing consultancy.

The institution has a well-defined policy to promote research consultancy and IPR. Faculty members are encouraged with adequate facilities and incentives to do research and consultancy work. Anna University recognizes six departments of our institution as research centres to carry out PhD programs. Around 40 faculty members have guideship to supervise Ph.D. research scholars, and around 1100 research papers and articles are published in the reputed WOS/Scopus indexed journals. The net worth of all the institution's projects is around 1.3 crores, and around 20 projects have been successfully completed by the institution since 2016. Both faculty members and students are motivated towards innovation and startups through the KR incubation centre.

### **Infrastructure and Learning Resources**

One of the objectives of the institute is to maintain an excellent infrastructure. The institute has an advanced infrastructure facility spread over 163 acres of land with a built-up area of 2,87,743 sq feet. There are separate blocks for each department with a total number of 90 Lecture halls including 15 tutorial halls, 66 laboratories, and an auditorium with a capacity of 900 seats. Each department has its seminar hall and a smart classroom. All the institute departments are provided with online teaching devices such as digital tablets, document writers, and recorders. All the laboratories in the departments are highly equipped with advanced technologies. A fully air-conditioned English language lab with 60 systems is provided with exquisite proficiency boosting software like TOEFL mastery, Globarena, oral digital language lab (ODLL), and clarity Snet language lab. The student can utilize the available lab facilities at any time.

The central library is well equipped with wi-fi technology, a closed-circuit television system (CCTV). The library has an e-resource facility and DELNET facility for easy access to the resources. All the services have been automated, and Open Access System is being followed. In addition to the well-stocked library, each department has its library to facilitate easy access to the faculty, students, and research scholars.

There are two boy's hostels and one girl's hostel with a total accommodation facility of 1381 students. Hostels are provided with computer Lab facilities and a library to do their regular academic activities. Hostels are provided with a fully equipped gym to keep the students' minds and bodies fresh and fit. A health care facility is available with a full-time nursing assistant.

Both students and faculty members are provided with a transportation facility. The institute has 29 buses that allow faculty members and students to commute from various points in the city and other nearby villages and towns and get back. Indian overseas bank and post office has its branch in the institution to take care of the financial transactions of the students, faculty members, and non-teaching staff.

### **Student Support and Progression**

The student support service of the institute is effectively administrated through the tutor system. Each faculty is deputed to pay individual attention to not more than 20 students. The tutorship of each faculty has the responsibility of guiding them to solve academic and personal issues of the students with the help of their parents. The placement cell of the institution extends its service in the form of career guidance, and it extends its active participation in inviting many reputed companies for campus recruitment. Every year, one academically strong and economically weak student is identified from the first-year students and given the scholarship. This financial assistance is provided to that particular student for four years. It is planned to extend the scholarship scheme in the name of the founder chairman to a wider range where around 32 students get benefited from this scheme. The institution encourages students to participate in state, national and international level curricular and co-curricular events.

The registered alumni association was started in the year 1991 that offers scholarships to needy students. The alumni meet is conducted once a year that keeps the alumni network strong. Career guidelines are given to the students through the alumni interaction session. The NSS, NCC, RRC, YRC and various clubs of the institution motivate the students to participate in various extension activities and social awareness programs such as awareness rallies for Voters Day, helmet wearing, fire and safety and make the students organize various camps such as medical camp, eye camp, blood donation camp, veterinary camp, woman entrepreneurship program and orphanage visits.

### **Unique features of the student progression in the institution:**

- Job opportunities, effective career guidelines and scholarships are provided to the students by canalising the strong and globally connected alumni network of the institution.
- More than 100 Core/IT companies have been visiting the campus for placement.
- The institution has two on-campus industries to give the students hands on experience and the exposure of working in an industry.
- Vibrant and pro-active placement cell of the institution provides 90% of consistent placement every year.
- Management is very much focused in providing the opportunity of earning while learning through campus placement, on-campus industries, internship, product development, etc.,
- Economically weak merit students are identified and provided fee waiver under the scheme of Kalvi thanthai thiru K. Ramasamy memorial merit scholarship.

### **Governance, Leadership and Management**

The institution has a well-structured governance system as per the guidelines of UGC and AICTE. The management of the college is assisted by the Director, Principal, Deans, Heads of the Departments and Controller of Examination.

The college management is highly committed and dedicated to provide quality education to the UG, PG, and Ph.D. students. The institution's management firmly believes in participatory governance, and there is a mutual understanding between the management and the heads of all the departments. The management gives sufficient freedom to the Principal, Heads of all the departments, and faculty members to fulfill the vision and mission of the college. The meetings are periodically conducted with the Heads of all the departments to discuss the requirements and needs for the college improvement. The resolutions/decisions passed in the meeting of various bodies are properly recorded, and actions are taken. The day-to-day activities of all the departments is discussed with the principal. The management is committed to the satisfaction of the faculty members and to fulfil the requirements of the infrastructure and financial expenditures. The Director and the Principal are allowed to take decisions on scheme progress for the organisation's well-being. The faculty meeting is conducted in different categories to know the academic status of the students, and the collected information is taken to the attention of the management. Academic and administrative audits, reviews, and performance appraisals for teaching and non-teaching staff are regularly conducted based on which performance of the staff members are evaluated and the requirements of the departments are identified and fulfilled.

### **Unique features of the Management:**

- The institution maintains transparency in both administration and academics.
- Participatory governance and the mutual understanding among the stake holders are identified as the strength of the institution's management.
- Academic and administrative audits, reviews, and performance appraisals for teaching and non-teaching staff are conducted in the regular basis for every academic year.
- Career settlement of the students, attaining the state of art in both academics and administration are the ultimate objective of the management.
- Implementation of E- governance makes both administration and academics effective.

## **Institutional Values and Best Practices**

The ultimate objective of the educational institution is to provide quality education in the field of engineering for rural students; hence scholarship was proclaimed in the name of our Founder Kalvi ThanthaiThiru. K. Ramasamy.

From the very first year onwards, the students are trained for placement. Continuously their performance is being assessed to enrich their communication skills through communication classes being conducted weekly twice. Various placement-oriented training programs such as the BEC certification course offered by Cambridge have been provided at three levels: BEC Preliminary, BEC Vantage, and BEC Higher. The students are getting exposure to the high-level language with the introduction of the BEC exam.

Special attention is given to the students who prefer higher studies and preparing for the GATE exam. Two faculty members are allotted to take care of the students who opted for higher studies. The students are taught the GATE syllabus after their regular classes in their interest. The institution has adopted industry-based learning where the courses are handled by experienced professionals of reputed industries. The institution has industry-institute collaboration with Bizplus Services Pvt. Ltd., Chennai, and TekinIT Solutions Chennai to develop health care and to carry out cutting-edge research in various contemporary technologies.

The Online teaching-learning platform has been created using Moodle classroom. This virtual classroom is helpful for students to get a wide range of exposure to online learning. The students feel motivated to participate in multiple online courses in NPTEL, online courses offered by ICT academy, skilledge, and the courses available in the various online platforms like Coursera and EDX. Skill rack plays a significant role in making our students skilled in aptitude.

The first-year students begin their academic journey with an induction program and ten-day bridge course, with various components such as Yoga, Universal Human values, and Sports. Once a year, a unique Yoga training program has been conducted exclusively for the first-year students for a week. The tutor system is one of the unique practices of our college, which makes the teaching-learning process more effective. Transparency is being maintained in the process of paper evaluation in the End Semester examination.

### **Unique practices of the Institution:**

- Tutor system is maintained with the ratio of not more than 1:20
- The ability and the career objective of the students is identified in the first year onwards through the effective implementation of the tutor system.
- The tutor system enables the students to work based on their ability and career objective.
- Students undergo placement training from the first year onwards.



## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	NATIONAL ENGINEERING COLLEGE
Address	K.R.Nagar, Nalattinpuhur, Kovilpatti
City	Kovilpatti
State	Tamil Nadu
Pin	628503
Website	<a href="http://www.nec.edu.in">www.nec.edu.in</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	K.kalidasa Murugavel	04632-222502	9442280227	04632-23274 9	principal@nec.edu. in
IQAC / CIQA coordinator	L.kalaivani	04632-230227	9843008500	-	kalaivani@nec.edu .in

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
Date of Establishment, Prior to the Grant of 'Autonomy'	20-07-1984

Date of grant of 'Autonomy' to the College by UGC		22-03-2011		
<b>University to which the college is affiliated</b>				
<b>State</b>	<b>University name</b>	<b>Document</b>		
Tamil Nadu	Anna University	<a href="#">View Document</a>		
<b>Details of UGC recognition</b>				
<b>Under Section</b>	<b>Date</b>	<b>View Document</b>		
2f of UGC	22-04-2010	<a href="#">View Document</a>		
12B of UGC	27-07-2015	<a href="#">View Document</a>		
<b>Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)</b>				
<b>Statutory Regulatory Authority</b>	<b>Recognition/Approval details Institution/Department programme</b>	<b>Day,Month and year(dd-mm-yyyy)</b>	<b>Validity in months</b>	<b>Remarks</b>
AICTE	<a href="#">View Document</a>	10-07-2021	12	Extension of Approval for the current academic year

<b>Recognitions</b>	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

<b>Location and Area of Campus</b>				
<b>Campus Type</b>	<b>Address</b>	<b>Location*</b>	<b>Campus Area in Acres</b>	<b>Built up Area in sq.mts.</b>
Main campus area	K.R.Nagar, Nalattinpuhur, Kovilpatti	Rural	162.63	51365.09

## 2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Engineering And Technology	48	HSC	English	132	127
UG	BE,Engineering And Technology	48	HSC	English	66	63
UG	BE,Engineering And Technology	48	HSC	English	132	101
UG	BE,Engineering And Technology	48	HSC	English	132	123
UG	BE,Engineering And Technology	48	HSC	English	66	66
UG	BTech,Engineering And Technology	48	HSC	English	66	60
PG	ME,Engineering And Technology	24	B.E. or B.Tech	English	18	9
PG	ME,Engineering And Technology	24	B.E. or B.Tech	English	9	2
PG	ME,Engineering And Technology	24	B.E. or B.Tech	English	18	7
PG	Mtech,Engineering And Technology	24	B.E. or B.Tech	English	18	2
PG	ME,Engineering And Technology	24	B.E. or B.Tech	English	25	4

**Position Details of Faculty & Staff in the College**

<b>Teaching Faculty</b>												
	<b>Professor</b>				<b>Associate Professor</b>				<b>Assistant Professor</b>			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	20				14				145			
Recruited	13	7	0	20	12	2	0	14	85	60	0	145
Yet to Recruit	0				0				0			

<b>Non-Teaching Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				129
Recruited	102	27	0	129
Yet to Recruit				0

<b>Technical Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				50
Recruited	43	7	0	50
Yet to Recruit				0

**Qualification Details of the Teaching Staff**

<b>Permanent Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	13	7	0	11	2	0	28	13	0	74
M.Phil.	0	0	0	0	0	0	6	9	0	15
PG	0	0	0	1	0	0	51	38	0	90

<b>Temporary Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

<b>Part Time Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

<b>Details of Visting/Guest Faculties</b>				
<b>Number of Visiting/Guest Faculty engaged with the college?</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
		10	1	0

**Provide the Following Details of Students Enrolled in the College During the Current Academic Year**

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	379	3	0	0	382
	Female	158	0	0	0	158
	Others	0	0	0	0	0
PG	Male	4	0	0	0	4
	Female	20	0	0	0	20
	Others	0	0	0	0	0

**Provide the Following Details of Students admitted to the College During the last four Academic Years**

Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	33	25	38	40
	Female	13	14	19	23
	Others	0	0	0	0
ST	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	358	336	353	360
	Female	163	217	245	240
	Others	0	0	0	0
General	Male	24	32	39	55
	Female	24	27	29	29
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		615	651	723	747

## 2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

<b>Department Name</b>	<b>Upload Report</b>
Engineering And Technology	<a href="#">View Document</a>

NAAC



## Extended Profile

### 1 Program

#### 1.1

##### Number of programs offered year-wise for last five years

2020-21	2019-20	2018-19	2017-18	2016-17
11	11	13	13	15
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

#### 1.2

##### Number of departments offering academic programmes

Response: 7

### 2 Students

#### 2.1

##### Number of students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
2409	2583	2696	2812	2877
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

#### 2.2

##### Number of outgoing / final year students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
714	729	718	736	774
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

### 2.3

**Number of students appeared in the examination conducted by the Institution, year-wise during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
2404	2581	2690	2804	2875
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

### 2.4

**Number of revaluation applications year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
0	8	9	13	14

## 3 Teachers

### 3.1

**Number of courses in all programs year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
1158	1150	1090	1162	971
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

### 3.2

**Number of full time teachers year-wise during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
179	189	206	213	221
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

### 3.3

**Number of sanctioned posts year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
179	190	207	213	221
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

**4 Institution****4.1****Number of eligible applications received for admissions to all the programs year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
1039	930	964	1032	1148
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

**4.2****Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
252	254	309	310	319
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

**4.3****Total number of classrooms and seminar halls****Response: 42****4.4****Total number of computers in the campus for academic purpose****Response: 350**

## 4.5

**Total Expenditure excluding salary year-wise during last five years ( INR in Lakhs)**

2020-21	2019-20	2018-19	2017-18	2016-17
668.12	1017.22	1174.23	1225.53	1254.68

NAAC

## 4. Quality Indicator Framework(QIF)

### Criterion 1 - Curricular Aspects

#### 1.1 Curriculum Design and Development

**1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.**

**Response:**

National Engineering College offers seven undergraduate and five postgraduate programmes to create technocrats who can effectively perform in emerging globalism and contribute to national development. The curricula of the undergraduate and postgraduate programmes have been formulated under the guidelines of UGC, AICTE, affiliating university, involving the stakeholder's feedback. They are in tune with the vision and mission of the Institution. The curriculum is framed to meet the scope of employability/entrepreneurship for the benefit of our students and meet the needs of local, regional, national, and global developments.

Courses in the curriculum are framed by following the Programme Educational Objectives, Programme Outcomes, Programme Specific Outcomes, and Course Outcomes. The course outcomes of various courses have been articulated based on internationally recognized Graduate attributes of Engineering.

Course composition of the programme includes Basic Science courses, Mathematics, Humanities & Social Sciences including Management courses, Engineering Science courses, Professional core courses, Professional Elective courses relevant to chosen specialization, Open Elective courses, Skill development courses, and Mandatory courses. These components are meticulously included to provide engineering knowledge with technical and soft skills and articulate ethical behavior.

Courses are framed based on the initiatives, strategies and plans executed by the Government of India (Make in India, Digital India, Startup India, National Afforestation Programme, National River Conservation Plan, Atal Bhujal Yojana (ABHY), National Anticorruption Strategy, Udaan Scheme, Digiloker, Smart City Projects, National Health Mission, NitiAyog-National Strategy for Artificial Intelligence, Rashtriya Madhyamik Shiksha Abhiyan (RMSA), Integrated – Information and Communication Technology (ICT), Solar Charkha Mission, Ujwal Bharat, Swachh Bharat mission, Sagar Mala project, Pradhan Mantri Krishi Sinchayee Yojana, JaalSakthi, etc..) to meet up the needs of local, regional, national and global development.

In addition to that, the curriculum also includes one credit Non-CGPA courses under the category of Personality and Character Development, Allied Skills/Value Added Courses. The structure of the programme was designed by considering the Outcome-based education and choice-based credit system. Regulation insisted the students undergo in-plant Training/Internship at industry or research organizations or universities or Live-in-Lab for the period prescribed in the curriculum.

Apart from the curriculum, co-curricular and extracurricular activities such as participation in technical competitions, ideation contests, and sports events inculcate holistic personality development qualities among students.

Technical and soft skills training have been imparted towards improving communication skills, quantitative reasoning, logic, and aptitude skills to ensure our student's employability. As per regulations, Students have the opportunity to take up the options of self-study elective courses, credit transfer with online NPTEL/MOOCs certification examination to promote self-learning ability.

Postgraduate programmes are designed with advanced core and elective courses along with a proper

emphasis on research work. The curriculum of postgraduate programmes also deals with all the aspects outlined above.

The overall objective for finalizing the curriculum design and development is to ensure the 100% Career settlement towards Campus Placement / Higher Studies in premier institutions / Start-Up initiatives, by the constitution of Industrial and Academic Experts as part of the Board of Studies Members and Academic Council Members.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

**Response:** 100

#### 1.1.2.1 Number of all Programmes offered by the institution during the last five years.

Response: 11

#### 1.1.2.2 How many Programmes were revised out of total number of Programmes offered during the last five years

Response: 11

File Description	Document
Minutes of relevant Academic Council/BOS meeting	<a href="#">View Document</a>
Details of program syllabus revision in last 5 years(Data Template)	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

**Response:** 75.09

#### 1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years..

2020-21	2019-20	2018-19	2017-18	2016-17
882	885	783	912	699

File Description	Document
Programme / Curriculum/ Syllabus of the courses	<a href="#">View Document</a>
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	<a href="#">View Document</a>
Average percentage of courses having focus on employability/ entrepreneurship(Data Template)	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 1.2 Academic Flexibility

<p><b>1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.</b></p> <p><b>Response:</b> 38.46</p>	
<p>1.2.1.1 How many new courses are introduced within the last five years</p> <p>Response: 778</p>	
<p>1.2.1.2 <b>Number of courses offered by the institution across all programmes during the last five years.</b></p> <p>Response: 2023</p>	
File Description	Document
Minutes of relevant Academic Council/BOS meetings	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>
<p><b>1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).</b></p> <p><b>Response:</b> 100</p>	
<p>1.2.2.1 <b>Number of Programmes in which CBCS / Elective course system implemented.</b></p> <p>Response: 11</p>	

File Description	Document
Minutes of relevant Academic Council/BOS meetings	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 1.3 Curriculum Enrichment

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

#### Response:

Beyond technical aspects, the curriculum design and development has reasonably dedicated to sensitizing students by imparting socially, professionally, and ethically relevant issues as part of the curriculum for cultivating their personality traits. The curriculum design focuses on major societal factors, including Environmental Sustainability, Gender, Professional Ethics and Human Values, etc., by offering courses in the curriculum and conducting various activities like induction and orientation programs and women empowerment counseling activities. The curriculum includes Non-CGPA courses like Yoga for Youth Empowerment, NCC, NSS, YEC, RRC, and 'critical and creative thinking' related courses that focus on human values.

