



Yearly Status Report - 2019-2020

Part A

Data of the Institution

1. Name of the Institution		THE NATIONAL INSTITUTE OF ENGINEERING, MYSURU
Name of the head of the Institution		Dr. Rohini Nagapadma
Designation		Principal
Does the Institution function from own campus		Yes
Phone no/Alternate Phone no.		0821-2480475
Mobile no.		9482572004
Registered Email		principal@nie.ac.in
Alternate Email		nieprincipal@gmail.com
Address		Manandavadi Road
City/Town		Mysuru
State/UT		Karnataka
Pincode		570008

2. Institutional Status																			
Autonomous Status (Provide date of Conformant of Autonomous Status)	20-Dec-2007																		
Type of Institution	Co-education																		
Location	Urban																		
Financial Status	Self financed and grant-in-aid																		
Name of the IQAC co-ordinator/Director	Dr. K Raghuv eer																		
Phone no/Alternate Phone no.	+919448716564																		
Mobile no.	8310585667																		
Registered Email	iqac@nie.ac.in																		
Alternate Email	raghunie1967@gmail.com																		
3. Website Address																			
Web-link of the AQAR: (Previous Academic Year)	https://nie.ac.in/wp-content/uploads/2020/04/KACOGN103560.pdf																		
4. Whether Academic Calendar prepared during the year	Yes																		
if yes,whether it is uploaded in the institutional website: Weblink :	https://nie.ac.in/academics/																		
5. Accrediation Details																			
<table border="1"> <thead> <tr> <th rowspan="2">Cycle</th> <th rowspan="2">Grade</th> <th rowspan="2">CGPA</th> <th rowspan="2">Year of Accrediation</th> <th colspan="2">Validity</th> </tr> <tr> <th>Period From</th> <th>Period To</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>B++</td> <td>2.86</td> <td>2020</td> <td>14-Feb-2020</td> <td>13-Feb-2025</td> </tr> </tbody> </table>						Cycle	Grade	CGPA	Year of Accrediation	Validity		Period From	Period To	1	B++	2.86	2020	14-Feb-2020	13-Feb-2025
Cycle	Grade	CGPA	Year of Accrediation	Validity															
				Period From	Period To														
1	B++	2.86	2020	14-Feb-2020	13-Feb-2025														
6. Date of Establishment of IQAC	04-Oct-2012																		
7. Internal Quality Assurance System																			
Quality initiatives by IQAC during the year for promoting quality culture																			
Item /Title of the quality initiative by IQAC	Date & Duration		Number of participants/ beneficiaries																
Effective Teacher's	06-Jul-2020		75																

Toolkit Post-COVID	1	
Laws pertaining to Women's Equality and Support	27-Jun-2020 1	111
Industry Four point Zero - Smart Factory	19-Jun-2020 1	252
Laboratory Safety, Skill Development and Professional Communication	09-Dec-2019 4	36
Ideas to Intellectual Property for Researchers and Academicians	09-Jun-2020 1	180
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8. Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
TEQIP	Phase III	MHRD	2017 1095	70000000
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9. Whether composition of IQAC as per latest NAAC guidelines:	Yes
Upload latest notification of formation of IQAC	View File
10. Number of IQAC meetings held during the year :	1
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	Yes
Upload the minutes of meeting and action taken report	View File
11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	No

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

1. Use of solar energy initiative in Campus

2. Introduction to Learning Management System Moodle

3. Inclusion of Transgender attribute in the Database

4. Program on Developing Next generation faculty

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

Plan of Action	Achievements/Outcomes
Conducting Academic and Administrative Audit	Identified the strength and gaps across all the departments
Learning Management System - Moodle	Sharing of Learning resources -Faculty members are trained with Learning Management System & implemented
Policy document on Intellectual Property Rights	Procedure and policy related to Intellectual Property Rights at NIE is chalked out
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14. Whether AQAR was placed before statutory body ?

Yes

Name of Statutory Body	Meeting Date
Academic Council	14-Nov-2020

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?

Yes

Date of Visit

23-Jan-2020

16. Whether institutional data submitted to AISHE:

Yes

Year of Submission

2019

Date of Submission

10-Jun-2019

17. Does the Institution have Management Information System ?

Yes

If yes, give a brief description and a list of modules currently operational (maximum 500 words)

1. Workflow based online Admission Module that captures 184 data fields which includes details about the student and webcam based photo capture, Instant ID card generation, SMS

notification for confirmation and other statutory reports generation. 2.Fees Management Module which can take care offline and online payments, generates reminders, finance report and can be used to export in various file formats. 3.Academic Calendar Tracking Module is the basis for all activities in the colleges and from which the time table and contact hours are derived. 4.Time table based contact hours tracking module tracks Contact hours for every faculty with respect to the course. 5. Internal Assessment Module takes care about assessment events. Course Outcome, Program Outcome and Blooms level tagging. Question paper based assessment for theory, Rubrics based assessment for Lab courses. 6. Topic coverage tracking and work diary module helps in tracking topics and completed for each course. 7. Student feedback on faculty module helps in taking feedback on faculty once in a semester. This helps the faculty member for improvement/corrections towards the course delivery.

Part B

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Design and Development

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

Name of Programme	Programme Code	Programme Specialization	Date of Revision
BE	CV	CIVIL ENGINEERING	13/05/2019
Mtech	MHY	HYDRAULICS	13/05/2019
BE	ME	MECHANICAL ENGINEERING	04/05/2019
Mtech	MMD	MACHINE DESIGN	04/05/2019
Mtech	IAR	INDUSTRIAL AUTOMATION & ROBOTICS	04/05/2019
BE	EE	ELECTRICAL AND ELECTRONICS ENGINEERING	04/05/2019
Mtech	MPS	POWER SYSTEMS	04/05/2019
Mtech	MCD	COMPUTER APPLICATIONS TO INDUSTRIAL DRIVES	04/05/2019
BE	EC	ELECTRONICS & COMMUNICATION ENGINEERING	11/05/2019

BE	IP	INDUSTRIAL AND PRODUCTION ENGINEERING	04/05/2019
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1.1.2 – Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year

Programme with Code	Programme Specialization	Date of Introduction	Course with Code	Date of Introduction
BE	CIVIL ENGINEERING	01/08/2019	QUANTITY SURVEYING AND ESTIMATION (CV7C01)	01/08/2019
BE	CIVIL ENGINEERING	01/08/2019	COMPETENCY TRAINING (CV7C05)	01/08/2019
BE	CIVIL ENGINEERING	01/08/2019	AIRPORT ENGINEERING (CV8E505)	01/08/2019
BE	CIVIL ENGINEERING	01/08/2019	DESIGN OF RC STRUCTURAL ELEMENTS (CV6C01)	01/08/2019
BE	CIVIL ENGINEERING	01/08/2019	DESIGN OF STEEL STRUCTURES (CV6C03)	01/08/2019
BE	CIVIL ENGINEERING	01/08/2019	ADVANCED RCC STRUCTURES (CV8E404)	01/08/2019
BE	CIVIL ENGINEERING	01/08/2019	CONSTRUCTION SURVEYING (CV8E601)	01/08/2019
BE	CIVIL ENGINEERING	01/08/2019	PROFESSIONAL COMMUNICATION (CV8E602)	01/08/2019
Mtech	HYDRAULICS	02/09/2019	INDUSTRY DRIVEN ELECTIVES (MHY21XX)	02/09/2019
Mtech	HYDRAULICS	02/09/2019	HYDROLOGICAL MODELLING (MHY2C01)	02/09/2019
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1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the Academic year

Programme/Course	Programme Specialization	Dates of Introduction
BE	No New programmes Added	31/05/2020
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1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the

College level during the Academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BE	CIVIL ENGINEERING	01/08/2019
Mtech	HYDRAULICS	02/09/2019
Mtech	STRUCTURAL ENGINEERING	02/09/2019
BE	MECHANICAL ENGINEERING	01/08/2019
Mtech	MACHINE DESIGN	02/09/2019
Mtech	INDUSTRIAL AUTOMATION & ROBOTICS	02/09/2019
Mtech	NANO TECHNOLOGY	02/09/2019
BE	ELECTRICAL AND ELECTRONICS ENGINEERING	01/08/2019
Mtech	POWER SYSTEMS	02/09/2019
Mtech	COMPUTER APPLICATIONS TO INDUSTRIAL DRIVES	02/09/2019
BE	ELECTRONICS & COMMUNICATION ENGINEERING	01/08/2019
Mtech	NETWORKING AND INTERNET ENGINEERING	02/09/2019
BE	INDUSTRIAL AND PRODUCTION ENGINEERING	01/08/2019
Mtech	PRODUCTION ENGINEERING SYSTEM TECHNOLOGY	02/09/2019
BE	COMPUTER SCIENCE AND ENGINEERING	01/08/2019
Mtech	INFORMATION TECHNOLOGY	02/09/2019
BE	INFORMATION SCIENCE AND ENGINEERING	01/08/2019
Mtech	COMPUTER NETWORK ENGINEERING	02/09/2019
MCA	MASTER OF COMPUTER APPLICATIONS	02/09/2019

1.3 – Curriculum Enrichment

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

Value Added Courses	Date of Introduction	Number of Students Enrolled
No Courses Added	31/05/2020	0
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1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
Mtech	POWER SYSTEMS	30
Mtech	COMPUTER APPLICATIONS TO INDUSTRIAL DRIVES	33

