



## Yearly Status Report - 2019-2020

### Part A

#### Data of the Institution

<b>1. Name of the Institution</b>		NARULA INSTITUTE OF TECHNOLOGY
Name of the head of the Institution		Prof.(Dr.) Maitreyi Ray Kanjilal
Designation		Principal
Does the Institution function from own campus		Yes
Phone no/Alternate Phone no.		913325638888
Mobile no.		9433035580
Registered Email		principal_nit@jisgroup.org
Alternate Email		info@nit.ac.in
Address		81, Nilgunj Road, Agarpara Kolkata -700 109, West Bengal, India
City/Town		Kolkata
State/UT		West Bengal
Pincode		700109

<b>2. Institutional Status</b>					
Autonomous Status (Provide date of Conformant of Autonomous Status)		29-Jul-2015			
Type of Institution		Co-education			
Location		Urban			
Financial Status		private			
Name of the IQAC co-ordinator/Director		Dr. Surajit Bari			
Phone no/Alternate Phone no.		913325638888			
Mobile no.		9432128450			
Registered Email		iqac_nit@jisgroup.org			
Alternate Email		surajit.bari@nit.ac.in			
<b>3. Website Address</b>					
Web-link of the AQAR: (Previous Academic Year)		<a href="https://nit.ac.in/pdf/AQAR2018-2019.pdf">https://nit.ac.in/pdf/AQAR2018-2019.pdf</a>			
<b>4. Whether Academic Calendar prepared during the year</b>		Yes			
if yes,whether it is uploaded in the institutional website: Weblink :		<a href="https://www.nit.ac.in/pdf/Academic%20Calendar%202019-20.pdf">https://www.nit.ac.in/pdf/Academic%20Calendar%202019-20.pdf</a>			
<b>5. Accrediation Details</b>					
Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
1	B	2.43	2014	10-Dec-2014	31-Dec-2020
<b>6. Date of Establishment of IQAC</b>			03-Jan-2012		
<b>7. Internal Quality Assurance System</b>					
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	

IQAC Meeting	11-Sep-2019 1	21
IQAC Meeting	29-Nov-2019 1	20
IQAC Meeting	19-Feb-2020 1	19
IQAC Meeting	04-May-2020 1	17
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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
EE Dept	Extension of NBA Accreditation for BTech in EE	NBA , India	2019 1095	0
CE Dept.	Extension of NBA Accreditation for BTech in CE	NBA , India	2019 1095	0
IT Dept.	Extension of NBA Accreditation for BTech in IT	NBA , India	2019 1095	0
Institute	NIRF	MHRD	2020 365	0
Institute	ARIIA	MHRD	2020 365	0
Dr. Anilesh Dey	RPS	AICTE	2019 1095	800000
Dr. Kunal Das	STTP	AICTE	2019 365	300000
Dr. Sandip Chanda	STTP	AICTE	2019 365	300000
Dr. Sumit Chabri	Entrepreneurship and Start ups	DSTBT ( Govt. of West Bengal)	2020 365	100000
ECE Dept	Extension of NBA Accreditation for BTech in ECE	NBA , India	2019 1095	0
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**9. Whether composition of IQAC as per latest NAAC guidelines:**

Yes

Upload latest notification of formation of IQAC	<a href="#">View File</a>
<b>10. Number of IQAC meetings held during the year :</b>	4
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	Yes
Upload the minutes of meeting and action taken report	<a href="#">View File</a>
<b>11. Whether IQAC received funding from any of the funding agency to support its activities during the year?</b>	No

<b>12. Significant contributions made by IQAC during the current year(maximum five bullets)</b>
Social activities during the COVID19 pandemic situation.
Preparation of compliance report to NBA for the extension of accreditation period of 4 UG Programme : CE, ECE, EE, IT. Preparation of prequalifier and SAR for the PG Programmes M.Tech in CSE, ECE, CE(Structural Engineering) and EE (Power System)
Adoption of the online teaching learning process and semester examination. Inhouse repository of the video lecture and access of licensed video editing software to faculty members.
Analysis of feedback, academic and administrative audit, energy audit, and environmental audit have been carried out.
Development of FTP server for remote access.

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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
Enhancement of Alumni networking	Alumni data base are maintained by Alumni committee. Alumni are invited as invited speaker to share their expertise near to existing student
Enhancement of ICT facilities	Smart Board are installed in the class Room
Best practice on digital evaluation	Transparency of the Examination System has been improved
All the academic activities will be	The functioning of e-goerance has been

linked through the ERP system to avail all the information readily	increased. New modules are added in administration ,accounts
Enhancing of quality research	Faculty ,Student and Staff members are motivated to publish paper in the journal of repute.The number of publications in the journal of repute have been increased.
Internship for students	Number of Students internship through AICTE internshala have been increased
Skill Development Entrepreneurship ,Research Methodology	The number of seminar/workshop on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development has been increased
Accreditation and ranking	Extension of NBA accreditation of UG Programme unto June 2020 for: ECE,CE,IT,EE , Institute secured position in NIRF ,ARIIA , AICTE internshala Rank 90 ( National ) , 10(Zonal) NBA Extension for PG : Power System and CSE ,UG NBA compliance submission : ECE ,EE ,CE , IT .
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<b>14. Whether AQAR was placed before statutory body ?</b>	Yes				
<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">Name of Statutory Body</th> <th style="width: 50%;">Meeting Date</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">BOG</td> <td style="text-align: center;">20-Mar-2021</td> </tr> </tbody> </table>		Name of Statutory Body	Meeting Date	BOG	20-Mar-2021
Name of Statutory Body	Meeting Date				
BOG	20-Mar-2021				
<b>15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?</b>	No				
<b>16. Whether institutional data submitted to AISHE:</b>	Yes				
Year of Submission	2020				
Date of Submission	07-Mar-2020				
<b>17. Does the Institution have Management Information System ?</b>	Yes				
If yes, give a brief description and a list of modules currently operational (maximum 500 words)	To provide a simpler and efficient system of governance, the institute has already implemented e governance facilities in various aspects. The institute is trying its best to keep pace with the recent applications of e-governance in terms of various functions being performed digitally				

through ICT enabled platforms. In this direction, service providers of ERP have been invited for further upgradation of the software as per current as recommended. Required training has been imparted to the teaching and nonteaching fraternity of the college with a view to getting the optimal benefits from the software and better connectivity with stakeholders. The College website is put into optimal use as a vital information source to all the stakeholders and important communications like academic calendar, circulars, notices, and other relevant information regarding admission and examination are made available on the institute website accessible to all concerns anytime and anywhere. It has been put into maximum use to stay concerned with parents, students and staff for the purpose of academic and administrative activities. The broad area where e governance has been implemented in the institute are - Administration, Accounts, Student Admission Support and Examination. Following are uses of annual (20192020) egovernance. Administration In addition to the function of employee attendance, appraisal, leave management, the following features are upgraded instore - (i) portal can be accessed from anywhere (ii) supporting documents need to submit while making UGRN, PO and SO Student admission and support - student module is running successfully for admission, semester fees payment, library resources. Accounts Following modules are newly added in this academic year • Financial calendar and planner - this is a datewise activity monitoring system for accounts for college units and subsequent status updating by the college accounts team. It has three options financial calendar preparation, financial calendar update, financial calendar view. • Digital payment gateway - this is the gateway for payment by the authorised signatory. Examination - under the system of autonomy there is a fully computerised examination cell that conducts examinations, maintains curriculum, and publish results for a different programme. Followings are the features of the examination system • Online registration, examination fees

payment issuance of admit card • Admit card printing by students from online portal • Answer script evaluation through internet portal based Digital Valuation System (DVS) • Internal marks entry using integrated examination portal • Generation of Tabulation Register • Declaration of results in the institute website

## 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
BTech	B-Tech(CSE) ,B-Tech(ECE) ,B-Tech(IT) , B-Tech(EE) ,B-Tech(ME) ,B-Tech(CE) ,B-Tech(EIE)	CSE , ECE, IT, EE, CE, ME, EIE	20/02/2018
<a href="#">View File</a>			

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
BTech	ECE(B-TECH)	28/06/2001	Analog Electronics (EC402)	20/02/2018
<a href="#">View File</a>				

#### 1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the Academic year

Programme/Course	Programme Specialization	Dates of Introduction
Mtech	Mathematical foundations of Computer -CSE(M-Tech)	20/02/2019
Mtech	Advanced Data Structures - CSE(M.TECH)	20/02/2019
Mtech	Human and Computer Interaction-CSE(M.TECH)	20/02/2019
Mtech	Image Processing -CSE(M.TECH)	20/02/2019
Mtech	Introduction to Intelligent Systems CSE(M.TECH)	20/02/2019
Mtech	Wireless Sensor Networks-CSE(M.TECH)	20/02/2019
Mtech	Data Preparation and	20/02/2019

	Analysis -CSE(M.TECH)	
Mtech	GPU Computing -CSE(M.TECH)	20/02/2019
Mtech	Information Theory & Coding -CSE(M.TECH)	20/02/2019
Mtech	Operations Research -CSE(M.TECH)	20/02/2019
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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
BTech	ECE ,EIE , CSE , IT , CE ,ME ,EE	22/02/2018
Mtech	ECE,PS ,SE	30/06/2016
MCA	MCA	06/05/2020
Mtech	CSE	20/02/2019

### 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
Ethical Hacking	02/01/2020	196
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1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BTech	EIE(B-Tech)	54
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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	Yes