#### Human values and Professional Ethics:

All UG programmes have three-credit mandatory courses on Professional Ethics and Human Values to insist on social, moral, and ethical values among the students.

In addition to that, the courses like Project Management, Human Resource Management, Cyber Law and Ethics, Human Resource Development and Organizational Behavior, Industrial Psychology and Organizational Behavior, Personality Development through Life Enlightenment Skills, Value Education, Stress Management through Yoga practices are introduced to develop the right attitude among the students to face difficult situations in life and workplace bravely and assertively to resolve them. These courses enable the students to exhibit their professional responsibilities with ethical standards.

#### Environment and Sustainability:

The curriculum is designed to take responsibility for environmental sustainability to conserve nature and natural resources and for the well-being of humankind and other living organisms.

The Environmental Science and Engineering course is introduced in all programmes to inculcate the understanding of the economic, environmental, and social needs and promote conservation of natural resources and the protection of the environment. The courses like Safety, Health and Environmental Engineering, Renewable Energy Sources, Solar Photovoltaic Energy Conversion, Energy Conservation, and Waste Heat Recovery, Global Challenges and Issues, Sustainable Development and Practices are offered to maintain a healthy environment.



**Gender:**

To provide an integrated and interdisciplinary approach to understand the social and cultural structure of gender that outlines the knowledge of women and men in society, courses like Constitution of India, Women in Indian Society, Indian Culture and Heritage have been introduced as trans-disciplinary courses. With the focus on the need to counsel the young minds, women empowerment cell is constituted to address the various issues faced by students in academic and personal life. Also, training programs for the students and faculty members have been conducted to insist the gender equity.

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years.**

**Response:** 188

**1.3.2.1 How many new value-added courses are added within the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
44	40	41	31	32

File Description	Document
List of value added courses (Data Template)	<a href="#">View Document</a>
Brochure or any other document relating to value added courses	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.**

**Response:** 207.21

**1.3.3.1 Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
4867	4645	5570	6680	6043

File Description	Document
List of students enrolled	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 1.3.4 Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)

**Response:** 91.82

#### 1.3.4.1 Number of students undertaking field projects / internships / student projects

Response: 2212

File Description	Document
List of programs and number of students undertaking field projects / internships / student projects (Data Template)	<a href="#">View Document</a>

## 1.4 Feedback System

### 1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni

**Response:** A. All 4 of the above

File Description	Document
Action taken report of the Institution on feedback report as minuted by the Governing Council, Syndicate, Board of Management	<a href="#">View Document</a>
URL for stakeholder feedback report	<a href="#">View Document</a>

### 1.4.2 The feedback system of the Institution comprises of the following :

**Response:** B. Feedback collected, analysed and action taken

<b>File Description</b>	<b>Document</b>
URL for stakeholder feedback report	<a href="#">View Document</a>

NAAC

## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Average Enrolment percentage (Average of last five years)

**Response:** 71.38

##### 2.1.1.1 Number of students admitted year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
487	535	587	664	674

##### 2.1.1.2 Number of sanctioned seats year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
682	703	907	907	943

File Description	Document
Institutional data in prescribed format (Data Template)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

#### 2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy ) during the last five years ( exclusive of supernumerary seats)

**Response:** 72.72

##### 2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
162	191	164	265	273

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 2.2 Catering to Student Diversity

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

#### Response:

Students from rural backgrounds and different vernacular mediums of instruction are identified, and suitable stream-based bridge courses are conducted right from the beginning of the academic year. A pre-course test assesses the student's knowledge in each course. Students across the various programmes of study are assessed through continuous and summative assessment throughout their learning period and provided with essential support for both advanced and slow learners through the Class Committees. An active mentor system allows identifying the varied academic needs and suggesting appropriate measures for both slow and advanced learners.

#### **SPECIAL PROGRAMS FOR SLOW LEARNERS:**

Our Institute organizes an orientation program for both the students admitted in the first year along with the parents. The Head of the Institution along with Dean(Academic), Dean(R&D) and Dean(Placement), all Department Heads and Controller of Examinations briefed about the facilities, infrastructures, curriculum design, credits to be earned, regulations, sports, extracurricular and co-curricular activities, etc. to the students. One day is devoted to visit various departments and other facilities to familiarise themselves with the college.

Bridge courses are conducted for second-year Lateral Entry Students on Mathematics and English related courses. The students who have undergone their school education in the regional language are given additional training in the English language through the Language lab. The Institution organizes special coaching classes for the courses with more failures in the end semester examinations.

Special coaching classes are arranged for the slow learners beyond the regular class schedule on specific days for each course. Through these classes, individual attention is given to improve the student's learning, problem-solving, and presentation skills. Also, study materials and hand-outs are provided through the NEC-Moodle Learning Management System, and the students are benefitted.

#### **SPECIAL PROGRAMS FOR ADVANCED LEARNERS:**

Fast track learners are motivated to enroll in NPTEL online courses, Coursera, EDX, IITB spoken tutorials, BEC, TCSion, Udemy, UiPath RPA Global Certifications, Python Institute, Sololearn, and other online courses to improve their employability and prepare for higher education. In the last five years, 5025 students have registered for NPTEL courses, with 4167 completed certifications. Two thousand two hundred fifty-five students have received certificates in various courses through the IITB spoken tutorial scheme. Students are encouraged to organize various technical events, paper presentations, and project

competitions through different professional societies. Department level associations such as IEEE, ISTE, IETE, IEI, CSI, and SAE promote these activities at regular intervals.

Advanced learners are highly motivated to take competitive exams such as GATE, TANCET, MAT, and CAT, and they are given coaching to help them succeed. Advanced students are encouraged to compete in National/International level coding competitions such as Google CodeJam, HackwithInfy, TCS Codevita, Cisco hackathon, etc.

Advanced learners can use the **fast track system** to complete a semester-long internship or special training during the eighth semester. Advanced Learners are also offered to take 15-hour industry-focused one-credit courses each semester. The "KR Innovation Centre", "Entrepreneur cell" and "Incubation Centre" helps to develop innovative ideas into a prototype and helping for patent and commercialisation..

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

**Response:** 13.46

File Description	Document
Any additional information	<a href="#">View Document</a>

## 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

**Response:**

NEC provides resources and engaging in other activities supporting students' learning. The curriculum and syllabus are designed towards the student-centred approach that encourages students to participate more actively in the teaching-learning process.

The following are the experimental learning methods used by NEC.

- **Practical Courses-** The curriculum is designed to provide students with hands-on experience in all courses to validate their theoretical knowledge. NEC introduced the **CDIO Laboratory** to help students transform their ideas into reality. Students are encouraged to spend more time in laboratories.
- **Internships and Insternshala-** As per regulation, each student must complete Industrial Training

or Internships for a minimum period of four weeks to earn two credits during summer and winter vacations. During the last five years, 257 students have completed paid internships in various organizations through Internshala.

- **Industrial Projects-** Department and College level placement coordinators arrange industrial projects for final year students with the guidance of industry experts.
- **Industrial Visits/Tours-** Faculty members arrange industrial visits/tour for the students every semester according to their handled subjects.

The following ways offer participative learning

- **Active Learning-** Active learning methods like role plays, group discussion, problem-solving, and case studies are suitably identified based on course content practiced in the classroom.
- **Blended Learning-** Faculty members practice NEC-MOODLE and GOOGLE CLASSROOM-based LMS systems to share recorded lectures and course materials, conduct assessment, and collect feedback and survey about teaching methods and attainment of course outcome.
- **Classroom Interaction-** Modern teaching pedagogy like Jigsaw, Mud cards, and Think Pair Share is being implemented to attract student participation.
- **Tutorial-** To ensure individual participation in the classroom, problem-based –assignments are given to the students.
- **Seminar/Conference/Symposia-** Students are encouraged to participate in seminars, conferences, and symposia organized by various students associations and other clubs.

Problem-solving methodologies offered in Institution

- **Case study-** All faculty members link real-life problems with their course and solving the problem by applying the engineering concept. This kind of teaching pedagogy makes the students relate the real-life problem with classroom knowledge.
- **Problem-solving through Project-based learning-** Students are encouraged to associate with the faculty members to carry out Mini and Major project works in their areas of interest from the second year onwards. Forty-five projects worth Rs.1, 12, 50,000/-sponsored by DST&EDII completed fulfilling societal needs from 2017 to 2021.
- **Engaging in research-oriented projects-** Students actively involved in research-oriented projects with faculty members and publishing papers in Scopus and SCI journals. Final year students participated in the Indian National Academy of Engineering (INAE), and other Project competitions like Tamil Nadu State Council for Science and Technology (TNSCST) and displayed their innovative ideas with winning prizes for best projects.
- Through the PALS programme, our Institute is linked to IIT Madras, and every year, students compete in the PALS INNOWAH project competition with their innovative ideas. Students regularly attend residential workshops, special workshops, online quizzes, and laboratory visits as

part of the IITM-PALS programme to improve problem-solving skills.

File Description	Document
Link for Additional Information	<a href="#">View Document</a>

### 2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

#### Response:

- In the previous years, tools like **Google classroom** were used both for learning and assessments. But the recent pandemic has made us move to complete online for the learning and assessment process, which paved the way for the development of the "**NEC Moodle**" platform. NEC Moodle helped a lot in the teaching-learning process as well as assessment. The faculty members can post their recorded video lectures, e-books, PowerPoint presentations, and lecture notes. The students' views on the materials can also be ensured.
- The periodical assessment for each course outcome like Quiz, Active Quiz, and assignment is conducted through MOODLE. The submission deadline and the marks awarded for each assessment are notified to the students through Moodle. The internal assessment is also being conducted using safe exam browser mode, enabling the student not to indulge in any malpractice during the exam.
- The PowerPoint presentation and the recorded videos will not be sufficient for online classes on analytical papers which involve problem-solving using mathematical skills. Wacom pen tablets and cameras are used for live classes through Google meet to make the online lecture delivery more understandable and clear.
- Classrooms are equipped with **smart monitors**, and Laboratories have a **Projector facility** to handle live demonstrations during class and Laboratory sessions.
- The Central Library provides excellent library facilities for all the students and faculty members, such as sufficient books and journals, proper seating and reading facility, proper classification and arrangement of books, attractive modern building with high-speed Wi-Fi connectivity, Web OPAC, web-based Library Automation, etc. It has the subscription of IEEE (ASPP) and Elsevier (Science Direct) online journals and Institutional members of DELNET, e- Shodh Sindhu, Shodganga, and NDLI Club.
- e-Learning Management System (e-LMS) that customizes the content of NPTEL Videos and includes our college contents such as e-journals, e-books, and e-question banks, etc. The students, faculty, and research scholars access the e-resources and download the relevant and needed articles.
- Specialized computer laboratories with an internet connection have been provided to promote



independent learning. A firewall-restricted user-id-based **Wi-Fi facility** for internet access is provided on laptops and mobile devices for effective learning.

File Description	Document
Any additional information	<a href="#">View Document</a>
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	<a href="#">View Document</a>

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

**Response:** 17:1

#### 2.3.3.1 Number of mentors

Response: 141

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll	<a href="#">View Document</a>
Circulars pertaining to assigning mentors to mentees	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 2.3.4 Preparation and adherence of Academic Calendar and Teaching plans by the institution

**Response:**

#### Preparation of Academic Calendar

The Institute follows a strategy to prepare the academic calendar for every year well in advance before the commencement of classes. The calendar is designed in coordination with the Director, Principal, Heads of Departments, Association in-charges, Professional chapter in-charges, and various club in-charges. The academic activities include reopening of classes, course registrations, student induction programmes, class committee meetings, internal assessment test, conduction of placement training, conferences, seminar activities, examination time tables, academic audit, conduction of Board of Studies, Academic Council meetings, parents-teachers meeting and holidays, etc are scheduled in the calendar.

The co-curricular and extracurricular activities include NSS, NCC, sports meet, and other club activities beneficial for the students and society. Based on the calendar, the members of the timetable committee prepare the timetable for all courses according to the Regulations to fulfill the requirements of outcome-based education and choice-based credit system. The planned schedule is followed systematically and

monitored by the HODs and class in-charges and club in-charges. The calendar provides the space for the faculty to attend Faculty development programmes, industry know-how, etc., and for the students to plan for internships.

The academic calendar is distributed to the students and the faculty members well in advance before the commencement of classes to work in alignment with the academic schedule. It is also being disseminated through the college website.

### Preparation of Teaching Plan

The teaching plan is prepared by the faculty members handling the courses and uploaded in the NEC-Moodle for students' access. Course outcome attainment target is revised based on the previous year's attainment for the same course after deciding the suitable content delivery and assessment method. The teaching plan for a particular course contains

- Course outcomes
- Syllabus content
- Textbooks and reference books list
- Number of hours required for each topic
- Delivery method
- Assessment to be followed for each course outcome
- CO and Internal mark evaluation Procedure
- Target and threshold percentage.
- Rubrics for Evaluation of Cognitive and Affective domain Tools
- Mapping of Course Outcome (CO) with Programme Outcome (PO)

### Adherence to the Teaching plan

Based on the academic calendar, Internal and other Assessment test is conducted according to Institute standard procedure approved by the concern head of the department. The student's daily attendance and Internal assessment Test marks are uploaded in the **ERP software** by the concerned course instructor. The course instructor calculates the course outcome attainment and uploads it in the **ERP software** after getting approval from the Head of the Department. **After completing the internal assessment test, the moderation committee** evaluates the question standard, evaluation, uniformity in assessment, and other standard procedures. The moderation committee prepares a report about positive points and deficiencies in the assessment procedure and submits the same to the head of the Department and Institution. **The Academic Audit committee** verifies the course file whether activities are carried out as per the teaching plan or not at the end of the academic year.

File Description	Document
Upload Academic Calendar and Teaching plans for five years	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 2.4 Teacher Profile and Quality

### 2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

Response: 99.8

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years(Data Template)	<a href="#">View Document</a>
List of the faculty members authenticated by the Head of HEI	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 2.4.2 Average percentage of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)

Response: 30.17

#### 2.4.2.1 Number of full time teachers with *Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit.* year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
74	69	60	52	43

File Description	Document
Institutional data in prescribed format (Data Template)	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

Response: 5.82

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

Response: 1041.08

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 2.5 Evaluation Process and Reforms

### 2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Response: 27

#### 2.5.1.1 Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
30	18	25	30	32

File Description	Document
Institutional data in prescribed format (Data Template)	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 0.32

#### 2.5.2.1 Number of complaints/grievances about evaluation year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
0	8	9	13	14

File Description	Document
Number of complaints and total number of students appeared year wise	<a href="#">View Document</a>

### 2.5.3 IT integration and reforms in the examination procedures and processes including Continuous

## **Internal Assessment (CIA) have brought in considerable improvement in Examination Management System (EMS) of the Institution**

### **Response:**

NEC has adopted summative and formative assessments namely:

1. Continuous Internal Assessment (CIA)
2. End Semester Examinations (ESE)

In CIA, performance is evaluated by two internal examinations for theory courses and one model examination for the practical courses. In addition, various continuous assessments such as assignments, quizzes, surveys, viva-voce, and role play, etc., are conducted with appropriate weightage through the NEC Learning Management System. For project work, two or three reviews are conducted.

In ESE, the following measures are taken:

- A comprehensive examination instruction manual, academic calendar, and various academic regulations are prepared and disseminated on the website.
- Question banks/Questions are prepared for all the theory courses and one-credit courses as per the instructions given by the college.
- The examination schedule is prepared and disseminated in the college website. It is also communicated to the students through voice mail.
- Question papers are set based on Blooms Taxonomy by the internal subject experts.
- The scrutiny committee of each department scrutinizes the questions.
- External subject experts audit the question papers and answer scripts.
- Unbiased valuation is ensured through a dummy number system. Transparent evaluation system is also maintained.
- The results are published in the NEC-ERP web portal. It is also communicated to the parents/students through voice mail.
- The grievance of the student is considered, and there is a provision to appeal against the result.

### **Pre-Examination Process**

The pre-examination processes such as preparation of nominal roll, course work registrations, exam applications, panel of question paper setters, hall tickets, panel of examiners for practical examinations, seating arrangements, invigilator duties, dummy numbering, and foil cards are carried out. Question paper scrutiny meeting is conducted. These processes are automated through PALPAP automation software.

### **Post Examination Process**

The End semester answer scripts are evaluated by the internal subject experts. Result Passing Board Committee which has Anna University Nominee analyses and approves the results. Grade sheets and consolidated mark statements are issued with various security features.

### **IMPACT**

- The efforts taken have resulted in the successful conduct of the examination as per the exam

schedule.