BE	CIVIL ENGINEERING	30
Mtech	HYDRAULICS	14
Mtech	STRUCTURAL ENGINEERING	26
BE	MECHANICAL ENGINEERING	132
Mtech	MACHINE DESIGN	32
Mtech	INDUSTRIAL AUTOMATION & ROBOTICS	32
Mtech	NANO TECHNOLOGY	14
BE	ELECTRICAL AND ELECTRONICS ENGINEERING	53
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1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	No

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

Feedback Obtained
<p>Effective feedback encourages the course Instructor and helps learners to maximize their potential at different stages of training, raise their awareness of strengths and areas for improvement, and identify actions to be taken to improve their performance. The institute has a formal mechanism to obtain feedback from various stake holders. The views obtained from the stake holders are considered to bring in the appropriate timely changes in the system. The institute always tries to remove and modify any difficulties and ambiguities in the syllabus based on the feedback collected from stake holders. At the end of the semester, course instructors will give a feedback about the course and its conduction. These inputs will be considered in the next revision of the course content. Alumni members having necessary expertise and experience who also form a part of Department Alumni Advisory Board will also go through the syllabus and give their suggestions. These suggestions will be incorporated and subjected to deliberations during Board of Studies meetings. Eminent experts from the industry also participate in the proceedings of the Department Industry Advisory Boards and give their opinions/suggestions which will go into the curriculum. Various employers will also be contacted through surveys, in which questions related to curriculum are addressed. Feedback obtained from the students is examined scrupulously and utilized for their further educational improvement in the form of changes in the mode of delivery and contents.</p>

CRITERION II – TEACHING- LEARNING AND EVALUATION

2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
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BE	Information Science and Engineering	120	116	116
BE	Industrial and Production Engineering	60	55	55
BE	Electronics and Communication Engineering	120	120	120
BE	Electrical and Electronics Engineering	120	122	122
BE	Computer Science and Engineering	120	124	124
BE	Civil Engineering	120	122	122
BE	Mechanical Engineering	180	187	187
BE	Civil Engineering (Evening)	60	23	23
Mtech	Hydraulics	18	12	12
Mtech	Power Systems	18	15	15
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2.2 – Catering to Student Diversity

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

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2019	3524	472	118	10	102

2.3 – Teaching - Learning Process

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

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Numberof smart classrooms	E-resources and techniques used
230	230	2	50	14	1
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2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

Yes, Student's mentoring system is available. Soon after a student gets admitted in our institution, a faculty member/ Mentor is assigned to the student to look for his/her academic performances until the completion of

his/her degree. The Mentor, is appointed by the HOD, taking into consideration the total number of students admitted in the department and faculty strength a) To help the students in planning their courses and activities during the study. b) To guide, advice and counsel the students in their academic programme. c) To guide the students in selecting the backlog courses if any, for registration Slow learners are mentored periodically to their learning difficulties. The mentors interact frequently to understand and assist any student with issues that affect their ability to learn or impede their academic success.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
3996	230	1:17.4

2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
232	230	2	82	82

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

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2020	Dr. Nithin K.S.	Assistant Professor	9th National Award for Technology Innovation by the department of Petrochemicals and Chemical Fertilizers, Government of India
2020	P Srinag	Assistant Professor	1st prize for technical paper presentation, Government
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2.5 – Evaluation Process and Reforms

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

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
Mtech	Mtech and MCA-1st sem	ODD/ 1	24/02/2020	02/03/2020
MCA	MCA- 3rd sem	ODD/ 2	20/12/2019	10/01/2020
MCA	MCA- 5th sem	ODD/ 3	19/12/2019	10/01/2020
MCA	MCA-3rd sem	ODD/ 2	19/12/2019	09/01/2020
BE	BE- 5th and 7th sem	ODD/ 3, 4	27/12/2019	10/01/2020
BE	BE-3rd sem	ODD/ 2	27/12/2019	09/01/2020

BE	BE-1st sem	ODD/ 1	27/12/2019	08/01/2020
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2.5.2 – Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
20	3988	0.5

2.6 – Student Performance and Learning Outcomes

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

<https://nie.ac.in/wp-content/uploads/2020/11/CO-POs-PSOs-Attainment-2016-2020.pdf>

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
MHY	Mtech	Hydraulics Engineering	11	11	100
MCN	Mtech	Computer Network Engineering	13	13	100
MCD	Mtech	Computer Application in Industrial Drives	18	18	100
ME	BE	Mechanical Engineering	218	186	85.32
IS	BE	Information Science and Engineering	142	125	88.03
IP	BE	Industrial and Production Engineering	59	49	83.05
EC	BE	Electronics and Communication Engineering	135	123	91.11
EE	BE	Electrical and Electronics	63	50	79.37
CS	BE	Computer Science and Engineering	145	136	93.79
CV	BE	Civil Engineering	117	109	93.16

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2.7 – Student Satisfaction Survey

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

https://nie.ac.in/wp-content/uploads/2020/09/Student-Satisfaction-Survey-Summary_2019-20.pdf

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Promotion of Research and Facilities

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

Yes

Name of the teacher getting seed money

Jayasankar V N

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3.1.2 – Teachers awarded National/International fellowship for advanced studies/ research during the year

Type	Name of the teacher awarded the fellowship	Name of the award	Date of award	Awarding agency
International	Dr.Gourav K	Building Energy Efficiency Higher Advanced Network (BHAVAN) Fellowship	09/05/2019	Indo-U.S. Science Technology Forum (IUSSTF)
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3.2 – Resource Mobilization for Research

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

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Major Projects	730	Karnataka Science and Technology Promotion Society (K-STEPS) - Vision Group of Science and Technoloy (VGST) (KFIST-L1) Govt. of Karnataka	20	10
Major Projects	1095	SERB (DST), Teachers	18.3	2.75

		Associateship for Research Excellence (TARE) (Joint association with DFRL)		
Major Projects	1095	AICTE, New Delhi under National Doctoral Fellowship	6.4	6.32
Major Projects	730	Department of Atomic Energy (DAE)- Board of Research in Nuclear Scienses (BRNS)	24.8	8.23
Major Projects	730	Department of Atomic Energy (DAE)- Board of Research in Nuclear Scienses (BRNS)	11.81	6.5
Major Projects	1095	UGC DAE Consortium for Scientific Research (CSR)	7.26	2.39
Major Projects	730	Karnataka Science and Technology Promotion Society (K-STEPS) - Vision Group of Science and Technoloy (VGST) (KFIST-L1) Govt. of Karnataka	20	0
Major Projects	365	Vision Group of Science and Technoloy (VGST) - RGS/F (KSTEPS), Govt. of Karnataka	5	0
Major Projects	1095	Ministry of Earth Sciences (MOES), Govt. of India	30.7	10.67
Major Projects	730	Natioanl Institute of Urban affairs (NIUA)with United States Agency for	20	6.57

International
Development
(USAID)

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

17

3.3 – Innovation Ecosystem

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

Title of workshop/seminar	Name of the Dept.	Date
IPR Workshop	Mechanical Engineering	09/06/2020
Special Lecturer on Research Methodology	NIE - CRD (Centre for Research and Development)	26/06/2020
Recent Advances in Geotechnics for infrastructure (RAGI)	Civil Engineering	14/05/2020
Technical Talk on Industry 4.0	Industrial Production Engineering	01/10/2019
Ideas for Successful Implementation of Lean Practices in Manufacturing Sector	Industrial Production Engineering	04/11/2019
Webinar on Industry 4.0 - Smart Factory	Industrial Production Engineering	19/06/2020
FDP on Artificial Intelligence and its Applications towards Robotics	Mechanical Engineering	20/01/2020
Arduino Workshop	Mechanical Engineering	04/09/2019
Characterization Techniques for Nanomaterials	Physics	26/06/2020
Advances in IBM Micro services	Information Science Engineering	26/10/2019

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3.3.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
Uvak: The UV Disinfecting Robot - Innovation Challenge 2020 - Fight against Corona	Akshay Nachappa, III Year, VI Semester	NIE, Mysore	12/07/2020	Third Place
Innovation idea	Ashish S,I year, II semester	Onyx NIE	06/06/2020	First Place

Papyrus - State level Inter Collegiate Techno - Cultural Fest	Ashish S,I year, II semester	AJIET, Mangaluru	06/03/2020	TOP 5
Presentario - National level technical symposium	Ashish S,I year, II semester	SIT, Tumakuru	25/10/2019	First Place
Technical and GK quiz (Fractionater)	Ashish S,I year, II semester	GSSS	24/10/2019	Second place
Green energy water purifier	Ashish S, I year, II semester	PESIT IEEE	02/10/2019	Qualified in top 10 Make a Thon
Remote Monitoring with Voice Command Control and Image Analysis	Shashank Hegde, Rohith Pandith M V, Prabhulingesh K, - 4th year, 8th Semester	ICRTECE, CIT, Gubbi, Tumkur	11/06/2020	Innovation in Computer Science, Electrical and Electronics Engineering
Hackmania 3.0	PP Shravan (III Year, VI Semester)	PES College of Engineering, Mandya in collaboration with Binghamton University, New York, USA	01/03/2020	Robotics and drones in human aid
Twitter Analysis of Covid -19 for Real Time Sentiment Analysis	Shrirang Kulkarni, Associate Professor, CSE	Eleazar Ortiz	07/05/2020	Google Cloud Research Credits
9th National Awards Presentation Ceremony for Technology Innovation in Petrochemicals and Downstream Plastics Processing Industry - Reg	Dr. Nithin K S (Assistant Professor), Mr. Jagajeevanraj B M (Research Scholar), Dept. of Chemistry	Department of Chemicals Petrochemicals, Govt. of India	13/02/2020	Research in the field of Polymer Science and Technology
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3.3.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
Business Incubation	NIE-incubation	NIE Society	ENTE LIKA CONSULTATION AND IT SERVICES LLP	Software Development/Product Dev	01/01/2020

