



SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

NARULA INSTITUTE OF TECHNOLOGY

**NARULA INSTITUTE OF TECHNOLOGY 81, NILGUNJ ROAD, AGARPARA
KOLKATA, WEST BENGAL, INDIA PIN-700109**

700109

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Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Narula Institute of Technology is established in the year 2001 at Agarpara, West Bengal, and continues to be an Institute of excellence of higher education aimed at producing successful and responsible professionals. It is approved by AICTE and affiliated with Maulana Abul Kalam Azad University of Technology, West Bengal, and a paramount autonomous Institute since 2015. It has NBA-accredited degree programs in engineering both UG and PG and holds the distinguished NIRF ranking given by MHRD, Govt of India consecutively for the last four years. It has the NAAC accreditation with Grade B. The college received the notable World Bank Assisted and MHRD approved TEQIP (Phase II) grant for the advancement of Technical Education. The Institute is the recipient of funds from DST, AICTE, DAE, and other funding agencies for research projects, FDP, STTP, Seminar, and other grants, and also consultancy from different organisations. It is adjudged to be eligible for receiving Central assistance under the recognition of 2(f) & 12(B) under the UGC Act.

The Institute boasts of a powerful R & D cell with immense contribution from the scholarly faculty members. There is an enormous repository of International and National Journals, E-books, Online Lectures. The Institute has been selected as a Host Institute by MSME to support budding entrepreneurs. The college is in collaboration with different organizations of repute and the students get an opportunity to interact in the International and National platform through seminars, workshops, conferences, and special teaching-learning sessions. The Student Chapters in different departments play a crucial role in organizing informative technical events within the campus. Apart from academics, the students get exposure to the world of co-curricular and extra-curricular activities which help them in shaping and grooming their personality as well as social responsibilities.

The cornerstone of the prosperous evolution of the Institute lies in its innovative teaching-learning process, ragging-free environment, meticulous mentoring of the future technocrats. nurturing of innovative and entrepreneurial skills.



Vision

To make the Institute excellent in technological education and research by imparting equitable, inclusive, ethical, flexible and multidisciplinary knowledge to budding technologists to serve the society.

Mission

1. To establish continuously improving academic ambience in the Institute in order to prepare the students with beyond curriculum knowledge, creativity, innovation, problem solving abilities, teamwork, communication skills etc. for their holistic development.
2. To collaborate with Institutes of higher education, Professional Societies, R&D and Industrial organizations for continuous improvement of the academic research environment in the Institute and to build a strong Industry-Institute interface.
3. To promote and nurture entrepreneurial and innovative quality of the students providing proper education, training and supportive facilities so that future entrepreneurs emerge with flying colors.
4. To strengthen quality and knowledge-base of faculty through faculty development programmes for continuous upgradation to remain in tune with dynamically changing technology.
5. To become a responsible contributor in the socio-economic development of the society through excellence in education and research.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- NAAC Accredited
- NIRF Ranked (2020,2019, 2018, 2017)
- QS Rating- 3 Star
- Host Institute declared by MSME to support entrepreneurship
- Autonomous Institute
- MOU with 10 number of Industries and 7 number of Academic Institutions
- Well qualified and experienced faculty members
- All labs are well equipped with high-end equipment and software
- Well advanced library with e-Journals and e-books facilities
- NPTEL local chapter
- Strong Mentoring and Feedback System
- All faculty members are encouraged to participate in seminars, workshops, FDP, etc. and to pursue higher studies and research
- Funded projects from World Bank, DST, DAE, UGC, AICTE, etc
- 841 number of research publications by the faculty members and students over the last 5 years
- Academic flexibility and independence are provided by the enlightened and forward-looking management
- Wi-Fi enabled campus. Teaching aids and computing facilities are up to date
- 100% power backup is available
- First Institute in Eastern India to have MOU with one of the world's leading online education company, Coursera, and offer their MOOCs to students at no cost
- Industry centric technical skill-based training is provided to the students by well-qualified trainers
- Various clubs have been created to allow students to develop their skills and pursue their hobbies, 12 number of such clubs are functional
- Eco-friendly green campus
- The campus is vibrant with lots of extra-curricular and co-curricular activities throughout the year
- The Vision, Mission and Quality Policy of the Institute framed in comprehensive terms
- Structured Students' feedback system
- Formative and summative evaluation system
- Co-curricular and extra-curricular activities aimed at holistic development of the students
- Facilities for differently able students
- Own Learning Management System
- Repository of video lectures of each courses prepared by Faculties for remote access
- Project based teaching learning methodology adopted for experiential and problem-based learning

Institutional Weakness

- More industry experienced faculty members are required
- Collaborative research project with industry to be enhanced
- More consultancy by the faculty members to be initiated

Institutional Opportunity

- **NBA accreditation for all programs**
- **NAAC accreditation with higher grade**
- **International accreditation**
- **Enhance interaction with industry**
- **Collaborative research project with industry**
- **Academic Excellence**
- **Strengthen the Alumni Association**
- **Strengthen the innovation and incubation cell**
- **External funding for research project and innovative program**
- **Faculty student exchange programme with National & Foreign Universities**
- **Collaboration with National and International Institutes of repute and other renowned organizations.**
- **Establishment of Centres of Excellence in all the Departments**

Institutional Challenge

- **Cope up with rapid technological changes**
- **Accustom with the socio-economic development**
- **To build up more number of future entrepreneur from student**
- **Industry sponsored live project**
- **To get more research funding from external agencies**

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Being an autonomous institution, the job of framing and revising the curriculum, looking into the global aspect, lies with the institute. In designing the curriculum, a learner centric approach has been adopted. This responsibility is well exercised ensuring appropriate and exhaustive designing of curriculum which helps to attain the Program Outcomes (POs) and Program Specific Outcomes (PSO). Vivid attention has also be given on the model curriculum and credit structure as suggested by all the regulatory bodies taking into consideration the suggestions from various stakeholders. There is Board of Studies (BOS) for each programme where in addition to the in-house faculty members, eminent academicians from other institutes, industry professionals, alumni, academician nominated by affiliating university are present. The curriculum, detailed syllabus, course outcomes (COs), CO-PO mapping have been elaborately discussed and reviewed in the respective BOS satisfying highest academic quality under autonomous frameworks. Academic autonomy is further utilized in an effective manner with the implementation of offering several elective courses for students, especially in the higher semesters. Moreover, the institute is also focusing on a project - based learning system. The existing curriculum also includes several subjects focusing on employability, entrepreneurship and skill development. Frequent revisions in curriculum are in place, especially introduction of elective courses, and revision in the outcomes of courses. Apart from regular curriculum, students are also regularly encouraged to take part in several value-added courses and internship(s) during semester breaks. Moreover, students are motivated to attend national and international seminars, workshops, webinars for enrichment of knowledge. The programmes

are usually focused on multi-disciplinary activities, development of skills in core/allied domains and also provide field experience beyond Curriculum. Processes are in place for academic audits and feedback from stakeholders towards continuous improvements in Curriculum, design and delivery.

