

# **Yearly Status Report - 2018-2019**

Part A			
Data of the Institution			
1. Name of the Institution	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		

2. Institutional Status	
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	Prof. Surajit Bari
Phone no/Alternate Phone no.	913325638888
Mobile no.	9432128450
Registered Email	iqac_nit@jisgroup.org
Alternate Email	surajit.bari@nit.ac.in
3. Website Address	
Web-link of the AQAR: (Previous Academic Year)	https://nit.ac.in/pdf/AQAR2017-2018.pdf
4. Whether Academic Calendar prepared during the year	Yes
if yes,whether it is uploaded in the institutional website: Weblink:	https://nit.ac.in/academic- calendar.php
5. Accrediation Details	<u> </u>

# 5. Accrediation Details

Cycle	Grade	CGPA	Year of	Vali	dity
			Accrediation	Period From	Period To
1	В	2.43	2014	10-Dec-2014	31-Dec-2020

#### 6. Date of Establishment of IQAC 03-Jan-2012

# 7. Internal Quality Assurance System

Quality initiatives by IQAC during the year for promoting quality culture				
Item /Title of the quality initiative by IQAC  Date & Duration Number of participants/ beneficiaries				
One week Staff	20-Jul-2018	100		

Development Programme on Interpersonal and Computational Skills	6		
International Conference on Computational Advancement in Communication Circuit and System(ICCACCS-2018)	23-Nov-2018 2	400	
IQAC Meeting	02-Aug-2018 1	11	
IQAC Meeting	29-Nov-2018 1	11	
IQAC Meeting	30-Apr-2019 1	13	
IQAC Meeting	17-Jun-2019 1	14	
Seminar on IPR	04-Jan-2019 1	100	
One day seminar on Ethics	05-Apr-2019 1	150	
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# 8. Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/Departmen t/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
MHRD-IIC Section of Narula Institute of Technology	MHRD IIC	MHRD	2018 365	0
Incubation and Innovation Cell Narula Institute of Technology	Support for Entrepreneurial and Managerial Development of SMEs through Incubators	MSME	2018 365	0
ECE Dept	Extension of NBA Accreditation for BTech in ECE	NBA , India	2019 1095	0
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	- 11	2012	
	NBA Accreditation for BTech in IT	NBA , India	2019 1095	0
EE Dept.	Extension of NBA Accreditation for M-Tech in Electrical Power System	NBA , India	2018 365	0
CSE Dept.	Extension of NBA Accreditation for M-Tech in CSE	NBA , India	2018 365	0
Dr. Sumit Nandi	Minor Project	UGC	2017 730	400000
Dr. Rupa	Minor Project	UGC	2017 730	300000

9. Whether composition of IQAC as per latest NAAC guidelines:	Yes
Upload latest notification of formation of IQAC	<u>View File</u>
10. Number of IQAC meetings held during the year :	4
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	Yes
Upload the minutes of meeting and action taken report	<u>View File</u>
11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	No

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

• Documentation of the various programmes/activities leading to quality improvement Preparation of AQAR for the institute • To monitor and follow up the academic as well as an activity calendar • Monitoring and assessing the quality of education by preparation of Self Appraisal Report for Academic Audit and Accreditation • Organizing National and International conferences to share the faculty and student research work in front of National and International reputed experts • Documentation of the various programmes/activities leading to quality improvement. • Preparation of AQAR for the institute. • Conveying meeting with the stakeholders. • To monitor and follow up the academic as well as activity calendar • Monitoring and assessing the quality of education by preparation of

Self Appraisal Report of NBA and NAAC. • Organizing National and International conferences to share the faculty and student research work in front of National and International reputed experts. • Preparation of AQAR of NAAC. • Arrangement of training programmes for the faculty members on pedagogy, research and other many aspects.

Establishing a state of art benchmarks for the departments and planning to achieve the same

Insinuation of quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders.

Planning and execution of training for faculty and staff to maintain the quality of education in the institute.

Encourage faculty and staff for high priority research and development activity

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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

# Learner centric approach in curriculum design: Under autonomous framework, every department/Stream/Subjects related to the Undergraduate and postgraduate courses of the Institute have its own Board of Studies (BOS) with Head of the Concerned Department as the Chairman and all the teachers of the Department as members. Two external experts nominated by the Academic Council, one representative from industry/corporate sector, and one University(Vice Chancellor ) nominee are also the members of the BOS. Regular meeting of the BOS is being held .The curriculum of the UG and PG courses have been redefined based on need and feedback of the stakeholders and society. Accordingly, intradepartmental, interdepartmental meeting (in specific cases) has been organized to clarify objective and outcome of the respective courses, followed by meeting of BOS and Academic council. New course curriculum has been prepared keeping into account the existing curriculum of the reputed Institute, outcome of the course concerned and learners need about the

course. A learner centric approach has

Plan of Action

#### Achivements/Outcomes

Due to this modification of syllabus and curriculum, students are taking more interest in learning and attending classes. The attendance of students in the classes have been increased. The parents of the students have also reported improvement in the students during the year. The faculty members are also more enthusiastic on offering deliberations on their own designed curriculum and syllabus.

been introduced in the revised curriculum. Consequently the syllabus of each subject has been prepared looking at the need of the industry and society.	
An outcome centric approach has been adopted and implemented in the designing of syllabus. Each department collects feedback from all stakeholders and places the same in BOS meetings for discussion to develop the syllabus. The proposed syllabus is then reviewed by BOS committee members as per the need of present job market and requirement for higher studies by external academicians and industry experts as per the need of present job market and requirement for higher studies	Both the faculty members and students are taking keen interest in this outcome based syllabus. The result of both odd and even semester 2018-2019 validates the fact.
Development of Online course ware: designed. Lesson plan is also given to the For the improvement of teaching learning, online courseware have been students prior to the commencement of the class to follow interactive teaching learning methodology.	Attendance and interaction in the class has been increased.
Organisation of quality improvement programmes: Numerous quality improvement programmes were organised on teaching learning, outcome based education, research methodology.	Faculty members took keen interest on these programmes. SAR of the departments has been prepared by them for Academic Audit and also for accreditation
Arrangement of Faculty Training: Various faculty and staff training programmes were organised for motivating them towards excellence. Also training programme on specific subject have also been organised for the students.	Most of the faculty member and staff participated in these programmes and they are implementing the knowledge gained in their respective assignments. Students attended in-house and outside training programmes.
To create benchmark for the department: Each department was advised to establish their own benchmark	Each departments has identified a benchmark for the department and they are working on it to meet up the gap.
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14. Whether AQAR was placed before statutory body ?	Yes
Name of Statutory Body	Meeting Date
Board of Governors (BOG)	13-Sep-2019
15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	No