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

Feedback Obtained
The institute has a friendly environment that facilitates both formal and informal feedback from all the stakeholders namely students, teachers, employers, alumnae and parents. The Internal Quality Assurance Cell (IQAC) has created a structured rating scale-based feedback form to be filled by all of them. Students, teachers, alumni and industry personnel are provided with a questionnaire to give their valuable feedback. The formal questionnaire is available on the college website in the form of Google forms. The set of



questions is different for different stakeholders based on the overall development of the institute including the curriculum. Moreover, members of the Board of Studies (BOS), Board of Governance (BOG) and Academic Council (AC) are invited to share their views in this regard. Course End Survey and exit survey are platforms to capture the students' views. A rating has been adopted in the feedback form on the curriculum. Summing up the ratings from excellent to good, around 80 per cent of the students have indicated that the curriculum is good. Those queries whose rating was less than the average has been marked for improvement. There are suggestions to offer more electives related to technological advancements, which are also the demands of other stakeholders. In addition, to feedback on curriculum, the feedback is also taken on the teaching-learning process, infrastructure development, facilities. Moreover, if required feedback is also taken on the vision, mission of the institute and department and Programme Educational objectives. The institute has a strong alumnae network. Feedback from alumnae is obtained through structured feedback forms and discussions during their meetings on the campus. Additionally, some prominent alumnae are also invited to visit the campus and share their valuable experiences. Teachers fill feedback forms every year regarding syllabi and provide their suggestions. Parents also provide feedback on the campus life, hostels and curriculum. It is worthy to mention that the curriculum modification is based on the stakeholders' feedback, external academicians, industry experts and alumnae working in the industry and studying practices of other world-class institutions. The feedback is analyzed at the department level (where applicable) and centrally by the IQAC, and the decisions regarding developments in academic/ curricula and overall upliftment are shared with the departments and administration for subsequent actions to be taken. The institute is extremely serious about maintaining quality and aiming towards overall development in all respect. The feedback mechanism is an important parameter to create a suitable learning environment. The constructive feedback from the stakeholders has helped Narula Institute of Technology in strengthening its efforts towards the noble cause of developing leaders in all walks of life with a strong character and value base.

## 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
Mtech	CE-SE (M.TECH)	18	31	18
Mtech	ECE(M-Tech)	18	24	11
Mtech	CSE(M-Tech)	18	19	11
BTech	ME(B-Tech)	60	71	46
BTech	EIE(B-Tech)	60	67	33
BTech	CE(B-Tech)	120	122	101
BTech	EE(B-Tech)	120	129	112
BTech	ECE(B-Tech)	120	138	125
BTech	IT(B-Tech)	60	86	63
BTech	CSE(B-Tech)	180	237	189

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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	730	62	147	26	48

## 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	Number of smart classrooms	E-resources and techniques used
221	221	10	52	10	8
<a href="#">View File of ICT Tools and resources</a>					
<a href="#">View File of E-resources and techniques used</a>					

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

The Institute acknowledges the importance of a mentoring system. Through our time-tested mentoring system regular meetings are held between mentor and mentee. In this system, every student has to maintain a mentee card where all his/her academic and personal data should be maintained under the supervision of his/her mentor. Students are always allowed and encouraged to meet their mentor periodically or any time (if any urgency arrives) during the college hour/beyond college hours with their academic and personal problems. Mentors also provide personalized professional or career advice as per the status of the mentees. Group of students of each section of each class is assigned to a faculty member who acts as a mentor to ensure constant individual student monitoring of academic and personal progress. The mentors maintain an individual file for each student and keep constant track of the progress of the student. The mentors are also the point of contact between the department and the students' parents/guardians. They keep the parents abreast of the events in case of any problems, or concerns.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
2928	221	1:13

## 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
221	221	Nil	17	60

### 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
2019	Avishek Chakraborty	Assistant Professor	Outstanding Paper Award
2019	Prof. (Dr) Biman Mukherjee	Professor	Best Paper Award

2019	Dr. Anilesh Deyl	Associate Professor	Best Paper Award
2020	Bishaljit Paul	Associate Professor	Best Paper Award
2019	Ankesh Samanta	Assistant Professor	Junior Research Fellow
2019	Puja Halder	Assistant Professor	Institute Fellowship NIT Durgapur
2020	Surajit Bari	Associate Professor	NPTEL Believer
2020	Surajit Bari	Associate Professor	NPTEL Motivated Learner
2020	Surajit Bari	Associate Professor	NPTEL Discipline Star
2020	Abhijit Ghosh	Assistant Professor	NPTEL Discipline Star
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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
BTech	CSE (B.TECH), IT(B.TECH), ECE (B.TECH), EE(B.TECH), CE(B.TECH), EIE(B.TECH), ME(B.TECH)	ODD Semester	20/12/2019	27/12/2019
Mtech	CSE (M.TECH), ECE (M.TECH), CE-SE (M.TECH), EE-PS (M.TECH)	ODD Semester	20/12/2019	27/12/2019
MCA	MCA	ODD Semester	20/12/2019	27/12/2019
BTech	CSE (B.TECH), IT(B.TECH), ECE (B.TECH), EE(B.TECH), CE(B.TECH), EIE(B.TECH), ME(B.TECH)	Even Semester	18/07/2020	12/08/2020
Mtech	CSE (M.TECH), ECE (M.TECH), CE-SE (M.TECH), EE-PS (M.TECH)	Even Semester	18/07/2020	12/08/2020
MCA	MCA	Even Semester	18/07/2020	12/08/2020

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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
11	2894	0.38

## 2.6 – Student Performance and Learning Outcomes

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

<https://www.nit.ac.in/pdf/Link%20COs%20POs%20PSOs%202019-20.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
EE-PS (M.Tech)	Mtech	M.Tech in Power System (EE)	13	13	100
ECE(M-Tech)	Mtech	M.Tech in Electronics and Communications Engineering	12	12	100
CSE(M-Tech)	Mtech	M.Tech in Computer Science and Engineering	10	10	100
ME(B-Tech)	BTech	B.Tech in Mechanical Engineering	68	67	98.52
IT(B-Tech)	BTech	B.Tech in Information Technology	56	56	100
EIE(B-Tech)	BTech	B.Tech in Electronics and Instrumentation Engineering	51	51	100
EE(b-Tech)	BTech	B.Tech in Electrical Engineering	135	133	98.51
ECE(B-Tech)	BTech	B.Tech in Electronics and Communications Engineering	120	119	99.16
CSE(B-Tech)	BTech	B.Tech in Computer	127	127	100

		Science and Engineering			
CE(B-Tech)	BTech	B.Tech in Civil Engineering	130	129	99.23
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## 2.7 – Student Satisfaction Survey

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

<https://www.nit.ac.in/pdf/Student%20Satisfaction%20Survey.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
Koushik Karmakar
<a href="#">View File</a>

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
National	Ankesh Samanta	Junior Research Fellow	28/06/2019	TEQIP3 COE (Jadavpur University)
National	Puja Halder	Institute Fellowship NIT Durgapur	21/07/2019	Institute Fellowship NIT Durgapur
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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
Minor Projects	730	UGC	3	1.05
Any Other (Specify)	1095	AICTE ( RPS )	8	7.88
Any Other (Specify)	1095	AICTE ( RPS )	12.53	12.35
Any Other (Specify)	365	AICTE ( STTP )	3	3

Any Other (Specify)	365	AICTE ( STTP)	3	3
Any Other (Specify)	730	AICTE ( MODROB)	8.72	6.98
Minor Projects	730	UGC	4	1.4
Industry sponsored Projects	1825	Bosch Rexroth India Pvt. Ltd.	80.46	80.46
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3.2.2 – Number of ongoing research projects per teacher funded by government and non-government agencies during the years

0.127
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### 3.3 – Innovation Ecosystem

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

Title of workshop/seminar	Name of the Dept.	Date
Interactive session on "Entrepreneurship and Innovation as Career Opportunity"	Narula Institute of Technology	27/09/2019
Webinar on Entrepreneurship and Innovation as Career Opportunity	Narula Institute of Technology	18/04/2020
CONQUER COVID-19 HACKATHON	Narula Institute of Technology	15/04/2020
Webinar on Post COVID 19: Business opportunities threats	BS Hu	11/05/2020
Industry 4.0 and Entrepreneurship: Today's Perspective	Narula Institute of Technology	14/05/2020
Webinar on Impact of COVID-19 on Businesses in India	Narula Institute of Technology	15/05/2020
. NASA SPACE APP Challenge Hackathon:	Narula Institute of Technology	21/09/2019
Students Solar Ambassadors (SSA) Workshop 2019	Narula Institute of Technology	01/10/2019
Workshop on National Innovation and Start-up Policy (NISP)	Narula Institute of Technology	13/12/2019
Internal Hackathon- SIH 2020	Narula Institute of Technology	28/01/2020
Webinar on Business Continuity and	EE	06/04/2020

Operational Resilience.		
One Day mentoring session on IPR and IP Management for innovation and startups	Narula Institute of Technology	05/05/2020
Managing Intellectual Property During Covid-19	Narula Institute of Technology	30/07/2020
webinar on "Recent Trends in Research and Development" under Engineering College Student Chapter- Institute of Engineers (India)	EE	10/05/2020
Seminar on Paper writing and Where to Publish	ECE	23/08/2019
Visit to Central Tool room, ERTL Kolkata	ECE	08/11/2019
Webinar on PCB Design and PLC programming	ECE	29/03/2020
Webinar on Advances in IT Industries	EIE	04/04/2020
One Day Workshop on Industrial Automation using PLC	EE	24/06/2020
Webinar on Application of AI in Telecom	ECE	10/04/2020
How to make oneself productive:A key to unlock your skills in this Lockdown	Narula Institute of Technology	17/04/2020
Webinar on Health Assessment of Bridges	CE	12/05/2020
Webinar on The Smarter Engineer - on how to do smarter programming	ECE	08/04/2020
Seminar on Sensor of Everyday life	ECE	19/08/2019
Seminar on Hazard of EM waves	ECE	08/11/2019
Seminar on "Security and Authentication through Imperceptible Communication	ECE	22/04/2020
Webinar on Creating ChatBot using AWS	ECE	16/04/2020
Webinar on Data analytics and industry application	ECE	25/04/2020