- Integration of ICT has enhanced the quality of functioning of the office of the CoE and has resulted in the quick publication of results and redressal of grievances.
- During the valuation, the examiners evaluate and enter the marks in the software so that calculation of CO attainment is carried out easily for each course.
- The adoption of Blooms Taxonomy has resulted in the improvement of the student academic standards both at teaching and evaluation stages.
- Showing all the regular course answer scripts of End Semester Examinations to the students helps to achieve greater transparency of the assessment process. This reform shall be useful for the college to gain the confidence on the fairness and transparency in the examination system.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 2.6 Student Performance and Learning Outcomes

**2.6.1 Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.**

### Response:

- Outcome-Based Education (OBE) has been implemented in our Institute since 2013 as OBE emphasizes what is expected from the student when they finish their course. In line with OBE, Program Specific Outcomes (PSOs), Program Outcomes (Pos), and Course Outcomes (Cos) have evolved. OBE is mandatory in all regulating bodies like NBA and NAAC etc. OBE provides/helps the student to achieve the outcomes of significance before leaving the Institute
- Program Educational Objectives (PEOs) are broad statements that describe the graduates' career accomplishment after 3 to 5 years of graduation. Program Outcomes (Pos) are aligned with the Graduate Attributes defined by NBA. Program Specific Outcomes (PSOs) are specific and relevant to a particular program. Course outcomes are direct statements that describe the essential and enriching disciplinary knowledge and abilities that the students should possess with the learning process upon completion of a course.
- The Program Outcomes (POs) and Course Outcomes (COs) are specifically stated for all the courses of the program published on the college website and also displayed at prominent places in the department such as classrooms, laboratory halls, seminar halls, faculty rooms, the entrance of the department and department library. Also, it is available in syllabus books, laboratory manuals, and course plans and also uploaded in the LMS portal. The course outcomes (COs) are given in the syllabus of every course. The syllabus also provides the mapping of COs with both POs and PSOs. The students are issued a course syllabus copy and course plan with COs. The students are briefed about the course outcomes and program outcomes at the start of the semester in the classes, course plans, and class committee meetings.

- The vision, mission, POs, and COs are explained to first-year students and other stakeholders during the induction and orientation program. The course instructor outlines the justifications and methods for attaining the Course Outcomes. While beginning the course, the course instructor explains the process used to achieve COs and the assessment tools used to measure that attainment.

File Description	Document
Upload COs for all courses (exemplars from Glossary)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

#### Response:

- The assessment of CO is mandatory for Lab and Theory courses. The assessment of COs is done based on the assessment pattern fixed for the particular course by the Course Coordinator and Instructors. The calculation of attainment is based on the student's performance in every category in direct and indirect methods. During the commencement of the semester, the target value for the course will be fixed by the Course Coordinator and Instructors. The method of assessment should be informed to the students clearly. The Faculty members team will do a review of the assessment in due course, and suggestions will be provided for the necessary actions for improvement.
- The calculation of COs of a course is measured by both the direct and indirect assessment tools. Direct assessments are made from the performance in continuous internal assessments, assignments, tutorials, mini project and project work review, seminars, quizzes, Course exit survey, and end semester examination. Indirect assessment is made from the Course End Survey. The direct and indirect assessments are given 90% and 10% weightage, respectively. The Course Coordinator and Instructor frame the course end survey questions to indirectly find the student's confidence level in the COs.
- The theory courses consider the periodical test marks, end-semester examinations, assignments, and innovative practices (Quiz, seminars, open-book tests, etc.). The course instructor needs to map questions to specific COs in the Assessment-CO matrix.
- For the practical course, the assessment tool is based on the continuous assessment of every experiment. The experiments completed by the students are evaluated based on Rubrics, including their knowledge in designing, conducting, and analyzing the results.
- At the end of the course, the Course Coordinator and Instructor measure the attainment of COs based on the above assessment methods and report about their observations and actions that need to be taken for further improvement in the assessment process.

**Attainment of program outcomes**

- The curriculum and syllabus are developed by taking into consideration of all the POs and PSOs. The POs and PSOs attainments are evaluated through direct & indirect measures.
- For direct attainment, all POs are adequately addressed through the selection of courses and their COs. Target levels of attainment of POs and PSOs are set, and the actual attainment of POs and PSOs are reviewed and determined by Department Advisory Board(DAB).
- The indirect methods considered for calculating POs/PSOs are program exit survey, alumni survey, and employer survey. The survey questionnaires are given on a scale of scores ranging from 1 to 5, and they are mapped to appropriate POs and PSOs. The average score of the questionnaires is calculated as indirect attainment for the mapped POs and PSOs. The DAB needs to identify ways to improve the attainment of desired knowledge and skills in the following academic year by reducing the gap. Based on DAB recommendation, further actions are taken to improve the PO attainment every year.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**2.6.3 Pass Percentage of students(Data for the latest completed academic year)**

**Response:** 98.04

**2.6.3.1 Total number of final year students who passed the examination conducted by Institution.**

**Response:** 699

**2.6.3.2 Total number of final year students who appeared for the examination conducted by the Institution.**

**Response:** 713

File Description	Document
Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for the annual report	<a href="#">View Document</a>

**2.7 Student Satisfaction Survey****2.7.1 Online student satisfaction survey regarding teaching learning process**



**Response:** 3.83

<b>File Description</b>	<b>Document</b>
Upload database of all currently enrolled students	<a href="#">View Document</a>

NAAC

## Criterion 3 - Research, Innovations and Extension

### 3.1 Promotion of Research and Facilities

**3.1.1 The institution's Research facilities are frequently updated and there is a well defined policy for promotion of research which is uploaded on the institutional website and implemented**

**Response:**

National Engineering College (NEC) has a well-defined policy to promote research, consultancy, and IPR. The promotion of the research and the research policies are discussed periodically in the Governing board, Academic Council, and research advisory board meetings. The Institute provides all necessary infrastructural facilities to promote research activity on the campus. Five departments of the Institute are recognized as research centers to carry out Ph.D. programs by Anna University, Chennai. Various initiatives are taken to promote the research climate in the Institution. In support of our vision and to strengthen the quality of research and development in all our research centers, Institution Research Fellowship Scheme is implemented exclusively for full-time Ph.D. The institutional research fellowship of Rs.10,000/- per month is given to the full-time Ph.D. Scholars.

The faculty and students can choose the research area, and guidance is given to seek funding from various funding agencies and industries. Faculty members and research scholars are encouraged to undertake the research projects, and immense support is extended by the research and development cell of the Institute. NEC encourages the faculty members and students to attend seminars, workshops, and conferences. They can enroll and participate in any such programs to familiarize themselves with the current trends and future directions in their respective disciplines. The Institute provides financial support, and grants leave for the faculty members to attend seminars, workshops, orientation programs, and refresher courses to update their knowledge and procure advanced information.

The Institute encourages the faculty members by providing incentives for peer-reviewed publications, sponsored research projects, and consultancy. The Institute has a unique training program, "Industry Know-How," for staff members to enrich their knowledge to get the consultancy from Industry. The Institute provides the full financial support to participate in the "Industry Know-How" program. The Institute creates awareness about Intellectual Property Rights among faculty members, researchers, and scholars. The Institute takes care of the patent filing process, which is governed by the Research policy of the Institute.

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	<a href="#">View Document</a>
URL of Policy document on promotion of research uploaded on website	<a href="#">View Document</a>

**3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)**

**Response: 11.08**

**3.1.2.1 The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).**

2020-21	2019-20	2018-19	2017-18	2016-17
1.70	3.86	15.74	22.82	11.28

File Description	Document
Minutes of the relevant bodies of the Institution	<a href="#">View Document</a>
List of teachers receiving grant and details of grant received	<a href="#">View Document</a>
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.1.3 Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years**

**Response: 0.1**

**3.1.3.1 The number of teachers awarded national / international fellowship for advanced studies / research year wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	1

File Description	Document
List of teachers and their international fellowship details	<a href="#">View Document</a>
e-copies of the award letters of the teachers	<a href="#">View Document</a>

## 3.2 Resource Mobilization for Research

**3.2.1 Grants received from Government and non-governmental agencies for research projects,**

**endowments, Chairs in the institution during the last five years (INR in Lakhs)****Response:** 209.23**3.2.1.1 Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)**

2020-21	2019-20	2018-19	2017-18	2016-17
57.80	38.07	48.96	28.81	35.59

**File Description****Document**

List of project and grant details

[View Document](#)

e-copies of the grant award letters for research projects sponsored by government and non-government

[View Document](#)**3.2.2 Percentage of teachers having research projects during the last five years****Response:** 9.52**3.2.2.1 Number of teachers having research projects during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
09	9	11	29	38

**File Description****Document**

Names of teachers having research projects

[View Document](#)

Link for additional information

[View Document](#)**3.2.3 Percentage of teachers recognised as research guides****Response:** 27.37**3.2.3.1 Number of teachers recognized as research guides****Response:** 49

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

### 3.2.4 Average percentage of departments having Research projects funded by government and non-government agencies during the last five years

**Response:** 77.5

#### 3.2.4.1 Number of departments having Research projects funded by government and non-government agencies during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
8	8	7	4	4

#### 3.2.4.2 Number of departments offering academic programmes

2020-21	2019-20	2018-19	2017-18	2016-17
8	8	8	8	8

File Description	Document
Supporting document from Funding Agency	<a href="#">View Document</a>
List of research projects and funding details	<a href="#">View Document</a>
Paste link to funding agency website	<a href="#">View Document</a>

## 3.3 Innovation Ecosystem

**3.3.1 Institution has created an eco system for innovations, creation and transfer of knowledge supported by dedicated centers for research, entrepreneurship, community orientation, Incubation etc.**

**Response:**

#### **National Engineering College Business Incubator (NEC-BI)**

National Engineering College (NEC) has established a business incubator (NEC-BI) in the year 2015. NEC-

BI is recognized by the Ministry of MSME, New Delhi, and is devoted to all the innovators and entrepreneurs emerging from south India. The incubator is a central hub for creating technology start-ups for 80+ technical institutes located within 100 km of our venue. Further, it has also established K.R. Innovation Centre (KRIC), a section 8 company, in 2018 to support business Incubation activities in our Institution. National Engineering College allocates 1% of its total annual budget to accelerate the activities to support Incubation in addition to the CSR funds to the worth of Rs 10,00,000/-(Every Year).

**VISION:**

To nurture entrepreneurs through start-ups towards economic and industrial growth creating employment opportunities for engineering graduates.

**MISSION:**

To provide state-of-the-art infrastructure to the incubatees to innovate in the field of engineering and technology.

To conduct innovation and entrepreneurial activities to convert innovative ideas into a minimal viable start-up business.

To offer seed fund/grant to support the early-stage start-ups.

To collaborate with industries, investors, government, academia, and other reputed business incubators for knowledge sharing, co-incubation, and technology transfer.

The KRIC (NEC-BI) provides free co-working room for young developers, versatile corporate incubation rentals with common office facilities, and labs for innovators. The KRIC offers direct business assistance, lab facilities, entrepreneurship training programs, Start-up awareness camps, Boot camps, innovation workshops, critical & creative thinking courses, career guidance, mentoring, networking, and other knowledge-sharing activities. Meetings, Startupathon, Hackathon, Project Contest, and Competition for the Business concept are also held regularly.

**National Engineering College Entrepreneurship Development Cell (NEC-EDC)**

Entrepreneurship Development Cell was established in our Institute on 22.01.2015 with nine faculty members in charge of their respective Engineering disciplines aspiring to promote entrepreneurial activities. With the following objectives and activities, we have started creating job providers rather than job seekers among our students.

**Objectives of Entrepreneurship Development Cell:**

To transform entrepreneurship aspiring students as employment creators immediately after their graduation.

To promote and maintain the spirit of Entrepreneurship amongst our college students.

To provide a platform to convert the student's innovative ideas into viable enterprises.

National Engineering College, ED Cell, was awarded the "New Generation Innovation & Entrepreneurship Development Centers (NewGen IEDCs)" scheme in 2017-2018, funded by NSTEDB & DST. The NEC NewGen IED center was established in NEC and completed three academic years and thereby developed 45 numbers of commercially viable products. Twenty-three patents are filed from the outcomes of the said projects, and two student start-ups are created. Beyond product development, the center actively functions by conducting various Entrepreneurship orientation programs, entrepreneurship lecture series, and encouraging the Techno-Entrepreneurial culture among the students. The total span of the NewGen IEDC scheme is five academic years, and currently, third academic year projects are in progress.

**"NEC INNOVATION PERFORMANCE RATING 2020 WITH 5 STAR BY MINISTRY OF EDUCATION'S INNOVATION CELL"**

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

### 3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development during the last five years.

**Response:** 83

#### 3.3.2.1 Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
19	26	11	16	11

File Description	Document
Report of the event	<a href="#">View Document</a>
List of workshops/seminars during last 5 years	<a href="#">View Document</a>

## 3.4 Research Publications and Awards

**3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee**

**Response:** A. All of the above

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

**3.4.2 Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/supervisors provided at 3.2.3 metric) during the last five years**

**Response:** 0

3.4.2.1 How many Ph.Ds are registered within last 5 years

3.4.2.2 Number of teachers recognized as guides during the last five years

Response: 49

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	<a href="#">View Document</a>
URL to the research page on HEI web site	<a href="#">View Document</a>

### 3.4.3 Number of research papers per teachers in the Journals notified on UGC website during the last five years

Response: 0

3.4.3.1 Number of research papers in the Journals notified on UGC website during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

File Description	Document
List of research papers by title, author, department, name and year of publication	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.4.4 Number of books and chapters in edited volumes / books published per teacher during the last five years

Response: 0.46

3.4.4.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
32	21	19	11	9

File Description	Document
List books and chapters in edited volumes / books published	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>



**3.4.5 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed****Response:** 6.33

File Description	Document
Bibliometrics of the publications during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.4.6 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution****Response:** 24.5

File Description	Document
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.5 Consultancy****3.5.1 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).****Response:** 12.01**3.5.1.1 Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).**

2020-21	2019-20	2018-19	2017-18	2016-17
1.08	3.02	2.03	5.02	0.86

File Description	Document
List of consultants and revenue generated by them	<a href="#">View Document</a>
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.5.2 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).****Response:** 6.64**3.5.2.1 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)**

2020-21	2019-20	2018-19	2017-18	2016-17
0.61	0.85	2.29	0.94	1.95

File Description	Document
List of facilities and staff available for undertaking consultancy	<a href="#">View Document</a>
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.6 Extension Activities****3.6.1 Extension activities are carried out in the neighbourhood community, -sensitising students to social issues, for their holistic development, and impact thereof during the last five years****Response:**

Service to society and needy people is service to god. Incubating such human values and attitudes to students is the vision of the institution. In this aspect, Institute encourages social responsibility policies and outreach programs for students and faculty through extension activities for the neighborhood community. Our institute's NSS, NCC, Yoga Club, Rotract Club, YRC, RRC, Fine Arts clubs make our college vision true by organizing many outreach programs. The office-bearers of these clubs have dedicated student volunteers who concentrate on the welfare of the neighborhood community and sensitize their social problems and takes necessary steps for the betterment of society. Every year during Independence Day and Republic Day, the NCC students coordinate with the other clubs of the institute to demonstrate a current social problem through parades and rallies. Apart from this activity various clubs of our institute recurrently organizes Blood Donation camp, National Voter's Day – Voter's Awareness Rally, International Yoga Day – Yoga Awareness program, Community service through educational drives, Women empowerment program, Clean and Green Campus program,

Awareness program on Rain Water Harvesting, Anti sexual harassment, Anti-Ragging, Visit to

Rehabilitation Centers to help poor old & children, street cause, Self Defense Training for girls, Road Safety awareness program, Marathon, Save Water & Electricity Awareness program, Cleanliness drive (Swachh Bharat ), other social works like sharing of computers to nearby government schools. Life skill seminars & workshops are conducted on regular basis for students & staff to cover topics like decision making, problem-solving, lateral thinking, effective communication, interpersonal relationships. These social outreach programs brought a great impact on the holistic development of the students as they come across different categories of people and their living standards. By conducting the above programs the Institute promotes an Institute-neighborhood network and student engagement, contributing to the holistic development of students, sustained community development, and sensitizing students to societal issues.

File Description	Document
Upload Any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

### 3.6.2 Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years

Response: 0

#### 3.6.2.1 Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

File Description	Document
Number of awards for extension activities in last 5 year	<a href="#">View Document</a>

### 3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Response: 284

#### 3.6.3.1 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
93	57	51	49	34

File Description	Document
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	<a href="#">View Document</a>

### 3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

**Response:** 436.8

#### 3.6.4.1 Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
11194	13738	11064	11094	11006

File Description	Document
Average percentage of students participating in extension activities with Govt or NGO etc	<a href="#">View Document</a>

## 3.7 Collaboration

### 3.7.1 Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

**Response:** 95.4

#### 3.7.1.1 Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

2020-21	2019-20	2018-19	2017-18	2016-17
114	130	115	58	60

File Description	Document
Number of Collaborative activities for research, faculty etc	<a href="#">View Document</a>
Copies of collaboration	<a href="#">View Document</a>

**3.7.2 Number of functional MoUs with institutions of national, international importance, other institutions, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)**

**Response:** 37

**3.7.2.1 Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
6	11	9	6	5

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	<a href="#">View Document</a>
Details of functional MoUs with institutions of national, international importance, other Institutions etc during the last five years	<a href="#">View Document</a>

## Criterion 4 - 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.**

**Response:**

The college is set amidst sylvan surroundings against a backdrop of Western Ghats. It has an excellent rural landscape and is far from the madding crowd. All the departments have been functioning in separate blocks in which adequate facilities are provided. Each block/ department has more than the required number of classrooms depending upon the number of programmes.

The Institute has State-of-the-art laboratories to conduct practical courses as per the curriculum. Each department has its computer centre, seminar hall, Library, laboratories to facilitate R&D activities. Specialized laboratories are there to execute practical experiments like High voltage laboratory, remote monitoring laboratory, Cloud computing laboratory, CAD-CAM laboratory with high-end configuration systems. These facilities are upgraded as and when required to meet the current needs of academic programmes. A central team of the Estate Office properly maintains these blocks.