16. Whether institutional data submitted to AISHE:	Yes
Year of Submission	2019
Date of Submission	28-Feb-2019
17. Does the Institution have Management Information System ?	Yes
If yes, give a brief descripiton and a list of modules currently operational (maximum 500 words)	The Institute has Management Information System on Students Attendance entry, Examination System, Lesson Plan preparation, Employee Attendance and Leave Management, Library, Accounts, Employee Appraisal, Purchase and Procurement

# 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	1st Year 2nd Sem	ECE ,EIE , CSE , IT , CE ,ME ,EE	11/12/2018
Mtech	1st Year 2nd Sem	ECE,CSE, Power System , Structural Engineering	11/12/2018
BTech	2nd Year	ECE ,EIE , CSE , IT , CE ,ME ,EE	16/04/2019
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1.1.2 - Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year

Programme with Code	Programme Specialization	Date of Introduction	Course with Code	Date of Introduction
BTech	EE	02/07/2018	Group Discussion Seminar (MC 581) ,Basic innovations, Creativity Aptitude (MC381)	02/07/2018
BTech	EE	01/01/2019	Technical Skill Development (MC481)	01/01/2019
BTech	CE	01/09/2018	Software	01/09/2018

			Training Course	
BTech	ECE	09/07/2018	Workshop on ARM & Embedded System	09/07/2018
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# 1.2 - Academic Flexibility

1.2.1 - New programmes/courses introduced during the Academic year

Programme/Course	Programme Specialization	Dates of Introduction	
BTech	Electrical Engg. Prog. course: Basic innovations, Creativity & Aptitude (MC381) ,Mechatronics (EE 605)	02/07/2018	
BTech	Electronics and Communication Engineering Program : Course - Technical Skill Developement (EC381),Mini- project (EC581)	02/07/2018	
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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	02/07/2018
MCA	MCA	02/07/2018

# 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
Python Programming ( Organized by CSE Dept.)	22/07/2018	40
PHP and MySql (Organized by CSE Dept.)	18/07/2018	40
Android Programming( Organized by CSE Dept.)	22/11/2018	40
Data Analysis and Machine Learning( Organized by CSE Dept.)	04/10/2018	40
Group Discussion Seminar (MC 581)(EE Dept.)	02/07/2018	140
Technical Skill Development (MC481)( EE Dept.)	01/01/2019	140
Electronics and Comm Technical Skill Developement (EC381)(ECE	02/07/2018	120

Dept.)				
ARM and Embedded System(ECE Dept.)	09/07/2018	120		
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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	CSE	130		
BTech	EE	73		
BTech	EIE	5		
MBA	MBA	8		
MCA	MCA	1		
BTech	ECE	17		
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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

All the departments of the Institute have a welldefined feedback system from the Students, Teachers, Employers, Alumni and Parents. Feedback from all the stakeholders are taken through online mode. Feedbacks are taken on curriculum, teaching learning process and also infrastructure development. Institute has good mentoring systems for its students. Students also discuss their academic related issues with their mentors. Mentor also has an active role in the progression of student academic activity. Feedback are taken on course outcomes, programme outcomes and programme specific outcomes, mission and vision of the departments. Feedback are analyzed in the department. And action is taken for the overall improvement of the department and the institute.

#### CRITERION II – TEACHING- LEARNING AND EVALUATION

#### 2.1 – Student Enrolment and Profile

# 2.1.1 - Demand Ratio during the year

	me of the ogramme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
F	BTech	CSE+ECE+IT+EE+C E+EIE+ME	660	577	577
I	Mtech	ECE + Power System (EE)+CSE + Structural Engineering	72	50	50

	(CE)				
MCA	MCA	60	26	26	
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#### 2.2 - Catering to Student Diversity

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

Year	Number of	Number of	Number of	Number of	Number of
	students enrolled	students enrolled	fulltime teachers	fulltime teachers	teachers
	in the institution	in the institution	available in the	available in the	teaching both UG
	(UG)	(PG)	institution	institution	and PG courses
			teaching only UG	teaching only PG	
			courses	courses	
2018	577	76	162	27	189

# 2.3 - Teaching - Learning Process

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

Number of Teachers on Roll	Number of teachers using ICT (LMS, e- Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Numberof smart classrooms	E-resources and techniques used
207	207	4	10	1	3
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2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

Narula Institute of Technology also 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 with their academic and personal problems. Mentors also provide personalized professional or career advice as per the status of the mentees. A group of 5 students of each section of each class are assigned to a faculty member who act as a mentor to ensure constant individual student monitoring of academic and personal progress. The mentors maintain an individual file for each student and keeps constant track of the progress of student. The mentors are also the point of contact between the department and the students' parents/guardian. 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
653	207	1:7

# 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
164	207	0	29	45

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,	Name of the award, fellowship, received from Government or recognized
	State level, Hatiorial level,	Sovernment of recognized

	international level		bodies
2019	Abhipriya Halder	Assistant Professor	Elected Treasurer of ASCE India Section
2018	DIBYENDU SUR	Assistant Professor	Young Scientist, International Space Science Institute (ISSI), Switzerland
2018	Bansari Deb Majumder	Assistant Professor	Best Mentorship Award from Texas Instruments
2018	SUSMITA DAS	Assistant Professor	Best Mentor medal from University of Kualalumpur, Malaysia in "INNOMPICS 2018"
2018	Subhasree Bhattacharjee	Assistant Professor	NPTEL Mentorship Award
2019	Dr. Anilesh Dey	Associate Professor	NPTEL EliTe Certificate
2018	Surajit Bari	Assistant Professor	NPTEL Mentor and Elite certificate top 5
2018	Dr. saradindu Panda	Associate Professor	Treasurer , IEEE CAS Kolkata Section
2018	Dr. saradindu Panda	Associate Professor	Member , Academic Audit Committee, JIS Group
2019	Dr. saradindu Panda	Associate Professor	Member, Academic Audit Committee, JIS Group
2018	Surajit Bari	Assistant Professor	Member, Academic Audit Committee, JIS Group
2019	Surajit Bari	Assistant Professor	Member, Academic Audit Committee, JIS Group
2019	Dr. Anilesh Dey	Associate Professor	Member, Academic Audit Committee, JIS Group
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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 semesterend/ year- end examination
BTech	ECE,CSE,EIE,IT, ME,CE,EE	Odd Sem ,2018	22/12/2018	25/03/2019