Teaching-learning and Evaluation

The Institute is a premier center of learning in Eastern India where learners from different corners of the country as well global students come for their academic up-gradation. The majority of students are from the home state.

The Institute practices a student-centric approach. Each student is given personal attention through the effective mentorship scheme and grooming throughout his/her journey during the program. A Three-week Induction program is conducted for the newcomers where they are introduced to the culture of the Institute. The potentials of the learners are examined with a Diagnostic Test and the comparatively slow learners are helped through Remedial classes. Besides this special classes are arranged for the preparation of the GATE and other relevant competitive examinations. The student-faculty ratio is optimally maintained. The infrastructure of the Institute is friendly to Divyangjan students.

The Institute believes in experiential learning. Information Communication Technology (ICT) and LMS are incorporated into teaching to make the teaching more effective. ICT Centre has a good collection of video and technology-enabled lessons. The Institute ensures sufficiently qualified and experienced Faculty members. The majority of teaching staff have served the Institute for over six years.

The Institute has a fully automated examination system from the generation of admit cards to the declaration of results. The Internal Quality Assurance Cell conducts audit from time to time for improving academic quality.

The Institute is able to give a clear picture of the Course's employability, skill development, and entrepreneurship prospects through the Course Outcomes (Cos). The attainment of outcomes of the program is evaluated through continuous evaluation. At the end of the semester, there is a process to collect feedback from the stakeholders regarding the attainment of COs, POs & PSOs.

The Institute continuously strives to improve the Teaching-learning processes and engage the students to improve students' results and students' satisfaction. The feedback of students at different levels becomes a crucial factor to enhance the quality of the students as well as their contentment.

Research, Innovations and Extension

The Institute promotes research activities to maintain quality education and research. There is a framed R&D policy and a consultancy policy which are available in the institute website. The faculty members are encouraged to pursue research work and the institute ensures necessary support. There is a provision of seed money to develop prototype through project works by the students under the guidance of faculty members. There are several grants from Government and non Government funding agencies under different categories like RPS, MODROB, UGC MINOR, DST SERB etc.

To promote innovation and incubation collaboration with CII was initiated in 2016 and subsequently was recognized as the Host Institute by MSME to support budding entrepreneurs. To further promote innovation

activities, the Institute Innovation Council was formed in 2018 as per norms of Innovation Cell, Ministry of HRD, Government of India. Faculty members have undergone the Innovation Ambassador Training in March 2020. Events like Hackathon, project exhibition, workshops and seminars were organized to promote innovation activities.

The Institute encourages faculty and student to publish research work in reputed national and international indexed journals, books and book chapters.

Consultancy works are also encouraged at the Institute which generates revenue. A part of the collected revenue is utilized for the training of faculty and staff members for undertaking consultancy projects.

The Institute promotes extension activities by the students, faculty and staff members in the neighbourhood community to create a holistic environment. Their activities are reflected in the mandatory non-credit course of NSS and Mandatory Additional requirements (MAR).

Collaborative activities are promoted with different academic institutions, industry and research organizations of repute for carrying out research and development activities. For this purpose, several MoU has been signed with organizations like MSME, Jadavpur University etc.

Infrastructure and Learning Resources

The Institute is built upon 27,482 sq. m. with adequate infrastructure and resources to enhance teaching and learning processes for educational excellencies. The institution has a precise policy for improving the infrastructural facilities. The campus has 52 ICT-enabled classrooms with an average area of 66 sq. m. each. Well-equipped laboratories and a robust library are the strong backbones of the campus. The institute has one spacious auditorium with 400 seating capacity as well as 8 departmental seminar halls with optimum use. The institute has a fully automated library with more than 81000 resources both in print and electronic format. There is a separate digital library corner comprised of 10 computers with internet connectivity are available for its clientele. The library consists of a reading room with 150 seating capacity and open access stack room. The college is equipped with more than 925 computers with internet connectivity. Among these 720 computers are allotted for the students with 100 Mbps bandwidth. There are multipurpose playgrounds; volleyball court, badminton court, and gymnasium for enlargement of students and staff. Other facilities like separate common room and hostel for boys and girls, canteen facility, transportation service, 24x7 powers back up facility, lift service, safe drinking water facilities are available in the institute. The Civil Engineer and Site Supervisor are responsible for the maintenance of the physical infrastructure of the campus with maintaining the Standard Operating Procedure (SOP). Under the supervision of an Electrical Engineer, Electrician is taking care of electrical repairing and maintenance jobs throughout the whole campus. The housekeeping work of the institute is being maintained by an in-house caretaker on a regular basis.

Student Support and Progression

The institute takes the efforts to enable the students to acquire a meaningful experience for learning at the campus and to facilitate their holistic development and progress.

The Student Support Facilitating mechanisms are executed through different platforms. The economically challenged students are highly benefited through Scholarship and Freeship schemes provided by Government,

non-Government agencies as well as by the institute during their tenure of study. For the comprehensive development of the students there are provisions for bridge and value added courses in relevant areas. The institute boasts of a dynamic Training & Placement Cell and the number of students successfully placed in different MNCs increased exponentially during the last five years. The students avail extensive training in different capability enhancement and Skill Development Programmes. The institutional provisions foster vertical movement of students from one level of education to the next higher level as well as towards a productive profession. The students are specially tutored which helps them to qualify in state/national/international level examinations.

The institute has a well-structured, career guidance and counselling system which helps the students to opt for a suitable career. The institute maintains a transparent mechanism to address the grievances of the students. There are separate bodies to investigate ragging and sexual abuse related complaints respectively. The institute has the required infrastructure and inculcates active participation of the students in different co-curricular activities. There is a vibrant Student Council in the institute which has several Clubs under it. The Club activities motivate the students to develop various skills and competencies and in turn flourish their cognitive development. The institute also encourages the students to participate in different state, national and University level competitions and also provides financial assistance. The students make the college proud by winning several awards and honours in different contests.