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3.4 – Research Publications and Awards

3.4.1 – Ph. Ds awarded during the year

Name of the Department	Number of PhD's Awarded
Computer Science and Engineering	4
Electrical Electronics Engineering	1

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

Type	Department	Number of Publication	Average Impact Factor (if any)
International	Mechanical Engineering	27	1.58
International	Civil Engineering	9	4.42
International	Industrial Production Engineering	2	0
International	Electronics Communication Engineering	8	0
International	Electricals Electronics Engineering	4	0
International	Computer Science Engineering	4	0
International	Information Science Engineering	1	0
International	Physics	11	2.56
National	Chemistry	1	0.50
International	Chemistry	3	3.49

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3.4.3 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
Industrial and Production Engineering	18
Department of Physics	3
Computer Science and Engineering	4
Electronics and Communication Engineering	4
Electrical and Electronics Engineering	5
Mechanical Engineering	7

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3.4.4 – Patents published/awarded during the year

Patent Details	Patent status	Patent Number	Date of Award
Nil	Filed	0	07/12/2020

No file uploaded.

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

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
Direct brain targeted nanostructured lipid carriers for sustained release of schizophrenic drug: Formulation, characterization and pharmacokinetic studies	Sivadasu P., Gowda D.V., Subramani N.K., Vishweshwaraiah B.M., Shivanna S., Hatna S. (WoS)	Indian Journal of Pharmaceutical Education and Research	2020	0	The National Institute of Engineering	0
Synthesis of piperidine conjugated dihydroquinazolin-4(1H)-ones and their antiproliferative activity, molecular docking studies and DFT calculations	Narasimhamurthy K.H., Chandra, Swaroop T.R., Jagadish S., Rangappa K.S. (WoS)	Letters in Drug Design and Discovery	2020	0	National Institute of Engineering	0
Evaluation of Sugarcane Bagasse Polymer Composite for Structural Applications	Sandesh S Nayak	International Research Journal of Engineering and Technology	2020	0	The National Institute of Engineering	0
A study on index properties of kaolinite	Jyothi D.N., Prasanna H.S., Vishwanath	AIP Conference Proceedings	2020	0	The National Institute of Engineering	0

and bentonite sand mixtures	C.					
Role of graphene nanoplatelets and carbon fiber on mechanical properties of PA66/thermoplastic copolyester elastomer composites	Suresha B., Hemanth G., Hemanth R., Lalla N.P. (WoS)	Materials Research Express	2020	0	The National Institute of Engineering	0
Tribological Behaviour of Neem Oil with and without Graphene Nanoplatelets Using Four-Ball Tester	Suresha B., Hemanth G., Rakesh A., Adarsh K.M.	Advances in Tribology	2020	1	The National Institute of Engineering	1
Significance of the type of reinforcement on the physicomachanical behavior of short glass fiber and short carbon fiber-reinforced polypropylene composites	Doddalli Rudrappa S, Dr. Y S Varadarajan	Engineering Reports	2020	0	The National Institute of Engineering	0
A novel predictive optimization scheme for energy-efficient reliable operation of a	Jayasri B.S., Raghavendra Rao G.	International Journal of Electrical and Computer Engineering	2020	0	National Institute of Engineering	0

sensor in dynamic scenarios						
Microstructure, mechanical properties and sliding wear behaviour of silicon carbide reinforced al 6026 composites	Somashekar H.M., Gowthama K., Suresha B.	International Journal of Mechanical and Production Engineering Research and Development	2020	0	The National Institute of Engineering	0
The reaction of arylmethyl isocyanides and aryl methylamines with xanthate esters: A facile and unexpected synthesis of carbamothioates	Rajeev N., Swaroop T.R., Alra washdeh A.I., Rahman S., Alodhayb A., Anil S.M., Kiran K.R., Chandra, (WoS)	Beilstein Journal of Organic Chemistry	2020	0	National Institute of Engineering	0
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3.4.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
The reaction of arylmethyl isocyanides and aryl methylamines with xanthate esters: A facile and unexpected synthesis of carbamothioates	Rajeev N., Swaroop T.R., Alra washdeh A.I., Rahman S., Alodhayb A., Anil S.M., Kiran K.R., Chandra, (WoS)	Beilstein Journal of Organic Chemistry	2020	7	0	National Institute of Engineering
Microstructure, mechanical	Somashekar H.M., Gowthama	International Journal of	2020	21	0	The National Institute

properties and sliding wear behaviour of silicon carbide reinforced al 6026 composites	K., Suresha B.	Mechanical and Production Engineering Research and Development				of Engineering
A novel predictive optimization scheme for energy-efficient reliable operation of a sensor in dynamic scenarios	Jayasri B.S., Raghavendra Rao G.	International Journal of Electrical and Computer Engineering	2020	3	0	National Institute of Engineering
Significance of the type of reinforcement on the physicomachanical behavior of short glass fiber and short carbon fiber-reinforced polypropylene composites	Doddalli Rudrappa S, Dr. Y S Varadarajan	Engineering Reports	2020	6	0	The National Institute of Engineering
Tribological Behaviour of Neem Oil with and without Graphene Nanoplatelets Using Four-Ball Tester	Suresha B., Hemanth G., Rakesh A., Adarsh K.M.	Advances in Tribology	2020	21	1	The National Institute of Engineering
Role of graphene nanoplatelets and carbon	Suresha B., Hemanth G., Hemanth	Materials Research Express	2020	21	0	The National Institute of Engineering

fiber on mechanical properties of PA66/thermoplastic copolyester elastomer composites	R., Lalla N.P. (WoS)					
A study on index properties of kaolinite and bentonite sand mixtures	Jyothi D.N., Prasanna H.S., Vishwanath C.	AIP Conference Proceedings	2020	3	0	The National Institute of Engineering
Evaluation of Sugarcane Bagasse Polymer Composite for Structural Applications	Sandesh S Nayak	International Research Journal of Engineering and Technology	2020	0	0	The National Institute of Engineering
Synthesis of piperidine conjugated dihydroquinazolin-4(1H)-ones and their antiproliferative activity, molecular docking studies and DFT calculations	Narasimhamurthy K.H., Chandra, Swaroop T.R., Jagadish S., Rangappa K.S. (WoS)	Letters in Drug Design and Discovery	2020	7	0	National Institute of Engineering
Direct brain targeted nanostructured lipid carriers for sustained release of schizophrenic drug: Formulation	Sivadasu P., Gowda D.V., Subramani N.K., Vishweshwaraiah B.M., Shivanna S., Hatna S. (WoS)	Indian Journal of Pharmaceutical Education and Research	2020	10	0	The National Institute of Engineering

n, characterization and pharmacokinetic studies						
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3.4.7 – Faculty participation in Seminars/Conferences and Symposia during the year

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	114	829	214	243
Presented papers	53	3	0	0
Resource persons	5	12	4	5
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3.5 – Consultancy

3.5.1 – Revenue generated from Consultancy during the year

Name of the Consultant(s) department	Name of consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)
Civil Department - Building Fire Research Centre (BFRC)	Consultancy Services for the repair and rehabilitation of fire -impacted structures	External agencies	5893000
Mechanical Engineering - Centre for Renewable Energy Sustainable Technologies (CREST)	Biogas Plant	External agencies	339000
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3.5.2 – Revenue generated from Corporate Training by the institution during the year

Name of the Consultant(s) department	Title of the programme	Agency seeking / training	Revenue generated (amount in rupees)	Number of trainees
Department of Mechanical Engineering - CAT CTAT	Hands on Training on Key Technologies Robotics	External agencies	351000	460
Department of Mechanical Engineering - Eicher Centre for Automobile Technology (NECAT)	Training on automobile Technology	External agencies	461000	370
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3.6 – Extension Activities

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

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Yoga Day	NSS-NIE Unit in association with SPYSS PYF	3	112
Blood Donation Campaign	NSS-NIE Unit in association with HDFC Bank and JSS Hospital	2	75
Plastic Free Chamundi Hill - A Swaccha Bharatha Abhiyana	Placement Office, NIE	20	80
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3.6.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
Nil	Nil	Nil	0
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3.6.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agen cy/collaborating agency	Name of the activity	Number of teachers participated in such activites	Number of students participated in such activites
Gender Sensitisation	CICC, NIE	Gender Sensitization - The Need of the Hour	47	216
Gender Equality	Law Assist CICC,NIE	Awareness Program on Laws pertaining to Sexual Harassment of Women at work place	78	33
Gender Equality	Skill Exploria	Gender Equality and Women Empowerment	64	36
Gender Sensitisation	TEQIP	A quest for gender equity in 21 st century	20	35
Women Empowerment	IBM	Holistic Development for women	59	90

Women Empowerment	Law Assist	Laws pertaining to Womens equality and support	74	37
Aids Awareness	TEQIP	Webinar on "Domestic violence, abuse and AIDS awareness"	110	96
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3.7 – Collaborations