Mtech	ECE , Power System , CSE, Structural Engineering	Odd Sem 2018	21/12/2018	25/03/2019
MCA	MCA	Odd Sem 2018	22/12/2018	25/03/2019
MBA	MBA	Odd Sem 2018	20/12/2018	25/03/2019
BTech	ECE,CSE,EIE,IT, ME,CE,EE	Even Sem 2019	20/06/2019	01/07/2019
Mtech	ECE , Power System , CSE, Structural Engineering	Even Sem 2019	20/06/2019	15/07/2019
MCA	MCA	Even Sem 2019	20/06/2019	15/07/2019
MBA	MBA	Even Sem 2019	07/06/2019	15/07/2019
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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
0	2802	0

#### 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://nit.ac.in/

# 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
UG	BTech	ECE, CSE, EIE, IT, ME, CE, EE	658	650	98.78
PG	Mtech	ECE , Power System , CSE ,Structural Engineering	52	52	100
PG	MCA	MCA	19	19	100
PG	MBA	MBA	6	5	83.3
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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://nit.ac.in/

# 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

Award to Teachers and Students for research publications by JIS Group

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

Туре	Name of the teacher awarded the fellowship	Name of the award	Date of award	Awarding agency	
International	DIBYENDU SUR	Young Scientist	21/08/2018	International Space Science Institute (ISSI), Switzerland	
International	Mr. Puspak Pain	Best Paper	24/11/2018	ICCACCS2018 , Narula Institute of Technology	
International	Mr. Paranab Hazra	Best Paper	24/11/2018	ICCACCS2018 , Narula Institute of Technology	
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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(BSHU)	7	0
Major Projects	1095	AICTE(CE)	6.97	6.97
Major Projects	730	DST(CE)	15	15
Minor Projects	270	AICTE(CE)	3.4	3.4
Major Projects	1095	AICTE(CSE)	12.53	0
Interdisciplina ry Projects	1825	DSTFIST	45	22.5
Industry sponsored Projects	730	Edugreen Pvt. Ltd(EE)	2	1
Minor Projects	730	UGC(MBA)	2.9	0
Major Projects	730	MODROBS(AICTE)( ECE)	9	9
Major Projects	730	RPS(AICTE)(ECE)	15	15

Minor Projects	730	UGC (ECE)	3.1	3.1
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3.2.2 – Number of ongoing research projects per teacher funded by government and non-government agencies during the years

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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

Name of the Dept.	Date
EE	28/03/2019
IT	18/08/2018
IT	07/12/2018
IT	04/03/2019
MCA	28/09/2018
МЕ	25/04/2019
ECE	03/05/2019
ECE	22/02/2019
ECE	28/11/2018
ECE	18/10/2018
ECE	05/04/2019
	IT IT IT  MCA ME  ECE  ECE

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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
Solar Mobile Charger	Ronojit Bose, Aritra Das, Ranajoy	Carbon Zero Challenge organized by	18/10/2018	Renewable Energy Sources

	Banerjee, Deeptenshu Roy(EE Dept.)	GOI in IIT Madras		
Mind controlled BOT	Supravat Roy, Avipsa Basak, Sayantan Ray, Swati Nayna(EIE Dept.)	Pailan College, Management and Technology	27/04/2019	International
IOT operated heart beat monitoring system	Atmadip Dey, Arka Majumder, Raktim Pratihar(EIE Dept.)	MAKAUT,WB	28/02/2019	International
Smart Vehicle Testing System suing Alcohol sensor	Raktima Dutta, Anuron Mullick, Bikram Ray, Debmalya Sadhukhan(EIE Dept.)	Adamas University	28/02/2019	International
Low Cost gesture control wheel chair	Sambhu Nath Surai	Razabazar Science College , Calcutta University	05/10/2018	1st Prize ,Project Competition
Low Cost gesture control wheel chair	Sambhu Nath Surai	DISTRICT STUDENTYOUTH SCIENCE FAIR 2018	13/09/2018	1st Prize ,Project Competition
Low Cost gesture control wheel chair	Sambhu Nath Surai,Arnab Nag	BIRLA INDUSTRIAL AND TECHNOLOGY MUSEUM	12/01/2019	Special Prize ,Project Competition
Low Cost gesture control wheel chair	Sambhu Nath Surai	INDIAN INSTITUTE OF SOCIAL WELFARE AND BUSINESS MANAGEMENT	30/04/2019	1st Prize ,Project Competition
Low Cost gesture control wheel chair	Sambhu Nath Surai,Arnab Nag	HERITAGE INSTITUTE OF TECHNOLOGY	01/04/2019	1st Prize , Project Competition
Low Cost gesture control wheel chair	Sambhu Nath Surai,Arnab Nag	IIT Banaras Hindu University	10/03/2019	2nd Prize , Innovation challenge IOMATIC - National level competition
Low Cost gesture control wheel chair	Sambhu Nath Surai,Arnab Nag	KIIT UNIVERSITY	17/02/2019	2nd Position ,Innovation Challenge- National level competition
Low Cost gesture control wheel chair	Sambhu Nath Surai,Arnab Nag	Future Institute Of Technology	22/03/2019	1st position , Innovation Challenge

Low Cost gesture control wheel chair	Sambhu Nath Surai,Arnab Nag	Narula Institute Of Technology	04/03/2019	Position secured 1st,Kritanj Project Exhibition			
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3.3.3 - No. of Incubation centre created, start-ups incubated on campus during the year

_	ubation enter	Name	Sponsered By	Name of the Start-up	Nature of Start- up	Date of Commencement		
Incu	ovation and abation Cell	Sambhunath Surai	JIS Group	Low Cost Gesture Control Wheel Chair	Societal For Disable Person	12/04/2018		
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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		
ECE	1		

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

Туре	Department	Number of Publication	Average Impact Factor (if any)			
International	CE	3	2.44			
International	CSE	3	2.83			
International	EIE	7	2.6			
International	IT	2	1.37			
International	ME	4	1.6			
International	BSHU	13	1.0			
International	ECE	20	1.2			
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# 3.4.3 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication	
CE	1	
CSE	13	
EE	18	
EIE	45	
MCA	6	
BSHU	27	
ECE	5	
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# 3.4.4 - Patents published/awarded during the year