The Alumni Association is a strong pillar which strengthens the institute. The Alumni Association of the institute contributes in academic issues and also helps in mobilization of resources both financial and non-financial. The institute's vibrant Alumni base significantly contributes to the holistic development of the student community.

Governance, Leadership and Management

The orientation of Institutional Vision and Mission aims towards enhancement of skill and knowledge through offering a suitable learning platform for imparting quality education as well as training to the students besides ensuring notable contributions from scholarly faculty members in R&D and numerous other academic activities. The Board of Governors (BOG) is constituted as per the guidelines of regularity bodies. The institute sincerely intends to provide trustworthy governance assuring ample scope of Transparency and accountability infused with Democratic participation of its employees as well as Decentralization of authority and responsibility entrusted with Sharing and caring attitude,

The strategic plan of the Institute is framed by taking into account the Mission, Vision, and Quality Policy of the institution along with due importance to the feedback obtained from various stakeholders. Strategic management is a continuous process that focuses on the objective of the Institute and is reflected through its best practices. The administrative setup of the institute which is comprised of different Statutory and Non-Statutory bodies ensures the implementation of policies through strategic management.

The institute has been organizing programs for both Professional Development courses as well as Administrative Training at regular intervals with the active involvement of both teaching and non-teaching staff. The institute has always been supportive to its teaching and non-teaching staff enabling their professional growth through various career development programs by making due provisions of financial assistance and also offers many welfare schemes to its teaching and non-teaching staff displaying a caring attitude towards

guaranteeing their wellbeing.

In order to monitor the financial management, mobilization of resources, and adequacy of various operational requirements of the teaching-learning process, periodic financial and academic audits are conducted by internal and external experts. The IQAC Cell tracks the overall progress of various activities of the institution through regular audits in coordination with all the concerned units and institutionalizes good practices to ensure the quality of the teaching-learning process.

Institutional Values and Best Practices

The institute maintains gender equity. An Annual Gender Sensitization Action Plan and the safety and security have been taken care of along with providing facilities like common room, counseling and full CCTV Coverage. The institute is equipped with alternative sources of energy such as solar power cells and biogas plant and practices sustainability by advocating for and using LED lighting. An advanced solid waste management system is practiced and it strictly follows the E-Waste disposal policy and rules. The institute not only maintains a large waterbody which acts as a water reservoir but also has the facility of rain water harvesting, tanks and bunds and Borewell recharge. Different green initiatives taken by the institute are like use of bicycles, restricting entry of automobiles, banning use of plastics on the campus. All quality audits like environment and energy are undertaken regularly by the institute. The institute maintains a disable-friendly environment providing disable friendly rest rooms, ramps for wheel chairs, lifts and disabled-friendly washrooms. In terms of assisting disabled students, the institute provides scribes to help them during examinations. The institute provides an overall atmosphere of tolerance and diversity. Unity in diversity is promoted through various programs and celebration by the students and staffs. The institute takes it in its stride to spread awareness and educate the students and staffs about constitutional rights and obligations as citizens of India through different programs and special classes for students. Code of conduct for faculty, staff and students are displayed on the website and different types of credit & noncredit mandatory courses like Values & Ethics in Profession, Constitution of India are included. The institute organizes and celebrates national and international commemorative days, events and also maintains an activity calendar. This keeps the bond of unity amongst each other strong. Some best practices implemented at the institute level are Beyond Curriculum Training (BCT), Digitization of Script Evaluation System, Induction Programme for newly joined faculties and staff, Annual audit, project exhibition using waste materials. One of the distinctive practices is Innovation which help the students to develop entrepreneurial skills which leads to the students becoming successful entrepreneurs.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	NARULA INSTITUTE OF TECHNOLOGY
Address	Narula Institute of Technology 81, Nilgunj Road, Agarpara Kolkata, West Bengal, India PIN-700109
City	Kolkata
State	West Bengal
Pin	700109
Website	www.nit.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Maitreyi Ray Kanjilal	033-25637777	9433035580	033-25837029	principal_nit@jisgroup.org
IQAC / CIQA coordinator	Surajit Bari	033-25638888	9432128450	033-25230289	surajit.bari@nit.ac.in

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	Yes Minority Certificate NiT.pdf
If Yes, Specify minority status	
Religious	Sikh
Linguistic	
Any Other	

Establishment Details	
Date of Establishment, Prior to the Grant of 'Autonomy'	28-06-2001
Date of grant of 'Autonomy' to the College by UGC	27-07-2015

University to which the college is affiliated		
State	University name	Document
West Bengal	Maulana Abul Kalam Azad University of Technology	View Document

Details of UGC recognition		
Under Section	Date	View Document
2f of UGC	09-12-2011	View Document
12B of UGC	03-09-2012	View Document

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	15-06-2020	12	Latest approval

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	Yes
If yes, name of the agency	Technical Education Quality Improvement Program
Date of recognition	26-07-2011

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Narula Institute of Technology 81, Nilgunj Road, Agarpara Kolkata, West Bengal, India PIN-700109	Urban	5	27482

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BTech,Civil Engineering	48	Class Twelve	English	120	101
UG	BTech,Computer Science And Engineering	48	Class Twelve	English	180	180
UG	BTech,Electrical Engineering	48	Class Twelve	English	120	112
UG	BTech,Electronics And Communication Engineering	48	Class Twelve	English	120	120

UG	BTech,Mechanical Engineering	48	Class Twelve	English	60	46
UG	BTech,Electronics And Instrumentation Engineering	48	Class Twelve	English	60	33
UG	BTech,Information Technology	48	Class Twelve	English	60	60
PG	Mtech,Civil Engineering	24	Undergraduate	English	18	18
PG	Mtech,Computer Science And Engineering	24	Undergraduate	English	18	11
PG	Mtech,Electrical Engineering	24	Undergraduate	English	18	13
PG	Mtech,Electronics And Communication Engineering	24	Undergraduate	English	18	11
PG	MCA,Computer Application	36	Undergraduate	English	60	7

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	27				29				165			
Recruited	26	1	0	27	25	4	0	29	90	75	0	165
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				54
Recruited	38	16	0	54
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				60
Recruited	44	16	0	60
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	20	1	0	23	2	0	5	6	0	57
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	3	0	0	2	1	0	85	69	0	160

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	3	0	0	0	0	0	0	0	0	3
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	1	0	0	0	0	0	0	0	0	1