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

Nature of activity	Participant	Source of financial support	Duration
Consultancy work	Dr. N. Suresh (PI), Dr. N C Balaji (Co-PI), Dr. Abhinandan Prasad (Co-PI), Mr. Sachin V (SRF) and Mr. Prahasan P (JRF)	Board of Research in Nuclear Science (BRNS) Babha Atomic	548
Industry Academia Conclave association with IEEE PES Bangalore Chapter	Faculty, Students of NIE & Other Institutions, Industry Personnel	TEQIP - III	1
Mentor Mentee Institute Interaction	REC Banda Students (III Year Studets)	TEQIP - III	11
Mentor Mentee Institute Interaction	Dr. R Chidanandappa	TEQIP - III	14
Mentor Mentee Institute Interaction	Dr. Shankar Nalinakshan	TEQIP - III	14
One week Bootcamp on EdWinXP and MIPEC PCB and RF Antenna Design Machine	Dr. Shankar Nalinakshan	TEQIP - III	5
One week Bootcamp on EdWinXP and MIPEC PCB and RF Antenna Design Machine	Dr. Jayasankar V N	TEQIP - III	5
Remedial Class of EE students, REC Banda	Dr. R Chidanandappa	TEQIP - III	2
Remedial Class of EE students, REC Banda	Mrs. R. Radha	TEQIP - III	2
Remedial Class of	Dr. Jayasankar V N	TEQIP - III	2

EE students, REC
Banda

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3.7.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Internship	Internship	Innotech Engineering Consult Pvt. Ltd	01/08/2019	30/09/2019	Akhilesh H B (USN : 4NI18CSE01)
Internship	Internship	water resources public works department	05/08/2019	30/09/2019	Syed Shabista Parveen (USN: 4NI18CHY15)
Internship	Internship	Regional remote Sensing Centre-South	01/08/2019	30/09/2019	Rani D S (USN: 4NI18CHY13)
Internship	Internship	Global Academy of Technology	01/08/2019	30/09/2019	Arpitha B V(USN : 4NI18CHY03)
Internship	Internship	Arcdis consulting india pvt Ltd	26/08/2019	04/10/2019	Amrutha A S (USN : 4NI18CHY02)
Internship	Internship	Rootdesign Engineers Technocrats Pvt.ltd	29/07/2019	04/10/2019	Trupathi N Jadav (USN: 4NI18CHY16)
Internship	Internship	Karnataka Urban Water Supplu and Drainge Board	01/08/2019	30/09/2019	Jayanth C M (USN:4NI18CHY04)
Internship	Internship	Karnataka Urban Water Supplu and Drainge Board	01/08/2019	30/09/2019	Naveen Kumar B S (USN:4NI18CHY08)
Internship	Internship	Water resources Public works Deptment	01/08/2019	30/09/2019	Naveen R (USN : 4NI18CHY09)
Internship	Internship	Regional	01/08/2019	30/09/2019	Karthik M S

Remote
Sensing
Centre -
South

(USN :
4NI18CHY06)

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

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
VGS Software Solutions	01/04/2019	Provide training and Learning material	80
JSS Hospital	01/03/2019	Medical health care	600
IBM Skills Academy	01/05/2020	Virtual Workshop Participation for Trail of Cyber security Curriculum	608
Nokia inc	05/12/2019	Assitance in shaping curriculum	205
CFTRI, Mysuru	11/11/2019	Research	6
Entelika Consltancy and IT Services	25/09/2019	Lab Setup and provide training and Learning metirial	12
L and T limited	01/07/2019	Corporate Training	20
Advanced Noble Synergies Pvt. Ltd	04/05/2019	Student project and RD	50

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CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 – Physical Facilities

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

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
294	309.6

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added
Value of the equipment purchased during the year (rs. in lakhs)	Newly Added

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4.2 – Library as a Learning Resource

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

Name of the ILMS	Nature of automation (fully)	Version	Year of automation
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software	or patially)		
LIBSOFT Web based Library Software	Fully	12.0.0	2010

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	44043	21797853	430	200000	44473	21997853
Reference Books	15401	11737306	128	95496	15529	11832802
e-Books	17474	0	13635	0	31109	0
Journals	58	864641	18	34874	76	899515
e-Journals	12243	425801	536	971808	12779	1397609
Digital Database	16	0	2	0	18	0
CD & Video	2478	0	18	0	2496	0
Library Automation	1	124900	0	0	1	124900
Weeding (hard & soft)	20075	568809	4674	646334	24749	1215143
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4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
Narender M	Computer Networking Laboratory Simulations	Camstudio and YouTube	12/05/2020
Prathibha B S	Logic Design	Google class room, Google meet	08/09/2020
Prasanta Kumar Samal	Control Engineering (ME0453)	Google Classroom	03/09/2020
Dr. Jayasankar V N	Power System Analysis	Moodle	01/09/2020
Sharmila B S	Data Structures uisng C	Moodle	01/09/2020
Sharmila B S	Internet of Things	Moodle	26/09/2020
Remya Jayachandran	Analog CMOS IC 1	Moodle	10/09/2020
Pavankumar P B	Electronics Fundamentals	Google meet	15/04/2020
Dr. Roopa K	Bioinformatics	Google classroom	20/04/2020
Dr. Roopa K	Network Security	Google classroom	19/04/2020
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4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/GBPS)	Others
Existing	1150	15	0	1	0	1	11	250	0
Added	54	0	0	0	0	0	0	0	0
Total	1204	15	0	1	0	1	11	250	0

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

250 MBPS/ GBPS

4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
Handy cam, Digital Tablet, Projector, Tripod	https://nie.ac.in/wp-content/uploads/2020/11/Facilities-at-nie-for-ICT.pdf
Microphone, Speakers, Amplifiers, Converters	https://nie.ac.in/wp-content/uploads/2020/11/ICT-tools.pdf

4.4 – Maintenance of Campus Infrastructure

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

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
530	553.72	375	273.93

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

The institute has established systems and procedures to maintain and utilize the prevailing facilities: Estate office: The institute has a dedicated estate office which maintains class rooms, laboratories, seminar halls, Diamond Jubilee Sports complex, Administrative block etc., The staff of estate office comprise an engineer, a supervisor, an electrical engineer and three technicians. The main function of the estate office is maintenance of the entire infrastructure including the installations like Diesel generators, fire extinguishers, housekeeping and security services, in addition to ensuring adequate supply of water and electric power. Further, it is the responsibility of the estate office to maintain land records of the institute, details of updated infrastructure and receipts of tax remittance. Library Information Centre (LIC): The library is well equipped with latest reference books textbooks. It subscribes 58 technical journals and 18 daily newspapers (both Kannada and English), e-Journals like IEEE, Elsevier, Taylor Francis, Springer, ASCE, ASME, Proquest-Management, Proquest-Engineering, J-gate, and N-list e-resources. Apart from Books/ Journals, the library has good collection of CD/DVDs and Journal back volumes. Also it has institutional membership to DELNET. The operation of the library is fully computerized using LIBSOFT Techfocuz Digital Library Software. It has digitized form of Faculty Publications, Question Papers, Photo Gallery, Syllabus, Newsletters, CD-Mirroring (CDs/ DVDs), Newspaper Clippings. Plagiarism Check Service and NPTEL

facility (National Programme on Technology Enhanced Learning) are also available. Students and Staff can access the above resources through Intranet. Closed Circuit Television (CCTV) facility is provided to monitor activities across library. Systems Used: Classification - Dewey Decimal Classification (DDC) Cataloguing - Anglo American Cataloguing Rules (AACR 2) Provision of Web OPAC Information management - Libsoft Circulation Management - Bar coded user cards Books Class rooms and laboratories: The department class rooms are maintained by estate office established at the Institutional level. The departments have qualified and skilled man power to take care of laboratories. Major repairs are outsourced. The Campus Wide Networking (wired and wireless) of the institute is maintained by system administrator, maintenance engineer and programmer appointed for the purpose.