Webinar on Applied Big Data Optimization for 5G	ECE	30/04/2020
Webinar on Power SCADA (Supervisory Control Data Acquisition system)	ECE	28/04/2020
Workshop Session on "Manual and Wireless Robots"	ECE	01/05/2020
Webinar on cloud computing with AWS	ECE	02/05/2020
International Webinar on "Succeeding in Modern IT Industry"	ECE	14/05/2020
Webinar session on Concept of Power for young engineers	ECE	08/05/2020
Master class on "How To Become A Super Hero"	Narula Institute of Technology	06/06/2020
Workshop on "PLC and SCADA	EE	06/01/2020
Industrial Seminar on 800 kV UHV Transmission	EE	23/09/2019
Webinar on Cyber Physical Systems Real Time Case Study on Internet of Underwater Things	EE	28/06/2020
Webinar on Enhancing Interdisciplinary Achievements via Integrating Biology with Chemistry	BS Hu	11/05/2020
Webinar on Basic concepts on Design of RC Structure	CE	22/04/2020
International webinar on "Opportunity Steps and Prospect in Entrepreneurship	ME	09/05/2020
Webinar on Polymeric/nanomaterials for water purification."	BS Hu	20/06/2020
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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
EOG Based Wheelchair for Quadriplegic Patients	Tanmoy Munshi, Soumashis Das, Indraneel Jana, Soumendu Biswas	Govt. of West Bengal	17/11/2019	1st Prize in Elderly Care Problem Statement (BENGALATHON



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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
Technology Business Incubator- Narula Institute of Technology	Technology Business Incubator- Narula Institute of Technology	MSME	Nil	Nil	Nil
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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
CSE	1
ECE	2
EE	1
CE	1
IT	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	CSE	10	3.6
International	ECE	11	0.8
International	BS Hu	30	1.5
International	CE	2	3.1
International	EE	6	0.76
International	EIE	5	3
International	IT	11	0.41
International	ME	1	0.4
<a href="#">View File</a>			

#### 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
EIE	7
ECE	17
CE	16
CSE	5
IT	7
BS Hu	30
EE	14

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### 3.4.4 – Patents published/awarded during the year

Patent Details	Patent status	Patent Number	Date of Award
Mechanical property modification of PVC - poly (ethyl acrylate) blend by incorporation of Nano Calcium Carbonate	Filed	201931050740	12/09/2019
Green route of Preparation of PVA-cellulose Nanocomposite	Filed	201931050741	12/09/2019
Production of biodiesel from palm fatty acid distillate using biohydrolysis and bioesterification reaction	Filed	201931050742	12/09/2019
Radio Jingle- A Novel Technique for Betterment of Listening Writing Skills	Filed	201931050743	12/09/2019
Oil seed meals: A novel cheap source of prebiotic food material	Filed	201931050744	12/09/2019
Portrait image enhancement for printed security documents verification	Filed	201931050748	12/09/2019
Intelligent CCTV Camera for a better Lifestyle	Filed	201931050749	12/09/2019
IoT based water quality monitoring systems in River, Lakes, and Ponds	Filed	201931050750	12/09/2019
Implementation of IOT for Tracking CSR assets	Filed	201931050751	12/09/2019
Deep Learning Based Portable Fingerprint Lock Supported Handheld Multilingual	Filed	201931050752	12/09/2019

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
Genome sequence comparison under a new form of tri-nucleotide representation based on biochemical properties of nucleotides	Dr. Subhram Das	Gene, 2020, 730, 144257	2020	1	Narula Institute of Technology	1
Quantitative structure-activity relationship (QSAR) study of some DNA-intercalating anticancer drugs	Dr. Indrani Sarkar	Lecture Notes in Electrical Engineering, 2020, 575, pp. 357-366	2020	2	Narula Institute of Technology	2
SSTRNG: self starved feedback SRAM based true random number generator using quantum cellular automata	Dr. Maitreyi Ray Kanjilal	Microsystem Technologies, 2020, 26(7), pp. 2203-2215	2020	4	Narula Institute of Technology	4
Area-Delay-Energy aware SRAM memory cell and M × N parallel	Dr. Kunal Das	Microprocessors and Microsystems, 2020, 72, 102944	2020	6	Narula Institute of Technology	6

read/write memory array design for quantum dot cellular automata						
Effects of CME and CIR induced geomagnetic storms on low-latitude ionization over Indian longitudes in terms of neutral dynamics	Dr. Dibyendu Sur	Advances in Space Research, 2020, 65(1), pp. 198-213	2020	6	Narula Institute of Technology	6
Experimental and Numerical Free Vibration Analysis of Laminated Composite Plates with Arbitrary Cut-Outs	Dr. Arpita Mandal	Journal of The Institution of Engineers (India): Series C, 2020, 101(2), pp. 281-289	2020	2	Narula Institute of Technology	2
A comprehensive study of a backlogging EOQ model with nonlinear heptagonal dense fuzzy environment	Dr. Avishek Chakraborty	RAIRO - Operations Research, 2020, 54(1), pp. 267-286	2020	8	Narula Institute of Technology	8
Cylindrical neutrosophic single-valued number and its application in networking problem, m	Dr. Avishek Chakraborty	CAAI Transactions on Intelligence Technology, 2020, 5(2), pp. 68-77	2020	2	Narula Institute of Technology	2

ulti-criterion group decision-making problem and graph theory						
Approach to solve multi-criteria group decision-making problems by exponential operational law in generalised spherical fuzzy environment	Dr. Avishek Chakraborty	CAAI Transactions on Intelligence Technology, 2020, 5(2), pp. 106-114	2020	3	Narula Institute of Technology	3
A Comparative Study on Slope Stability Analysis by Different Approaches	Abhipriya Halder	Lecture Notes in Civil Engineering, 2020, 85, pp. 285-293	2020	0	Narula Institute of Technology	Nil

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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
Detection of black hole attack in delay-tolerant network	Bansari Deb Majumder	IEEE Sensors Journal, 2019, 19(4), pp. 1204-1214, 8540918	2019	1	17	Narula Institute of Technology
Experimental and Numerical Free Vibration Analysis of Laminated	Bansari Deb Majumder	Advances in Intelligent Systems and Computing, 2019, 749, pp. 631-639	2019	1	Nil	Narula Institute of Technology

Composite Plates with Arbitrary Cut-Outs						
Measures of linear and nonlinear interval-valued hexagonal fuzzy number	Chandrima Chakrabarti	Peer-to-Peer Networking and Applications, 2019, 12(4), pp. 705-723	2019	4	1	Narula Institute of Technology
Melanoma diagnosis using deep learning and fuzzy logic	Chandrima Chakrabarti	ACM International Conference Proceeding Series, 2019, pp. 385-388	2019	4	4	Narula Institute of Technology
Applying encryption algorithm on text steganography based on number system	Dr. Arpita Mandal	Composites Part B: Engineering, 2019, 161, pp. 228-240	2019	2	2	Narula Institute of Technology
Area-Delay-Energy aware SRAM memory cell and M × N parallel read/write memory array design for quantum dot cellular automata	Dr. Avishek Chakraborty	Symmetry, 2019, 11(7), 932	2019	5	8	Narula Institute of Technology
A graph theory application for fast and efficient search of optimal radialized distribution network topology	Dr. Kunal Das	Microprocessors and Microsystems, 2019, 69, pp. 118-137	2019	9	3	Narula Institute of Technology

Periodic change detection in fetal heart rate using cardiotocograph	Dr. Saradindu Panda	Proceedings of 3rd International Conference on 2019 Devices for Integrated Circuit, DevIC 2019, 2019, pp. 167-171, 8783852	2019	6	2	Narula Institute of Technology
Experimental and numerical studies on vibration characteristics of laminated composite skewed shells with cutout	Dr. Anilesh Dey	Classifying recurrent dynamics on emotional speech signals	2019	4	1	Narula Institute of Technology
Design and simulation of priority based dual port memory in quantum dot cellular automata	Dr. Sumit Chabri	Engineering Science and Technology, an International Journal, 2019, 22 (1), pp. 359-369	2019	7	1	Narula Institute of Technology
<a href="#">View File</a>						

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

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	43	221	221	221
Resource persons	19	22	5	25
Presented papers	5	41	Nil	Nil
<a href="#">View File</a>				

### 3.5 – Consultancy

#### 3.5.1 – Revenue generated from Consultancy during the year

Name of the Consultan(s)	Name of consultancy	Consulting/Sponsoring	Revenue generated
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department	project	Agency	(amount in rupees)
Mr.Arkendu Mitra(EE)	Energy consumption estimate of fourteen storeyed Siddha building at Agarpara	Siyatech	260000
Dr.Biman Mukherjee(CE)	Performace of desiged beams using loading frame ad SPT test	Roy Construction	138000
Ms. Anasuya Mondal(CE)	Mix Design Grade Of Concrete M25 and M30 samples and flexural strength testing of Reinforced Concrete beams	Roy Construction	60000
Mr. Abhipriya Halder(CE)	Triaxial Test report of soil samples with UU and CD procedure	Maxim Constructions Pvt. Ltd	80000
Dr.Anilesh Dey(ECE)	Automation Part of IISER Project	M/S ESL Technologies	500000
Dr. Saradindu Panda(ECE)	Senior Consultant to IVRS based applications	M/S ESL Technologies	400000
Dr. Nabamita Bannerjee Roy(EE)	Quality Analysis of elctrical machinery equipments	AG Engineering and Consulting	4
Ms. Pratyusha Deb(EE)	Quality Check of electrical and electronic machinery equipments	Habtech Technologies	350000
Mr. Pallav Dutta(EE)	Quality Check of training services and management	Habtech Technologies	300000
Ms. Bansari Deb Majumder(EIE)	Wireless Communication and Sensor Guided Robotics Project	Siyatech	400000

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### 3.5.2 – Revenue generated from Corporate Training by the institution during the year

Name of the Consultan(s) department	Title of the programme	Agency seeking / training	Revenue generated (amount in rupees)	Number of trainees
NIL	NIL	NIL	0	0
No file uploaded.				