Patent Details	Patent status	Patent Number	Date of Award

Fabrication of ECG Acquisition and IoT Based Real Time ECG Monitoring System(EE Dept.)	Published	2018310418	16/11/2018			
Fabrication of ECG Acquisition and IoT Based Real Time ECG Monitoring System(ECE Dept.)	Published	2018310418	16/11/2018			
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3.4.5 – Bibliometrics of the publications during the last academic year based on average citation index in Scopus/Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
Intention aware misb ehavior detection for postdi saster opp ortunistic communicat ion over peertopeer DTN	Chandrima Chakrabart i	Peer to Peer Networking and Applic ations Springer	2018	4	Narula Institute of Technology and Heritage Institute of Technology	1
A BFS Based Pruning Algorithm for Diseas eSymptom Knowledge Graph Database	Safikuresh i Mondal	Informatio n and Comm unication Technology for Intell igent Systems	2019	2	Narula Institute of Technology and Jadavpur University	0
Recent Advances in Multifu nctional Sensing Technology on a Persp ective of MultiSenso r System: A Review	Bansari Deb Majumder	IEEE Sensor Journal	2018	1	Narula Institute of Technology	1
Study of MRR for EN47 Spring Steel in WEDM	Bikash Panja	Materials Today: Pro ceedings,	2018	5	Narula Institute of Technology	1

	1					
Biodiesel from Karanja (Pongamia Pinnata L.) oil using non specific enzyme Candiada Antarctica	Sumit Nandi, Rupa Bhatt acharyya	Chemical Science Review and Letters	2018	3	Narula Institute of Technology	0
Mathematic al modeling for the prevention of methanol poisoning through ethanol by impulsive way	Sumit Nandi	Differenti al Equations and Dynamical Systems (Springer)	2018	0	Narula Institute of Technology	0
Efficacy analysis of Candida antarctica and Rhizomucor miehei regarding biodiesel production from biore sources	Sumit Nandi, Rupa Bhatt acharyya	Indian Journal of Natural Sciences	2019	3	Narula Institute of Technology	0
Functional Foods from Soybean Oil Deodorizer Distillate using Candida Rugosa and Candida Antarctica lipases	Sumit Nandi	Chemical Science Tr ansaction	2019	0	Narula Institute of Technology	0
Process op timization and kinetics of biodiesel production from renewable	Sumit Nandi, Rupa Bhatt acharyya	Saudi Journal of Engineerin g and Technology	2019	3	Narula Institute of Technology	0

raw materials						
Different Forms of Triangular Neutrosoph ic Numbers, D eNeutrosop hication T echniques, and their Applicatio	Avishek Ch akraborty	Symmetry	2018	1	Narula Institute of Technology	4
Mathematic al model for diabetes in fuzzy e nvironment and stability analysis	Avishek Ch akraborty	Journal of of intelli gent and Fuzzy System	2019	1	Narula Institute of Technology	1
The Pentagonal Fuzzy Number: Its Different Representa tions, Pro perties, Ranking, D efuzzifica tion and A pplication in Game Problem	Avishek Ch akraborty	Symmetry	2019	1	Narula Institute of Technology	1
A comprehe nsive study of a backloggin g EOQ model with nonlinear heptagonal dense fuzzy environment	Avishek Ch akraborty	Symmetry	2018	1	Narula Institute of Technology	0
Applying Encryption Algorithm on Text St eganograph y Based On Number	Avishek Ch akraborty	Springer Nsature	2019	1	Narula Institute of Technology	0

System						
Disjunctiv e Represen tation of Triangular Bipolar Ne utrosophic Numbers, D eBipolariz ation Technique and Applic ation in M ultiCriter ia Decisio nMaking Problems	Avishek Ch akraborty	Symmetry	2019	1	Narula Institute of Technology	0
Necessity of Social Whistle Blowing To Abandon The Curse of Caste D iscriminat ion in India	Rajasi Ray, Sarmistha Basu	Internatio nal Journal Of Resarch And Analytical Reviews	2019	0	Narula Institute of Technology	0
Performanc e Evaluation of digital comparator using different logic styles	Dr. Saradindu Panda	IETE journal of research	2018	4	Narula Institute of Technology	2
Towards modular binary to gray converter design using LTEx module of quantumdot cellular automata	Dr. Saradindu Panda	Internatio nal Journal of Microsyste m Technolo gies	2018	4	Narula Institute of Technology	2
Generic parity generators design using LTEx methodolog y: A quantumdot cellular	Dr. Saradindu Panda	Nano Dimension (Thomson Reuters Research Id indexed Journal.)	2018	4	Narula Institute of Technology	0

automata based approach						
Developmen t of a Wireless I ntravenous Drip Rate Monitoring Device	Dr. Anilesh Dey	Internatio nal Journal of Sensor Net works, Inde rscience	2019	3	Narula Institute of Technology	0
III-V supe rlattice SPST/SPMT pin switches for THz communication: theoretical reliability and experiment al feasibility studies	Prof. Maitreyi Ray Kanjilal	Microsyste m Technolo gies Micro and Nanosy stems Info rmation Storage and Processing Systems, Springer	2018	3	Narula Institute of Technology	2
Design and characteri zation of asymetrica l superlat tice Si/4HSiC pin photo diode array: a potential optosensor for future applicatio ns in biomedical domain	Prof. Maitreyi Ray Kanjilal	Microsyste m Technolo gies, Springer	2018	3	Narula Institute of Technology	3
ZnS Quantum Dots Based VoltageSen sing Light Emitting Device	Prof. Maitreyi Ray Kanjilal	IEEE sensors letters	2018	3	Narula Institute of Technology	0
Novel True Random Number Generator Based Hardware C ryptograph ic Archite	Puspak Paine	Internatio nal Journal of Theoretica 1 Physics	2019	1	Narula Institute of Technology	1

cture Using QuantumDot Cellular Automata						
Low power and high speed design issues of CMOS Hamming code generation and error detection circuit at 22 nm and 16 nm channel length of MOS transistor	Surajit Bari	Microsyste m Technolo gies, Springer	2018	2	Narula Institute of Technology	0
WLMSbased Transmissi on Refined SelfAdjust ed No Reference Weather In dependent Image Visibility Improvemen t	Sangita Roy	IETE JOURNAL OF RESEARCH	2019	3	Narula Institute of Technology	0
Low Complexity Single Color Image Dehazing Technique	Sangita Roy	Intelligen t Multidim ensional Data and Image Processing	2018	3	Narula Institute of Technology	0
Optimal choice of kmer in co mposition vector method for genome sequence comparison	Subhram Das	Genomics , Springer	2018	3	Narula Institute of Technology and Jadavpur University	5
Four Directional DetectionBased Gaussian Noise	Shubhendu Banerjee	LNCS,Sprin ger	2019	0	Narula Institute of Technology	0