<https://nie.ac.in/rd/#r-d-policy>

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	NA	0	0
Financial Support from Other Sources			
a) National	OBC Fee Concession, PMSSS and AICTE	1161	25934548
b) International	NA	0	0
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5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
Effective Teacher's Toolkit Post-COVID	06/07/2020	75	Not applicable
Industry 4.0 - Smart Factory	19/06/2020	142	Not applicable
Personal Counselling	12/03/2020	85	Not applicable
Technical talk on Industry 4.0	01/10/2019	143	Not applicable
Ideas for Successful Implementation of Lean Practices in Manufacturing Sector	04/11/2019	41	Not applicable
Latex report writing	18/01/2020	141	Not applicable
Fighting Covid-19, The cyber security way	04/05/2020	51	IBM, Bengaluru

Celebrating 155th birth anniversary of SWAMI VIVEKANANDA imparting his vision of better INDIA, nurturing young minds with his teachings of Universal Values, Truth and Ethics	13/01/2020	75	Not applicable
IBM Micro Services	26/10/2019	56	IBM, Bengaluru
Effective Technical Writing and Project Management	21/11/2019	116	Not applicable
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5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passed in the comp. exam	Number of students placed
2019	Student Outreach Programme on UPSC Examination	45	0	0	0
2019	Talk on "My Career Journey and opportunities at IBM"	0	73	0	0
2019	Skill set for Industry ready transition	0	105	0	0
2020	Placement training by seniors	0	66	0	20
2019	Career counselling by BYJUs	0	432	0	30
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5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
0	0	0

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Name of organizations visited	Number of students participated	Number of students placed	Name of organizations visited	Number of students participated	Number of students placed
ABB LTD	28	1	NIL	0	0
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5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of programme admitted to
2020	1	B.E	Electrical and Electronics Engineering	Technische Universitat Munchen	M.Sc in Power Engineering
2019	1	M.Tech	Electrical and Electronics Engineering	The National Institute of Engineering, Mysuru	Ph.D. in EEE
2019	1	B.E	Information Science and Engineering	IIM, Kozhikode	MBA
2019	1	B.E	Computer Science and Engineering	Vidyavardhak a college of engineering, Mysuru	M.Tech (SCS)
2019	1	B.E	Information Science and Engineering	The National Institute of Engineering, Mysuru	M.Tech (CNE)
2019	1	B.E	Information Science and Engineering	JSS Science and Technology University, Mysuru	M.Tech (DS)
2019	1	B.E	Information Science and Engineering	JSS Science and Technology University, Mysuru	M.Tech (CE)
2019	1	B.E	Information Science and Engineering	JSS Science and Technology University, Mysuru	M.Tech (SE)
2019	1	B.E	Industrial and Production	The National Institute of Engineering,	M.Tech (PEST)

			Engineering	Mysuru	
2019	1	B.E	Industrial and Production Engineering	University of Buffalo	Masters Programme
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5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
CAT	1
GRE	1
GATE	13
Any Other	3
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5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
Annual sports meet	College level	2500
Technieks	State level	2500
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5.3 – Student Participation and Activities

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

Year	Name of the award/medal	National/ International	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2020	Bronze Medal	International	1	0	4NI17EC053	Omkara Yogaraj
2020	7th Place	National	1	0	4NI17EC053	Chiranth M D
2019	Gold Medal	National	1	0	4NI16ME171	Yogesh H K
2019	Gold Medal	International	1	0	4NI16ME171	Yogesh H K
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5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

STUDENT COUNCIL: The Student council is elected every year by the students based on their talent, leadership qualities, involvement and other criteria for the following posts: 1.Student coordinator 2.General secretary 1 3.General secretary 2 4.Cultural secretary 5.Core committee members 6.Conveners 7.Student volunteers The Student Welfare Officer (SWO) and Joint Student Welfare Officer (JSWO) are appointed by the Principal, NIE. SWO and JSWO monitor the process of election to student council. They provide guidance to the student council for conduction of events. They are also assisted by several faculty members to coordinate with students for smooth functioning of the student council. Starting from the year 2018, the position of Dean (Student Welfare) has been created to oversee the student activities and welfare. **TechnIEKs:** TechnIEKs is

a three day national level techno-cultural extravaganza organized by NIE. It has made a mark as one of the most popular cultural event among engineering colleges in the state of Karnataka. It is celebrated with unique theme every year. Student council also holds a month long techno cultural pre TechNIEks events. The cultural activities are held in Diamond Jubilee Sports Complex, which can accommodate around 1500 participants. Seminars and workshops related to TechNIEks are organized at Dr. Sarvepalli Radhakrishna hall, Sir. M.

Visvesvaraya hall and Sri. Azeez Sait hall. Representation of students on academic administrative bodies/committees of the institution Internal Quality Assurance Cell (IQAC): IQAC has been constituted to ensure quality in academic programs of the institution. IQAC has two student representatives, one each from UG and PG. The students have the opportunity to provide their perspective for improvement in the quality of academic programs during the meetings and deliberations of IQAC. Anti-ragging Committee: This committee has been constituted to ensure ragging-free campus. This committee has two student representatives, who provide valuable inputs during the functioning of committee. Department Association: • Each department has a student association with a staff member as an advisor • The associations are actively involved in planning and execution of curricular and co-curricular activities of the department. • For instance Workshops conducted by each department are organized by the department's student association. Most of the activities are planned and executed by the students. ONYX: Is an entrepreneurship cell started in the year 2009. Onyx aims at developing entrepreneurial attitude in the minds of students through hands-on workshops, seminars, festivals and events. It is also a member of the National Entrepreneurship Network (NEN). NIE IEEE Student Branch (NISB): NISB is the IEEE student branch of institute. It is one of the largest and most active student branches of Karnataka. Class Committee (CC): • CC provides a platform for the students to express their views and grievances to a committee headed by the head of the department. • It consists of eight students of the class who meet twice a semester to give feedback about the academic performance of each course instructor. • The students are selected across gender, categories and different CGPA bands. • Each student representative represents around eight students

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

Yes: Some of the old students of NIE who had gathered for the founders day celebration in November 1957, strongly felt that in order to foster close contact between them and the institution, and among themselves, they should have an association of their own . Thus in 1957 NIE Alumni Association (NIEAA) was established. It is only the keen and sincere desire to maintain this valuable bond which was recognized at the time of its inception and nurtured by its members all along. The activities of NIEAA include: • Arrange farewell function for outgoing students. • Honour eminent alumni. • Have regular interaction with the institution for better growth. • Arrange regular lectures for the benefit of staff and students. • Assist NIE in placement activities with the help of eminent alumni. • Open chapters at other places like metropolitan cities and in USA. During 1982 the silver jubilee of the alumni association was celebrated. The association was registered under the registrar of cooperative societies. (Regd. No: 298:1994-95/16-3-1995). During 2007 the golden Jubilee of the alumni association was celebrated. NIE has a galaxy of illustrious alumni such as N R Narayan Murthy of Infosys, Kumar Malavalli of Brocade Communications, the legendary cricketer EAS Prasanna, to name a few. The alumni have contributed liberally to improve the infrastructure in the institute. Some of the significant contributions of alumni are as follows: • Establishment of prestigious NIE-Eicher centre for Automobile Technology and

NIE Innovation Centre • Membership in important academic bodies such as the Academic Council, Board of Studies and Department Advisory Council. • Liberal financial contribution through the fund raising initiated recently by the institution. An exclusive Indo-US alumni meet was organised in eight cities in USA in the year 2016, which received overwhelming response by alumni who have settled in USA.

5.4.2 – No. of registered Alumni:

792

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

7340686

5.4.4 – Meetings/activities organized by Alumni Association :

05

CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 – Institutional Vision and Leadership

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

• Two faculty members represents the Board of Governors (BOG), a highest academic body in taking managerial decision of the organisation. • Heads of the Department are authorized to make MOU with Academic institution and Industry.

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

Partial

6.2 – Strategy Development and Deployment

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

Strategy Type	Details
Admission of Students	The students of NIE are admitted through Common Admission Test (CET) and COMED-K entrance examination. To attract meritorious students fee concession scheme is introduced
Human Resource Management	In NIE, to attract the young faculty members encouragement for research and consultancy are given encouragement. Human resource department is responsible for giving advertisement to fill the vacancies based on the department requirement. As per norms Carrier Advance Scheme (CAS- for promotion) is also in place at NIE. Medical facility is also extended by the management for the staff members.
Library, ICT and Physical Infrastructure / Instrumentation	Library circulation activities are computerized using Libsoft Library software. Databases are available in library for access e-Journals and e-books. Apart from this digital library has access for Faculty Publications, Question Papers, Photo Gallery, Syllabus Newsletters, CD-Mirroring

(CDs/ DVDs), Newspaper Clippings, NPTEL Videos access. Barcode Enabled Circulation and Closed Circuit Television (CCTV) facility is provided to monitor activities across library. Introduction of ICT into our system has shown a positive impact on teaching-learning process. Usage of ICT methods like flipped classrooms, Moodle, virtual labs and MOOCs have motivated interest in both teaching and learning community. NIE has a vision to leverage open source LMS - Moodle for collaborative teaching and learning beyond classroom. Recently, TEQIP-3 sponsored faculty training programmes to effectively administer and use Moodle. NIE has decided to house the learning content on its own server, DELL Power edge R440 with 32GB RAM and Intel® Xeon® Scalable processors, with a vision to cater to 4500 students.

Teaching and Learning

A new quality initiative is introduced in NIE, Learning Management System (LMS) MOODLE is setup in the campus. This training program is conducted for the faculty members to use the platform. The faculty members can post the learning resources into the platform that is shared by the students. Due to Covid-19, this is very effective quality measure undertaken by NIE. The platform helps to conduct assessment also. Change management ? The most difficult aspect is actually implementing the situational change, such as the switch from a traditional classroom environment to exclusively online courses. On March 23rd, because of pandemic face-to-face educational activity was suspended. But during the suspension period, educational activities maintained through online modalities whenever possible. Faculty developed their action plans for online teaching. Most of the teachers started with prepared study e-materials as per the syllabus, taking online classes as per time table, after taking online classes, study materials uploaded by them. Few teachers have recorded their video lectures and uploaded to Google classroom and on LMS portal for those who missed the classes due to some unavoidable circumstances as well as providing equal opportunity to access learning.