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

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male	Female	Others	Total
		5	7	0

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	1865	272	3	0	2140
	Female	576	57	0	0	633
	Others	0	0	0	0	0
PG	Male	104	4	0	0	108
	Female	45	2	0	0	47
	Others	0	0	0	0	0
Diploma	Male	392	12	0	0	404
	Female	94	2	0	0	96
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	59	44	46	39
	Female	12	16	12	5
	Others	0	0	0	0
ST	Male	3	0	1	1
	Female	1	0	0	0
	Others	0	0	0	0
OBC	Male	60	58	64	67
	Female	18	20	14	11
	Others	0	0	0	0
General	Male	474	467	482	502
	Female	160	145	174	133
	Others	0	0	0	0
Others	Male	5	7	6	5
	Female	0	1	1	0
	Others	0	0	0	0
Total		792	758	800	763

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Civil Engineering	View Document
Computer Application	View Document
Computer Science And Engineering	View Document
Electrical Engineering	View Document
Electronics And Communication Engineering	View Document
Electronics And Instrumentation Engineering	View Document
Information Technology	View Document
Mechanical Engineering	View Document

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2019-20	2018-19	2017-18	2016-17	2015-16
12	12	12	13	13
File Description			Document	
Institutional data in prescribed format			View Document	

1.2

Number of departments offering academic programmes

Response: 8

2 Students

2.1

Number of students year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
2928	2931	2862	2776	2735
File Description			Document	
Institutional data in prescribed format			View Document	

2.2

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

2019-20	2018-19	2017-18	2016-17	2015-16
759	736	670	699	710
File Description			Document	
Institutional data in prescribed format			View Document	

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

2019-20	2018-19	2017-18	2016-17	2015-16
2894	2895	2858	2746	2703
File Description			Document	
Institutional data in prescribed format			View Document	

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

2019-20	2018-19	2017-18	2016-17	2015-16
11	17	18	21	28

3 Teachers**3.1****Number of courses in all programs year-wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
828	782	783	794	802
File Description			Document	
Institutional data in prescribed format			View Document	

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

2019-20	2018-19	2017-18	2016-17	2015-16
221	217	211	206	193
File Description			Document	
Institutional data in prescribed format			View Document	

3.3

Number of sanctioned posts year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
221	217	211	206	193
File Description		Document		
Institutional data in prescribed format		View Document		

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

2019-20	2018-19	2017-18	2016-17	2015-16
1074	1026	1042	969	1062
File Description		Document		
Institutional data in prescribed format		View Document		

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

2019-20	2018-19	2017-18	2016-17	2015-16
208	208	208	208	211
File Description		Document		
Institutional data in prescribed format		View Document		

4.3**Total number of classrooms and seminar halls****Response: 60****4.4****Total number of computers in the campus for academic purpose****Response: 841**

4.5

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

2019-20	2018-19	2017-18	2016-17	2015-16
573.78	673.97	658.28	422.88	529.46

NAAC

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

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

Response:

The Narula Institute of Technology strives to address the local, regional, national and global developmental needs since it becomes autonomous. While developing the curriculum sufficient emphasis is given to accommodate adequate domain knowledge along with substantive skill and aptitude of the students.

Following major factors have been considered for designing the curriculum:

- Guidelines of the regulatory bodies
- Program-specific requirement of Industry and R&D sectors,
- Benchmarking of the curriculum from pioneer Universities and Institutes in India and abroad
- Feedback of all major stakeholders and
- Current emerging areas of technological advancement
- Societal demands

The process of designing and revising the curricula is undertaken through a very transparent process involving faculty members at various stages like the Departmental Academic Committee (DAC), Academic Council (AC), and Board of Governors (BOG). Departmental Academic Committee initially prepares the draft curriculum considering all the factors as depicted along with Program Outcomes (POs) prescribed by the regulatory body. Then, the draft curriculum is placed before the Board of Studies (BOS) for exhaustive analysis and subsequent approval. Thereafter, the curriculum is placed before the Academic Council (AC) of the institute for further approval. After that, it is placed at the Board of Governors (BOG) of the Institute for necessary permission to submit the same to the affiliating University Maulana Abul Kalam Azad University of Technology, West Bengal (MAKAUT, WB) for the implementation. The valuable suggestions and guidance from the various discipline's external experts who are the members of BOS, AC, and BOG are incorporated while planning and developing the curriculum.

The developed curriculum is aligned with Program Educational Objectives (PEOs), and Program Specific Outcomes (PSOs) of the respective program. In order to ensure the academic quality in framing the curriculum, the types of courses like professional core(PC) professional electives (PE), and open electives (OE) are incorporated judiciously in reference to the regulatory guidelines. Looking into the requirement of local, national, and global needs, few courses pertaining to Environmental Sustainability, Professional Ethics, and Communication skills having social relevance are introduced in the curriculum in alignment with various initiatives taken by the State and Central Government. The departments also have incorporated into their curricula, application-oriented components like project-based learning, internships, and fieldwork and dissertations. Subsequently, for each course of all the programs, Course Outcomes (COs) are defined by mapping with the POs and PSOs. The COs are designed using action verbs from all

the six levels of the revised Bloom's Taxonomy to sustain higher order of thinking.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response: 91.67

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

Response: 12

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

Response: 11

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Details of program syllabus revision in last 5 years(Data Template)	View Document
Any additional information	View Document

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

Response: 76.37

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

2019-20	2018-19	2017-18	2016-17	2015-16
797	770	581	581	319

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Average percentage of courses having focus on employability/ entrepreneurship(Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.2 Academic Flexibility

<p>1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.</p> <p>Response: 27.34</p>	
<p>1.2.1.1 How many new courses are introduced within the last five years</p> <p>Response: 604</p>	
<p>1.2.1.2 Number of courses offered by the institution across all programmes during the last five years.</p> <p>Response: 2209</p>	
File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document
<p>1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).</p> <p>Response: 100</p>	
<p>1.2.2.1 Number of Programmes in which CBCS / Elective course system implemented.</p> <p>Response: 12</p>	

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.3 Curriculum Enrichment

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

Response:

The courses those address the Gender

The outcome attempts to acknowledge that we'd like to know our psychological, social, economic, and political roles. Knowledge and understanding of the differences in roles and relations between women and men, especially within the workplace: it's important to continuously raise gender awareness and understanding among officialdom and therefore the public generally.