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

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
Study of MRR for EN47 Spring Steel in WEDM	S. Banerjee, B. Panja and S. Mitra	Materials Today: Pro ceedings,	2018	5	1	Narula Institute of Technology
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# 3.4.7 - Faculty participation in Seminars/Conferences and Symposia during the year

Number of Faculty	International	National	State	Local
Attended/Semina rs/Workshops	34	53	4	10
Presented papers	30	42	1	1
Resource persons	9	3	1	7

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# 3.5 - Consultancy

# 3.5.1 – Revenue generated from Consultancy during the year

Name of the Consultan(s) department	Name of consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)		
Civil Enginering	ISGPPII	Govt. of West Bengal, PNRD	9300000		
Electrical Engineering	Design of 100 kW Solar Power Plant	Edugreen Pvt. Ltd.	200000		
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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		
Civil Engineering Dept.	ISGPPII	Govt. of West Bengal, PNRD	9300000	200		
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#### 3.6 - Extension Activities

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

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such	Number of students participated in such
		activities	activities

AANKI BUKI with underprivileged Street children on 10th of August, 2018	NSS UNIT Narula Institute of Technology with FEED	7	65
Kerela flood relief fund collection.	NSS UNIT Narula Institute of Technology	4	600
Visited NGO at Hatibagan for normal and physically or mentally challenged children	NSS UNIT Narula Institute of Technology with SANGBEDAN	7	50
Health and Eye Awareness Camp with Free checkup.	NSS UNIT Narula Institute of Technology withNarayana Hridayalaya Hospital and Currae Hospital	5	70
Visited orphangeage	NSS UNIT Narula Institute of Technology with orphanage named Gobind Kumar Home (shelter home for girls) in Panihati, Sodepur	3	55
Visit to a slum area and club Satyameva Jayate on April 30, 2019	NSS UNIT Narula Institute of Technology with club Satyameva Jayate	4	30
Blood Donation Camp	NSS team of Narula Institute of Technology in collaboration with NRS MCH blood bank	8	125
Spread the Warmth of Love, Clothes distribution	NSS team of Narula Institute of Technology	8	400
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3.6.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited		
Ecofriendly shoping facility	RS. 1000.00	NITTR	3		
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3.6.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agen cy/collaborating agency	Name of the activity	Number of teachers participated in such activites	Number of students participated in such activites
Swachh Bharat Abhiyan	NSS UNIT Narula Institute of Technology	Swachh Bharat Abhiyan and lab cleaning program	8	200
Social Awareness	NSS team of Narula Institute of Technology	Street Play by Students for social awareness on Aids	4	25
Social Awareness	NSS team of Narula Institute of Technology	Street Play by Students for social awareness on Gender Issue	3	35
Program of Human organ donation	NSS team of Narula Institute of Technology	Awarness program of Human organ donation	8	15
Project exhibition	NSS team of Narula Institute of Technology	Project exhibition on waste material and its recycling aspects.	5	120
Tribute	NSS team of Narula Institute of Technology	Candle and Silent March for the Pulwama Martyrs Tribute.	8	250
Tribute	NSS team of Narula Institute of Technology	NiTians takes out candlelight march for Sri Lanka terror victims.	6	150
Cleaning	NSS team of Narula Institute of Technology	Cleaning of Ganga Ghat at Dhakhineswar	4	20
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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	port Duration		
Research	05	NIT , Durgapur	4		
No file uploaded.					

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	Name of the	Duration From	Duration To	Participant	I
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	linkage	partnering institution/ industry /research lab with contact details			
Sharing of Research Facilities	Virtual Laboratory	IIT Kharagpur URL: http:// vlabs.iitkgp .ernet.in	16/08/2018	30/11/2019	UG Students
Summer Training	Training	MSME	02/07/2018	31/12/2019	UG Students
Summer and winter training	Training	Jadavpur University	02/07/2018	31/12/2019	UG Students
Summer and Industrial Training	Training	BSNL	02/07/2018	31/12/2019	UG Students
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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		
TETMAX Technologies	03/01/2019	Student Training	112		
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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
1664.94	1564.83

4.1.2 - Details of augmentation in infrastructure facilities during the year

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

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

Name of the ILMS software	Nature of automation (fully or patially)	Version	Year of automation
LIBMAN	Partially	NA	2008

# 4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	5031	1671982	1024	409600	6055	2081582
Reference Books	379	301200	105	102200	484	403400
e-Books	800	353319	0	0	800	353319
e-Journals	276	475728	0	0	276	475728
Others(spe cify)	16	1200	0	0	16	1200
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4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e- content		
All the Full Time Teachers	Semester Courses	Online CourseWare (OCW)	02/07/2018		
All the Full Time Teachers	Semester Courses	Online CourseWare (OCW)	02/01/2019		
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# 4.3 - IT Infrastructure

# 4.3.1 – Technology Upgradation (overall)

Туре	Total Co mputers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departme nts	Available Bandwidt h (MBPS/ GBPS)	Others
Existin g	815	15	0	1	1	50	350	77	0
Added	125	0	0	0	0	0	0	25	0
Total	940	15	0	1	1	50	350	102	0

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

102 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	
Online Course Ware (OCW)	https://nit.ac.in/	

#### 4.4 - Maintenance of Campus Infrastructure

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

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurredon maintenance of physical facilites
440.7	425.6	1224.87	1139.27

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)

Available in the Institute website

https://nit.ac.in/

# **CRITERION V – STUDENT SUPPORT AND PROGRESSION**

# 5.1 - Student Support

institution during the year

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees		
No Data Entered/Not Applicable !!!					
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5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implemetation	Number of students enrolled	Agencies involved		
Bridge Courses	11/02/2019	35	Tetmax Technologies		
Yoga	21/06/2019	100	NSS TEAM Narula Institute of Technology		
Creative Writing Competition	08/03/2019	41	Women Cell, Narula Institute of Technology		
One day seminar on Interview Skills and High performance work practices	06/03/2019	200	Narula Institute of Technology		
Interactive session on "Entrepreneurial Session for budding Entrepreneurs	07/03/2019	200	EDC Cell , Narula Institute of Technology		
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5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passedin the comp. exam	Number of studentsp placed
2019	GATE Coaching Class , Soft	128	751	128	571