<p>Curriculum Development</p>	<p>In NIE, feedback is received from the board consisting of alumni (Department Alumni Advisory Board (DAAB)) and experts from industry (Department Industry Advisory Board (DIAB)) and outgoing students of final year are considered for the courses to be introduced in the curriculum. Some of the courses are to be included in the curriculum as directed from the university also incorporated. Thereafter it is presented at the Board of Studies (BOS) at the department level. Once it is approved then it is placed before the Academic Council(AC). Only after the approval from Academic Council it is announced for stake holders.</p>
<p>Research and Development</p>	<p>Established RD center with an objective of promoting research by students (UG/PG/PhD) and the faculty members. The research is encouraged by giving funds through NIE-CRD (RPS). Research internship program is initiated at the Institute for M.Tech students. Encouraging faculty to organize, attend and present papers at state/national/international conferences and seminars. It is supported by TEQIP funds and Institutional funds. Faculty members and students are motivated to publish their research papers in reputed national and international journals /conferences with good impact factor. Encouraged and honored by giving incentives from the Institute. Acknowledging staff recognitions and awarding incentives for paper publication in reputed journals / conferences/books/book chapters/patents/external funded projects. It is supported by TEQIP funds for publication of papers in reputed journals involving more faculty members in research oriented programs in each department. It is encouraged by giving separate funds to each department for research work. Fund generation for research - It is deployed by applying for external funding for research, project and innovative programs to government/Non Government /industry. Improving Research activities in each department - Students are encouraged to register for PhD through research centers under VTU.</p>

<p>Library, ICT and Physical Infrastructure / Instrumentation</p>	<p>Library circulation activities are computerized using Libsoft Library software. Databases are available in library for access e-Journals and e-books. Apart from this digital library has access for Faculty Publications, Question Papers, Photo Gallery, Syllabus Newsletters, CD-Mirroring (CDs/ DVDs), Newspaper Clippings, NPTEL Videos access. Barcode Enabled Circulation and Closed Circuit Television (CCTV) facility is provided to monitor activities across library. Introduction of ICT into our system has shown a positive impact on teaching-learning process. Usage of ICT methods like flipped classrooms, Moodle, virtual labs and MOOCs have motivated interest in both teaching and learning community. NIE has a vision to leverage open source LMS - Moodle for collaborative teaching and learning beyond classroom. Recently, TEQIP-3 sponsored faculty training programmes to effectively administer and use Moodle. NIE has decided to house the learning content on its own server, DELL Power edge R440 with 32GB RAM and Intel® Xeon® Scalable processors, with a vision to cater to 4500 students.</p>
<p>Industry Interaction / Collaboration</p>	<p>At the department level, NIE gives a liberty to have a MOU with industry. In this regard, in the curriculum, one course is handled by the experts from the industry. This helps the NIE to have interaction with the industry and also students have the advantage to learn on emerging technology.</p>

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

E-governance area	Details
<p>Administration</p>	<p>Biometric machines are placed to capture faculty attendance. Leave system and payroll is automated. At NIE, SAMARTH an ERP package procurement for educational institution is initiated.</p>
<p>Finance and Accounts</p>	<p>Salary for the employees and computation related to income tax is done through the software. At NIE, the details of the pay slip is generated and sent to the employee email. The account is audited by internal and externally also.</p>
<p>Planning and Development</p>	<p>NIE has well established planning and development process. Each department</p>

will give the budget requirement of the department before the financial year starts consisting of consumables and non-consumables. The Head of the Institute will consolidate the requirements of all the department and present to the management. Management will allocate the budget for each of the department. The procurement is done by the ERP of Purchase and Inventory System (PAIS). All the procure and development activity is done by integrated Material and Management Cell (IMMC). All the departments are sending their purchase request in ERP from 02/07/2020. If requirement of the department exceeds the budgeted amount and the equipment is essential management will consider the request of the department.

Student Admission and Support

The Student Management System that has been deployed in NIE (The National Institute of Engineering) is "Contineo" a product from E-Sutra Technology Company from Bangalore. The modules are: a) Admission of Students b) Registration of Subjects by Students c) Attendance module of students for each subject registered d) Internal Assessment marks with micro analysis based on OBE e) Proctorship of students and track their progress f) Fee Paid Tracking g) ID Card generation h) Student feedback i) Staff RD activities repository j) Student/Parent Communication k) Separate Examination module isolated from the main Students database to keep it secure.

Examination

To achieve Paperless communication between Examination and other departments, Presently Examination section uses two software one is NIESaral which is an In-house module developed by our own Faculty is in usage and process since 2010. Some of the key features of NIESaral with respect to examination are listed below: ? Approval of student registration by the Course instructor. ? Allocation of subjects by the Head of the Department. ? The setting of Evaluation pattern for Continous Internal Evaluation(CIE) and Semester End Examination(SEE) ? The entry of CIE and attendance on a regular basis. ? Generation of reports such as faculty appraisal, NBA feedback report, Result

analysis, etc. ? Generation of Result sheets ? Grade cards Processing The Examination section also uses Contineo, an ERP from 2019 onwards but data of 2018 students batch also got included in this ERP and processed for all the examination related modules. Some of the key features of this software are:
 ? Exam planning includes preparation of exam time table, seating arrangements for students and generation of examination form for course instructors. ? Generation of Hall tickets ? Coding for packets holding answer scripts ? Coding of answer scripts ? Direct measurement of attainment at smallest sub question level ? Generation of post exam records such as result sheets and analytics, grade cards, Student attainments, student history, etc.

6.3 – Faculty Empowerment Strategies

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

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2019	Prashanta Kumar Samal	IMEC-2019-048- Experimental Determination of mode shapes of beams by roving impact test	Organizer of the Conference/ Workshop	8000
2019	Shashank S	Faculty Training Program on Block Chain Technology	Organizer of the Conference/ Workshop	8000
2019	Rajesh N	Cyber Security	Organizer of the Conference/ Workshop	6000
2019	Shashank Dhananjaya	Cyber Security	Organizer of the Conference/ Workshop	6000
2020	Dr. Chandra	Second International Conference on Advanced Materials Technology	Organizer of the Conference/ Workshop	2500
2020	Dr. Neetha S	Second International	Organizer of the Conference/	2500

		Conference on Advanced Materials Technology	Workshop	
2019	Dr. Lakshmi Ranganatha V	International Conference on Advanced Materials	Organizer of the Conference/ Workshop	6000
2019	Dr. Shubha Nagraj	International Conference on Number Theory and Graph Theory	Organizer of the Conference/ Workshop	2500
2019	Ms. Sharmila B S	WIE Conference on Electrical and Computer Engineering	Organizer of the Conference/ Workshop	7345
2019	Dr. Shankar Nalinakshan Dr. Shashidhara H R Mr. Puneeth S Mr. Pavankumar P B	"IOT in Agriculture: Karnataka Focus"	Organizer of the Conference/ Workshop	8936
View File				

6.3.2 – Number of professional development / administrative training programmes organized by the Colleges for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2020	Ideas to Intellectual Property	NA	06/09/2020	06/09/2020	186	0
2020	Laws pertaining to Women's Equality and Support	NA	27/06/2020	27/06/2020	111	0
2020	Effective Teacher Toolkit Post COVID	NA	06/07/2020	06/07/2020	75	0
2020	Industry 4.0 - Smart Factory	NA	19/06/2020	19/06/2020	110	0
2019	NA	Laboratory safety, skill deve	09/12/2019	12/12/2019	0	36

		lopment and profes sional com munication				
2019	Inspiratio nal Teaching	NA	02/11/2019	02/11/2019	60	0
2020	Women in Data Science	NA	12/02/2020	12/02/2020	15	0
2020	Characteri zation Techniques for Nano materials	NA	26/06/2020	26/06/2020	308	0
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6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
STC on Selection of Plastics Materials and Plastics Product Design	1	20/06/2019	21/06/2019	2
Characterization of Materials by Advanced Analytical Techniques	1	17/06/2019	21/06/2019	5
Student Induction Program	2	18/06/2019	24/06/2019	7
Advances in Data Science: A Practical Approach	1	17/06/2019	21/06/2019	5
Recent Advances in Solar Systems (RASS)	1	08/07/2019	12/07/2019	5
One Week Training on "Geospatial Technologies"	1	15/07/2019	19/07/2019	5
FDP on Harnessing Statistical analysis for the Development	2	24/07/2019	28/07/2019	5

of Artificial Intelligence framework using R and Python Programming				
Summer Faculty Research Fellow Programme (SFRF) 2019	1	13/05/2019	21/06/2019	40
COMSOL Multiphysics® Intensive Online Training	1	29/07/2019	09/08/2019	12
FDP on Digital and Analog IC Design Flow using Cadence Tool	1	08/07/2019	12/07/2019	5
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6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
20	62	0	0

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
All teaching faculty members have been provided by Medical facility by the Management in Memorandum of Understanding (MOU) with JSS hospital.	All Nonteaching have been provided by Medical facility by the Management in Memorandum of Understanding (MOU) with JSS hospital. A Mediclaim insurance facility is provided by management with United India Assurance Limited	All students have been provided by Medical facility by the Management in Memorandum of Understanding (MOU) with JSS hospital.

6.4 – Financial Management and Resource Mobilization

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

Internal and external financial audits conducted regularly at NIE. The internal audit is carried out by a Chartered Accountant firm, appointed by the society approved in Annual General Meeting (AGM). The scope of internal audit is decided mutually considering the activities and risk area. Statutory auditors are appointed in the Annual General Meeting and they verify and certify the audited financial statements as per statutory requirements. This will help NIE for better governance and add a value to improve the system.
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6.4.2 – Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
Mr. G P Nagaraj	100000	Endowment for Student /

[View File](#)

6.4.3 – Total corpus fund generated

8079130

6.5 – Internal Quality Assurance System

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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	Faculty from IIT/NIT	Yes	Faculty members from other department within NIE
Administrative	Yes	Faculty from IIT.NIT	Yes	Faculty members from other departments within NIE

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

? Parents may come and contact the teacher at any time during the working hours to get the feedback of their students. ? Each department had organized the online parent-Teacher meeting to get feedback for conduction of the examination in COVID-19 crises. ? We will have the interaction of the parents with the teacher in the orientation program of the students to the college

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

? The institution will arrange the short-term courses for the development of the support staff for emerging technologies.