Subject Name	Subject Code	Program Name/ Dept.
Social Awareness	MC 781	All UG programs
Constitution of India	MC 401/ MC 501	All UG programs

Courses based on Environment and Sustainability

Studying the Environmental Science is very important as it is related to where we live and where we are sharing the resources with all the other species on the Earth. The study of the courses enlightens with the knowledge how to conserve the natural resources and how to stop the degradation of the resources by taking the safety measures and awareness among humans. Environmental studies will assist an engineer in finding solutions to environmental issues in an environmentally responsible manner.

Subject Name	Subject Code	Program Name/ Dept.
Basic Environmental Engineering & Elementary Biology	CH 301/ CH 401	All UG programs
Environmental Science	HU 401/ HU 501	All UG programs
Renewable and Non-conventional Energy	EE 704D	EE
Constitution of India	MC 401/ MC 501	All UG programs

Wind and Solar Energy Systems	EE 801A	EE	
Electrical Energy Conservation and Auditing	EE 505A	EE	
Renewable Energy	EC 802C	ECE	
Renewable Source & Applications	EC 704C	ECE	
Renewable Energy Sources & Applications	EC 504B	ECE	
Energy Conversion and Management	ME 603	ME	
Energy Conservation & Management	ME 705A	ME	
Renewable Energy Systems	ME 605A	ME	
Renewable Energy System	ME 703	ME	

The courses based on Human Values and Professional Ethics

Human Values and Professional Ethics aims to educate students about the importance of it, as well as the various theories of self development, so as to mould them into efficient, humane professionals. In addition to conveying knowledge about human values and professional ethics that should shape the conduct of the engineering profession.

Subject Name	Subject Code	Program Name/ Dept.
Values & Ethics in Profession	HU 301/ HU 401/HU 502 / HU 601	All UG programs

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	View Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response: 65**1.3.2.1 How many new value-added courses are added within the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
19	17	11	9	9

File Description	Document
List of value added courses (Data Template)	View Document
Brochure or any other document relating to value added courses	View Document
Any additional information	View Document

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.**Response: 56.34****1.3.3.1 Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
2317	1854	1251	1086	1545

File Description	Document
List of students enrolled	View Document
Any additional information	View Document

1.3.4 Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)**Response: 41.97****1.3.4.1 Number of students undertaking field projects / internships / student projects****Response: 1229**

File Description	Document
List of programs and number of students undertaking field projects / internships / student projects (Data Template)	View Document
Any additional information	View Document

1.4 Feedback System

<p>1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni</p> <p>Response: B. Any 3 of the above</p>	
File Description	Document
Any additional information	View Document
Action taken report of the Institution on feedback report as minuted by the Governing Council, Syndicate, Board of Management	View Document
URL for stakeholder feedback report	View Document
Link for Additional Information	View Document

<p>1.4.2 The feedback system of the Institution comprises of the following :</p> <p>Response: C. Feedback collected and analysed</p>	
File Description	Document
Any additional information	View Document
URL for stakeholder feedback report	View Document
Link for Additional Information	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Response: 96.28

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

2019-20	2018-19	2017-18	2016-17	2015-16
792	758	800	763	790

2.1.1.2 Number of sanctioned seats year wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
852	792	792	810	810

File Description

Document

Institutional data in prescribed format (Data Template)

[View Document](#)

Link for Additional Information

[View Document](#)

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

Response: 62.94

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

2019-20	2018-19	2017-18	2016-17	2015-16
0154	0140	139	123	100

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document

2.2 Catering to Student Diversity

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

Response:

Once the admission process is completed as per the AICTE guidelines, the institution organizes a three-week induction program for the freshers. The following strategies are adopted to identify the slow learners and advanced learners:

- During the induction program, the institution organizes a common assessment/diagnostic test for freshers across the departments. The test is conducted through MOODLE server on the subjects - physics, chemistry, mathematics, and English. Based on the result of the assessment test and +12 results, the slow learners and advanced learners are identified.
- The slow learners and advanced learners are identified by the concerned faculty based on their class response, respective slot test marks, class assignments, etc. for different semesters.

Strategies adopted for slow learners

- For the 1st year students, they are provided the special training on the subjects like physics, mathematics and English to brush up the concepts.



- Remedial classes are conducted to solve the Question papers as a preparation for the slot test, semester examination.
- Doubt clearing classes are conducted to cover all those topics for which students have doubt.
- To motivate the students, an online tool has been used to conduct quiz competitions. “Kahoot” and “Quizizz”, these two tools are used to conduct the quiz. The difficulty level of questions is easy and moderate.
- The Institute has a strong mentor-mentee scheme through which the mentor can give one-to-one academic and personal counseling to the slow learners.

- Bilingual explanation and discussions are imparted after the class hours for their better understanding of the concepts.
- They are encouraged to enroll in MOOC Courses – Swayam, courser etc.

Strategies adopted for advanced learners

- For the 1st year students, they are encouraged on project-based learning on the subjects like physics and chemistry.



- Students are encouraged to participate in different competitions like paper presentation in various Seminars/ Conferences/ Workshops, co-curricular activities, Hackathons held in intra-college and inter-college/universities.

- The online tools like “Kahoot” and “Quizizz” has been used to conduct quiz competitions where the difficulty level of questions is set to moderate and hard.
- During each semester break, each department conducts two-week long special training sessions on advance technologies as per industry requirements.
- They are encouraged to enroll in MOOC Courses – Swayam, coursera for advanced subjects and registration fees for that is provided by the Institute if required.
- They are also motivated to participate in intra-college and inter-college/universities competitions. The academic achievements of the students are extremely encouraged and highly praised through award ceremonies.
- Group discussion, Debate, Problem Solving – Decision Making Exercises and Quiz programs are also conducted.
- For high aspirants, each department provides special classes for the preparation of GATE exam.

File Description	Document
Link for Additional Information	View Document

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

Response: 13:1

File Description	Document
Any additional information	View Document

2.3 Teaching- Learning Process

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

Response:

The faculty strives to implement the best possible way to engage students in teaching so that teaching actually happens some of the ways are Experiential learning methods, participative learning and problem-solving methodologies.