### 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
PRESENTATION REGARDING SWACH BHARAT MISSION	NSS UNIT/ Narula Institute of Technology	4	27
Celebrating International Women's Day	NSS UNIT/ Narula Institute of Technology	12	104
Awareness Program Against Corona Virus	NSS UNIT/ Narula Institute of Technology	9	107
Food Distribution to the Needy People in the period of Pandemic Outbreak of COVID19	NSS UNIT/ Narula Institute of Technology	12	83
Celebration of Earth Day	NSS UNIT/ Narula Institute of Technology	14	107
Awareness Program About Cyclone Amphan	NSS UNIT/ Narula Institute of Technology	11	73
Celebration World Environment Day 2020	NSS UNIT/ Narula Institute of Technology	6	58
Awareness Prpgram Against Animal Abuse	NSS UNIT/ Narula Institute of Technology	9	78
Celebration of International Anti- Drug Day	NSS UNIT/ Narula Institute of Technology	10	102
Awareness Program on Gender Issue	NSS UNIT/ Narula Institute of Technology	8	83
<a href="#">View File</a>			

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
SES REC Action Plan	Recognized Social Entrepreneurship, Swachhta Rural Engagement Cell (SES REC) Institution	Mahatma Gandhi National Council of Rural Education, Department of Higher Education, Ministry of Education,	2928

		Government of India	
Participated in My NEP Quiz Competition	Certificate of Achievement	My NEP	10
Training on Pre-Incubations Incubation Management, as a part of IIC Innovation, Ambassador training series	Certificate of Participation	Institutions Innovation Council of MHRDs Innovation Cell, AICTE	103
Blood Donation	Certificate of Appreciation	B.R Singh Hospital, Eastern Railway	1
Blood Donation	Certificate of Appreciation	State Blood Transfusion Council, West Bengal	3
Blood Donation	Certificate of Appreciation	Barrackpur Tarun Dal	1
Blood Donation	Certificate of Appreciation	SVP	1
Participated in National Level Online Quiz on International Day of Yoga-2020	Certificate of Participation	Aditya College of Engineering Technology	1
Participated in Online Quiz on COVID 19, Awareness Program	Certificate of Appreciation	NIET, Greater Noida	1
<a href="#">View File</a>			

3.6.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activities	Number of students participated in such activities
Old age home Visit	NSS UNIT/ Narula Institute of Technology / MULVANI HOUSE (Amherst street, Kolkata)	Visit to an old age home	5	27
Awareness on COVID 19	NSS UNIT/ Narula Institute of Technology	Awareness Program Against Corona Virus	9	107
Food Distribution	NSS UNIT/ Narula	Food Distribution to	12	83

	Institute of Technology	the Needy People in the period of Pandemic Outbreak of COVID19		
Swachh Bharat	NSS UNIT/ Narula Institute of Technology	Mask Home Made Hand Sanitizer Preparation and Distribution to the Society People (In Lock Down Time Period, 2020)	16	207
Environment	NSS UNIT/ Narula Institute of Technology	Celebration of Earth Day	14	107
Environment	NSS UNIT/ Narula Institute of Technology	Awareness Program About Cyclone Amphan	11	73
Environment	NSS UNIT/ Narula Institute of Technology	Celebration World Environment Day 2020	6	58
Awareness on Animal Abuse	NSS UNIT/ Narula Institute of Technology	Awareness Prpgram Against Animal Abuse	9	78
Anti-Drug Day	NSS UNIT/ Narula Institute of Technology	Celebration of International Anti-Drug Day	10	102
Gender Issue	NSS UNIT/ Narula Institute of Technology	Awareness Program on Gender Issue	8	83
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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
Research	Dr.Anilesh Dey	Narula Institute of Technology	1095
Research	Prof.(Dr.) M.R Kanjilal	Narula Institute of Technology	1460
Research	Dr.Nabamita Banerjee Roy	Narula Institute of Technology	730
Research	Dr.Sumit Chabri	Narula Institute of Technology	730

Research	Dr.Kunal Das	Narula Institute of Technology	730
Student Exchange	15 students from Different Branch	Narula Institute of Technology	365
Research	Dr.Rupa Bhattacharyya	Narula Institute of Technology	1095
Student Exchange	35 Students From Different stream	Narula Institute of Technology	365
Faculty Exchange	Susmita Das	Narula Institute of Technology	365
Faculty Exchange	Pranab Hazra	Narula Institute of Technology	365
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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 through AICTE Internshala	Even Cargo	25/08/2020	25/09/2020	Ms. Ayushi Gupta
Internship	Internship through AICTE Internshala	Hamari Pahchan NGO	12/05/2020	12/06/2020	Priyanka Gupta
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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
Ministry of Micro, Small and Medium Enterprises (MSME)	25/05/2018	1. Webinar on Idea on Innovations and Startup During Covid 19 on 27.07.2020. 2. Industrial Visit by ECE Department on 20.11.2019. 3. Indus	253
IC Design and Fabrication Centre under the Department of Electronics and Telecommunication	04/12/2019	1. Industrial training for students of ECE department on 18.12.2019.	36

Engineering, Jadavpur University			
Medilabz	09/09/2019	1. Establishment of Tissue Floatation Bath on 20.02.2020.	18
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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
408.44	398.33

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Video Centre	Newly Added
Classrooms with Wi-Fi OR LAN	Existing
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Existing
Value of the equipment purchased during the year (rs. in lakhs)	Newly Added
Seminar halls with ICT facilities	Existing
Classrooms with LCD facilities	Existing
Seminar Halls	Existing
Laboratories	Existing
Class rooms	Existing
Campus Area	Existing
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### 4.2 – Library as a Learning Resource

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

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation
LIBMAN	Partially	NA	2006

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	43978	10623000	1033	261000	45011	10884000
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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	Date of launching e-
---------------------	--------------------	--------------------------	----------------------

		is developed	content
Dr. Saradindu Panda	Renewable Energy	Power point presentation	10/09/2020
Mr. Jayanta Pal	Data Structure and Algorithm	OBS Studio	05/09/2020
Ms. Sagarika Chowdhury	Artificial Intellengence	Zoom cloud meetings	15/08/2020
Md. Ashif Uddin Mondal	DBMS	Apowersoft screenrecorder	05/08/2020
Mr. Subhendu Banerjee	Object oriented programming	Zoom cloud meetings	08/09/2020
Dr. Indrani Sarkar	Physics	Filmora	09/09/2020
Dr. Anilesh Dey	Microprocessor	Microsoft power point	09/09/2020
Mr. Sudhangshu Sarkar	Electrical circuit theory	Zoom cloud meetings	10/10/2020
All the Full Time Teachers	Semester Courses	Online CourseWare (OCW)	06/01/2020
All the Full Time Teachers	Semester Courses	Online CourseWare (OCW)	08/07/2019
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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	788	15	788	1	1	50	350	150	0
Added	137	0	137	0	0	0	0	0	0
Total	925	15	925	1	1	50	350	150	0

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

150 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
1. Interactive Flat Panel, 2. Windows OPS, 3. Microphone, 4. Amplifier - Mixer, 5. Speaker, 6. Connecting Cables, 7. Wall Cabinet, 8. Camera - Pointed, 9. Ceiling Mount Kit, 10. USB Cable. 11. Video Editing Software (Filmora Educational License Perp	Nil
Link of Recording Facilities	<a href="https://www.nit.ac.in/pdf/Audio%20Visual%20and%20Lecture%20Capturing%20System">https://www.nit.ac.in/pdf/Audio%20Visual%20and%20Lecture%20Capturing%20System</a>

	<a href="#">pdf</a>
Link of Video	<a href="https://www.nit.ac.in/pdf/E-Content%20Video.mp4">https://www.nit.ac.in/pdf/E-Content%20Video.mp4</a>

#### 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
20.89	19.86	13.71	13.31

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)

<p>The procedure for maintaining and utilizing physical, academic and support facilities are as follows: 1. The institute has Standard Operating Procedures (SOP) for maintaining and utilizing physical, academic, and support facilities</p> <p>2. The institute deputed a civil supervisor and admin executive for the inspection of the Institute building. 3. Regular peer vigilance is being conducted through physical and digital modes. 4. Annual Maintenance Contracts (AMC) are followed by the institute. 5. Repairs of the various items are done by trained personnel with modular tools. 6. Recurring training is being provided to faculty and staff members for performing high-end equipment like Lathe, Drilling machine, Shaping machine, Welding equipment with PLC and SCADA, etc. 7. The institute conducts preventive maintenance to reduce breakdown. 8. Calibration of the laboratory equipment is done regularly by the technical assistant under the guidance of the laboratory in charge. 9. The institute maintains its cleanliness and hygienic gradation by sufficient housekeeping staff. The institute has a fixed SOP for maintaining academics, Library, computers, classrooms, laboratories, yoga, gymnasium, hostels, auditorium, college field, general building, canteen, transport. The Repair Maintenance staff and administrative personnel monitor the maintenance of these facilities. The respective departmental HOD supervises significant repairs and maintenance of lab and equipment by placing the order of repair / AMC to the admin executive. The institute has an in-campus site supervisor who regularly inspects to maintain the building (for dampness, plumbing issues, cracks, and expansions) and its facilities. Fire equipment is maintained as per the service provider. A team of housekeeping staff, gardeners, and ground staff are designated to maintain the common areas of the campus. The utilization of the facilities is being done even during weekends and holidays. The timetable committee does classroom allotments. All the IT and other facilities are used optimally with no wastage of resources. The seminar hall booking is made through the Registrar section for prior resource mapping and utilization. The college maintains one complaint register available in the administrative office. Students and staff members can record their complaints, and appropriate rectification is carried out in a time-bound manner.</p> <p style="text-align: center;"><a href="https://www.nit.ac.in/pdf/Maintenance_Policy.pdf">https://www.nit.ac.in/pdf/Maintenance_Policy.pdf</a></p>
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#### 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	Institution	100	4040000
Financial Support from Other Sources			
a) National	Government and Non Govt. Scheme	269	10443800
b)International	Nil	Nil	Nil
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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
Webinar On Recent Trends in Research and Development	09/05/2020	79	Mr. Bitan Saha, Research Assltant Cognitive AI Fraunhofer IIS, Germany,
Webinar on Coal Base Thermal Power Plant	13/06/2020	68	Mr. Partha Sarathi Mahanty, Manager, WBPDC
Webinar on Evolution of Communication System And It's Journey towards AI	27/06/2020	64	Dr. Debasish Guha, Senior Consultant and Delivery Head of TCS
Health Checkup Camp	26/09/2019	136	Dr Nikhilesh Sil, Narula Institute of Technology
Awareness Program on plastic free society	25/10/2019	44	Dr Nikhilesh Sil, Narula Institute of Technology, Narula Institute of Technology,
Webinar on International Yoga Day	21/06/2020	119	Prof (Dr) S.S Solanki, Univ Polytechnic, BIT Mesra
Webinar on Professional Communication: Present Perspective and Future Challenges	02/05/2020	58	Dr. Sharmistha Chatterjee (Srivastav), Department of English, Aliah University
Language and Communication Skills-CSE 1st year Sec C	17/02/2020	57	Ms Rajashi Ray, Narula Institute of Technology
Soft skill Training - ECE 1st year Sec B	04/09/2019	53	Mr. Tapas Mukherjee ,Target Education