Group discussion		
training class,		
and Technical		
, Aptitude		
Skill Developement		

5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

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

# 5.2 - Student Progression

5.2.1 – Details of campus placement during the year

	On campus			Off campus		
Nameof organizations visited	Number of Number of students placed participated		Nameof organizations visited	Number of students participated	Number of stduents placed	
116	751	550	5	185	21	
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5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Depratment graduated from	Name of institution joined	Name of programme admitted to
2019	14	BTech	CSE	JU , IIEST , IIT (KGP)	ME, MTECH
2018	7	BTech	EE	Jadavpur University, Calcutta University, FAU Erlangen Nurnberg, Germany	ME, M-Tech , MS
2018	4	BTech	ECE	JU ,CU	ME , M-Tech
2019	5	BTech	ECE	JU , CU , Narula Institute of Technology	ME, 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	29

GMAT	2	
CAT	6	
GRE	6	
Civil Services	2	
Any Other	83	
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5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants		
Freshers Welcome(31/08/18)	Institute	450		
Bijaya sammelani celebration(15/11/18)	Institute	60		
Diwali celebration(2/11/18)	Institute	70		
Inter School winter Carnival(29/01/19)	Institute	400		
Cultural Fest(14/03/19 to 15/03/19)	Institute	700		
Rabindra Jayanti Celebration(9/5/19)	Institute	50		
Sports	State	5		
Sports	Institute	200		
Quiz Competitions	Institute	150		
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# 5.3 – Student Participation and Activities

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

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2018	Theatre Group Sparsh stood 3rd position in the cultural fest of Calcutta Medical College	National	0	1	NIT2016081 4	Rajdeep Ch akrabarty and Group
2019	Theatre Group "Sparsh" stood 2nd position in Carpe D	Internatio nal	0	1	NIT2016081 4	Rajdeep Ch akrabarty and Group

iem(Intern					
ational					
cultural					
Fest by					
IIM Joka)					
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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)

To explore Students curricular, cocurricular and extracurricular activities different student club has been formed. The students of Narula Institute of Technology actively participate in curricular, cocurricular and extracurricular activities. They are also encouraged to participate in administrative activities. Students from different departments participate as committee members/ volunteers in the event like Conferences, seminars, NSS activities, sports, cultural, technical festivals, 1styear induction program, Students Farewell program e.t.c. Moreover, different student clubs are very much active to organise curricular, cocurricular and extracurricular activities.

#### 5.4 - Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

5.4.2 – No. of registered Alumni:

1203

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

(

#### 5.4.4 - Meetings/activities organized by Alumni Association:

Following activities are carried out by Alumni Association of Narula Institute of Technology 1) AGM (yearly) 2) Alumni Meet 3) Friendship Football Match (Alumni vs Current Students) 4) Friendship Cricket Match (Alumni vs Current Students) 5) Exhibition and Seminar by an eminent personality 6) Frequent meet through different formal meetings 7) Arrangement of Technical lectures/seminars by are delivered by Alumni for.

#### 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)

Practice 1: Each department of the Institute has a Departmental Academic Committee (DAC). All academic and administrative works are governed by the DAC. There are many departmental subcommittee where a group of faculty members and technical staff members work together and carry out their responsibilities. Each of the committees has a convenor/coordinator. Convenor/coordinator is looking after the functionalities of the committee. Following are some example of departmental committees. Accreditation and MOU, NPTEL MOOCS, Admission Cell, DAC and BOS, Time Table R D Cell, Examination and result analysis, Mentoring Cell, Departmental Budget, Industry Institute Interaction Cell, Training and Placement Cell, Laboratory Development Cell, NSS and Social Service, Feedback monitoring cell e.t.c. Faculty members are involved in a small group in different departmental committee and work for the progression of

the department and its students Practice 2: Moreover the Institute has two different types of committees (a) Statutory Committee (b) Non Statutory Committee . Followings are under Statutory committee : BOG , ACADEMIC COUNCIL ,BOS ,FINANCE COMMITTEE Followings are the Non Statutory committee of the Institute Examination Committee, Internal Complaint Committee , Grievance Redressal Committee ,Anti - Ragging Committee ,Research, Development Consultancy Committee ,Literary Committee ,Library Committee ,Hostel Canteen Committee Cultural Committee , Women Cell , Time Table Committee , Academic Committee ,Alumni Association Disciplinary Committee ,Sports Committee ,Entrepreneurship Development Cell ,Industry Institute Partnership Cell ,Training Placement Committee, Innovation Incubation Committee Board Of Examination Committee , Energy Conservation Committee, Internal Quality Assurance Cell ,Nss Committee ,Admission Committee ,Purchase Committee ,Planning Evaluation Committee Each of the committees is constituted with Faculty / Staff Members form the different department of the Institute. Each of the members are involved to work together for the development of the Institute

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

**Partial** 

#### 6.2 - Strategy Development and Deployment

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

Strategy Type	Details
Research and Development	All the faculty of the institute are involved for research and development work . Faculties are encouraged to participate and present paper in conferences . Faculty members are encouraged to published papers in SCI journals . Under the guidance of faculty members students are also publishing papers in conferences and journals . 1. Staff members are motivated to take up UGC Research Projects (Major and Minor), AICTE RPS, DST, DAE and publish research articles, apply for patent.
Library, ICT and Physical Infrastructure / Instrumentation	Library is well equipped with text and references books . Students avail the references and text book . Spacious reading room facilities are attached with library . Students need to follow the defined library rules to access library . Library is equipped with various types of hard copy and e books. There is also 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

	most economical and effective way. Each department has departmental library and well equipped laboratories .Laboratories are well maintained . The campus is Wi Fi connected .
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 programmesAdministration 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 industry for internship . Students are also sent to foreign University for special educational tour. Faculty members and students visit industry to know about updated status of technical development. Industry personnel are also invited to deliver 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 admittedin 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 examination conducted by affiliating University , MAKAUT, WB
C	Curriculum Development	Curriculum of each of the programme 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 courses 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
Exa	amination 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 . For 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 students