In addition to the traditional boards for chalk and talk, classrooms (about 90%) are equipped with Smart TV, LCD Projectors, and quality audio systems with internet connectivity. Moodle-based learning is effectively implemented for interactive online learning. Seminar halls are equipped with LCD projector and smart interactive board, computer with internet connectivity, podium, and public address system. The seminar halls are being utilized for conducting seminars, workshops, guest lectures, value-added courses, project presentations, and research presentations with the LMS facility.

Collar mics, stands for capturing live lectures, speakers, smart tabs, HD cameras, and headphones are used in the classrooms for interactively handling the online classes.

Advance Computing facilities with 1366 computers, including the latest configuration systems. Rack-mounted blade servers, Storage Area Networks, Cisco Routers, and Sonic Firewall are also available. The college has 155 Mbps Internet connectivity from Airtel, Reliance, and Wi-Fi facilities.

The college has installed both licensed and open-source software for the needs of teaching and learning. The Institution has 500 KVA, 320 KVA, and 200 KVA power generators to meet the occasional power shutdown and provide a continuous power supply for laboratories, classes, computer labs, and events. About 15% of power utilization is met out through Solar Energy.

Two separate men's hostel with an accommodation capacity of about 800 students along with sophisticated dining halls. The ladies hostel can accommodate around 900 students. The hygienic cooking system is separate for vegetarian and non-vegetarian food. Our college has 30 buses for transporting staff and students. The transport facilities are provided for the following places: Aruppukottai, Thoothukudi, Ettayapuram, Vilathikulam, Puthiamputhur, Ottapidaram, Virudhunagar, Sivakasi, Sattur, Sankarankoil, Rajapalayam, Tirunelveli, and Kovilpatti.

The college has the following infrastructure/facilities in its premises for personal needs and for carrying

out extra-curricular activities: Indian overseas Bank, ATM facility, TCP Cell, Store for Stationeries, Canteen, Cafeteria, post office, dispensary for both boys and girls, reprographics centre, Various Forums/Clubs for co-curricular and extra-curricular activity, and Alumni Chamber with video conferencing facility.

File Description	Document
Upload Any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

#### 4.1.2 The institution has adequate facilities for cultural activities, yoga, games and sports (indoor & outdoor); (gymnasium, yoga centre, auditorium, etc.,)

##### Response:

Adequate facilities are available for playing outdoor games, sports, gymnasium, yoga, and cultural activities.

##### Playground

The open playground is being used to conduct the games such as Football, Handball, Kabaddi, Tennis Courts, hockey, and Cricket fields. NEC has a 400m Athletic Track to conduct run events and facilities to conduct Volleyball, Ball Badminton, Long jump, Hurdles, Shot-put, High jump, Hammer, Pole vault, Javelin Throw, and Discus Throw. The students are trained to compete at the zonal, inter-zonal, state, and national levels. The Institution regularly organizes zonal level sports events such as Anna University Zone-18 Zonal cricket tournament, basketball Men Tournament, National level weight lifting, state-level chess tournament, and Women ball badminton tournament. About 21 sports and games tournaments were conducted during the past five years. In addition to this, the basketball court and cricket practice net facilities are available in the campus.

##### Gym Hall

The gymnasium hall is housed various exercise equipment, including 16 Station Multi-Gym, Motorized Tread Mill, and Smith Machine. The hall is open for the students both morning and evening time. Single station gyms are installed in both hostels.

##### Yoga Centre:

Yoga is being practiced in the college. The students are motivated to do yoga exercises regularly. The Institution conducts certification courses for the benefit of students. International Yoga Day is celebrated on 21st June every year with a yoga trainer in the college. The auditorium is effectively utilized for yoga activities, and the meditation hall is also there on campus.

##### Cultural Activities

The auditorium (with a seating capacity of 900) and seminar halls are utilized to conduct cultural programs. The students perform folk dances, banjara dances, music, plays, mono acting, traditional events like Silambam, Martial Arts, Etc. The students have participated in cultural competitions and won prizes. The students are encouraged to perform cultural in the college day functions and conferences. About 148 cultural events have been organized during the past five years.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Geotagged pictures	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

#### 4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)

**Response:** 100

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

Response: 42

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

#### 4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during the last five years (INR in Lakhs)

**Response:** 34.93

##### 4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
233.46	360.60	370.63	400.41	502.36



File Description	Document
Upload Details of Expenditure , excluding salary during the last five years	<a href="#">View Document</a>
Upload audited utilization statements	<a href="#">View Document</a>
Upload any additional information	<a href="#">View Document</a>

## 4.2 Library as a Learning Resource

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

#### Response:

*Name of the ILMS Software: InsPro Plus*

Our College Central Library is automated with the details below:

- Name of the ILMS Software : **InsPro Plus**
- Nature of Automation (fully or partially) : Fully Automated
- Year of Automation : 1998 - Updated August 2011

*Name of the ILMS Software: InsPro Plus*

Central Library was automated in 1998 by using **LIBASOFT** and **AutoLib Software** in the year 2004. Currently, the NEC Library has been using **InsPro Plus Integrated Library Management Software** since **August 2011**.

InsPro Plus Integrated Library Management Software has fully automated all the library services. InsPro Plus is a web-based Library Automation software facilitates automated library system and services including e-Gate Register, Circulation, web OPAC, etc.

**Web OPAC** is an acronym of 'Web Online Public Access Catalogue'. It facilitates online search queries related to the availability of library resources viz. Books, Book Bank books, Journals, CDs, back volumes, and project reports. (URL - <https://erp.nec.edu.in/opac/> )

Sufficient numbers of systems are available in the **e-Library section** with an Internet access facility to access the e-resources. Users can access it for educational, research, and development purposes. Non-book materials such as CDs, DVDs, textbook tutorial CDs, and periodical CDs are also kept in the Library.

Central Library acts as a knowledge hub for the academic activities of our Institution with a mission to provide a knowledge gateway to the user community with state-of-the-art technologies. A fully air-conditioned modern separate Library building is housed in an area of around 3911 sq.m. enabled with wi-fi facility is also extended and monitoring with CCTV.

Open Access System is followed in our Institution. In addition to the well-stocked Library, each department has its Library to facilitate easy access to the Faculty, Students, and Research Scholars.

The Library has a rich collection of 61608 books and 24459 titles, 114 National Journals and Technical Magazine, 3476 Back volumes, 2143 e-books, 3317 CDs, 5152 Project reports, and 20 Newspapers (both English & Tamil).

Central Library has the subscription of IEEE (ASPP) and Elsevier (Science Direct) online journals and Institutional members of DELNET, e- Shodh Sindhu, Shodh Ganga, and NDLI.

e-Learning Management System (e-LMS) that customizes the content of NPTEL Videos and includes our college contents such as e-journals, e-books, and e-question banks, etc. The students, faculty, and research scholars access the e-resources and download the relevant and needed articles.

The Central Library provides the following sections and services:

- Book stocking section
- **Periodical Section Reference Section**
- Reprography Service
- Book Bank Section
- Audio & Video Section (A.V.Hall)

The Central Library is kept open throughout the year except for government Holidays (Weekdays 08.30 a.m. to 07.30 p.m. and Sundays 09.30 a.m. to 01.00 p.m.)

The Central Library provides excellent library facilities for all the students and faculty members, such as sufficient books, proper seating and reading facility, proper classification and arrangement of books, attractive modern building with high-speed wi-fi connectivity, Web OPAC, cleanliness, etc.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste Link for additional information	<a href="#">View Document</a>

#### 4.2.2 Institution has access to the following: 1. e-journals 2. e-ShodhSindhu 3. Shodhganga Membership 4. e-books 5. Databases 6. Remote access to e-resources

**Response:** A. Any 4 or more of the above

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Details of subscriptions like e-journals, e-books , e-ShodhSindhu, Shodhganga Membership etc	<a href="#">View Document</a>

#### 4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-

**journals during the last five years (INR in Lakhs)****Response:** 23.89**4.2.3.1 Annual expenditure of purchase of books/e-books and subscription to journals/e- journals year wise during last five years (INR in Lakhs)**

2020-21	2019-20	2018-19	2017-18	2016-17
18.49	22.78	20.49	27.16	30.54

File Description	Document
Details of annual expenditure for purchase of and subscription to journals/e-journals during the last five years	<a href="#">View Document</a>
Audited statements of accounts	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**4.2.4 Percentage per day usage of library by teachers and students ( foot falls and login data for online access) during the latest completed academic year****Response:** 0**4.2.4.1 Number of teachers and students using library per day over last one year**

Response: 00

File Description	Document
Details of library usage by teachers and students	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**4.3 IT Infrastructure****4.3.1 Institution has an IT policy covering wi-fi, cyber security, etc., and allocated budget for updating its IT facilities****Response:**

The college has a well-established IT infrastructure and facilities and has been upgraded regularly depending on the necessity. The details of IT infrastructures are as follows for academic and administrative purposes

**Computer Systems**

• Core i7	:	<b>19</b>
• Corei5	:	<b>893</b>
• Corei3	:	<b>22</b>
• Dual Core	:	<b>461</b>
• <b>Total No of system</b>	:	<b>1395</b>

**Servers** : **33**

**Peripherals**

• Black and White Laser Printer	:	<b>64</b>
• Color Laser Printer	:	<b>3</b>
• Inkjet Printer	:	<b>5</b>
• Xerox Machine	:	<b>21</b>
• Dot Matrix Printers	:	<b>11</b>
• <b>Total</b>	:	<b>104</b>

The entire campus is connected with fiber backbone, and internal blocks are connected with local area networks with 310 Mbps (1:1) high-speed internet connectivity to all computer systems available in the college.

The college has various high-speed advanced servers such as IBM X3650M3, HP make of Domain servers, ERP Server, Linux Server, Web Servers and Moodle LMS Server. All faculty members provided with College Mail id (@nec.edu.in) through G-suite.

HP DL380 Gen10 File server, HP DL380 Gen9 server with 48 TB storage capacity is available to ensure the reliable storage of data for staff and students. Sophos XG550 firewall is used to provide secured internet access along with a monitoring system.

The other IT services and application portals supported by the ICTS centre are Student Attendance (Student Attendance Monitory System), Exam Process Automation (Automation of Examination Process) and Faculty profile updation. A biometric-based staff attendance system also has been implemented. All the departments are provided with a smart interactive board for the teaching and learning process.

**Internet Details**

The details of the internet facility on our campus are

- 155 Mbps Airtel (1:1) leased line internet connectivity
- 155 Mbps Reliance (1:1) leased line internet connectivity

Microsoft Edu Cloud Campus Agreement, the entire campus is WiFi enabled by 189 numbers dual-band Ruckus access points with Ruckus wireless controller (Zone Director 3000) and 310 Mbps internet connectivity to allow the students and staff to access the internet wherever they are. WiFi coverage is not only in classrooms but also extends to all the areas, including Library and hostels. The websites browsed by students are regularly monitored.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

#### 4.3.2 Student - Computer ratio (Data for the latest completed academic year)

**Response:** 6.88

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Student - computer ratio	<a href="#">View Document</a>

#### 4.3.3 Bandwidth of internet connection in the Institution.

**Response:** 250 MBPS

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Details of available bandwidth of internet connection in the Institution	<a href="#">View Document</a>

#### 4.3.4 Institution has the following Facilities for e-content development

1. Media centre
2. Audio visual centre
3. Lecture Capturing System(LCS)
4. Mixing equipments and softwares for editing

**Response:** D. 1 of the above

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Link for Additional information	<a href="#">View Document</a>

## 4.4 Maintenance of Campus Infrastructure

#### 4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years

**Response:** 23.76

##### 4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year wise during the last five years (INR in lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
210.29	138.21	469.26	281.29	136.09

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Details about assigned budget and expenditure on physical facilities and academic facilities	<a href="#">View Document</a>
Audited statements of accounts	<a href="#">View Document</a>

#### 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.

**Response:**

##### Laboratory Maintenance

The maintenance of the equipment of laboratories is taken care of by the maintenance departments. Each laboratory is assigned with one teaching faculty as an in-charge. The technicians of the laboratories periodically monitor the working condition of the equipment/instruments/machinery in the laboratories. At the end of every academic year, technicians will carry out preventive maintenance of their laboratories and verify the stock of the equipment. In addition to this, some faculty members are assigned from another department to conduct the stock verification and ensure the lab equipment's working condition; based on that, the report is submitted to the institution head for further rectification. Based on that report, the maintenance team has taken care of the rest of the work. The laboratory halls are effectively utilized to conduct practical courses in odd and even semesters as per the curriculum with adequate equipment and facilities.

##### Classroom Maintenance

The concerned department monitors the maintenance of the classroom ICT facilities and electrical fittings. The department technicians regularly monitor the ICT facilities such as computers, internet points, WI-FI, and LCD projector in the classrooms. If the faults occurred are unable to rectify by them will be reported to the Electrical maintenance department. The electrical fittings such as lights, fans, switches, and plug points in the classrooms are regularly monitored by the department and inform to electrical maintenance cell if

there is a problem for rectification.

### **Campus Maintenance**

Cleanliness & daily maintenance of the interior facility (classrooms, laboratories, library, hallway, and staircase) is done by the housekeeping team of the Institute under the supervision of the college campus maintenance in charge. The fire extinguisher is outsourced since refilling of the cylinder is done based on the requirement.

### **Electrical Maintenance**

All the circuitry-related tasks are integrated and brought under one umbrella to innovate, improve, and maintain quality service to the Institution's academic and other day-to-day activities. Under this scenario, The Electrical Maintenance department has been established to maintain the Electrical system, Networking, Server, Internet, Intranet, and computer systems (hardware & software) & Peripherals, Online UPS system, EPABX, Intercom, and CCTV system, watercooler/ mineral water plants, Air conditioning system and purchase of equipment and other materials related to all the above works.

### **Sports Complex Maintenance and Utilization**

The physical education department maintains playgrounds, courts, and sports fields under the supervision of the physical director regularly. These ground markers maintain the track and field regularly with proper marking. Students receive the sports kit from the physical education department for practicing by entering their name and roll number in the material issue register. After completing the practice session, they should return the same in the physical education storeroom.

<b>File Description</b>	<b>Document</b>
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

## Criterion 5 - Student Support and Progression

### 5.1 Student Support

#### 5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during last five years

Response: 0.04

##### 5.1.1.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
1	1	1	1	1

File Description	Document
upload self attested letter with the list of students sanctioned scholarships	<a href="#">View Document</a>
Upload any additional information	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	<a href="#">View Document</a>

#### 5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution and non-government agencies during the last five years

Response: 2.88

##### 5.1.2.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
152	127	40	25	23



File Description	Document
Number of students benefited by scholarships and freeships besides government schemes in last 5 years	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>

**5.1.3 Following Capacity development and skills enhancement activities are organised for improving students capability 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical fitness, health and hygiene) 4. Awareness of trends in technology**

**Response:** C. 2 of the above

File Description	Document
Details of capability enhancement and development schemes	<a href="#">View Document</a>
Link to Institutional website	<a href="#">View Document</a>

**5.1.4 Average percentage of students benefited by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.**

**Response:** 52.07

**5.1.4.1 Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
1322	1426	1903	1117	1150

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**5.1.5 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases 1. Implementation of guidelines of statutory/regulatory bodies 2. Organisation wide awareness and undertakings on policies with zero tolerance 3. Mechanisms for submission of online/offline students' grievances 4. Timely redressal of the grievances through appropriate committees**

**Response:** B. 3 of the above

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	<a href="#">View Document</a>
Details of student grievances including sexual harassment and ragging cases	<a href="#">View Document</a>

## 5.2 Student Progression

### 5.2.1 Average percentage of placement of outgoing students during the last five years

**Response:** 44.75

#### 5.2.1.1 Number of outgoing students placed year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
421	421	321	218	253

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Self attested list of students placed	<a href="#">View Document</a>
Details of student placement during the last five years	<a href="#">View Document</a>

### 5.2.2 Percentage of student progression to higher education (previous graduating batch).

**Response:** 6.44

#### 5.2.2.1 Number of outgoing student progressing to higher education.

Response: 46

File Description	Document
Upload supporting data for student/alumni	<a href="#">View Document</a>
Details of student progression to higher education	<a href="#">View Document</a>

**5.2.3 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)**

**Response:** 70.26

**5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, etc.)) year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
35	47	19	43	14

**5.2.3.2 Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
50	62	28	56	23

File Description	Document
Upload supporting data for student/alumni	<a href="#">View Document</a>
Number of students qualifying in state/ national/ international level examinations during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 5.3 Student Participation and Activities

**5.3.1 Number of awards/medals won by students for outstanding performance in sports/cultural activities at inter-university/state/national / international level (award for a team event should be counted as one) during the last five years.**

**Response:** 0

**5.3.1.1 Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.**

2020-21	2019-20	2018-19	2017-18	2016-17
00	00	00	00	00

File Description	Document
Number of awards/medals for outstanding performance in sports/ cultural activities at inter-university / state / national / international level during the last five years	<a href="#">View Document</a>
e-copies of award letters and certificates	<a href="#">View Document</a>

### 5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution

#### Response:

**Yes, Students have active representation in academic and administrative bodies and various committees of the Institution.** The involvement of students in various committees builds leadership quality and organizing skills.

#### Academic Council & Board of Studies

The academic council meeting is held every academic Year after the Board of studies meeting to approve the regulation, curricula, and syllabi. The student members are nominated across all the branches in the academic council and Board of studies meeting to express their views on enhancing new courses based on emerging trends. Accordingly, curricula and syllabi are refined.

#### Anti-ragging committee

Students are nominated as members of the anti-ragging committee as per the recommendations from AICTE, UGC, and Anna University. They articulate the awareness about anti-ragging during induction and orientation programmes.