Experiential learning methods: Practical approach with theoretical knowledge is the necessity to quality learns of every field. Experimental learning focuses on workshops, laboratories, projects as well as virtual laboratories of knowledge and skills to real-world experiences to further increase learner's knowledge and develop competence in skills and behaviours. Project-based learning is adopted as a self-study component from the beginning of the courses to increase the skill significantly contributing towards the society. In this context, the Institute shows increasing interest in project-based learning approaches, which promise to heightened student motivation and to stimulate student's self-learning. The students have to do projects pertaining to a comprehensive course that has effective credits of self-study component. Example of

project-based learning: The goal of the turbine project for the subject of Power Plant Engineering was for students to design, fabricate and test a small hydraulic turbine for maximum energy development or conversion. Every department has been assigned industry mentors who interact on regular basis with students for experimental learning. The output of experimental learning is hands-on workshops conducted in various departments such as Robotics, Solar systems, Hackathons etc.

Participative learning methods: Apart from the traditional chalk and talk method, PowerPoint presentations are used through ICT tools like- projectors, smart boards etc. in the classrooms. Pedagogical Techniques like; Think-Pair-Share, Peer Learning, Predict-Observe-Explain, Gaming methods and model presentation etc. are implemented in the classrooms. The Assignments are given to the students to increase their problem solving and thinking abilities, as well as quizzes, are conducted on regular basis. The lecture capturing platform provides an E-Learning solution of automatic recording and distribution of classroom lectures on the flipped class model. Identifying and recommending additional online course material from globally recognized portals such as Coursera, EdX, NPTEL is prioritized. The industry visits, training, internship, survey camps, lectures by industry experts are conducted regularly on the latest topics and trends in the industry.

Problem-solving methods: Students enrich their problem-solving ability through tutorial classes, software base laboratories courses and readiness for competitive examinations through the practice of MCQ etc. Since 2018, every semester project has been assigned to make each student think and solve different problems related to the curriculum. The students are also trained for technical paper writing for the motivation towards research. Students participate in different conferences to present their papers as well as acquired knowledge from other presented works. R&D and Project labs are established to promote the research skill of the students. Centre of excellence is established to promote industry-ready training as well as research for students and society. Collaborative efforts with the industry personnel for enhancing the learning levels of the graduates like; project work. Different modern tools, like MOOCs, Moodle is used for enhancing the learnability of students.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response:

The faculty of Institute use all the ICT enabled tools completely including online resources for effective teaching and learning process. General ICT Tools are Used by faculty are: Desktop and laptops, Projector, Smart board, tablets, Scanners, Microphones, interactive white board and CDs, Flash discs etc.

The faculty at NIT use various ICT enabled tools to enhance the quality of teaching-learning like

Faculty uses Learning Management System to conduct online classes, manage and post course related

information, lab submissions and evaluations, assignments, etc. The faculties develop and record lecture class videos and e-course materials and upload the same in the LMS

Faculty uses Virtual labs to conduct labs through simulations

Lab manuals are mailed to students by the faculty well in advance the experiment is performed

To teach mathematical subjects in online mode, faculty have used various online tools like-whiteboard in Microsoft teams, Jamboard in Google meet, Graphic tablet etc.

Faculty regularly consults and shares material from e-books, web pages, You- tube videos and other relevant resources.

The faculty conducts classes through Smart Interactive Flat Panel, which is a Multi Touch Device with 4K Resolution, Inbuilt Speakers, Gesture Annotation. These ICT tools allow teachers to effectively impart multimedia based teaching

Faculty regularly conducts online tests through MyPerfectice platform- It is an online learning platform and it allow the students to take test anytime-anywhere. It help faculty to better understand the learning needs of the students, their strength and weakness by subject and topics, and identify the weak learners and slow learners. It helps in the gradual improvement of the students over a period of time, through access to wide variety of practice tests

E Content-

The faculty uses National Programme on Technology Enhanced Learning (NPTEL), Coursera and different Swayam Courses in their presentations as references

The faculty uses and also refers to the e content at the Library which has IEEE ASSP (e-journal), access to National Digital Library of India and British Council Library, a collection of more than 2000+ E-books from renowned publishers, which are accessible through FTP server with remote access facility.

File Description	Document
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	View Document

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

Response: 20:1

2.3.3.1 Number of mentors

Response: 150

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll	View Document
Circulars pertaining to assigning mentors to mentees	View Document
Any additional information	View Document
Link for additional information	View Document

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

Response:

Academic Calendar:

The institute prepares its Academic Calendar in adherence to the guidelines of the Regulatory bodies incorporating curricular activities, additional courses, events and co-curricular activities for the UG and PG programs. Each academic year is divided into two semesters. The preparation of academic calendar ensures that the students get adequate instructional hours and teachers get maximum hours to deliver their courses effectively. Academic calendar is designed well in advanced prior to the commencement of each semester with durations and academic activities being fixed by the Academic Council. Academic calendar covers all important dates for students and faculty such as start and end day of a semester, slot for Beyond Curriculum Training, mid-term examinations, exam form filling, final examinations, holidays, industrial training/internship during Semester breaks, vacation period, foundation day of the institute, date of Degree Award Ceremony, sports, cultural activity etc. This enables the students and faculty to be well prepared, minimize their chances of academic loss and take full advantage of the flexibility provided by the credit system.

The academic calendar is displayed on institute website (<https://nit.ac.in/academic-calendar.php>) and all the department notice boards.

Departmental Academic Calendar: Each department develops its academic calendar which aligns with the academic calendar of the Institute. It includes dates for departmental activities like assignments, seminars, Workshops, Conferences, Visiting faculty lectures, and projects. In addition, it includes proposed dates for field trips, industrial visits, internships etc.

Teaching Plans: Department Academic Committee meeting is conducted by the Heads of the departments with their respective faculty well in-advance of commencement of the semester for allocation of subjects. To ensure adherence of academic calendar, the departmental timetables are prepared on the basis of approved Academic Calendar and are displayed in each lecture room and laboratory, which helps in monitoring the regularity of classes. Every faculty prepares the academic teaching plan of the course content, spread over the allotted lecture hours, to ensure a uniform pace of teaching, which is approved by HOD.