Verbal, Non Verbal Training EIE 2nd year	27/01/2020	41	Mr. Rahul Basak, Career Launcher
<a href="#">View File</a>			

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
2020	Aptitude Verbal Non Verbal Reasoning Test, Mock Interview Sessions, Training - Test Packages of various Companies, Training class for competitive exam GATE, GRE, UPSC, IES, IELTS	154	2634	17	664
<a href="#">View File</a>					

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
2	2	4

## 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
Accenture	462	122	TCS	397	45
<a href="#">View File</a>					

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	3	CE(B-Tech)	Civil	Narula	M-Tech

			Engineering	Institute of Technology	
2020	12	CSE(B-Tech)	Computer Science and Engineering	Gurunanak Institute of Technology, Dr Sudhir Chandra Sur Degree Engineering College, JIS College Of Engineering, University of Otago , NewZealand	M-Tech,MBA ,Ph.D.
2020	7	EE(B-Tech)	Electrical Engineering	Narula Institute of Technology, Dr Sudhir Chandra Sur Degree Engineering College, JIS College Of Engineering	M-Tech ,MBA
2020	11	ECE(B-Tech)	Electronics and Communication Engineering	Narula Institute of Technology, Dr Sudhir Chandra Sur Degree Engineering College, JIS College Of Engineering	M-Tech ,MBA
2020	1	EIE(B-Tech)	Electronics and Instrumentation Engineering	The University of Texas	MS
2020	1	IT(B-Tech)	Information Technology	RCC Institute of Information Technology	M-Tech
2020	2	ME(B-Tech)	Mechanical Engineering	Indian Institute of Technology Bhubaneswar, National Institute of Technology	M-Tech

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5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
GATE	13
GRE	1
Any Other	3
<a href="#">View File</a>	

#### 5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
Annual Sports Meet	Institution	324
Badminton Tournament	Institution	69
The Cultural Fest: NAVODAYA 2020	Institution	439
Digital Cultural Concert of NiTCREATOMANIA	Institution	88
Cultural meet on Bengali New Year Day "PoilaBoishakh"	Institution	76
DiggiAdda Session: Tribute to the great Film- maker Mr. Satyajit Ray	Institution	92
Cultural Programme on Techstacy, 2020	Institution	171
Cultural Program on Mother's Day Celebration	Institution	76
International Yoga Day	Institution	137
Farewell Program BIDDING ADIEU 2020	Institution	195
<a href="#">View File</a>		

### 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	AMIPHORIA( 20201st Runnerup	National	Nil	1	43061601 0055	Rajdeep Chakraborty and Group
2020	Fashion Show in T2 Spotlight 2020 ,1st position	National	Nil	1	43031801 0097	Rahul Kumar Singh and Group
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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)

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There is an active student council in the institute. The Student Council is formed in the month of July (after the commencement of the academic year) with the secretaries of the different Student clubs. The primary aim of the constitution of such a council is to develop leadership qualities and make the students socially responsible. The Student Council leads the major student activities inside the institute through different Clubs. The hidden talent and creativity of the students are exposed through the manifold activities of these Clubs. The registration to the clubs is done online and the portfolios are nominated by the departments of the institute. The Clubs are as follows: Science Club Tech Club Mathematics Club Art Designing club Literary Club Photography Club Music Club Sports Club Dance Club Environmental Club Community Connect Club (NSS Activities) Event Coordination Club The students are the cornerstones of the institute. The members of the Student Council nominate the student representatives in the Disciplinary committee and Anti-Ragging committee. Besides the Student Council and Clubs, the students play a crucial role in the different statutory bodies and committees like Anti- Ragging committee and IQAC cell of the institute. In addition to this, each class has a Class Representative (CR) and an Assistant CR (ACR) to popularize and coordinate the events within the class.

## 5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

The NiT Alumni Association was established and registered under the Societies Registration Act 21 of 1860, formed to build an actively engaged alumni network during the year 2006-2007 with a Registration No S/1L/41814. The institute has a working website (<https://www.nit.ac.in/alumni/>), a Facebook page (<https://www.facebook.com/NITAlumni>), and an official Whatsapp group for the alumni interaction. The alumni member contributes significantly to the development of the institution in the following ways:- Academic contribution: NiT Alumni Association organizes special training programs like Training program on Basic Electronics, Embedded System, PLC, SCADA PCB Design was arranged for the professional amendment of the ECE, EE, and EIE departmental students in the past year. In addition to this, the association also provides their feedback from the industry at virus platforms, like international conferences, seminars, industry conclaves, departmental seminars, and industry visits, etc. The alumni members are closely associated with the departmental activities. The Alumni contribute to the curriculum modernization and design process. The Board of Studies (BOS) includes alumni representatives from industry, academia as departmental alumni nominees. Various latest technologies that are adopted by the industries and companies are introduced to the students to enhance their technical skills and also help the faculties to analyze industry requirements. Placement contribution: Besides this, NiT is also linked with their Alumni through the official Whatsapp group and social media to extract the linkage of industries and reputed universities for higher education. The Alumni database is registered through an online portal and connected NiT alumni network, being updated regularly in offline mode also. Alumni updates are always highlighted in the NiIT Alumni Network Monthly Digest online platform. Alumni have a separate portal on the Institution website as [alumni.nit.ac.in](http://alumni.nit.ac.in). The Alumni members in various industries share their openings of training and internships in the official Whatsapp group and social media which has been shared with the students eventually. Extra-curricular activities: Every year Alumni members actively participate in extracurricular activities like blood donation camps, cricket, football match, cultural programs, attending an institutional event like induction program "Swagatam", freshers welcome "Parichay", Techno-Management fest "Kritanz", Cultural Fest "Navodaya", Mini-Marathon, etc.

5.4.2 – No. of registered Alumni:

1314

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

504000

5.4.4 – Meetings/activities organized by Alumni Association :

The number of activities for the academic year is 10. The report of the activities have been presented in the following link  
<https://www.nit.ac.in/pdf/Activity20Report20Alumni20Association202019-20.pdf>

## **CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT**

### **6.1 – Institutional Vision and Leadership**

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

The Institution has a practice of participative management. It provides an opportunity to all the employees and stakeholders to participate in the decision-making process. The decentralized governance model is evident in every sphere- academic, financial as well as administrative. All matters are discussed and decisions are made through recommendations of various Statutory and Non-Statutory committees represented both by teaching and non-teaching staff, students, parents, alumni, employers, The practice of Decentralization and Participative Management:: The top management has decentralized its financial, administrative and academic powers to the Principal, Faculty members and administrative staff from time to time. Right from inception of the institute, they have planned and implemented both quantitative and qualitative parameters through decentralization and participative management.

Decentralization delegation of powers come effectively by the aid and assistance of BOG by constituting statutory and non-statutory committees like Academic Council, IQAC, NSS, Anti Ragging etc. Some of the decentralization examples are discussed below: Academic Decentralization- The Academic decisions referred to the introduction, reformulation of courses and syllabi, teaching methodologies are taken through Academic Council after obtaining inputs from concerned faculties and departments. At the faculty and department levels, there are bodies like the Board of Studies, Academic Committee, Research Committee, etc., which function in a coordinated manner to take decisions with respect to academic and research related issues. The composition of these bodies reflects the participative nature of Institute administration.

Administrative Decentralization- All the administrative and academic duties are controlled by the Principal of the Institution. The Head of the Departments works under the guidance of the Principal and Internal Quality Assurance Cell. The Registrar, Dean RD, COE, Librarian and other faculty staff members are involved in the various academic, administrative or other statutory and non-statutory committee tasks. The non teaching staff plays a crucial role in managing the day-to-day work. They are assigned to meet and accomplish the operational and strategic objectives. For the smooth functioning of the institute, all the members conduct regular meets, discuss and take necessary steps to formulate and implement the perspective plan of the institution.

Financial Decentralization- Finance is one of the vital parts of the institute and the Finance Committee oversees and formulates all its activities. All the main decisions are taken by the Head of the Institute in consultation with the different bodies, Registrar and Head of the Departments. The Financial Autonomy reflects in the power delegation distributed amongst the different level of hierarchy like purchase of books, equipment procurement, hiring transport, travel fares for attending FDPs, Seminars and Conferences etc. The institute

thus always promotes the culture of participative management and decentralization by involving the faculty and staff members in various activities.