#### Class committee

Class committees acts as a students council to sort out the grievances. It comprises of student members representing meritorious as well as mediocre students. The committee also involves the faculty members handling the courses and a faculty coordinator nominated by the Head of the Department, other than the course instructors. The smooth functioning of the academic sessions and the difficulties in learning of every course in all the semesters are received as feedback from the student members, and the suggestive measures are also heard from the student members. Apart from the curriculum, the difficulties in accessing the infrastructural facilities are received from the students. The class committee meetings are regularly held thrice per semester, and the discussions are recorded as minutes.

### Department Advisory Committee

Every department has an advisory committee with all the stakeholders of the education system - the faculty, students, parents, and members from academia and industries. The committee is chaired by the head of the department and is conducted annually. The discussions include the development of the student, their academic performance, placements, co-curricular and extra-curricular activities, and the overall development and continuous improvement of the respective department based on the emerging trends.

### Library Advisory Committee

The college library has an advisory committee in which students are a part of the committee. The student members are informed about the usage of library by the students and the number of books, journals, magazines, and fortnight magazines available in the library. The student representatives create awareness among the students about the library and reading habits.

### Hostel committees

The college Hostel has various committees with student members. The committees are framed as mess committee - to prepare the menu items; computer lab committee – for the active usage of ICT facilities; Gym committee- to foresee their fitness development.

### Internal Quality Assurance Cell (IQAC)

Students belonging to each department are representatives in IQAC, and they actively participate in the annual IQAC meetings. They are sharing their views while framing the quality policies and special initiatives that were taken to improve the teaching, learning process, and other allied academic activities.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for Additional Information	<a href="#">View Document</a>

### 5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

**Response:** 23

#### 5.3.3.1 Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
16	21	22	32	24

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>
Number of sports and cultural events / competitions organised per year	<a href="#">View Document</a>

## 5.4 Alumni Engagement

### 5.4.1 The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and other support services.

#### Response:

NEC Alumni association was registered as a society on 01.06.2006 with an intention to build networks between the students and alumni which indirectly helps in the student upliftment. NEC alumni association has established various regional chapters globally, with the parent chapter functioning at Kovilpatti. The alumni association functions actively, with 13,161 members enrolled till date. The alumni chapters are established at Chennai, Coimbatore, Bangalore, Kuwait, Singapore, Europe, and USA.

An annual general body meeting is convened every year to discuss the activities and progress of the association. The president heads the association, and the other office-bearers like secretary, Treasurer, Vice-president, Joint treasurer, and Joint secretary are also present during the meeting. Apart from this, a faculty from each department is also nominated to co-ordinate the events and other activities.

An Alumni Chamber is established with a world-class audio/video conference facility with 200 seating capacity on the campus in order to facilitate the Alumni members to connect and share their experience with the Students/ Faculty. NEC mobile app was also developed, and it helps the alumni as well as students to view the events happening through the Alumni association in hand.

The alumni association also contributes financially to the welfare of the down-trodden students. It supports the best projects in every academic year. The NEC alumni association contributed an amount of Rs-3,83,000/- for the scholarship and students projects in the academic Year 2020-2021. The amount of contribution by the Alumni for the betterment of the students is gaining an increasing trend in every academic year. In addition to this, the association also bears the registration fees of the students for GATE with CGPA 8.5 and above. An amount of Rs-63,809/- was spent by the alumni association for the GATE Registration in the academic Year 2018-2019.

Alumni from industry also act as members in the Department advisory committee, Board of studies, etc., for the refinement of Curricula and syllabi. Few of our alumni also serve as Adjunct faculty and create exposure towards Industrial activities. The alumni association supports the student's placement and training activities through conducting mock interviews.

For more details, visit

<https://alumni.nec.edu.in/>

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

#### 5.4.2 Alumni financial contribution during the last five years (in INR).

**Response:** E. <2 Lakhs

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

## Criterion 6 - Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

#### 6.1.1 The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the Institution

##### Response:

The National Educational and Charitable Trust, Kovilpatti, has established the National Engineering College in 1984. Three institutions, National Engineering College, Lakshmi Ammal Polytechnic College, and K.R. Arts and Science college, are functioning under the trust. Management has a clear vision and mission to lead a good education institution where a wide range of learning experiences are offered with excellent physical infrastructure and are available to all students.

##### VISION

- Transforming lives through quality education and research with human values

##### MISSION

- To maintain excellent infrastructure and highly qualified and dedicated faculty.
- To provide a conducive learning environment with an ambiance of humanity, wisdom, creativity, and team spirit.
- To promote the values of ethical behavior and commitment to society.
- To partner with academic, industrial, and government entities to attain collaborative research.

The Institution's mission statement exhibits the clarity to attain the goal of vision through various aspects ethically. Institutional policies, strategies, and quality assurance set the direction for achieving superiority in academic, research, infrastructure, faculty improvement, placement, social activities, etc. Systematic governance of the organization guarantees powerful management in administering the organization with transparency. The management policies encourage participative management to involve diverse stakeholders at suitable bodies for making decisions. Members of the management board consist of UGC nominees, State Government nominees, University nominees, Academic professionals, and Industry specialists. The affiliating University nominates its contributors to the Board of Management, Academic Council, Board of Studies, and Result passing board. Alumni and student nominees are also blanketed in the above bodies and share their views and ideas in the decision-making process.

Principal, the academic head of the Institution, with the Deans, Heads of the Departments, Controller of Examination, office workforce and diverse statutory committees/cells, and various legal agencies/cells administrate and govern the Institution. The cells/committees are established with the hints of the diverse statutory bodies, which includes the Board of Management (Governing Council), Academic Council and Boards of Studies, Finance Committee, Internal Quality Assurance Cell (IQAC), FDS-Auditing Committee, Moderation Committee, Class Committee, Internal Complaint Committee, Student



Counsellor Committee, SC-ST Committee, Institution Industry Committee, Anti – Ragging Committee and Squad, Excess Fee Enquiry Committee, and Proceedings of Fee Fixation Committee. Faculty members share their views in designing the curriculum and syllabus allied with the graduate attributes defined by NBA to retain standards in academics and research to achieve the institution's vision and mission. We established a positive environment that impacts team learning to provide higher-level training, including theory and practice with social and human values through the constant facilities and care.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

### 6.1.2 The effective leadership is reflected in various institutional practices such as decentralization and participative management.

#### Response:

NEC was established under the auspices of the *National Educational and Charitable Trust*, and its essential goal is to transform lives through quality technical education and research with human values. Our Institution operates in a decentralized manner with transparent mechanisms. Well-defined regulations and procedures have been framed to promote transparency in academic, scientific and administrative activities. The finance committee of the Institution makes financial decisions. The Board of Management (Governing Council) takes policy decisions, formulates and amends rules and regulations, strategy planning, the delegation of powers and responsibilities.

The Governing Council has empowered and authorized the Principal for the academic administration of the Institution. As the head of the Institution and as the chairperson of the academic council, the Principal takes decisions on the academic functioning of the Institution. The Governing Council has authorized the Principal and Director to make the financial decisions. The Heads of the departments have been given complete autonomy for the effective functioning of their respective department. They act as the chairperson of the Boards of Studies and are responsible for the curriculum design and enrichment of the syllabi content. At the department level, the Program Coordinator matches up the Head of the Departments for the graceful functioning along with moderation committee, class committee, class in-charges, lab in-charges and tutors. All the stakeholders are actively engaged and participate in the decision-making process of the various activities.

Our Institution's aim to develop technologically proficient employees with the attitudes, skill sets, knowledge, and ability to be creative and inventive. To fulfil the same, along with regular academic activities research and extension activities, other co-curricular and extra-curricular activities are planned and executed by various cells/forums/administrative setups.

#### CASE STUDY: PARTICIPATIVE MANAGEMENT

During the second parent-teachers association meeting in the academic year, 2018-2019, held on 03rd February 2019, few parents requested unique and specific training based on the respective corporate requirements for obtaining job offers in the campus life itself. Management has accepted parent's requests and asked the Principal to make plans for special and specific training. The Principal instructed our college training and placement cell to execute the plan effectively by organizing various training programs in special and specific categories. Around 45 specific and special trainings are organized by the training and placement cell. We were able to measure the outcome of these special and precise training programs in the placement records. Compared to previous academic years, the above-mentioned academic year's special training mirrored its outcome by making several students hold their offer in reputed MNCs with a higher salary package as 12 LPA, which also increased our college's average salary package from Rs.2.5 lakh to Rs.3 lakh. Many parents thanked the management, Principal, and placement section for making their ward get placed in reputed MNCs. In this way, our management readily accepts the parent's and students' requests where it is necessary and implements the same for the benefit of the student community.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>
Link for strategic plan and deployment documents on the website	<a href="#">View Document</a>

## 6.2 Strategy Development and Deployment

### 6.2.1 The institutional Strategic / Perspective plan is effectively deployed

#### Response:

Strategic planning has been initiated with a long-term viewpoint to accomplish the vision and mission of the Institution.

The main focus of the institution strategic plan includes higher placement, expansion of recent trends programme/course both in UG and PG, industry-ready curriculum, industry-institute interaction, student's internship, student's publication, faculty skill up-gradation/enhancement, creation of student innovation products, magnification of appropriate recent equipment's in the laboratory for both students and faculties, well-equipped infrastructure for research and development activities.

Placement training cell plays a major role in shaping up the career goals of the students. Training the students and equipping them with skills and core knowledge has become an important responsibility. Based on company-specific training given by placement cell and faculty members of the department, the department's core placement count increases. In 2016 – 2017, 353 students got placed at the end of the course completion. Every year, all the specific topics and tricks required for facing the campus interview

have been taught, and a corresponding assessment has been conducted. These caused an increase in the headcount of placed students, and the number of offers also increased. In continuation to that, the training programs like career counseling sessions by experts, resume preparation, Mock interview, and skill development have been conducted every year to increase the placement count. In the academic year 2020 – 2021 totally, 533 students got placed in the reputed companies.

Some of the imperative plans envisioned in the strategic plan between the years 2016 - 2021 are:

- 1.To enhance the teaching-learning processes and industry-institute interaction by providing financial aid for faculty members to undergo Industry Know how-program in various reputed industries.
- 2.To widen the ratio of placement with defined median and highest salary.
- 3.To motivate the faculty and students to publish more quality publications in peer-reviewed journals.
- 4.To encourage the faculty members to get research sponsored projects by various government agencies.
- 5.To establish a new smart classroom for the students that includes Smart TV with Wi-Fi connectivity for enhancing creative thinking.
- 6.To provide financial and administrative support to the faculties members for attending FDP/Seminar/Conference in various reputed Institutions for skill up-gradation.
- 7.To ensure the research status, post Ph.D. publications, and R&D activities, research review meetings have been conducted regularly.
- 8.To promote the research status of the institute, incentives for research publications and research projects are being provided.
- 9.To enhance the teaching-learning process, faculty members who got NPTEL topper/Rank in their respective subject will receive financial aid from the college.
- 10.To design and develop a curriculum comprising 65% of theory courses and 35% of the practical courses and the one-credit elective course shall be offered by the department itself or in collaboration with the industry/research organizations / higher learning institutions.

Strategic plans are implemented in a well-organized manner by discussing with stakeholders and providing appropriate resources to materialize the plans. Thus, the achievement of the above said plans leads to NIRF ranking, DST FIST project, NEWGEN IEDC projects, and 90% consistent placement every year.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Strategic Plan and deployment documents on the website	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

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

**Response:**

#### **I) Administrative Setup**

Members from the governing board committee formulate principles and policies for teaching and non-teaching faculties. It also indicates and authorizes a new UG/PG program and an additional intake in the existing programs under the autonomous stream. Various committees have been initiated to achieve the vision and mission of the college by achieving short-term and long-term goals. Committee members of the college frequently interacted with the Director and the Principal of the college regarding academic and other activities inside the campus.

The Principal has supremacy concerning all the academic and administrative substance, including the conduct of examinations. The financial phase of the college is powered and controlled by the Director and the Principal of the Institution. The college has well-framed statutory and non-statutory committees for looking after the academic and administrative procedures. The statutory committees are constituted as per the guidelines of the UGC. The college examinations are conducted and administrated by the Controller of examinations assisted by one Deputy and Assistant Controller of examinations. The departments are led by the heads of the departments, who take care of academic and administrative tasks with the help of faculty members. 14 Non-statutory committees are headed by the senior faculty members, consisting of members at various levels.

The non-academic administrative tasks are executed by the Administrative Manager, the Office Manager, and the Human-Resource manager housed in the Principal's office along with clerical, programming, data entry, and other administration staff. Separate department offices are functioning in all departments, which are guided by the respective heads of the departments.

Dean Academic has the vital responsibility to enhance educational activities and acts as the convener for the Board of Studies and the Academic Council for formulating the curriculum and syllabus. The academic dean also schedules the academic calendar and the related bustle. Management extends the financial support for the in-house and outside faculty development activities. Dean Research and Development clutches the major function in improving the research activities and periodically organizes the program related to different research funding schemes and other research development programmes. Dean Placement seizes the imperative role in student's placement through on and off-campus. The training and placement cell continuously organizes the student's training programs and other activities for higher and better placement.

## **II. Service rules, Procedures, Recruitment, and Promotional Policies:**

The college has a well-established policy, procedures, and rules as approved by the Governing Council, adhering to statutory bodies such as UGC, AICTE, and Affiliating University guidelines. The policies and procedures are reviewed in the governing council meeting, and the same is made available on the college website. Also, they are circulated to all the staff members of the Institution.

Some of the policies and procedures contained in the HR manual are listed below:

- Roles and Responsibilities
- Human Resource Planning
- Leave Policy
- Recruitment Policy
- Research and Consultancy Policy
- Discipline and Grievance Policy
- Incentives Policy

- Promotional Policy
- Organization structure and policies, and procedures are available in the file description.

File Description	Document
Link to Organogram of the Institution webpage	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

### 6.2.3 Implementation of e-governance in areas of operation

1. Administration
2. Finance and Accounts
3. Student Admission and Support
4. Examination

**Response:** B. 3 of the above

File Description	Document
Screen shots of user interfaces	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
ERP (Enterprise Resource Planning) Document	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

## 6.3 Faculty Empowerment Strategies

### 6.3.1 The institution has effective welfare measures for teaching and non-teaching staff and avenues for career development/ progression

**Response:**

Institute has effective welfare measures for both teaching and non-teaching staff members. The following monetary and non-monetary welfare measures for personal and professional growth are provided to the staff.

- Employees Provident Fund (EPF)
- ESI facility for Non-teaching staff
- Staff Gratuity
- Group Insurance
- Medical Claim Policy
- Sponsoring for Higher Education/Research by the grant of leave/lien.
- Casual, Earned, Vacation and Medical leave
- Maternity Leave to female employees

- On-duty leave for attending FDPs / Conferences/Workshops/etc...
- Financial support for attending conferences/workshop/seminar
- Incentives for publications in peer-reviewed journals
- Incentives for NPTEL Gold Medalist
- Free transport to teaching and non-teaching staff
- Free Hostel Accommodation facility
- Sports and Gym facilities.
- Canteen Facilities
- Separate Dining Hall for faculties
- Indian Overseas Bank branch with ATM facility on the campus.
- Staff Club - Annual picnic, festival gift, and annual gift for staff
- Festival advance
- Staff Quarters
- COVID'19 Special Leave with Salary

<b>File Description</b>	<b>Document</b>
Link for additional information	<a href="#">View Document</a>

### 6.3.2 Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years.

**Response:** 23.82

#### 6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
21	65	78	44	32

<b>File Description</b>	<b>Document</b>
Institutional data in prescribed format	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

### 6.3.3 Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.

**Response:** 0

#### 6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
00	00	00	00	00

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centres).	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

#### 6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP) during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course ).

**Response:** 8.23

##### 6.3.4.1 Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
56	00	00	21	00

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	<a href="#">View Document</a>
IQAC report summary	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

## 6.4 Financial Management and Resource Mobilization

### 6.4.1 Institution conducts internal and external financial audits regularly

**Response:**

A financial committee has been constituted twice a year to allocate funds for various activities, and it is sited before the Governing Council for approval. At the end of the financial year, the overall account details are audited by a chartered audited accountant.

- The utilization and execution of the budget are monitored through the finance committee and external audit.
- Finance Committee meeting is held half-yearly basis, and external audit is carried out annually by an Auditor (chartered accountant) at the end of every financial year.
- Financial planning and review are done regularly by the Finance Committee.
- Finance Committee meets twice a year and reviews the fund utilization of each department and college and suggests further action plans.
- Depending on the demand and requirement, the finance committee allows spending more than the money allocated in the budget.
- The respective government auditors audit the received government funds through verification of documents and the disbursement of the scholarships such as post metric scholarships, backward community scholarships, and first-generation graduate scholarships to the students.
- The financial section of the college maintains the record of every online financial transaction.
- The consolidation of the findings of the Institution has been completed, and the annual returns have been submitted to Income Tax Authorities, Registrar of Societies, Tamil Nadu, and other relevant authorities concerned by the Auditor.

File Description	Document
Link for additional information	<a href="#">View Document</a>

#### 6.4.2 Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs)

Response: 28

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

2020-21	2019-20	2018-19	2017-18	2016-17
10	10	8	0	0

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Annual statements of accounts	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>



### 6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

#### Response:

National Engineering College is a self-financed institution, where the funds are generated through the fees paid by the students. The discrepancy is adjusted by taking advance from the parent trust. These funds are utilized for research and laboratory development. The institute has a well-defined mechanism to monitor the effective and efficient utilization of available financial resources to develop academic processes and infrastructure development. Optimal Utilization of funds and resources are ensured through induction and orientation Programs, workshops, inter-disciplinary activities, training programs, Refresher Courses, Faculty Development Programs, Conferences, Industry-Academia interactions that ensure quality education.