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

? Moodle is being introduced for the effective teaching and learning process ? Contineo software is used to capture students details and compute course outcome attainment ? Purchase And Inventory System (PAIS) for purchase of materials and equipments is centralized

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b)Participation in NIRF	Yes
c)ISO certification	No
d)NBA or any other quality audit	Yes

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2019	Laboratory safety, skill development and professional communicatio	09/12/2019	09/12/2019	12/12/2019	36

	n				
2020	Ideas to intellectual property for Researchers and Academicians	09/06/2020	09/06/2020	09/06/2020	180
2020	Industry 4.0 - Smart Factory	19/06/2020	19/06/2020	19/06/2020	252
2020	Laws Pertaining to Women s Equality and Support	27/06/2020	27/06/2020	27/06/2020	111
2020	Effective Teachers Toolkit Post-COVID	06/08/2020	06/08/2020	06/08/2020	75
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CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 – Institutional Values and Social Responsibilities

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

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
Gender Equality and Women Empowerment	04/07/2020	04/07/2020	43	57
Domestic Violence, abuse, and AIDS awareness	30/06/2020	30/06/2020	108	98
Gender Sensitization: The need of the hour	29/06/2020	29/06/2020	158	105
Laws pertaining to Women's Equality and Support	27/06/2020	27/06/2020	79	32
Awareness program on Law Pertaining to Sexual Harassment of Women at Workplace	25/06/2020	25/06/2020	95	16
A quest for gender equity	13/06/2019	13/06/2019	55	0

in 21st century				
Wholistic Development of Women	12/06/2020	12/06/2020	149	0
Women Empowerment	01/01/2020	01/01/2020	74	0
Sthree-Shakthiya Siri	03/01/2020	03/01/2020	74	0
Reiki, Yoga Self Defence and Handling Stress and Depression for women in daily Life	03/01/2020	03/01/2020	64	0

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

Percentage of power requirement of the University met by the renewable energy sources
40

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	5
Provision for lift	Yes	5
Ramp/Rails	Yes	5
Rest Rooms	Yes	5
Scribes for examination	Yes	0

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2019	1	0	29/09/2019	1	Say No to Plastic: Clean Chamundi Drive	Collection of plastic and other harmful waste, segregation and scientific disposal	229
2019	0	1	25/10/2019	5	Composters to temples	Fabrication and installation of composters to	127

						temples for effective solid-waste management	
2019	0	1	13/09/2019	1	Activities of Crest at NIE: A Glimpse	Awareness program on creating a sustainable energy future	49
2020	0	1	18/01/2020	1	Dhriti	Practical explanations on the simple scientific facts	20
2020	0	1	06/02/2020	1	Spread Awareness on Entrepreneurship	Spreading awareness among the public regarding Entrepreneurship	29
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7.1.5 – Human Values and Professional Ethics

Title	Date of publication	Follow up(max 100 words)
Code of Conduct (Handbook) for Teaching Staff, Non-teaching Staff and Students	10/03/2020	A handbook containing the guidelines for various stakeholders like students, teaching and Non-teaching Staff is published on the institute website. The code of conduct for students is also mentioned in Academic Regulations on Page 14 under "Conduct and Discipline". Dress Code for Student posters are displayed at strategic locations around the campus. Principal and Heads of the Departments disseminate the code of conduct, highlighting discipline in the Orientation Program. The college has a discipline committee consisting of

faculty members supervise and looks after the overall conduct of the students.

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Universal Values and Ethics	11/07/2020	11/07/2020	55
National Science Day	28/02/2020	28/02/2020	117
Rashtriya Ekta Diwas	31/10/2019	31/10/2019	450
Constitution day or Samvidhan Divas	26/11/2019	26/11/2019	75
World Environment Day	05/06/2020	05/06/2020	40
Sadbhavana diwas	20/08/2019	20/08/2019	300
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7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

1. Solid waste management Kitchen Wastes of quantities 50Kg and 10Kg are generated per day at NIE Men's hostel and Cafeteria respectively. Kitchen Waste based Biogas plants, one at NIE Men's hostel and three near Cafeteria, have been installed. Kitchen waste generated is used to produce biogas for cooking at the hostel, cafeteria and NIE-CREST. The slurry obtained as a by-product from the biogas plant has a rich fertilizer value which is used for the campus gardens. Kitchen Waste Biogas Plant at NIE-Men's Hostel is a green initiative by NIE-CREST (Centre for Renewable Energy and Sustainable Technologies). The biogas plant converts 18 tons of kitchen waste per year to biogas, a renewable and sustainable energy source. The biogas plant serves the purpose of waste management within NIE-Men's Hostel. The biogas generated is being supplied to the Men's Hostel and the slurry obtained as a by-product is utilized for gardening. This is an important step towards waste management taken by NIE and is a model for other institutions to replicate the best practices in waste management towards achieving clean Mysuru and Swachh Bharat. Four Leaf Composters have been installed at Golden Jubilee block. Dry leaves and green wastes generated in the campus are effectively being converted into manure through aerobic composters. Compost obtained is used for enriching soil fertility of the campus gardens.

2. Liquid waste management A sewage treatment facility is available in the NIE Men's hostel. The plant can treat any wastes of the kind that are ordinarily discharged from toilets, water closets, baths, showers, sinks, basins and other sanitary and kitchen fitments. The treated water is used for gardening and for the flush tank of EWC. The used cooked oil from the canteen is reused to produce Biodiesel. The Liquid sanitation wastes are connected to Underground Drainage (UGD) pipelines of Municipal Corporation.

3. Renewable energy and energy saving using LED bulbs The Institute has installed a Solar Photovoltaic Power Plant in the campus for generation of electricity. Using this facility approximately 40 of the institutes power requirements are fulfilled. The Institute has replaced most of the traditional light bulbs with modern LED bulbs and around 70 of the lighting requirement is met through them.

4. E-waste management Most of our used electronic devices/machines are intended for reuse, resale or recycling in a safe and responsible way. The Institution has its own team of Administrator, faculty members and Technical Staff of our Computer Science Engineering and Information Science and Engineering to manage e-waste. Most of the computers in the lab and office are upgraded rather than replacing them. Many of the lower configuration computers that were no longer useful were donated as they may be useful to others. The Institute has taken steps for managing e-waste by a recycling company SOGO Synergy Pvt. Ltd., Bengaluru. who is officially certified and are dedicated to recycling e-waste.

5. Minimize paper usage To initiate paperless office work environment, official circulars of Institute and Departments are communicated through emails. Institute, Department and various committee communications are done with WhatsApp group. All students' related information like syllabus, Time Table are available on the institute website. Many faculty members use Google Drive, Google sites and personal blogs for sharing course related materials.

6. Green campus There are varieties of trees in the institute which include Pongamia, Peepal tree, Ficus varieties etc. Open ground area is completely or partially covered with green grass, trees and shrubs. Old trees are retained and blended with lawn. Flowering plants like Marigold, rose and other ornamental plants have been planted in and around the campus.

7. Rainwater harvesting Water recharge pits have been established at N R Narayanamurthy School of Electrical Sciences. There is a proposal for implementing Rainwater Harvesting systems at Golden Jubilee Block. In Yuvika Girls' hostel, the rooftop rainwater is collected and stored in the ground level sump of 50,000 litres capacity. The collected water is used for gardening on the campus. The rain water collected in the percolation pond situated in the Golden Jubilee Complex is used for recharging ground water level.

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

1: CO Teaching (Industry Driven Electives) Objectives Rapid developments are happening in technology, which is transforming every possible domain. Thus, there is a need for strong partnerships between academic institutions and the industry. The best way to bridge the gap is to collaborate with the industry and get them involved in the teaching learning process. Co-teach is a new offering for students which gives an opportunity to learn from industries Subject Matter Experts and Practitioners. This practice aims to make students industry ready by providing application-oriented exposure to fundamental concepts, and by exposing them to industry best practices. Context Co-teaching with Industry personnel is introduced in every department for at least a single course in a year. All departments are mandated to invite an Industry expert to teach one elective course, wherein up to 100 of syllabus is delivered by the Industry associate. This brings an industrial flavor to the course, and unique and novel feature of teaching and learning in the academic model. To bridge the gap between industry and institution, and to introduce latest industry trends, elective courses with a credit of 3 for UG and PG have been introduced and are taught to students by experts from industry. This concept has attracted good quality students in all the disciplines of engineering to get the job in the industry and they will be industry ready by the time they complete their degree. At the college level, a co-teaching approach is one way for experts in different content areas to merge their expertise to help the learning process. The process of framing the curriculum starts with its design. During curriculum design, industries and academic institutions carefully choose the components and structure to be included. Well known and popular industries design their own courses as per their needs and offer them as Electives to final year students. This is one of the finest and fruitful models working successfully.