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

Yes

## 6.2 – Strategy Development and Deployment

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

Strategy Type	Details
Curriculum Development	The curriculum of each of the programmes are restructure based on the guideline of AICTE . Some courses are included for the skill development of the students. In addition, project-based learning has also introduced in the curriculum .Moreover MOOCs are also considered for Mandatory Requirement to get a degree in UG Programme
Teaching and Learning	As per the recent trends Institute Management always encourage to Faculty and Students for Out Come Based Education(OBE). In this process , course outcomes (COs) of each course are defined . Students are familiarized with COs, PSOs , POs . ICTs are used for teaching and learning.For the measurement of outcomes attainment of course outcomes , programme outcomes and programme specific outcomes are carried out
Examination and Evaluation	Narula Institute of Technology has received autonomous status since year 2014 . The examination systems are semester basis . All the examinations are held according to academic calendar. Semester Question papers are moderated by external experts.Semester examination systems are now digitized excepting writing in examination on script by students . Form fill up of Semester examination , evaluation of answer script , publishing of results all are through online mode . Semester question paper are set considering COs statements of the courses. Moreover for formative assessment , two internal examinations are conducted centrally in each semester . Assignments are given based on module . Attainment are calculated . Remedial classes are conducted for weak students. Supplementary examinations are conducted for unsuccessful students
Research and Development	All the faculty of the institute are

involved in research and development work . Faculties are encouraged to participate and present papers at conferences . Faculty members are encouraged to publish papers in SCI journals . Under the guidance of faculty members, students are also publishing papers in conferences and journals.. Staff members are motivated to take up UGC Research Projects (Major and Minor), AICTE RPS, DST, DAE and publish research articles, apply for a patent

Library, ICT and Physical Infrastructure / Instrumentation

The library is well equipped with text and references books . Students avail the references and textbook. Spacious reading room facilities are attached with the library . Students need to follow the defined library rules to access the library . The library is equipped with various types of hard copies and e-books. There is also a well-organized depository of eminent professors NPTEL lectures , e-journals. The Library has been automated using Library Management software . The library management software is a user-friendly software designed to take care of all the administrative and management functions of the Library. It organizes and manages the information of the Books, Articles, Journals and Circulation in

Human Resource Management

Human Resource Management are done through service rules of the Institute . Faculty and staff members of the Institute are encouraged to developed their own skill for teaching and learning .They are encouraged to participate in faculty and staff development programme , research work . Ph.D. pursuing faculty are provided necessary leave for their research work as per Institution rules Moreover ,Periodical staff meetings are conducted.Different committees are constituted Institute and department level for effective functioning of the Institute .Non teaching staff is given training in file management, clerical and secretarial works. .Faculty and Staff are encouraged to participate selfdevelopment programmes. .Administration supports faculty, staff and students with necessary and relevant support to optimize their work. .Estate Office offers 24x7

	support for infrastructural requirements especially electricity, water supply and routine maintenance
Industry Interaction / Collaboration	Autonomy curriculum and syllabus are developed with the involvement of Industry expert. MoU signed has been done to pursue training courses .Students are sent to the industry for internships. Students are also sent to foreign universities for a special educational tour. Faculty members and students visit industry to know about the updated status of technical development. Industry personnel are also invited to deliver a talk on recent trends in relevant field. The Institute aims to create a learner-centric environment. This we strive to achieve through the following initiatives: •Alumni Cell •Corporate Relations and Placement Cell
Admission of Students	Students are admitted in the 1st year based on the State Government , West Bengal rules through WBJEE main , WBJEE and AMPAI . Lateral entry students are admitted in the 3rd semester through JELET conducted by state Government , West Bengal . Moreover students of Master Degree programme are admitted through an examination conducted by affiliating University , MAKAUT, WB

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

E-governance area	Details
Planning and Development	The Institute has ERP system. All kinds procurement are executed through this ERP. Through MIS software Faculty members use prepare for lesson plan . Course delivery can be planned and managed through this software.ERP system is used for the redevelopment of the Institute
Administration	The employee database is maintained through ERP. The online attendance and leave monitoring system for the employee has been implemented and running successfully. Faculty Appraisal is done through online. Purchase indent , Purchase order approval and procurement are done through ERP.
Finance and Accounts	All types of financial transactions are made through ERP
Student Admission and Support	The Institute has a system to maintain a database of all admitted Students. There are facilities for LMS



	, deposition of semester tuition fees , accessing of the library etc.
<b>Examination</b>	Examination form fill up, dowing of admit card , submission of internal marks , the printing of semester question paper , the evaluation of answer the script, the publication of results, all these are done through online

### 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	Susmita Karan	Participation, 2nd National conference on science, technology and communication skills (NCSTCS 2K19)Kolkata5.0 4.2019	NA	1000
<a href="#">View File</a>				

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	One day Workshop on Introdu ction to Python Pro gramming	One day Workshop on Introdu ction to Python Pro gramming	15/02/2020	15/02/2020	26	4
<a href="#">View File</a>						

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
One week Faculty Development	15	01/07/2019	06/07/2019	6

Program on "Fluid Power Control System- Hydraulic Pneumatic				
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[View File](#)

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

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
17	Nill	1	Nill

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
<p>Leave Rules: (For all employees except categorically mentioned)</p> <p>A. CL(Casual Leave): 12 days annually B. EL(Earned Leave): i. 30 days annually for vacational employees (all faculty members and HODs). ii. 20 days for non-vacationalemployees (All officials and staff of theadministration including Principal, Dean, Registrar, library, accounts, all Technical Assistants.) C. SL(Sick Leave): 10 days/ year ( cannot be availed less than two days) D. ML(Maternity Leave) for female employees: 90 days,E. Study Leave: Granted to faculty members with at least 3 years of service for enrolment to higher qualifications like Ph.D, Post Doc from reputed universities/ institutes for a period not more than two years with extension of one year depending on circumstances. F. Study Leave under Quality Improvement Program(QIP): Leave of up to three years is granted for pursuing Ph.D program AICTE approved institutes.Other benefits</p>	<p>Leave Rules: (For all employees except categorically mentioned)</p> <p>A. CL(Casual Leave): 12 days annually B. EL(Earned Leave): i. 30 days annually for vacational employees (all faculty members and HODs). ii. 20 days for non-vacationalemployees (All officials and staff of theadministration including Principal, Dean, Registrar, library, accounts, all Technical Assistants.) C. SL(Sick Leave): 10 days/ year ( cannot be availed less than two days) D. ML(Maternity Leave) for female employees: 90 days</p> <p>Other benefits for a. Contributory provident fund, Gratuity are provided to all teaching and non-teaching staffs as per Govt. rules. b. Employees of the institute are entitled to the Dearness allowance, House rent allowance and Medical allowance as per the policy of the state Government. c. Group Medical Insurance is provided for all employees. d. Financial assistance is provided to attend conferences, workshops, FDP, seminars and for filing</p>	<p>Sports , scholarship , canteen , transportation ,games , ATM , Medical Facilities inside campus</p>

for Teachinga. Contributory provident fund, Gratuity are provided to all teaching and non-teaching staffs as per Govt. rules. b. Employees of the institute are entitled to the Dearness allowance, House rent allowance and Medical allowance as per the policy of the state Government. c. Group Medical Insurance is provided for all employees. d. Financial assistance is provided to attend conferences, workshops, FDP, seminars and for filing patents . Free of charges transport facilities through pickup and drop services at selected locations are provided to staff and faculty members. Willing members avail the same for their benefits. f. Interest Free loan g. Annual Appraisal h. Career Advancement Scheme i. Awards Recognition for contribution of faculty in the field of research j. Scholarship policy for Employee's children to study in NITk. Grant of Seed Money l. Ph.D Increment m. Gym, Medical center with Doctor n. ATM o. ESI for all eligible employees

patents.Free of charges transport facilities through pickup and drop services at selected locations are provided to staff and faculty members. Willing members avail the same for their benefits.f. Interest Free loan g. Annual Appraisal h. Career Advancement Scheme i. Awards Recognition for contribution of faculty in the field of research j. Scholarship policy for Employee's children to study in NIT k. Grant of Seed Money l. Ph.D Increment m. Gym, Medical center with Doctor n. ATM o. ESI for all eligible employees p. Festive bonus for Non Teaching Staff

## 6.4 – Financial Management and Resource Mobilization

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

The internal audit and statutory audit by professional chartered firms is conducted in the Institute. Over the years it is being carried out regularly and no serious financial irregularity has ever been reported. Internal audit checks all transactions and the compliance level across the hierarchy and accuracy and authentication in terms of accounting slandered and commercial laws of financial transactions. Regulatory compliances along with monitoring of tax liabilities were conducted by M/S Subhendu Dutta Co, Cost Accountant, FRN No. 100863, 66 Malanga Lane, Kolkata 700012 for the year 2015-16, 2016-17 and 2017-18. DPC Associates, Cost Accountants, FRN No. 001147, 3 Kapalitala Lane, 1st Floor Kolkata 700012 conducted the same for 2018-19 and 2019-20. Their reports were submitted regularly to the Finance Committee of the Institute for review. M/s. Bandyopadhyay Associates, Chartered Accountants of 350(370/06)

Pearpore Road, P.O- Sheoraphuli, Dist- Hooghly, Pin- 712223 West Bengal are the statutory auditor of the institute. They conduct the audit to give a true and fair view of the state of affairs and whether the financial statements are free from material misstatement at the year-end. The external auditors also review the status of procedural and transactional compliance in all financial transactions of the Institute mainly conducted through ERP. In the history of the Institute, there has not been a single occasion when the statutory auditors pointed out qualifications and other irregularities in the Balance Sheet.