The contents of the teaching plan include:

Course prerequisites	
Course objectives along with outcomes	
Mapping of course outcomes with program outcomes	
Learning resources	
Delivery methodologies	
Assessment methods	
Detailed unit wise lecture plan,	
Assignment and review plan.	
Every faculty circulates their teaching plan to head of the department and corresponding students through LMS.	
Timely completion of syllabus, revision and internal evaluation are carried out in compliance with the schedule listed in the academic calendar. It is monitored by the concerned HOD once in a month in Departmental Academic Meeting and deviations if any, are clarified with the concerned faculty and special class is arranged for students and they are informed through departmental notice/email.	
File Description	Document
Upload Academic Calendar and Teaching plans for five years	View Document

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years	
Response: 100	
File Description	Document
Year wise full time teachers and sanctioned posts for 5 years(Data Template)	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document

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

Response: 23.45

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

2019-20	2018-19	2017-18	2016-17	2015-16
53	51	48	51	43

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document

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

Response: 6.19

2.4.3.1 Total experience of full-time teachers

Response: 1367

File Description	Document
Institutional data in prescribed format	View Document

2.5 Evaluation Process and Reforms

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

Response: 13.4

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

2019-20	2018-19	2017-18	2016-17	2015-16
14	13	14	13	13

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document

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

Response: 0.68

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

2019-20	2018-19	2017-18	2016-17	2015-16
11	17	18	21	28

File Description	Document
Link for Additional Information	View Document

2.5.3 IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) have brought in considerable improvement in Examination Management System (EMS) of the Institution

Response:

Starting from paper setting to evaluation college has been continuously introducing IT enabled examination management system. The examination process is reformed mainly based on the following parameters:

- 1.Reduction of gap between last day of examination and result publication to 14 days.
- 2.Confidentiality and transparency in evaluations through the IT enabled systems.

IT Integration:

The entire evaluation work has been done through online examination management system and is completed within a reasonable time after the completion of the examination.

Since 2015-16 session all the Students register in online portal and using their user id and password. Students are able to view every detail on that portal after the registration. Then students take the print out of the filled application form and submitted the examination fees along with application form. After last date of form fill up the list of students appearing in examination is prepared automatically for attendance and further processing. Printed admit card distribution done.

All marks were entered in the Examination Portal from the department using login IDs of faculty. A printout of all marks entered was taken out from the faculty login and submitted to the COE.

All appointment for examination of answer scripts were awarded to external faculty. After completion of these tabulation done and result published in online portal.

Since 2016-17 session along with the above mentioned process of form fill up attendance approval from respective Head of the Department (HOD) was introduced which is automatically approved based on their class attendance then only students can be able to do form fill up.

Since 2017-18 along with the pre-existing process student can fill and submit the form and requisite examination fees online. Students were able to download the admit card from the examination portal.

Since 2018-19 session in addition to the previous procedure the examination schedule was entered into the online system so that questions can be printed only on that day and at specified time for the transparency of examination. Print day-wise attendance sheet for all examination schedule from the online system.

All evaluation was carried out by the examiners with annotations in red color by accessing the DVS system using internet through separate login IDs for each Examiner. Tabulation was completely automated. Scrutiny was completely automated using the Digital Valuation System (DVS). For distribution to head examiners, 10% of the answer script packets were randomly selected by the DVS and mapped to head examiners. All such re-evaluation was carried out by the head examiners with annotations in green color by accessing the DVS system using internet through separate login IDs for each Head Examiner.

Since 2019-20 session the online moderation process was introduced with the existing method of examination. Students were appeared in the semester examination through online platform.

Examination procedures: The components of examination procedures are:

1. Selection of paper setter & Moderator
2. Attendance approval
3. Semester end Examination form fill up
4. Seat allocation in examination hall
5. Invigilation in the examination hall
6. Selection of examiners
7. Evaluation of answer scripts
8. Publication of results
9. Grievances

Selection of paper setter & Moderator: The list of the paper setters (two paper setters of each subject- one internal and one external) are prepared by Controller of Examination (COE). COE appoints the paper setters and selects one moderator for each subject from the panel of external moderators. Examiners are appointed by COE from both internal and external faculties from the list provided from each department.

Attendance approval: Two-step approval process was introduced from 2018-2019 session for examination form fill up by students.

Step 1 – Accounts approval for Semester Fee clearance

Step 2 – Head of the Department approval for class attendance in the semester

Examination form fill up of students and eligibility for examination:

The students do process form fill up at online portal through the college website using their given user id and password after the approval of attendance by HOD through login. Lists of all eligible students are automatically generated by the online system and these lists are accessible to Controller of Examination for attendance and further processing.

CIA Evaluation (30 marks):

Internal Tests (Class Test, Slot Test): 15 marks

Assignment & Quiz: 10 marks

Attendance: 5 marks

- The 1st Slot Test examination is centrally conducted by the Examination Section. The Second Slot Test examination is coordinated by respective department and conducted by subject teacher. Class test, quiz on different subject topics are carried out by subject teacher.
- Slot Test examination scripts are evaluated by the subject teachers and duly filled-up marks slips are submitted to the Controller's office within the specified date.
- In 2015 two slot tests, one assignments and class test were in place.
- In 2016 one more assignment are incorporated with two slot tests, one assignments and class test.
- In 2017 one quiz had been introduced in addition to two slot tests, one assignment, and class test.
- In 2018 onwards project base teaching learning methodologies have been adopted and it has been incorporated in the continuous assessment.
- In 2018 out of two slot test first slot test was conducted online through Moodle.
- In 2019 MCQ based class test introduced and one more assignment was given in addition to two slot tests, two assignment.
- In 2020 the class tests were taken after completion of each Module and question pattern for slot tests were made MCQ based.

Central Assessment

- Assessment of answer scripts of semester end examination are done in a central online system by internal as well as external examiners.
- Answer key is prepared by Paper Setters / Head Examiners for all subjects and uploaded in the online system as far as practicable.
- Examiner is putting the marks for answers in specified spaces provided in the online evaluation system. He/ She may put any comments / feedback on the answer script in the specified box for the purpose.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.6 Student Performance and Learning Outcomes

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

Response:

Outcome Based Education offers emphasis on what's anticipated from the student after they finish their course. In this context, Program Specific Outcomes (PSOs), Program Outcomes (POs) and Course Outcomes (COs) are developed. Program Outcomes (POs), Program Specific Outcomes (PSOs) and course outcomes are communicated to the stake holders of the program by the following procedures.

POs and PSOs are framed by the faculty members under the supervision course coordinator. All courses of the curriculum have well defined COs, the CO-PO mapping with its strength and is included in the syllabus. The hardcopy of the syllabus is made available to every student and faculty as well as are also available in the Institute website (www.nit.ac.in).

POs and PSOs are displayed in all prominent locations of the campus like; department office, laboratories, classroom and department library. COs are also printed on each lab manuals and issued to all students at the beginning of every semester.