Students who opt for those electives will undergo training and qualify in the examination. This training mode provides a near classroom experience including white boarding, lab exercises, and course materials. Also, they develop Course Slides, Facilitator Guides, Student Exercises, Case Studies and Lesson Plans. Some industries also develop Student Project wherein, registered students get assistance to do their projects. Practice • A three-credit course titled 'Industry-Driven Elective' is offered. • Departments assign a faculty member who handles evaluation process and interacts with students and industry person.

- Elective syllabus contents created by industry partner.
- Targeting 100 delivery of the overall 40-hour course by industry subject matter.
- Co-teach sessions are planned based on the inputs received from the institution.

Evidence of Success • Direct interaction of students with industry experts by experiencing technology • Students will improve the application-oriented knowledge and will get an exposure to industry best practices • Students get exposed to industry methods of teaching and learning • Case study-based learning will strengthen the basic problem-solving skills

Problems Encountered and Resources Required • Scheduling of common planning time • Maintaining successful partnerships from year to year 2: Paper Seeing Objectives • Lends transparency to the Examination Process and Evaluation. • The system should provide a feedback: 1. To the students regarding their strengths and weaknesses and 2. To the teacher as to how far she/he has been able to satisfy the students and to improvise his/her approach and evaluation method. • A student who is not satisfied with SEE evaluation can apply for grievance valuation which makes the process open and student friendly. Context • The institute ensures that the evaluation system serves as a resource in the process of learning. The evaluation system, along with teaching, acts as an integral part of facilitating learning by the student. The evaluation process should involve Continuous Internal Evaluation (CIE), the conduct of Semester End Examination (SEE), the evaluation of answer scripts, and displaying the performance of students. It is in this context that the paper seeing practice is chosen and introduced for SEE exclusively. • The faculty needs to be more observant to conduct the evaluation process and efficiency. The Practice • Provision of SEE paper seeing is only for theory papers. • The time and venue for showing the answer scripts of various courses of the programme shall be announced by the office of CoE. • All the students are eligible to see their answer script within the notified time. The attendance forms are made available in the department and students must put their signature on the attendance form prior to the answer script see. • Question paper along with a detailed Scheme and solution for all the courses shall be issued to the respective course instructors in designated classrooms. • There is no provision for the student to interact with fellow students during the paper seeing process. Students only must interact with the faculty to get clarifications for further action. • The students are not allowed to carry any other type of electronic gadgets inside the paper seeing room. • The students can approach the course instructor one by one. • The Rooms allotted for paper seeing are installed with two CCTVs • Students are not permitted to write or mark anything on the answer scripts. If such attempts are made, disciplinary action are initiated. • During the process, if there are any corrections in marks awarded, the course instructor shall submit the same to the HoD, which in-turn shall be submitted to CoE through the DC of the respective departments for accommodating change in marks/grades. • Grievance Redressal: If student is not satisfied regarding evaluation or award of grades, even after the paper seeing the student can make an appeal to the HoD in the prescribed format. After approval from HoD, the grievance valuation will be conducted by an expert committee.

Evidence of Success • Paper seeing System opened and strengthened transparent communication channel between teachers and students. • Student involvement in the process has improved. • Transparent and fair evaluation is done. Challenging Issues • Students take this opportunity to pressurize the junior faculty to get the

marks increased if they find an opportunity to move to higher grade by one or two marks. 3: Time Efficient Automated Practice Oriented Teaching/Learning Aid Objectives • Available 24/7 - Accessible anytime and anywhere through cloud service. • Practice oriented learning - Involves Solving of real time examples and follows Industry best practices • Assessment and Auto-Evaluation - Provides facility to conduct lab and theory internals. The system involves an auto evaluation tool which provides accurate and instantaneous results. • Positive Competitive Environment - By providing ranking, it creates a competitive environment among students. • Reports analysis- Generates various reports such as performance, participation, attendance etc. based on students performance. • Digital records - Captures student performance and generates records as maintained in labs. • Virtual Classroom - Faculty can monitor and mentor the labs remotely Context • Lab conventional timings - Students implement the concept learned only during the lab hours. • Burden on faculty - Faculty could hardly concentrate on every individual due to the time constraint as well as the routine work. • Less industry best practices and application-based learning - As the implementation was only during the lab hours could not allocate much time for the best practices and application-based learning. • Need for continuous internal evaluation and manual data recording - Manual evaluation on student performance and participation required to exhibit student progress. Practice To relish the experience of learning, we have 5 different learning components for each topic in a Course. Each of these components is unique and contributes to a deeper understanding of the course. • i-Analyse -- This session offers an exciting way of learning through analyzing and exploring code snippets. This component comprises numerous brainstorming exercises like Code fill-ups, Code Jam, Predict the output, etc., These exercises help students to improve their logic building skills, testing skills, Code maintainability skills and Code debugging skills. • i-Practice - This session is the warehouse of engaging and educating scenario based, situational based, application based, theme based and game-based problems. The essence of learning through the practice-based approach is achieved through this component • i-Lab - This session constitutes all the college prescribed lab programs. The regular lab sessions are conducted through this session. Also, the lab internals and the lab viva are carried out by the same with full control on the student cheat threat. • i-Apply - This session is built with a motto of exposing the students to the industry-oriented problems as well as developing them according to the industry needs. This session provides the student an opportunity to implement his conceptual knowledge as well as logical reasoning. • i-Assess - Through this component, students are tested and measured for their understanding in the Course. The students' performance metrics are tracked throughout the course using data visualization and reporting features motivate. Problems encountered and Resources required • Desktop / PCs • Good internet speed. • Updated web browser.

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

<https://nie.ac.in/wp-content/uploads/2020/11/Best-Practices2019-20.pdf>

7.3 – Institutional Distinctiveness

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

NIE holds a distinct position as one of the most prestigious engineering colleges in the country. The institution is well known worldwide for its values it upholds. Over the decades the institute has led the way with innovations, new ideas, qualified faculty, well equipped labs, and illustrious alumni. NIE as an institution of higher learning, is dedicated to enriching the global community, striving to apply academic research and learnings to meet the

evolving, diverse needs of people. More than just a career-focused education, the institution puts emphasis on innovative learning through dynamic curriculum and applying education to real-life problems. The institution has paved its way to success by incorporating a proper blend of academics, life skills programmes, discipline, and societal concern to transform the students into successful individuals. NIE is known for a focused approach that uses top quality methodologies to tackle world-class problems. Diversified knowledge is imparted through classroom teaching, attending workshops, Industry interaction, internships, and projects. Students are also encouraged to look beyond their discipline to learn courses in other disciplines. This allows the students in developing globally recognizable characteristics. In our curricula, the students have an opportunity to participate in hands-on, experiential learning, that balances the theoretical and practical knowledge. Because of this, the students have unique talent to show a prospective employer when they graduate. The best in class technical education at NIE is helping the students to prove the knowledge they have gained in classes because they are able to apply.

Leading companies like NetApp, Motorola Mobility, SAP Labs, Philips Innovation, Hewlett-Packard, CISCO, Erricsson, TVS, Fidelity Systems etc are offering Project Internship for final year students of UG PG programmes. This enhances the Industrial exposure and practical applications for students. Internship in industries helps the students in gaining exposure to real-world problems and issues that perhaps are not found in textbooks and have hands-on opportunities to work with equipment and technology that may not be available on campus. Foreign Language programme in German is available which are optional. However, attending this programme shall certainly enhance their employment opportunities and admission for overseas postgraduate programmes. Many student projects are being accomplished in the innovative laboratories set-up with facilities for research, or using data procured from such laboratories. The Management has allocated budget to fund research projects to be undertaken by the faculty and students. The aim of the scheme is to strengthen the research activity, which will act as a catalyst to apply to various funding agencies for major grants The institution has a highly active and vibrant community of alumni, spread worldwide. Padmasri N.R.Narayana Murthy, Founder Chairman of Infosys, Mr. Srinath Batni, Former Board Member Infosys, Padmasri E.A.S. Prasanna, International cricketer, Mr. Kumar Malavalli, Chairman of Brocade Communications in US, Dr. C.S. Vishvanatha, Former Chief Consultant of Torsteel Research Foundation and Sri. Nirmalanandanatha Swamiji, Peetadhipati of Adichunchangiri Mahasamsthana Math are some of the distinguished alumni of the institution. Alumni are actively and closely involved in the growth and development of the institution.

Provide the weblink of the institution

<https://nie.ac.in/wp-content/uploads/2020/11/Institutional-Distinctiveness2019-20.pdf>

8.Future Plans of Actions for Next Academic Year

NIE has initiated and implemented many activities which are going to cater to Academic, Co-curricular, Faculty development, IPR policy and also Societal need-based programs. NIE has set up the following goals to be achieved in the next academic year 1. As part of the quality initiative, in the UG category steps are going to be taken to apply for NBA accreditation for Information Science Engineering 2. NIE has identified, there is a need to enhance Academia and Industry collaboration for value addition. In this regard, necessary action is taken to increase functional MOUs with industries. This will help the students to learn in the area of emerging technology by inviting domain experts from industry and also employment opportunity 3. Due to COVID Pandemic, the institute identified the need for the Learning Management System. Hence, the Moodle - Learning Management System is going to be used effectively for evaluation. 4. To

improve quality, a new learning mechanism is going to be introduced to the students in Outcome Based Education called project-based learning in the curriculum. This initiative helps the students to understand the concepts learnt in theory classes to practice by them as part of project work.