- The institutional budget is prepared by the Principal every year, considering both recurring and non-recurring expenditures.
  - All the administrative and academic heads are requested to submit the budget required for the subsequent financial year.
  - Along with this, all coordinators of different cells viz., R& D Cell, Exam Cell, T&P Cell, NSS Cell, etc., are instructed to submit their budget to the Principal.
  - The Institute's Local Managing Committee (LMC/CDC) and Governing Body (GB) take all the major financial decisions.
1. A major source of revenue for the college is from the tuition fee collected from the students as per the state government guidelines.
  2. The collected fee is deposited in the Institution's account and withdrawn periodically as per the institute's requirements.
  3. The other sources of revenue are from transport fees, examination fees and funds/grants received from government bodies, consultancy, training, examination, transport alumni contributions.
  4. Institute adheres to the Utilization of budget approved for academic expenses and administrative expenses by the management.
  5. Optimal Utilization of the fund is ensured through a budget plan. Every department and sections submit its budget proposal with requirements well ahead of the commencement of the financial year.
  6. The proposals are consolidated and reviewed by the finance committee and allot funds.
  7. The funds are also utilized for infrastructure development, salary, research, training activities, ICT tools, green campus initiative, extension activities, transport, maintenance, welfare measures, and library.
  8. The financial supports are extended to seminars/workshops/ Symposium Association activities/ Faculty Development programs/Conferences.
  9. The student's extra-curricular activities are a major concern, and adequate funds have been utilized for sports, games, & social extension activities.
  10. Scholarships are provided to economically backward students & meritorious students. The Utilization of the allocated funds is monitored periodically and audited at the end of every financial year.
  11. The budget utilization of the past years speaks out the efficient budgeting and optimal utilization of the fund.
  12. Transparency and accountability are ensured by conducting an annual audit of the statements.

File Description	Document
Link for additional information	<a href="#">View Document</a>

## 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 visible in terms of – Incremental improvements made for the preceding five years with regard to quality (in case of first cycle) Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)**

### Response:

Our Institution has established the IQAC on 10.06.2013, which has an external peer team to assess the performance of the college.

### Practice 1 : NEC Moodle Platform for Teaching-Learning Process and assessment

From the year 2017 onwards, Online Teaching-Learning Process and Online assessment were initiated in our Institution. Initially, it was carried out through Google classroom. From 2018-2019 onwards, this process is implemented through the NEC Moodle platform with a dedicated Moodle server. Now, 2409 student users and 179 faculty can access the NEC Moodle platform.

All the students can use the plenty of available web resources in the NEC MOODLE server and actively participate in various assessments. The enrolled learners can interact with the educators to understand the concept, which will help the learners attain the course objectives more proficiently. The Online Live classes can be taken with the recording feature using the "Big Blue Button". By this, students can watch the recorded class lectures that have high-quality video and audio potential. During this Covid-19 pandemic situation, our NEC Moodle platform helped to conduct examinations in online mode. The online exam pattern includes Multi Choice Questions (MCQs) and Descriptive Type Questions. Both types of questions are randomly allotted to each student to reduce the replication. This online examination is held in a controlled environment through the safe exam browser facility. We were able to measure the outcome of this NEC Moodle Platform through the end semester examination result.

### Practice 2: Industry Ready Curriculum

In today's educational practice, industries' contribution to curriculum design and delivery at the organization is essential. This will bridge the industry and institutions gap and enable the students to turn into industry-ready professionals to take up real projects. To fulfil the same, the academic curriculum has been framed based on the industry requirement. Industry experts will be part of the BOS Committee to meet the industry need and the gap through the curriculum. Of course, students who have selected this type will be absorbed by respective industries and given preference whenever and wherever student's assistance is needed. Industries develop the required courseware for such electives and usually upload them in their

student resource portals. This portal gives a new training mode and provides a near classroom experience, including whiteboarding, lab exercises, student questions, and course materials. For example, 15CS36L Robotic process automation was conducted in allied with "UiPath Academic Alliance", UiPath Academy, USA, to promote knowledge in emerging Robotic Process Automation. This course was handled by the industry expert Mr. Manikanda Raman Viswanathan, Global Delivery Lead & Principal Architect, CTS. 35 Students have attended the course, and the outcome is 20 students obtained RPA Developer Advanced Certification. Likewise, various industry-based curricula have been formulated in each programme to produce industry-ready professionals. With this industry-ready curriculum, students can learn and fulfill the industry requirements before graduation and make a pathway for higher placements with a good package.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

**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 ( For first cycle - Incremental improvements made for the preceding five years with regard to quality For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives )**

**Response:**

Our college reviews the teaching-learning process, structures, methodologies, and learning outcomes at periodic intervals.

To ensure the quality of the teaching-learning process, the class committee meeting is conducted thrice in a semester. Student representatives and all course handling faculties will be members of this committee. The Class committee chair interacts with the student representatives based on the schedule to know about the teaching-learning process and its implementation.

Corrective measures will be taken based on the student's feedback if required. Learning outcomes are audited and measured periodically to certify the quality, and a corrective mechanism is implemented where necessary through the moderation committee. This internal Academic Audit is carried out regularly every month to ensure the quality of the teaching-learning process. The shortfalls identified are addressed from time to time through this moderation committee. Some measures include submitting course handouts, monitoring course delivery and assessment, remedial actions for slow learners, the timely conduct of project reviews, compliance with academic calendar and regulations, and uniform course delivery and evaluation system for multi-section courses.

Moderation Committee Members will act as auditors to perform the internal academic audit. The moderation committee audits the following documents/records.

- Academic Calendar
- Log-book of Faculty

- Course File
- Course Material
- Use of ICT in Teaching and Learning
- Syllabus Coverage
- Quality of Question Papers
- CO, PO, and PSO evaluation
- Student Records

At the end of every semester, the faculty development section conducts a concluding audit to review the complete academic progress with the help of the academic audit committee. Every semester, this audit is carried out to certify the quality of the teaching-learning process and assessment done by faculty for the courses handled in the specific semester. All the faculty members are provided with orientation, and all the faculty members undergo a periodical audit. The students and faculty members use the following features of the NEC Moodle platform for the effective Teaching-Learning Process,

- Students have individual user credentials to access content through Personalized Dashboard.
- Posting Online Course materials and Digital Textbooks.
- Providing user-friendly graphical user design for course content access.
- Collaborative tools and activities
- Convenient file management
- Activity-based attendance marking mechanism.
- Track progress of students.
- Conducting Online Exams

If any suggestions, they will be accumulated into the next academic year. Every semester before the end semester examination, the COE verifies the quality of the question papers by both external and internal audit teams.

The IQAC also supports in anchoring the academic review activities such as:

- The Academic Plan is prepared well in advance before the commencement of classwork for the courses.
- Feedback system from the students for enhancing the quality of Teaching Learning twice a year. It is communicated to faculty and heads of the departments, and necessary measures are taken wherever it is necessary.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

### 6.5.3 Quality assurance initiatives of the institution include:

- 1.Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements**

2. Collaborative quality initiatives with other institution(s)
3. Participation in NIRF
4. Any other quality audit recognized by state, national or international agencies (ISO Certification)

**Response:** 3 of the above

File Description	Document
Upload e-copies of the accreditations and certifications	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Paste web link of Annual reports of Institution	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

## Criterion 7 - 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 last five years.

##### Response:

- National Engineering College is distinctive in terms of gender equity. The Institute has nearly 46% women employees and 38% of girl students. The Institute confirms the active participation and the contribution of women in all its signature moves, such as leading and making a decision.
- Transdisciplinary courses are offered to promote awareness of the significance of women in Indian Society.
- National Engineering college has a cell for Women Empowerment. The main focus of this cell is to encourage and empower women to focus on self-confidence, autonomy for women and equity. This cell conducts gender sensitization programmes both for boys and girls.
- Two separate wings of NCC functioning in our Institution.
- The National Cadet Corps (NCC) Army Wing, under the affiliation of 3(TN) Girls BN NCC, Tirunelveli, was approved and started on 9th August 2016 with the sanctioned strength of 104 girls cadets 3(TN) Girls BN NCC.
- Mrs. Vasanthalakshmi is appointed as the student counsellor and taking care of girl students by giving them guidance to overcome the academic and personal issues with self-motivation.
- A dispensary is available at our campus round the clock to provide first aid and prompt medical care. Two full-time nurses are appointed on the campus to take care of the students who feel sick. The medical treatment and medicines are given from the college dispensary free of cost to all the employees and students
- All the girls' restrooms have attached toilets with Sanitary Napkin Incinerator.

#### A. Safety and Security

- The Institute provides CCTV surveillance across the campus to ensure safety and security.
- The safety of girl students is given primary importance, and a dedicated team of security personnel has been ensuring it throughout the campus 24/7. The presence of security personnel at all main entry/ exit gates and strategic locations within the campus is ensured round the clock.
- Physical Education Trainees train and motivate both the boys and girls students to participate in various activities.
- Prevention of Sexual Harassment cell is functioning in the Institute to address the complaints filed by the girl students and Lady Faculty members.

#### B. Counseling

The Institute has a mechanism of giving counselling to address both personal and academic issues of the students. Departments are also mandated to have regular student-faculty interaction meetings to identify the problems and resolve them. Every Faculty in the Institute is allotted with 20 Students to monitor their personal, academic and psychological well-being by interacting with them.

#### C. Common Rooms

•Common rooms are available for girls at the campus. These rooms are well ventilated and have washrooms, dressing mirrors, etc. The students utilize these facilities for having lunch and also for having common discussions.

•Faculty members are provided with separate washroom facilities.

#### D. Daycare center for young children

- The Institution has the provision to take care of the children of teaching and non-teaching staff members.
- The DCC is open for children between the ages of 2 to 6 years. It addresses the needs of specific age groups by providing various facilities.

File Description	Document
Specific facilities provided for women in terms of: a.Safety and security b.Counselling c.Common Rooms d. Day care center for young children e. Any other relevant information	<a href="#">View Document</a>
Annual gender sensitization action plan	<a href="#">View Document</a>

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

- 1.Solar energy
- 2.Biogas plant
- 3.Wheeling to the Grid
- 4.Sensor-based energy conservation
- 5.Use of LED bulbs/ power efficient equipment

**Response:** D. 1 of the above

File Description	Document
Geotagged Photographs	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

#### 7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- Solid waste management
- Liquid waste management

- **Biomedical waste management**
- **E-waste management**
- **Waste recycling system**
- **Hazardous chemicals and radioactive waste management**

### **Response:**

#### **Solid Waste Management**

A system for solid/liquid waste management is in place through recycling and other means, among other steps such as planting more trees, encouraging bicycling, E scooters, and constructing additional solar power plants. In this regard, the most important initiatives are:

The wastages are collected and disposed of through a compost pit as per the norms. A sufficient number of waste bins are placed everywhere on the campus premises to collect the wastages.

Solid Waste Management Practices comprises 6 Nos. of Organic waste Compost pit installed for the size of 20 X 10 X 5 feet (L X B X D) for converting the leftover food waste, vegetable waste from hostel kitchen and dry leaves of trees/plants into organic manure. These Bio-degradable waste are converted to organic manure, which is in turn used for gardening purposes. Approximately 200 kg of solid waste is dumped every day and allowed to mulch for three months and is used as manure for Landscaping and trees plantation. Once every six months, a suitable tender method is used to dispose of old notebooks, newspapers, plastic debris, and iron scraps. The paper wastes are collected from each department and transferred to the nearby paper industry for reuse.

#### **Liquid Waste Management**

Sewage Treatment Plants (STP) with 1,50,000 Ltr capacity (Estd: 2017) at a cost of Rs. 12.0 Lakhs. Sewage water, Urinal waste, Toilet waste, and Wastewater from all the blocks are collected and pumped into STP through pipelines. All solid waste is filtered within the hostel, and water and detergents are collected in the collection tank. All undissolved materials are filtered in the collection tank, and the water, along with the sewage, is passed through the aeration tank. This will be passed through the Settling tank where it consists of Aerobic bioreactors where the sewages are digested. The odor and fine particles are removed from the cleaned supernatant water by passing it through the Filtration tank, which contains a Sand filter and a Carbon filter. The outlet treated/Recycled water is collected and pumped to use for watering the plants through a sprinkler system.

#### **E-waste Management**

E-Waste management is also taken care of by the Institute. Old and functional computers that are in good condition are donated to the nearby schools. CDs, PCBs, and electronic items are collected from every department and delivered for safe disposal. The parts of electronic items like transistors, resistors, diodes, sensors, etc., are removed from the electronic devices to get reused in practical/projects.

#### **Biomedical waste management**

The Institution has no biomedical wastage generated inside the campus.



**Hazardous chemicals and radioactive waste management**

The Wastewater from the engineering chemistry lab is treated well and utilized for gardening. The water originating from the chemistry laboratory gets neutralized and treated with lime aided with ferric chloride. Suspended solids, organic and inorganic chemical compounds present in the water are filtered through sand and charcoal beds. Charcoal engrosses numerous substances from colored organic particulates to inorganic metal ions. Finally, the treated water is used for gardening.

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	<a href="#">View Document</a>
Geotagged photographs of the facilities	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

**7.1.4 Water conservation facilities available in the Institution:**

1. Rain water harvesting
2. Borewell /Open well recharge
3. Construction of tanks and bunds
4. Waste water recycling
5. Maintenance of water bodies and distribution system in the campus

**Response:** C. 2 of the above

File Description	Document
Geotagged photographs / videos of the facilities	<a href="#">View Document</a>
Link for any additional information	<a href="#">View Document</a>

**7.1.5 Green campus initiatives include:**

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

**Response:** C. 2 of the above

File Description	Document
Various policy documents / decisions circulated for implementation	<a href="#">View Document</a>
Geotagged photos / videos of the facilities	<a href="#">View Document</a>
Any other relevant documents	<a href="#">View Document</a>

**7.1.6 Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:**

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

**Response:** B. 3 of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	<a href="#">View Document</a>
Certification by the auditing agency	<a href="#">View Document</a>
Certificates of the awards received	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

**7.1.7 The Institution has disabled-friendly, barrier free environment**

- 1.Built environment with ramps/lifts for easy access to classrooms.
- 2.Divyangjan friendly washrooms
- 3.Signage including tactile path, lights, display boards and signposts
- 4.Assistive technology and facilities for 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

**Response:** C. 2 of the above

File Description	Document
Policy documents and information brochures on the support to be provided	<a href="#">View Document</a>
Geotagged photographs / videos of the facilities	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

**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 500 words).**

**Response:**

National Engineering College makes efforts to provide an inclusive environment both for the students and the faculty members. Tolerance and harmony are taught in the minds of the students with multiple initiatives. The ethical role of every student towards society is nurtured among them through the various curricular and extracurricular activities.

Our College prides itself on celebrating festivals of different faiths which has built a sense of Unity and bonhomie in the workplace. It allows public holidays for the celebrations of different religions to enable people to celebrate and understand other cultures' values. This culture has automatically transformed into efficient teamwork in all academic and community activities. The following courses like Professional Ethics and Human Values, Indian Culture and Heritage, Indian History, Environmental science and Engineering, Indian Business laws, Leadership, and Personality Development, and Indian Constitution are added to the curriculum to help the students become more socially responsible and ethical in their career,

Students are recognized by giving them responsibilities such as Student Chairman, Student Vice-chairman, Student President, Student Vice president, student convener, Student Secretary, Joint Secretary, and Treasurer in various clubs and department associations. National Engineering College does not differentiate the students or faculty based on caste, creed, or religion. It is ensured by the equality maintained in the admission of students and the recruitment or promotion of the faculty members.

Our members adhere to their religious beliefs without any hindrance. Our College adorns a festive look to celebrate Pongal, the regional festival of the state Tamilnadu. Many competitions such as Rangoli, Debate, Bharatham, Orchestra, and dance events display the Students' enthusiasm and teamwork. Themes based on the role of agriculture are chosen for the Rangoli competition. Many departments such as nutrition, physical education, and human resources department work in collaboration for the benefit of the Institution and conduct various contests for the faculties and students on the campus.

The grand cultural fest YUFONEC was conducted every year with special performances by our students. *Navarathri* is celebrated in the women's hostel. New Year celebration brings in fun-filled games and special food, which amplifies the spirit of togetherness.

Individual departments and committees perform *Saraswathi Pooja/Ayudha pooja* in their respective laboratories, unit's lab equipment, and books, invoking the blessings of the Almighty. Employees cutting

across all faiths take part in these celebrations, and Prasad is distributed.

Yoga day is celebrated every year. Yoga and meditation for women are taking place on the campus. The student's cultural program has the theme of communal and inter-religious harmony.

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

### 7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

#### Response:

One of the primary missions of our College is to serve society at large. Hence various initiatives have been implemented to imbibe a sense of social responsibility. Students and employees of the Institution have been actively engaged in many environmental welfare measures, philanthropic activities, NSS tasks, and health camps.

Various community projects on Health care, Sanitation, and Environmental Protection have been implemented under NSS (Ministry of Youth and Sports, Govt. of India.), Swachh Bharat, and Unnat Bharat Abhiyan (Ministry of Human Resource Development, Govt. of India).

These social activities have multidimensional effects on the student community. It has made them understand the realities of rural India and its social needs. It has offered them opportunities to interact with community people of the adopted villages and understand their common problems. It has enabled them to mitigate the identified problems in their style. The above programs certainly have broadened their social outlook, leading them to attitudinal changes, as evidenced in their feedbacks.

Our college NSS club volunteers used to visit the rural villages every year. They will stay in the village for about two weeks, carry out cleaning works, and be involved in other social service activities. Also, Driving license and free passport registration camps are arranged by our NSS students. During the lockdown period, the efforts taken by our NSS club volunteers in helping the needy people are appreciable. In the festival times like Pongal, our NSS and other club volunteers visit orphanages in Tirunelveli and other surrounding areas to spend time and arrange food for the people residing there. Awareness of the 'Right to vote' was created through social media during the Tamilnadu Legislative Assembly election 2021. Awareness of the COVID-19 vaccination process is created among people through social media. Our NSS club volunteers have organized a special camp on 20.02.2021 to apply for Voter ID at National Engineering College, Kovilpatti.