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

E-governace 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 data base 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 dode through ERP.
Finance and Accounts	All types of financial transaction are made trough ERP
Student Admission and Support	The Institute has a system to maintain a database of all admitted Students
Examination	Examination form fill up, dowing of admit card ,submission of internal marks ,printing of semester question paper , the evaluation of answer 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
2018	Surajit Bari	WOSA , NBA	Travelling , Lodging , Boarding and Registration Cost to attain WOSA , NBA	15000
2018	Dr. Saradindu Panda	WOSA, NBA	Travelling , Lodging , Boarding and Registration Cost to attain WOSA , NBA	15000
2018	Dr. Sandip Chanda	WOSA , NBA	Travelling , Lodging , Boarding and Registration Cost to attain WOSA , NBA	15000
2018	Dr. Kunal Das	WOSA, NBA	Travelling , Lodging , Boarding and Registration Cost to attain WOSA , NBA	15000
2018	Kaushik Sarkar	Olympic in Inno vation(Innompic	Air fare to participate in	99012

		Malaysia	
	s) in Malaysia	Innompics in	

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

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2019	Inaugurati on of JIS Bosch Rexroth Centre of Excellence at NiT	nauguratio n of JIS Bosch Rexroth Centre of Excellence at NiT	11/03/2019	11/03/2019	50	30
2019	Embedded System and Applicatio n of Solar Energy	Embedded System and Applicatio n of Solar Energy	25/02/2019	06/03/2019	20	10
2019	Some Aspects of CMOS and VLSI Circuit Design	Some Aspects of CMOS and VLSI Circuit Design	22/02/2019	22/02/2019	22	9
2018	A Training cum awareness program for Science Direct and Scopus	A Training cum awareness program for Science Direct and Scopus	16/11/2018	16/11/2018	50	15
2018	Stratosphe re Communi cation	Stratosphe re Communi cation	12/10/2018	12/10/2018	21	9
2018	One Week Faculty De velopment Programme On Higher Education Faculty Career Ori entation and Advanc ement (CEGR Certified	Not Applicable	18/06/2018	22/06/2018	104	0

Faculty)				
	No	file upload	ded.	

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
Commentary on IS 456 2000	1	24/06/2019	28/06/2019	5
Workshop on Outcome Based Learning at GNIT	20	19/07/2018	21/07/2018	3
Training on Analyst Application Security by Nasscom at GNIT	1	13/07/2018	19/07/2018	7

NO IIIe upicaded

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

Teac	hing	Non-te	aching
Permanent	Full Time	Permanent	Full Time
29	0	2	0

#### 6.3.5 - Welfare schemes for

Teaching	Non-teaching	Students
Leave (CL , EL , SL , OD ) ,Maternity Leave , Leave for PhD work , PF,Transportation Facilities ,Library	ESI , PF, Leave (CL , EL , SL , OD ) , Maternity Leave , Transportation Facilities , Library	Sports , scholarship , canteen , transportation , games

# 6.4 - Financial Management and Resource Mobilization

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

Yes Internal and external financial audit is done .

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			
JIS Group	1584300	ICCACCS 2018 Picnic Navodaya Kritanj			
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6.4.3 – Total corpus fund generated

7500000

# 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 CU, JU , IIEST	Yes	Academic Audit Committee, JIS Group
Administrative	Yes	Bandyopadhyay and Accociates	Yes	JIS Group

#### 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. • Each 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 work shop and handson the session are conducted for the skill development of technical staff in hardware and software tools • Workshops are conducted for the develope 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 ) have been accreditated by NBA • Accreditation status of four UG programme ( ECE , EE , CE , IT ) has been extended for more 3 years by NBA

#### 6.5.5 - Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b)Participation in NIRF	Yes
c)ISO certification	
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
2018	Upgradation of model curriculum syllabus for UG ana PG based on AICTE guide line	04/04/2018	02/07/2018	29/06/2019	3000
2019	Online	01/06/2019	01/06/2019	30/06/2019	3000

	evaution				
2018	One week Staff Development Programme on Interpersona l and Comput ational Skills	20/07/2018	20/07/2018	26/07/2018	100
2018	Internationa l Conference on Computati onal Advancement in Communica tion Circuit and System(I CCACCS2018)	23/11/2018	23/11/2018	24/11/2018	400
2018	IQAC Meeting	02/08/2018	02/08/2018	02/08/2018	11
2018	IQAC Meeting	29/11/2018	29/11/2018	29/11/2018	11
2019	IQAC Meeting	30/04/2019	30/04/2019	30/04/2019	13
2019	IQAC Meeting	17/06/2019	17/06/2019	17/06/2019	14
2019	Seminar on IPR	04/01/2019	04/01/2019	04/01/2019	100
2019	One day seminar on Ethics	05/04/2019	05/04/2019	05/04/2019	150
		No file	uploaded.		

# 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 F	Participants
			Female	Male
Street Drama Girls Dont Cry	28/12/2018	28/12/2018	8	4

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

1. Regular campaigning through road shows, posters, graffiti by students in and outside the campus to improve awareness about tree plantation, etc. among the students and local community people. 2. During the technical festival of the institution several models and posters have been prepared by the students to increase awareness on several environmental issues. Tree plantation is also done by the Principal to increase awareness on the issue. 3. Two separate wastage bins are maintained for biodegradable (green colour bin) materials and non biodegradable (yellow colour bin) materials respectively. 4. Maintenance of garden, playground, auditorium, gymnasium, sports room. 5. Adherence to the EWaste (Management and Handling) rules, 2011, as laid down by Ministry of

Environment and Forests. waste materials are disposed of in collaboration with Ramky EWaste Recycling facility 6. Awareness program has been initiated to make the Institute plasticfree zone 7. Students are motivated to work and implement systems for renewable energy.

# 7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	10
Provision for lift	Yes	10
Ramp/Rails	Yes	20
Rest Rooms	Yes	20

#### 7.1.4 - Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2019	1	1	09/05/201 9	1	Cloth Dis tribution by (CSE)	Less fortunate	120
2019	1	1	08/05/201 9	1	Teachings Learning materials (TLMs) prepared by their own in NSS classes to the children for easier better learning. Sangbedan (ECE)	upbringin g of mentally challenge d children	120
2019	1	1	08/05/201 9	1	Blood Donation Camp	Social Work by NSS unit	250
2018	1	1	22/12/201 8	1	Spread the Warmth of Love by NSS Unit	underpriv ileged children	400
2018	1	1	28/12/201 8	1	Girls Dont Cry Mohishasu r O Mardini	hild marriage, female fo eticide, child	12

						abuse, co rruption, molestati on and many other social stigmas	
2018	1	1	30/11/201	1	of Techno logy has organised	Pressure, ECG,Weigh t,Doctor Consultat	200
2018	1	1	02/11/201	1	Distribut ing sweets crackers to the inmates by NSS unit	visiting two Old Age Homes	50
2018	1	1	01/11/201	1	Swachh Bharat Abhiyaan	little towards making their country a little more cleaner	200
2018	1	1	16/08/201 8	1 uploaded.	Ramkrishn a Old age Home	o make the residents feel special and indep endent	50