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
Wow Momo	33000	Sponsorship in Technical and Cultural Festival 2020
<a href="#">View File</a>		

6.4.3 – Total corpus fund generated

7875000
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## 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	Academic Experts from IIT Kharagpur, IEST	Yes	Internal Academic Audit Committee
Administrative	Yes	Bandyopadhyay and Associates	Yes	Internal Audit Team by the College Management

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

- Parent online feedback mechanism is running in each department. .• Parent faculty meeting session is held once in a semester regarding the academic progress of student. parent teacher meeting is conducted periodically to know about the students' progress. The meeting is a platform to offer suggestions for further improvement and development of the students. The parents get an opportunity to interact with the faculty members and heads of the departments to know about their ward's performance and study. • Faculty member acts as a mentor for a group of students. When needed Parents can also contact with a respective mentor of their ward regarding academic issues

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

- Different inhouse workshops and hands-on the session are conducted for the skill development of technical staff in hardware and software tools • Workshops are conducted for the development of Communications skill • All Staff members are encouraged to participate in sports, cultural and other activities inside and outside the college

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

Efforts are given to the enhancement of infrastructure. Infrastructure has been

developed • The institute has received autonomous status and is running successfully • Three PG Programmes ( Power Systems, CSE and ECE ) and one UG programme (CSE ) has been accredited by NBA • Accreditation status of four UG programme ( ECE , EE , CE , IT ) has been extended up to June 2020.

#### 6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b) Participation in NIRF	Yes
c) ISO certification	Yes
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	Seminar on Paper writing and Where to Publish	23/08/2019	23/08/2019	23/08/2019	87
<a href="#">View File</a>					

### 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
Breast Cancer Awareness Programme	14/05/2020	14/05/2020	92	5
One day Seminar on Psychological Issues in Pandemic Situation	20/06/2020	20/06/2020	75	45
International Womens Day	15/03/2020	15/03/2020	38	17
Interactive talk on "Participation of Women in the Engineering Field"	16/02/2020	16/02/2020	34	15
Drama on "Women give lives..but without any rights"	01/01/2020	01/01/2020	52	48

Documentary vedeo presebtation on "Women are force for Change "	18/12/2019	18/12/2019	64	72
Debate Competition on " Women Empowerment A-myth or reality"	19/12/2019	19/12/2019	9	7
Fit India Movement	30/11/2019	30/11/2019	57	68
Adolecent Health :Awareness Programme	20/08/2019	20/08/2019	77	65
Programme on Women Entrepren uership	11/07/2019	11/07/2019	302	74

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

The institute is a very successful minority institution that has, since its inception been at the forefront of inclusivity efforts. It brings together the student body as well as the faculty and staff, who belong to different walks of life together in many different ways. Inclusivity efforts are best shown through a melee of religious and cultural events which the institute celebrates with gusto. The events are not only curated to fit the annual activity list, but are also socially and developmentally beneficial in integrating students into the mainstream society. In terms of sociological inclusivity efforts, the institute is at the forefront as a minority institution. The institute has been a proud receiver and patron of several financial assists meant to help students with strained financial conditions. Being a Sikh Minority institution, the college has built its inclusivity efforts around the principles of Equality. Every year during Gurupurab , the institute organizes Langars or "Community Kitchens" where everyone irrespective of gender, caste or religion eat together. It is a wonderful display of Communal as well as Cultural inclusivity. This is also an environment of socioeconomic inclusivity since the college takes opportunities to do charitable works such as bringing food and relief to underprivileged communities, stationeries and books to underprivileged children. Students are encouraged to participate in these charitable acts and it also serves as community outreach for students. The institute is linguistically inclusive since the students celebrate Bhasha Divas or International Mother language Day every year with cultural programmes in their mother tongues. This is also a wonderful show of our regional inclusivity, wherein we exhibit that the college provides a most inclusive environment with speakers of the language from almost all parts of our diverse country. Another act of regional inclusivity is the celebration of Rabindra Jayanti and Bijoya Sammilani by the institute which is a marker of an inclusive cultural marker for not just the students but also the staff. The Institute celebrates festivals of religious importance such as Diwali, Durga Puja, Eid, Saraswati Puja, Vishwakarma Puja, Christmas Eve etc where all staff and students participate freely. This shows the communal as well as cultural inclusivity of

the institute. The institute also hosts several international students, apart from the medley of regional students besides the local student body. We have International students from China and Bangladesh, as well as students from all regions of this country, including the southernmost parts of the country like the Andaman and Nicobar Islands. The student body, despite its rich diversity, stands strong in unity. This is possibly the best way that the institute displays its regional inclusiveness.

#### 7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	15
Provision for lift	Yes	21
Ramp/Rails	Yes	14
Rest Rooms	Yes	12
Scribes for examination	Yes	4

#### 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
2020	1	1	26/08/2020	1	Awareness Program on Gender Issue	Gender Issue	91
<a href="#">View File</a>							

#### 7.1.5 – Human Values and Professional Ethics

Title	Date of publication	Follow up(max 100 words)
Corporate Group Health Policy	23/03/2020	The detail information of Corporate Group Health Policy and its benefit has been circulated among the employee of institute .
Ieea-O-Meter	04/06/2020	Idea-O-Meter has been launched to submit project proposal from Student ,Faculty , Staff ,Alumni. In this scheme if project proposal is selected by expert committee , then financial assistance is provided to the Applicant/s
Attending of College following Roster	29/05/2020	All the employee of the institute are informed to

		attend the institute from 1st June 2020 following roster and maintaining COVID -19 protocol.
Reschedule of academic activities due to supersonic strom Amphan and COVID-19 pandemic	03/06/2020	Due to supersonic strom Amphan and COVID-19 pandemic the notice for reschedule academic activities has been published
Notice to avoid fake news related to class conduction and examination during starting of pandemic in social media	18/04/2020	This is to inform to all concern that do not believe in fake news spread through whatsapp, instagram, Facebook or any social media. For all matters related to classes, exams and any information related to college please follow the Announcements, Instructions, Circulars etc. posted on the official websites of the Institute (www.nit.ac.in) and the emails SMS sent by respective department through proper channel.
Closing of College regarding Pandemic	29/03/2020	With reference to the Notice No. NIT/PRIN/Notice/0271, Dt. March 22, 2019 issued by Narula Institute of Technology, the college will remain fully closed till further notice. However, the Digital Classes, as have been going on, will continue and all the TA and Office Staff and other employees of NIT will work from home as per the guidance of their respective HODs. All are hereby strictly informed to cooperate and not to come out of home without any extreme emergency. Please take care of yourselves and your surroundings in this tough situation.
Awareness notice to protect COVID-19 pandemic	21/03/2020	This is to inform all the students of Narula Institute of Technology that due to the spread of



		<p>COVID 19 pandemic, you're advised to remain at your homes and must not step outside of your houses unless in great emergency. In addition to the online teaching you're also advised to utilize the time you spend at home with extracurricular activities like creative and innovative writing, painting, sketching, essay and poetry writing etc. publication of which will give you exciting prizes. You'll get another notice of Digital Hackathon very shortly. Please remember to be alert in this situation and don't loose hope. Refrain from spreading any fake rumours on any media. Always use mask and sanitize yourself properly. Stay at indoors and be safe.</p>
Closing of College regarding Pandemic	22/03/2020	<p>With reference to the Order issued by Govt. of West Bengal and instruction from the Top management towards the prevention and containment of Corona Virus disease, the college will remain fully closed from 23 March 2020 to 28 March 2020.</p> <p>However, the Digital Classes, as have been going on, will continue and all the TA and Office Staff and other employees of NIT will work from home as per the guidance of their respective HODs. All are hereby strictly informed to cooperate and not to come out of home without any extreme emergency. Please take care of yourselves and your surroundings in this tough situation.</p>
Class Suspension due to	14/03/2020	This is hereby inform

COVID-19 pandemic		to all concern that all the classes will remain suspended from 16.03.2020 (Monday) to till further notice in order to take precautions against the spread of corona virus (COVID-19). The students who are staying at hostel may leave for their home.
Anti Ragging Committee(2019-20)	11/07/2019	The ani-ragging committee has been published . The committee has been disseminated in the college campus .
Annual Award NIT Jewels-2019	02/08/2019	All the staff faculty student are requested to attend to celebrate Annual Award Programme NI Jewels on 3rd August 2019
Code of Conduct of Student	09/07/2016	Policy for Code of Conduct of Student has been published and uploaded in the institute website . Code of conduct of student discussed in induction programm . Also it is discussed by Teacher In-charge and Mentor regular basis.
Code of Conduct for Teacher , Adminstrator and Staff	09/07/2016	Policy of code of conduct for eacher , Adminstrator and Staff has been published and uploaded in college website . The code of conduct are informed to respective members by their respective reporting Authority as per organizational structure . Moreover it is also discussed in faculty orientation programme .
Key Responsibility Area (KRA)	09/06/2018	Policy for Key Responsibility Area (KRA) for teaching ,non-teaching staff of different Sections and Department has been published and disseminated among all concern.

Code of conduct awareness programme for Student	31/07/2019	Code of conduct awareness programme has been conducted among 1st year students in the induction programme
Code of conduct awareness programme for Teachers	19/05/2020	Code of conduct awareness programme for Teachers has been conducted
Professional Ethics Programme for Students , Staff and Faculty	04/05/2020	Professional Ethics Programme for Students , Staff and Faculty has been organized

#### 7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Awareness Prpgram Against Animal Abuse	08/06/2020	08/06/2020	87
<a href="#">View File</a>			

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

1. Two separate wastage bins are maintained for biodegradable (green colour bin) materials and non-biodegradable (yellow colour bin) materials respectively.
2. Maintenance of garden, playground, auditorium, gymnasium, sports room.
3. Adherence to the Ewaste (Management and Handling)
4. Awareness program has been initiated to make the Institute a plastic-free zone
5. Students are motivated to work and implement systems on renewable energy.
6. Restricted entry of automobile
7. Pedestrian-Friendly pathways
8. Ban on use of Plastic

### 7.2 – Best Practices

#### 7.2.1 – Describe at least two institutional best practices

**Best Practice-1 Title: BCT - Beyond Curriculum Training** **OBJECTIVES:** To ensure that the students develop technical skills and core competencies to become effective technocrats to serve the industry and corporate world with utmost professionalism. **THE CONTEXT:** In this context to make the students more employable and enterprising in the job market, the the institute organises training programs for the students from 2nd year to final year. Based on their existing skills at each level, various technical courses are offered to the students in each semester. These courses assist them to update their current Industrial/Corporate expectations and enhancing their adaptability. The courses are offered as per their stream in a form of the subject basket from where the students can select one topic during each semester under the guidance of their respective mentors. After completion of this training, the students get certified through a process of evaluation. **THE PRACTICE:** The training programs conducted by in-house corporate trainers in coalition with industry experts, are highly customized and devised to develop one's thought process with profound technical and management skills. The training prepares the students to face the global market with undaunted confidence and a solution-oriented approach. The students are taught about the practical scenario of the industrial applications and gain other product development-oriented knowledge. They are also motivated towards the achievement of higher studies and research-based activities. The training is provided as per the topic selected by the individual student. The duration of the training program is at least 40 hours

per topic and is organized before the commencement of each semester. In the vacations between the semester's training are involved to carry on the continuous knowledge enhancement of the budding engineers. The continuous monitoring of the students' performance is conducted through assessment. After analysing the requirement of a particular skill set from the industry and collecting feedback from students and other stakeholders, a few of the topics from BCT is incorporated in the curriculum. In the year of 2016 and 2018, certain topics from the BCT basket were adopted to Curriculum as per the industry demands. EVIDENCE OF SUCCESS: The students try to become the befitting candidate in this ambience through their technical skill up-gradation.