Our college YRC club volunteers used to arrange blood donation camps every year, and all the volunteers donated the blood. Associating with the NSS volunteers, free eye checkup camps have been arranged by the YRC club members.

Fine arts members have performed an awareness program on water conservation on "water conservation, electricity conservation, and prevention of plastics" on 27.12.2018. Students in the final year are provided with a Trans-Disciplinary course 'Indian Constitution' to understand the Judiciary's function and impart

knowledge about the constitutional amendments.

When the technical clubs of any department organize a function, trees are planted by the chief guest of the function, faculty members, and Student coordinators.

File Description	Document
• Details of activities that inculcate values; necessary to render students in to responsible citizens	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

#### **7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.**

- 1. The Code of Conduct is displayed on the website**
- 2. There is a committee to monitor adherence to the Code of Conduct**
- 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff**
- 4. Annual awareness programmes on Code of Conduct are organized**

**Response:** B. 3 of the above

File Description	Document
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	<a href="#">View Document</a>
Code of ethics policy document	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

#### **7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).**

**Response:**

Our Institution organizes national and international commemorative days and celebrates festivals like Pongal in the form of Samathuvapongal. In addition to that, our Institution also celebrates the birth and death anniversaries of great Indian personalities like Mahatma Gandhi (Gandhi Jeyanthi), Teachers day (Dr.Radhakrishnan Birthday), and Engineers day (Mokshagundam Visvesvaraya) every year.

**Independence Day:** The Institution celebrates Independence Day on 15th August of every year with a simple and elegant flag hoisting ceremony in the presence of the invited Chief Guest, who unfurls the national flag followed by a beaming patriotic while singing the National Anthem.

**Republic Day:** Republic Day is celebrated on 26th January with joy and patriotic fervor. On this privileged occasion, the celebrations start with the vibrant and elegant National Flag hoisting ceremony. The heartfelt renditions of patriotic songs arise feelings of love and brotherhood among everyone.

**Engineers day (Birth Anniversary of Sir M. Visvesvaraya):** The Institution celebrates this day on 15th September consistently as an exceptional tribute to the best Indian Engineer Bharat Ratna Mokshagundam Visvesvaraya.

**Teacher's Day:** Teachers' day is celebrated to commemorate the birth anniversary of the second President of India, Dr. Sarvepalli Radhakrishnan, a great teacher and a staunch believer of education, on 5th September 1888.

In view of celebrating the **birthday of Dr.M.G. Ramachandran**, various competitions have been conducted such as Dance, Solo singing, Essay writing, Poetry, Debate, Mimicry, and Pencil drawing.

**Women's Day :** The Institution celebrates women's day on 8th March by inviting women from diverse fields to encourage and motivate both girl students and faculty members to be effective in their professional and personal lives.

**Mahatma Gandhi Birth Anniversary:** The Institution celebrates Mahatma Gandhi Birth Anniversary on 2nd October to remember the father of our nation **Mohandas Karamchand Gandhi**. Festival on this day blowouts peacefulness, Truth, and righteousness among the students.

**The International Yoga Day** is celebrated on 21st of June to understand and practice the value of yoga. On this special day, numerous competitions were conducted for the students.

File Description	Document
Geotagged photographs of some of the events	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>
Annual report of the celebrations and commemorative events for the last five years	<a href="#">View Document</a>

## 7.2 Best Practices

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

**Response:**

**Best Practice 1:**

## 1. Title of the Practice

Scheduling appropriate academic planning of every student based on their competency level and making them achieve their career objectives

## 2. Objectives of the Practice

- To motivate and guide the students in all academic aspects.
- To make the students identify and fix their dream company, either a Core or a Software Company.
- To motivate the students who are interested in the Government sector and higher studies.
- To identify the students' ability towards their goal and make them contribute in all activities like competitions, technical contests, internships, etc.
- To make students recognize their strengths and weaknesses and to take appropriate corrective action.

## 3. The Context

Many job opportunities are there for potential students. Effective communication skills are required everywhere they go to attend conferences, interviews, workplaces, etc. the core skill is vital in core companies, R&D organizations, and IT sectors. In order to impart leadership qualities with social consciousness, apart from the industry-based curriculum, Non CGPA courses have been introduced Regulation 2015. These courses teach discipline and harmony at all levels and provide other allied skills to cope with real-time. As engineering students, they must be capable of developing products for the community from their ideation and prototyping, articulating the research findings and publish them in reputed journals, filing for patents. In order to improve the competency, skill development courses such as communication skills, Product development, project work, internship/in-plant training have been introduced as mandatory courses.

NEWGEN IEDC enables the student to design the product for the Society with the funding.

## 4. The Practice

Around 20 students will be assigned to each Mentor, who will also act as their local guardian and assist them in academic and other activities. The students are advised to meet their Mentor once a week mandatorily as per the timetable and discuss their problems freely. Apart from this, the students are meeting their mentors based on their needs. The mentors are responsible for maintaining the record separately for each student and updating all the information about that particular student in his record. Counseling is given to the students who are poor in academics and soft skills, lagging in communication skills, having family problems, and behavioral/attitude problems. Tutors are taking care of the completion of Non-CGPA courses for the course completion. The Institution has a robust mechanism in developing the skills of the students throughout their curriculum. The mechanisms are as follows.

II Year	Academic Achievements	Tutors monitor the academic performance of the students and motivate them by motivating the students to secure good marks in academics. They are also taking care of slow learners.	students
	Online courses	Students are encouraged to learn courses through online	online

		such as NPTEL, SWAYAM, MOOC, MIT, Coursera transfer is also allowed in the regulations to encourage the
	Improving slow learners	Tutors identify the slow learners, understand the gap, students to learn, and improve the performances of slow learners.
III Year	product development activities and paper publication	Courses like product development laboratory, research patent review, mini-project, and project work are available to students in the curriculum. The tutors identify the outstanding students from their wards. They are encouraged to participate in product development and research paper publication. Various centers such as NewGen IEDC, Product development centers, and association, etc., encourage and fund students to develop prototypes.
	*Encouraging the students to participate in national and international events	Competencies of the students are improved through skill development facilities provided by the Institution. Forums like code IT placement cell are doing these activities. Tutors are encouraging students to participate, and monitoring their performance.
	*Competency training towards career settlement	
IV Year	Career settlement	Students can choose a career path with the available opportunities as core placement, IT company placement, Government placement preparation, Higher studies through examinations, and entrepreneurial ways. Tutors are identifying student's interest, based on which their career and dream is fixed, and it will be presented before the HoD and the Principal. College is providing training to all types of career settlement. Core and IT placement training are taken care of by the placement cell of the Institute. The GATE Forum of our Institute provides competitive examination training. Entrepreneurship training is provided by Entrepreneurship Development Cell and K. J. Somaiya Cell.

The parents-teachers meeting is organized once every semester. The parents meet Tutor, the class in charge, HoD, and the Principal and clarify their doubts about the students' performance in all aspects.

## 5. Evidence of Success

1. The students in each semester obtain the internal assessment marks, and the attendance particulars are entered in the Students' records so that Mentor and HOD can see the students' progress periodically. Their CO attainments can be verified against the targets.
2. The fast learner and slow learner students could be easily identified, and appropriate steps are taken



for those students for their enhancement to the next level.

3. A mentor could track the completion of Non-CGPA courses that were mandatory for all the students.
4. Seminars attended, NPTEL courses completed, Papers presented in national and international Conferences are all noted in the record sheet.
5. The student's record also contains information about their internship details, Placement details, etc.,
6. Students are also mentored for project work, product development, hackathons, conferences, publishing research articles in the journal, etc., by the mentors.
7. Even after completing the course, students' records are kept safely to clarify the company's queries about their potential, their year of completion, etc.

## 6. Problems encountered and Resources Required

- The Institute is situated in a rural area where the students are not exposed to the current enhancements. To overcome this, Tutor plays a vital role by making them aware of the same.
- To mold the students' mentality to improve their personality was a difficult task without hampering academics.

## BEST PRACTICE 2

### 1. Title of the Practice

Providing adequate facilities and schemes for the faculty members to achieve their higher competency level in both academic and research

### 2. Objectives of the Practice

- To facilitate in defining the short-term goals (in line with vision and mission) to be achieved in three years for college and each department.
- To frame competency matrix for faculty in different cadre to achieve these goals.
- To set the mechanism for analyzing the competency level and to assess the competency gaps of every faculty members.
- To facilitate in arranging faculty training programmes to fill the competency gap for the faculty of various departments of different cadres and domains.
- To set the mechanism for assessing the progress of the college and department in achieving their short-term goals every year.
- To set the mechanism for reviewing and redefining the short-term goals after the stipulated time period.
- To bring smooth transition in the teaching-learning process from present passive learning to the active learning process and standardize the practice uniformly in all departments.

### 3. The Context

The competency of each faculty member of various departments is assessed. The progress and the competency gap of a faculty are analyzed. The competency gap of each faculty is compensated by making them attend seminars, conferences, workshops, and faculty development programme in their respective domains. A well-defined mechanism of conducting a series of reviews has to be adopted to standardize the quality of the faculty members in both the teaching-learning process and research. Laboratories and

research centers are well equipped with advanced facilities to upgrade our faculty members' knowledge and keep them updated in their respective domains. To accomplish the required advanced expertise and capabilities in the field of engineering as well as the ability to quickly penetrate to the heart of the increasingly complex and diverse problems of modern society and break them down into solvable challenges. There should be a change, and that change should be put into practice in the field.

#### **4. The Practice**

The faculty members are encouraged to undergo Industry Know how-program and industry-institute interaction in various reputed industries by providing financial aid. To promote the high-quality research publications on the campus, the institute encourages the faculty members to get funded projects from various government agencies. The faculty members are provided with adequate financial aid and administrative support for attending FDP/Seminar/Conference in various reputed Institutions for skill up-gradation.

To bring consistency in the growth of research status and post Ph.D. publication of the faculty members, a research review meeting has been conducted once a semester. Incentives are provided for the funded project, research publications, and research projects.

#### **5. Evidence of Success**

The institute has made concerted efforts to establish a state-of-art research ambiance, persuade sponsored and collaborative research, enhance industry interaction and consultancy, develop augmented research laboratories, and foster industrial need research works. Research and Development of the college focus in several areas like Computation, Energy, Environment, Image Processing, Materials, Manufacturing, Nanotechnology, Telecommunication, and Sensor Networks and Simulation studies. Six departments of NEC have been recognized as research centers by Anna University, Chennai.

The research centers of our institute are supported by the research advisory board of eminent external professors and scientists, 48 recognized supervisors, 74 Ph.D. holders, and 113 research scholars covering wide-ranging areas of specialization in Engineering, Technology, and Sciences. The institute is actively involved in various funded projects and has received over Rs. 6.4 Crores from various agencies of Government like AICTE, BRNS, CSIR, DST, DRDO, ICMR, IGCAR, TNSTC, etc. The net worth of all the institution's projects is around 1.3 crores, and about 20 projects have been successfully completed by the institution since 2016. Both faculty members and students are motivated towards innovation and startups through the KR incubation center. Around 77 research papers and articles are published in the reputed Scopus /WOS indexed journals in 2016-2017, 104 research papers and articles in 2017-2018, 118 research papers and articles in 2018-2019, 163 research papers and articles in 2019-2020 and 149 research papers and articles in 2020-2021.

#### **6. Problems Encountered and Resources Required**

Various steps are taken for the development of the faculty members in terms of academics, research, funded projects, and consultancy. Immense support, facilities, and opportunities are provided by technically providing the training to publish the research articles and patent and write the project proposal. Faculty members are motivated to submit the project proposal. The net worth of all the institution's projects is around 1.3 crores, and around 20 projects have been successfully completed by the institution since 2016. The institute facilitates the faculty members to execute sponsored research, industrial consultancy,

and collaborative research. The faculty members have been trying to overcome the difficulties in getting the funded projects from the agencies such as DST, DRDO, BRNS, CSIR, and DBT.

File Description	Document
Best practices in the Institutional web site	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

### 7.3 Institutional Distinctiveness

#### 7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

##### Response:

##### Provision of availing internship to become industrial ready engineers

The prime motive of the Institution is to mould and empower students in the pursuit of knowledge, values, and social responsibility and help them achieve excellence in various fields, thereby also preparing them to face global challenges. Our Institution has never faltered in stimulating the students to pursue knowledge, ethics, and citizenship.

The Institute has established its distinctive approach towards this comprehensive Vision using certificate courses or by allowing the students to organize events to develop their skills, multidisciplinary project development, Entrepreneurship development, Ethical and Human value development, and Earn while Learn.

All the students are motivated to undergo Inplant Training / Internship at industry or research organization or university or Live-in-Lab for the period prescribed in the curriculum during summer and winter vacation. One credit will be awarded for the students undergoing two weeks internships; for four weeks, it is two credits, for six weeks, it is three credits, and for eight weeks, it is four credits.

##### Internship: Earn While Learn

Our Institute organizes various workshops and training sessions to enhance the student's skills based on the industrial needs such as Personality enrichment, Employability skill development, Entrepreneurial development, Language skill development, etc. The students studying UG and PG courses take up their projects through an internship in industries or in the R&D institutions that give hands-on experience in their area of interest.

According to our curriculum, Institute has given the provision for students to avail the Paid internship during the final year either for industrial projects based on their interest or for the industry offers prior placement. Students can start working from the final year onwards by utilizing above said provisions.

This is one of the privileges for the students to have industrial exposure and the earlier career settlement.

Mentors motivate the students from the third year onwards for the final year internship. They are motivated to do the required Major and Minor courses in the NPTEL and start their Mini and Major projects in the pre-final year. This provision is to be availed by the students with the proper guidelines of the Mentor, and the outcome of the practice is assessed by the Head of the Department and the Principal. Without compromises in the regular academic attainment, the student would make optimum use of the advanced opportunities to get their career settled at the end of the course.

- Apart from this, in-house industrial internships are offered,
- In ECE Department VLSI chip testing lab has been established in collaboration with M/s. Tessolve Semiconductor Private Limited, Bengaluru during 2017-18. students are trained and provided internships every year in this laboratory as per the requirements of Chip Testing Industries. M/s. Tessolve Semiconductor Private Limited Company offers training for the recruited students of the final year.
- Industry-specific incubation labs have been set up in the academic year 2018-19 in association with M/s. Nanolitho Technologies Pvt., Ltd, Bengaluru & M/s. QAssure Technologies India Pvt Ltd, Chennai to develop student's ability to work in a real-time industry-based project. Through these Incubation centres, students have been provided internship training and recruited by the Industries.
- In the academic year 2019-20, NEC-Mistral Research and Development lab has been established in the department. The Industrial experts selected the students based on the online screening test. Skill-based training was given to the selected students in the R&D Lab in the embedded domain.

Sl.No.	Academic year	Total Number of offers
1.	2016 - 2017	07
2.	2017 - 2018	26
3.	2018 - 2019	89
4.	2019 - 2020	119
5.	2020 - 2021	169

File Description	Document
Any other relevant information	<a href="#">View Document</a>
Appropriate web in the Institutional website	<a href="#">View Document</a>

## 5. CONCLUSION

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### Additional Information :

- The institution's five engineering UG programs have been accredited by the NBA, New Delhi, under the Tier 1 category.
- The National Assessment and Accreditation Council (NAAC) has graded our institution with B++ Grade.
- In the National Institutional Ranking Framework (NIRF), our institution has achieved the National ranking of 191th position in the year 2021, 189th position in the year 2020, and 166th position in the year 2019 under the category of engineering, including IITs and NITs.
- Atal Ranking of institutions on innovation achievements (ARIIA) has graded our institution with band A, ranked between 6th - 25th.
- UGC accorded our institute to continue with the Autonomous status with the validity till the year 2024.
- The Ministry of Education's (MoE's) Innovation Cell has accorded 5 Star status to our institute for promoting innovations.
- AICTE–CII survey of the industry-linked Technical institutions has graded our institute with a score of band > 30 and rated with platinum continuously for four years.
- All the departments of our institute are recognized as Research centres by Anna University, Chennai.
- NPTEL recognized the institution as one of the serious participants and rewarded the institution with the local chapter star status.
- The institution has secured 622nd position out of 2700+ participating colleges across India in the all India ranking of the Internshala, India's top internship and training platform.
- Cambridge English Assessment has recognized the institution as one of the centers for conducting the BEC (Business English Certificate) exam to assess students' language proficiency.
- The NSS wing has received the appreciation certificate twice from the Thoothukudi Collectorate for the successful implementation of swachh Bharat Abhiyan in the two adopted villages.
- For the successful implementation of Unnath Bharat Abhiyan in the five adopted villages, the NSS wing of the institution has received the perennial assistance fund award worth Rs. 1.75 Lakhs from the Government of India.
- The NSS unit received the best NSS unit award from Anna University, Chennai.
- More than 100 companies have been visiting the campus every year, and the institution has 90% of consistent job placement for students.
- The institution also has two on-campus industries.

### Concluding Remarks :

The visionary and proactive management facilitates both the faculty members and students with well-equipped infrastructure facilities to achieve the institute's vision. The institution encourages and sponsors the faculty members, research scholars, and students to participate in seminars, workshops, faculty development programs, intra-college and inter-college competitions.

The institution has a vibrant placement cell that trains the students and provides them with a wide range of job opportunities with 90% consistent placement. The students are also motivated and equipped to participate in the Campus placement programs. Renowned companies with attractive salary packages are invited for the campus recruitment drive. Companies that are part of on-campus placements are from the

Software and Core Engineering industry. The faculty members are highly qualified, well-experienced, dedicated, enthusiastic, and research-oriented. They have been utilizing ICT in classroom teaching to meet the emerging needs of education in the global context.