# 7.1.5 – Human Values and Professional Ethics

Title	Date of publication	Follow up(max 100 words)
Online Appraisal System	22/05/2019	The online appraisal

for Teaching Staff		system for teaching staff has been implemented from the academic session 2018 to 19 instead of submitting hard copies for more transparency. All eligible teaching faculty members have submitted their all related academic information for Academic Performance Index(API) in the online system. The system is more transparent.
Hands on training for online Semster Script Evaluation	29/11/2018	Online evaluation of semester answer script has been started from the odd semester 2018. Hands on training program has been organized by Controller of Examinations (COE) section for all the Faculty Members to explain the steps of online evaluation.
Revised Leave rules for Employee	30/06/2018	Revised leave rules for the employee has been published. The leave rule is effective from 1st July 2018.
Circular: Submission of Research Report to R and D Cell	04/07/2018	One circular has been communicated to the employee ( Pursuing Ph.D. work /Research work ) to submit a comprehensive research report for each academic year. To avail official on duty leave for attending /presenting a paper in conference and seminar and also to avail the other research facilities , the submission of the research report is essential.
Student Discipine	14/09/2018	Students are notified to enter the college premises with proper uniform, Identity card through college main entrance, also not to sit in the bank of Pond.
Updating of Online	18/09/2018	It has been circulated to

Student Attendance		update student attendance in online portal within 24 hours of the commencement of concern class.
Change of College Timing during Odd Sem Examination 2018	07/12/2018	It has been notified to all concerns regarding the change of college timing during odd sem examination 2018.
Affidavits: Anti Ragging Measures	13/12/2018	As per the directives of Honarable Supreme Court and antiragging related guidelines suggested by AICTE, Affidavits must be submitted by every student and parent/guardian separately as an antiragging measure.Another affidavit must also be submitted from student and parent /guardian for hostel accommodation.
Timely Submission of Semester Fees by Student	05/12/2018	All the students are hereby informed to submit their semester fees to avoid fines for late submission excepting special consideration.
Class Conduction in time	11/02/2019	This is to advise to all Faculty and technical staff members to conduct their classes in time. In case of his/her absence,     it is their responsibility to adjust allotted classes (in extreme emergency respective HOD would adjust the class). All HODs are requested to ensure that all classes are being conducted as per the schedule and they are also requested to observe across the corridor to ask the roaming students to attend their scheduled class.
Prohibition of Holi Celebration in side the College Campus	19/03/2019	This is to inform all the Faculy, staff members and students of NARULA INSTITUTE OF TECHNOLOGY

		that Holi celebration is strictly prohibited within the college campus.
Shutting Down Power regarding Cyclone Strom Fani	03/05/2019	As directed, you are requested to shut down and switch off all the power outlets, laptops, computers, machine A.C, fans, windows of your respective departments/labs before leaving the college premises today(3.05.2019).

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

Activity	Duration From	Duration To	Number of participants			
1st Year Induction Program Swagatam 2K18	30/07/2018	17/08/2018	577			
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#### 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 bio degradable (green colour bin) materials and non bio degradable (yellow colour bin) materials respectively. 2. Maintenance of garden, playground, auditorium, gymnasium, sports room. 3. Adherence to the EWaste (Management and Handling) Rules, 2011, as laid down by the Ministry of Environment and Forests. EWaste materials are disposed of in collaboration with Ramky EWaste Recycling facility 4. Awareness program has been initiated to make the Institute plasticfree zone 5. Students are motivated to work and implement systems on renewable energy.

# 7.2 – Best Practices

# 7.2.1 - Describe at least two institutional best practices

•Outcome based syllabus •Interactive teaching learning methodology The details of the best practices are available in the following link

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

https://nit.ac.in/pdf/Best Practices Teaching and Leraning Narula%20Institute%2

Oof%20Technology.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

Narula Institute of Technology beholds its uniqueness in teachinglearning methodology and a continuous emphasis on the all round development of the students. This was visualized to increase the interest of the students towards the subject and for better understanding of it. Lesson plan and online courseware of each subject is uploaded in the institutional and the departmental website prior to the commencement of classes. Thus the students come to the class knowing the topic that will be discussed. Moreover in this respect 100 faculty members had undergone pedagogy training. The technology is

in a continuous change depending on which the need of the society is also changing. Therefore based on the need of the industry and society the syllabus is revised continuously taking the feedback of the different stakeholders. The feedback of the stakeholders are analysed in the BOS in presence of experts from industry, academics and alumni members. On the basis of this the best framed syllabus is placed before the academic council for final approval. The exposure of young engineers to the industry and present day industry requirement is of utmost importance. An incubation cell for these pass out engineers with direct intervention with industry can be a good platform for them to improve their employability. In house and external training programmes are arranged for the students periodically. The incubation of innovation also forms a part of the teaching learning process. With rapid technological advancements, students, would be engineers, must understand the industrial need. Their young and fresh minds may produce innovative solutions to the global technological problems. In pursuit of this idea , Narula Institute of Technology nurtures its innovation cell where students can cultivate their ideas and move a step forward to start up policies.

#### Provide the weblink of the institution

https://nit.ac.in/

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

Set a road map to increase Industry linkage to make Industry ready professional. Industry collaboration, enhance the linkage with Industry to create more scope for student internship. All student must go through Industry internship and apply through Internshala. • Commence innovative and distinctive practices by each department for the academic excellence and overall welfare of the students. • To enhance the online courseware by incorporating animation and hyperlink web access under autonomy curriculum for the students. • Raise the number of research publications in highquality journals by departments. • 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 in National and International level through NAAC, NIRF, etc. • Renewal accreditation of all the UG and PG programmes by NBA. • The functioning of the Grievance Redressal Committee, Disciplinary Committee, Anti Ragging Committee, and other Committees will be made more rigorous to maintain campus discipline and healthy academic atmosphere. • Continue to publish magazines centrally at the college level in addition to all departments. • All the academic activities will be linked through the ERP system to avail all the information readily. • 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. • Proposal of establishment of Digital classroom, more smart classroom in the institution will be prepared. • Boost up the number of Patents and Ingenious performance. • Substantial numbers of faculty members are about to submit their Ph.D. Thesis as well as very many will be Enrolled at Ph.D. in the next academic year.