Different types of industrial training, internships, job-oriented training information are provided to the students. These types of programmes enable them to compete with the other students with enhanced efficiency. All students are not interested in joining the industry and hence don't attend the training. Solutions: There are three categories of mindset among the students - i. To be Industry professionals ii. To pursue Higher Studies iii. To be an entrepreneur.

The first category of students is trained as per the industry requirements through projects. The second category of students is not interested to choose BCT courses and for them training to appear in GATE, CAT and other relevant Competitive examinations are arranged by the mentors. For the third category of students, Entrepreneurship Awareness Programs/ Camps (EAC) are organized.

Resources Required: • Necessity of industry experts. • Requirement of academic resource persons from another renowned institute of higher learning. • Need of more laptops and licensed software. Best Practice-2 Title: Digitization of

Script Evaluation System OBJECTIVES: The institute has been a pioneer in the changing world of the education system. Digitization of the education system is the need of the hour. The institute had fully automated the examination system from the academic year of 2018-2019. Digitization of the answer script

evaluation will speed up the overall process, along with maintaining assessment records safe and easily accessible in the cloud. In addition, it maintains superior confidentiality and transparency of the evaluation process. Result declaration will be possible within the stipulated time with the requirement of lesser man-pour. THE CONTEXT: The traditional paper checking process is

extremely time consuming and involves many logistic activities. The Answer scripts sometimes get misplaced during transportation and are associated with the problem of storing a huge number of answer scripts. The result declaration in this context is a lengthy procedure and less reliable as it involves the threat of transcription error at many stages.. In this context Digitization of

Script, Evaluation System has been adopted. THE PRACTICE From the Academic Year 2018-19, a highly comprehensive digital infrastructure IntelliEXAMS system from MindLogicX has been installed at the institute for digitization of the answer script evaluation and processing of results where the entire data is securely stored on a cloud platform with encryption. The system supports both the pen

and paper-based assessments and online assessments. The system is supported by all the common platforms like Windows, Android and iOS. Some unique features of the system • Ensure no loss of answer scripts with scanning and archival, absolutely no chance of loss of any data • Tampering of answer scripts is not possible as they are encrypted • Answer scripts can be evaluated by the

Examiner / Head Examiner from anywhere and anytime • Outcome-based performance analysis, • Student requests for Scan Copy and Re-evaluation can be quickly addressed by the system. • Examination Results can be tracked by the students on IntelliEXAMS mobile app. Steps followed (i) Answer Sheet Scanning: High-Speed scanners are used to scan the answer sheets. Students' identities like name and roll no are masked in the process. (ii) Scripts Allocation: Definite numbers of scripts are allocated to the examiners from the COE office. (iii)

Digital Correction of Exam Papers: Examiners can securely log in to the system and can evaluate scanned answer sheets. It has both freehand and inbuilt annotations along with space to provide remarks for individual answers. The

system helps to auto calculate the total. The system also takes into consideration the best of the performances of the students for optional answers. During the script evaluation process, if the internet goes off, the data will be stored in the device and synchronized as soon as the net connectivity is restored. Faculty can install the mobile app of on-screen marking system and can evaluate from a mobile. The system gets locked automatically if the evaluator stops the evaluation process for some time. (iv) Result Generation: The automated system compiles internal marks and script evaluation marks and generates mark sheets without any manual intervention. There is a facility to export the result in excel format. It helps to speed up the result generation process. (v) Online Result and printing of Grade Cards: On official publication of the result, the students can view and print their results from their PC / Laptop / Mobile. The Grade Cards / Provisional Certificates are printed at the COE section and distributed to the students. EVIDENCE OF SUCCESS: Distribution of Answer Scripts: Before digitisation, it was a laborious task with the involvement of a huge number of manpower and after digitisation answers, script distribution is done from the COE office on the same day. Internal Marks Entry: Before digitisation hard copy of internal marks was submitted by the faculty members to the COE office and the examination cell members were used to enter the marks to the preparation of mark sheets. After digitisation, the internal marks are directly entered online by respective faculty members from the logins provided to the respective departments from the COE office. Storage of Answer scripts: Before digitisation, the answer scripts were stored for 5 years under strict security whereas after digitisation the answer scripts are securely stored in the cloud in an encrypted manner. Storage of marks and related data: Before digitisation maintenance of hard copy files were needed whereas after digitisation as all the important data are stored in the cloud it saves not only the space but is also an eco-friendly approach of the institute. Student Grievance: A huge reduction in the number of students' grievances (PPR post-publication review applications PPS post-publication scrutiny applications) was observed after digitisation which is depicted by the bar diagram. PROBLEMS ENCOUNTERED RESOURCES REQUIRED: Senior faculties faced some problems adapting to the new method of evaluation. As multiple agencies are involved in the process a strong synchronisation is required for the successful implementation of the process. Master data uploading is a crucial part of the process which must absolutely error-free and in a secured manner. Access to the data is restricted and cannot be accessed without permission. A few other problems encountered are fibre optic failure adobe acrobat version, file permission, dot net compatibility and forgetting of passwords by the students. As the system has no geo barrier and the examiner can access the scripts anytime and from any location internet speed sometimes becomes a challenge for them. Resources required are platforms like Windows, Android and iOS, applications like adobe acrobat dotnet and internet connectivity.

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

<https://www.nit.ac.in/pdf/Best%20Practices%202019-20.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

Novelties through Institution Innovation Council As per the guideline of the Government of India under the slogan 'Make In India', the institute is trying to promote Startup India. Lot of activities are planned under this scheme to promote, motivate and guide not only our students but also the alumni, faculty and the budding entrepreneurs across the society. To achieve this and to

support the budding entrepreneurs the institute has taken initiatives by having tie-ups with local, state and national level industry and government organisations. Some of the major initiatives are the establishment of Institution Innovation Cell (IIC) under MHRD, the Technology Business Incubator by MSME as a host institute. The institute has established a system called Idea-O-Meter where projects are invited from students, faculty, staff and alumni. A team of experts evaluate the projects after going through a series of discussions and then it is funded in-house or through external agencies. Besides this institute has allocated funds to support innovative projects developed by students.

Provide the weblink of the institution

<https://www.nit.ac.in/pdf/Institutional%20Distinctiveness.pdf>

### 8.Future Plans of Actions for Next Academic Year

The institute has the practice to analyse stakeholders' feedback and SWOC. Based on the stakeholders feedback and SWOC analysis and also visitors remarks, at the end of each academic year, the next academic year plans are set. The next years plans are placed to a meeting of statutory committees - IQAC, AC and BOG for review and final approval. Followings are next year plans for the academic year 2020-21.

- During pandemic situations online classes are going on. However to access study material any time and from anywhere, the institute has taken a plan for the preparation of e-resource -(a)development and up gradation of video lecture of all courses(b) Continuation of FTP server for the remote access of e-book and e-journals (c) J Gate database for the benefit of students and faculty.
- Preparation and submission of PG SAR to NBA for the programme M. Tech - CSE, ECE, Structural Engineering (CE), Power System (EE)
- Submission of Pre-Qualifier for UG Programmes B-Tech in CE, CE, EE, IT, CSE, ME
- Submission of IIQA for the NAAC accreditation in the 2nd cycle
- Preparation and submission of NAAC SSR for cycle -2 accreditation
- Submission of application for Autonomy renewal
- Revision of Curriculum and syllabus as regulation 2021 (R21)
- Conduction of online examination
- Enhancement of industry linkage to increase student internship and employability
- internship for all students
- Enhancement of alumni network
- Organizations of seminar /workshop in the multidisciplinary area
- Enhancement of MOUs and collaboration
- Boost up the number of Patents and Ingenious performance
- Upgradation of Faculty
- Enhancement of publication of research paper by faculty, student, and staff in the SCI, WoS, Scopus indexed journal
- Implementation of rules and code of conduct for employees during attending college regarding the pandemic situation
- Cleanness and sanitization of campus
- Preparation of basket of courses for beyond curriculum training and certification of value-added courses
- Increasing of resource person from faculty members
- To bring more Projects, Research, and development activities from different funding agencies.
- To increase the number of students participation and certification through NPTEL local chapter or different online MOOCs.
- To elevate the ranking of the Institution at the National and International levels through NAAC, NIRF, etc
- As a part "Clean campus project" we plan to plant more trees and increase the greenery of the surrounding. This will be done in coordination with the NSS unit and local municipality
- To conduct more awareness programmes on CORONA VIRUS
- Conduction of programme on human value and professional ethics
- Other regular plans are the review of result analysis, attainment of COs, POs, PSOs, conduction of academic and administrative audit