The Management, Administrators, Principal, CoE, Deans, HoDs, Faculty members, and staff are working together as one team and are much focused on improving the institution's standard. The institution ever remains unique in its perception of assuring holistic development and meeting the growing demands of society. Besides providing the theoretical base, the institution paves a practical and humanistic approach to the teaching-learning process.



## 6.ANNEXURE

### 1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
1.1.3	<p><b>Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years</b></p> <p><b>1.1.3.1. Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years..</b></p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>982</td> <td>985</td> <td>883</td> <td>1012</td> <td>799</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>882</td> <td>885</td> <td>783</td> <td>912</td> <td>699</td> </tr> </tbody> </table> <p>Remark : DVV has excluded courses such as Heat and Mass Transfer, Dynamics of Machinery etc from shared report of courses by HEI.</p>	2020-21	2019-20	2018-19	2017-18	2016-17	982	985	883	1012	799	2020-21	2019-20	2018-19	2017-18	2016-17	882	885	783	912	699
2020-21	2019-20	2018-19	2017-18	2016-17																	
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1.3.2	<p><b>Number of value-added courses for imparting transferable and life skills offered during last five years.</b></p> <p><b>1.3.2.1. How many new value-added courses are added within the last five years</b></p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>65</td> <td>63</td> <td>65</td> <td>64</td> <td>64</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>44</td> <td>40</td> <td>41</td> <td>31</td> <td>32</td> </tr> </tbody> </table> <p>Remark : DVV has excluded courses such as Programming in C, Industrial Electronics, Image Processing Algorithms etc from shared courses report by HEI.</p>	2020-21	2019-20	2018-19	2017-18	2016-17	65	63	65	64	64	2020-21	2019-20	2018-19	2017-18	2016-17	44	40	41	31	32
2020-21	2019-20	2018-19	2017-18	2016-17																	
65	63	65	64	64																	
2020-21	2019-20	2018-19	2017-18	2016-17																	
44	40	41	31	32																	
1.4.2	<p><b>The feedback system of the Institution comprises of the following :</b></p> <p>Answer before DVV Verification : A. Feedback collected, analysed and action taken and report made available on website</p> <p>Answer After DVV Verification: B. Feedback collected, analysed and action taken</p> <p>Remark : DVV has considered B. Feedback collected, analysed and action taken as per shared feedback report by HEI.</p>																				

2.1.1	<p><b>Average Enrolment percentage (Average of last five years)</b></p> <p><b>2.1.1.1. Number of students admitted year-wise during last five years</b>  Answer before DVV Verification:</p> <table border="1" data-bbox="306 309 1046 443"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>564</td> <td>615</td> <td>651</td> <td>723</td> <td>747</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="306 519 1046 654"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>487</td> <td>535</td> <td>587</td> <td>664</td> <td>674</td> </tr> </tbody> </table> <p><b>2.1.1.2. Number of sanctioned seats year wise during last five years</b>  Answer before DVV Verification:</p> <table border="1" data-bbox="306 734 1046 869"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>682</td> <td>703</td> <td>907</td> <td>907</td> <td>943</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="306 949 1046 1084"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>682</td> <td>703</td> <td>907</td> <td>907</td> <td>943</td> </tr> </tbody> </table> <p>Remark : DVV has considered first year admitted students as per shared report of students in extended profile 2.1 by HEI.</p>	2020-21	2019-20	2018-19	2017-18	2016-17	564	615	651	723	747	2020-21	2019-20	2018-19	2017-18	2016-17	487	535	587	664	674	2020-21	2019-20	2018-19	2017-18	2016-17	682	703	907	907	943	2020-21	2019-20	2018-19	2017-18	2016-17	682	703	907	907	943
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2.3.3	<p><b>Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year )</b></p> <p><b>2.3.3.1. Number of mentors</b>  Answer before DVV Verification : 143  Answer after DVV Verification: 141</p> <p>Remark : DVV has excluded those faculty appointed during the academic year 2020-21.</p>																																								
2.4.3	<p><b>Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)</b></p> <p><b>2.4.3.1. Total experience of full-time teachers</b>  Answer before DVV Verification : 1841.08  Answer after DVV Verification: 1041.08</p> <p>Remark : DVV has excluded those faculty appointed during the academic year 2020-21.</p>																																								
3.2.1	<p><b>Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)</b></p>																																								



**3.2.1.1. Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
67.80	48.07	68.96	38.81	45.59

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
57.80	38.07	48.96	28.81	35.59

Remark : DVV has excluded grants for students projects from MSME and grants from DST for non-research project from shared report by HEI.

**3.2.2 Percentage of teachers having research projects during the last five years**

**3.2.2.1. Number of teachers having research projects during the last five years**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
13	10	15	31	44

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
09	9	11	29	38

Remark : DVV has given the input as per 3.2.1

**3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development during the last five years.**

**3.3.2.1. Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development year-wise during the last five years.**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
25	33	14	21	19

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
19	26	11	16	11

Remark : DVV has excluded technical activities such as Smart Protection and Control using Numerical Relays from shared report by HEI.

**3.4.2 Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/supervisors provided at 3.2.3 metric) during the last five years**

3.4.2.1. How many Ph.Ds are registered within last 5 years

Answer before DVV Verification : 70

Answer after DVV Verification: 0

3.4.2.2. Number of teachers recognized as guides during the last five years

Answer before DVV Verification : 49

Answer after DVV Verification: 49

Remark : DVV has given the 0 as HEI cannot admit any students for Ph. D programme.

**3.4.3 Number of research papers per teachers in the Journals notified on UGC website during the last five years**

3.4.3.1. Number of research papers in the Journals notified on UGC website during the last five years

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
136	133	95	88	64

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

Remark : DVV has given the 0 as per HEI has not provided UGC CARE link for all the publications.

**3.4.4 Number of books and chapters in edited volumes / books published per teacher during the last five years**

**3.4.4.1. Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
43	30	28	16	13

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
32	21	19	11	9

Remark : DVV has not consider some books and chapters without ISBN number from shared report by HEI.

**3.5.1 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).**

**3.5.1.1. Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
2.78	5.40	4.22	6.72	1.99

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
1.08	3.02	2.03	5.02	0.86

Remark : DVV has excluded revenue generated by testing services/ use of facilities of the Institution cannot be considered here.

**3.6.2 Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years**

**3.6.2.1. Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
9	11	10	9	4

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

Remark : DVV has not consider shared certificate of appreciation and unstamped report by HEI.

**3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years**

**3.6.3.1. Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17

203	217	181	179	164
-----	-----	-----	-----	-----

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
93	57	51	49	34

Remark : DVV has not consider shared days and unstamped report and excluded all non-extension activities such as all departmental association activities by HEI.

**3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years**

**3.6.4.1. Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
23194	20738	15064	15094	12706

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
11194	13738	11064	11094	11006

Remark : DVV has considered one student once in a activity and year and given the input as per 3.6.3

**3.7.2 Number of functional MoUs with institutions of national, international importance, other institutions, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)**

**3.7.2.1. Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
9	17	12	10	7

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
6	11	9	6	5

Remark : DVV has excluded MOUs for students / placement training on commercial basis and activities without MOUs from shared report of MoUs.

4.1.3	<p><b>Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)</b></p> <p>4.1.3.1. <b>Number of classrooms and seminar halls with ICT facilities</b>          Answer before DVV Verification : 68          Answer after DVV Verification: 42</p> <p>Remark : HEI has not given any bills / stock register to validate the claim.</p>																				
4.2.4	<p><b>Percentage per day usage of library by teachers and students ( foot falls and login data for online access) during the latest completed academic year</b></p> <p>4.2.4.1. <b>Number of teachers and students using library per day over last one year</b>          Answer before DVV Verification : 338          Answer after DVV Verification: 00</p> <p>Remark : Relevant documents has not shared by HEI.</p>																				
4.3.4	<p><b>Institution has the following Facilities for e-content development</b></p> <ol style="list-style-type: none"> <li>1. <b>Media centre</b></li> <li>2. <b>Audio visual centre</b></li> <li>3. <b>Lecture Capturing System(LCS)</b></li> <li>4. <b>Mixing equipments and softwares for editing</b></li> </ol> <p>Answer before DVV Verification : A. All of the above          Answer After DVV Verification: D. 1 of the above</p> <p>Remark : DVV has made the changes as per shared report of Lecture Capturing System(LCS) by HEI</p>																				
4.4.1	<p><b>Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years</b></p> <p>4.4.1.1. <b>Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year wise during the last five years (INR in lakhs)</b>          Answer before DVV Verification:</p> <table border="1" data-bbox="306 1671 1046 1805"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>416.17</td> <td>633.84</td> <td>769.26</td> <td>797.79</td> <td>721.73</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="306 1883 1046 2018"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>210.29</td> <td>138.21</td> <td>469.26</td> <td>281.29</td> <td>136.09</td> </tr> </tbody> </table>	2020-21	2019-20	2018-19	2017-18	2016-17	416.17	633.84	769.26	797.79	721.73	2020-21	2019-20	2018-19	2017-18	2016-17	210.29	138.21	469.26	281.29	136.09
2020-21	2019-20	2018-19	2017-18	2016-17																	
416.17	633.84	769.26	797.79	721.73																	
2020-21	2019-20	2018-19	2017-18	2016-17																	
210.29	138.21	469.26	281.29	136.09																	

Remark : DVV has considered only maintenance of physical facilities and academic support facilities excluding salary from shared report by HEI.

**5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during last five years**

**5.1.1.1. Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
1214	1388	1505	1604	1695

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
1	1	1	1	1

Remark : Relevant documents has not by HEI.

**5.1.3 Following Capacity development and skills enhancement activities are organised for improving students capability**

**1. Soft skills**

**2. Language and communication skills**

**3. Life skills (Yoga, physical fitness, health and hygiene)**

**4. Awareness of trends in technology**

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: C. 2 of the above

Remark : DVV has considered C. 2 of the above as per shared report by HEI.

**5.1.4 Average percentage of students benefited by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.**

**5.1.4.1. Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
1952	2026	2203	2317	2450

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
1322	1426	1903	1117	1150

Remark : DVV has excluded activities such as TCS, Infosys, Accenture and considered only GATE, CAT training from shared report by HEI.

5.1.5 **The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases**

1. Implementation of guidelines of statutory/regulatory bodies
2. Organisation wide awareness and undertakings on policies with zero tolerance
3. Mechanisms for submission of online/offline students' grievances
4. Timely redressal of the grievances through appropriate committees

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: B. 3 of the above

Remark : DVV has considered B. 3 of the above as per shared report by HEI.

5.2.1 **Average percentage of placement of outgoing students during the last five years**

5.2.1.1. **Number of outgoing students placed year - wise during the last five years.**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
533	529	348	328	353

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
421	421	321	218	253

Remark : DVV has excluded offers without signature, email offers from shared report by HEI.

5.3.1 **Number of awards/medals won by students for outstanding performance in sports/cultural activities at inter-university/state/national / international level (award for a team event should be counted as one) during the last five years.**

5.3.1.1. **Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
2	15	15	29	22

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
00	00	00	00	00

Remark : DVV has given the 0 as per not considered Anna university Zonal level activities from shared report by HEI.

**5.3.3 Average number of sports and cultural events / competitions organised by the institution per year**

**5.3.3.1. Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
20	29	30	38	31

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
16	21	22	32	24

**5.4.2 Alumni financial contribution during the last five years (in INR).**

Answer before DVV Verification : A. ? 15 Lakhs

Answer After DVV Verification: E. <2 Lakhs

Remark : DVV has considered E. <2 Lakhs as per shared report by HEI.

**6.2.3 Implementation of e-governance in areas of operation**

1. Administration
2. Finance and Accounts
3. Student Admission and Support
4. Examination

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: B. 3 of the above

Remark : DVV has considered B. 3 of the above as per shared report by HEI.

**6.3.2 Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years.**

**6.3.2.1. Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during**



**the last five years**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
35	113	150	119	68

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
21	65	78	44	32

Remark : DVV has given the input as per excluded teacher getting multiple benefit once in a year.

**6.3.3 Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.****6.3.3.1. Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
20	53	45	16	14

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
00	00	00	00	00

Remark : DVV has Excluded all programmes conducted by external agencies (either online or offline).

**6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course ).****6.3.4.1. Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years**

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
153	171	152	166	186

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17

56	00	00	21	00
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Remark : DVV has given the input as per consider one faculty once in a year from shared report by HEI.

6.5.3	<p><b>Quality assurance initiatives of the institution include:</b></p> <ol style="list-style-type: none"> <li>1. <b>Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements</b></li> <li>2. <b>Collaborative quality initiatives with other institution(s)</b></li> <li>3. <b>Participation in NIRF</b></li> <li>4. <b>Any other quality audit recognized by state, national or international agencies (ISO Certification)</b></li> </ol> <p>Answer before DVV Verification : All of the above          Answer After DVV Verification: 3 of the above          Remark : DVV has considered 3 of the above as per shared report by HEI.</p>
7.1.2	<p><b>The Institution has facilities for alternate sources of energy and energy conservation measures</b></p> <ol style="list-style-type: none"> <li>1. <b>Solar energy</b></li> <li>2. <b>Biogas plant</b></li> <li>3. <b>Wheeling to the Grid</b></li> <li>4. <b>Sensor-based energy conservation</b></li> <li>5. <b>Use of LED bulbs/ power efficient equipment</b></li> </ol> <p>Answer before DVV Verification : C. 2 of the above          Answer After DVV Verification: D. 1 of the above          Remark : DVV has considered D. 1 of the above as per shared report by HEI.</p>
7.1.4	<p><b>Water conservation facilities available in the Institution:</b></p> <ol style="list-style-type: none"> <li>1. <b>Rain water harvesting</b></li> <li>2. <b>Borewell /Open well recharge</b></li> <li>3. <b>Construction of tanks and bunds</b></li> <li>4. <b>Waste water recycling</b></li> <li>5. <b>Maintenance of water bodies and distribution system in the campus</b></li> </ol> <p>Answer before DVV Verification : A. Any 4 or all of the above          Answer After DVV Verification: C. 2 of the above          Remark : DVV has considered C. 2 of the above as per shared report by HEI.</p>
7.1.5	<p><b>Green campus initiatives include:</b></p>

	<ol style="list-style-type: none"> <li>1. <b>Restricted entry of automobiles</b></li> <li>2. <b>Use of Bicycles/ Battery powered vehicles</b></li> <li>3. <b>Pedestrian Friendly pathways</b></li> <li>4. <b>Ban on use of Plastic</b></li> <li>5. <b>landscaping with trees and plants</b></li> </ol> <p>Answer before DVV Verification : A. Any 4 or All of the above  Answer After DVV Verification: C. 2 of the above  Remark : DVV has considered C. 2 of the above as per shared report by HEI.</p>
7.1.6	<p><b>Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:</b></p> <ol style="list-style-type: none"> <li>1. <b>Green audit</b></li> <li>2. <b>Energy audit</b></li> <li>3. <b>Environment audit</b></li> <li>4. <b>Clean and green campus recognitions / awards</b></li> <li>5. <b>Beyond the campus environmental promotion activities</b></li> </ol> <p>Answer before DVV Verification : A. Any 4 or all of the above  Answer After DVV Verification: B. 3 of the above  Remark : DVV has considered B. 3 of the above as per shared report by HEI.</p>
7.1.7	<p><b>The Institution has disabled-friendly, barrier free environment</b></p> <ol style="list-style-type: none"> <li>1. <b>Built environment with ramps/lifts for easy access to classrooms.</b></li> <li>2. <b>Divyangjan friendly washrooms</b></li> <li>3. <b>Signage including tactile path, lights, display boards and signposts</b></li> <li>4. <b>Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment</b></li> <li>5. <b>Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading</b></li> </ol> <p>Answer before DVV Verification : A. Any 4 or all of the above  Answer After DVV Verification: C. 2 of the above  Remark : DVV has considered C. 2 of the above as per shared report by HEI.</p>
7.1.10	<p><b>The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.</b></p> <ol style="list-style-type: none"> <li>1. <b>The Code of Conduct is displayed on the website</b></li> <li>2. <b>There is a committee to monitor adherence to the Code of Conduct</b></li> <li>3. <b>Institution organizes professional ethics programmes for students, teachers, administrators and other staff</b></li> <li>4. <b>Annual awareness programmes on Code of Conduct are organized</b></li> </ol> <p>Answer before DVV Verification : A. All of the above  Answer After DVV Verification: B. 3 of the above</p>

Remark : DVV has made the changes as per Code of Conduct, code of ethics, Institution organizes professional ethics programmes for students, teachers, administrators and other staff by HEI.

## 2.Extended Profile Deviations

ID	Extended Questions																				
1.2	<p><b>Number of full time teachers year-wise during the last five years</b></p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>179</td> <td>189</td> <td>206</td> <td>214</td> <td>221</td> </tr> </tbody> </table> <p>Answer After DVV Verification:</p> <table border="1"> <thead> <tr> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> </tr> </thead> <tbody> <tr> <td>179</td> <td>189</td> <td>206</td> <td>213</td> <td>221</td> </tr> </tbody> </table>	2020-21	2019-20	2018-19	2017-18	2016-17	179	189	206	214	221	2020-21	2019-20	2018-19	2017-18	2016-17	179	189	206	213	221
2020-21	2019-20	2018-19	2017-18	2016-17																	
179	189	206	214	221																	
2020-21	2019-20	2018-19	2017-18	2016-17																	
179	189	206	213	221																	
2.3	<p><b>Total number of classrooms and seminar halls</b></p> <p>Answer before DVV Verification : 75</p> <p>Answer after DVV Verification : 42</p>																				
2.4	<p><b>Total number of computers in the campus for academic purpose</b></p> <p>Answer before DVV Verification : 1395</p> <p>Answer after DVV Verification : 350</p>																				