All the faculty members prepare a course file for each semester that lists the COs and POs mapping. During the departmental meeting and faculty meeting POs and PSOs are reviewed among the students and staff members.

The respective course coordinator frames the COs in consultation with concern faculty members. The course outcomes and their mapping with program outcomes and program specific outcomes are elaborately discussed and derived by the course committee members. During the commencement of each unit and after the completion of the unit, the course outcomes are reviewed.

File Description	Document
Upload COs for all courses (exemplars from Glossary)	View Document

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

Response:

The attainment of a program outcome (PO) is evaluated analysing the attainment levels of course outcomes

(COs) having correlation with the PO (Direct Assessment) as well as conducting surveys on POs (Indirect Assessment). The attainment level of a CO is obtained through direct assessment methods whereas the surveys are conducted as indirect assessment methods for obtaining the perceived attainment level of a PO.

- **Direct Assessment Strategies** aims for evaluating a student's competency upon completion of a course primarily through mapping COs to the questions in End-Semester Examination, Intermediate Assessments (Slot-Tests) and Assignments/Quizzes. The overall attainment level of a CO is computed taking weighted average of attainment levels achieved through a) End-Semester Examination, b) Intermediate Assessment, c) Assignment and Attendance according to the following formulation strategy.

Direct CO-Attainment Level Computation Criteria:

CO-Attainment Level - 1: 60% of students obtaining score more than 60% marks out of the total marks allotted for the CO specific questions.

CO -Attainment Level - 2: 70% of students obtaining score more than 60% marks out of the total marks allotted for the CO specific questions.

CO-Attainment Level - 3: 80% (and above) of students obtaining score more than 60% of the total marks allotted for the CO specific questions.

CO-Attainment Level = Attainment Level in End-Semester Examination (70% weightage) + Attainment Level in Intermediate Assessment (15% weightage) + Assignment (10% weightage) + Attainment Level in Attendance (5% weightage)

The attainment level of a PO_i through direct assessment methods is calculated using CO attainment level and corresponding CO-PO correlation mapping. The computation strategy for obtaining the direct PO_i Attainment Level is outlined below where CO_{j,k} denotes the j-th CO of k-th course in the curriculum having CO_{j,k}-PO_i Correlation Level in the scale of 1 to 3 (1 - low level, 2 - moderate level and 3 - high level). It has been assumed that there are N courses in the curriculum with each course having specifications of M number of COs.

Direct PO_i Attainment Level = $(1/N) \times (1/M) \times (1/3) \times (\text{CO}_{j,k}\text{-PO}_i \text{ Correlation Level} \times \text{CO}_{j,k}\text{-Attainment Level})$

- **Indirect assessment strategies** are implemented by conducting Student Exit Survey, Employer Survey and Alumni Survey. Each survey form collects opinion rating for each PO in terms of the perceived attainment level in the scale of 1 to 3 (1 - low level, 2 - moderate level and 3 - high level) achievable through the existing curricular and beyond curricular activities. The formulation strategy for obtaining the Indirect Attainment Level of a PO_i based on N number of feedbacks is given below.

Indirect PO_i Attainment Level = $(1/N) \times \text{Perceived Attainment Level of PO}_i$

- **The final attainment score of a PO** is calculated taking weighted average of Direct PO_i Attainment Level and Indirect PO_i Attainment Level. For any PO failing to reach the target attainment value, an action plan is drafted as remedial measures.

Final POi Attainment Score (%) = (80% weightage) x (Direct POi Attainment Level) + (20% weightage) x (Indirect POi Attainment Level)

CO-PO Attainment [CSE Batch: 2016 - 2020]											
Course Code	Course Name	CO Attainment Out of 3	PO1 Attainment Out of 3	PO2 Attainment Out of 3	PO3 Attainment Out of 3	PO4 Attainment Out of 3	PO5 Attainment Out of 3	PO6 Attainment Out of 3	PO7 Attainment Out of 3	PO8 Attainment Out of 3	PO9 Attainment Out of 3
Semester - I											
M 101	Mathematics -I	2.86	2.86	2.86	2.86	2.86	2.86	1.90	0.95	0.95	0.95
PH 101	Physics-I	2.85	2.85	2.85	2.85	2.85	2.85	1.90	1.90	0.95	0.95
EC 101	Basic Electronics Engineering	2.35	2.35	2.35	2.35	2.35	2.35	1.57	0.78	0.78	1.57
HU 101	Communicative English	2.91	-	1.94	0.97	0.97	0.97	1.94	0.97	-	2.91
ME 101	Engineering Mechanics	2.26	2.26	2.26	2.26	2.26	2.26	1.51	1.51	0.75	0.75
HU191	Lang. Lab. and Seminar Presentation	2.82	-	1.88	0.94	0.94	0.94	1.88	0.94	-	2.82
PH191	Physics -I Lab	2.87	0.96	2.87	1.91	1.91	1.91	1.91	0.96	-	0.96
EC 191	Basic Electronics Engineering Lab	2.91	1.94	2.91	-	2.91	2.91	1.94	0.97	1.94	0.97
ME 192	Workshop Practice	2.91	2.91	2.91	2.91	2.91	2.91	1.94	1.94	1.94	1.94
XC191	Extra Curricular Activity [NSS/ NCC]	2.88	0.96	0.96	0.96	0.96	1.92	2.88	2.88	1.92	2.88
Semester - II											
Semester - III											
Semester - IV											
Semester - V											
Semester - VI											
Semester - VII											
Semester - VIII											
HU804	Principles of Management	2.88	-	0.96	0.96	0.96	0.96	-	-	-	0.96
CS801A	Mobile Computing	2.87	2.87	2.87	2.87	2.87	1.91	-	-	-	0.96
CS802B	Machine Learning	2.85	2.85	2.85	2.85	2.85	1.90	-	-	-	0.95
CS891	Design Lab	2.90	2.90	2.90	2.90	2.90	2.90	0.97	0.97	1.93	2.90
CS892	Project 2	2.85	2.85	2.85	2.85	2.85	2.85	0.95	0.95	1.90	2.85
CS893	Seminar Presentation	2.86	2.86	2.86	2.86	2.86	2.86	0.95	0.95	1.90	2.86
CS881	Grand Viva	2.87	2.87	2.87	2.87	2.87	2.87	-	-	-	2.87
PO Attainment through Results		2.47	2.51	2.39	2.17	2.13	1.69	1.50	1.17	1.55	
80% of PO Attainment through Results		1.97	2.01	1.92	1.73	1.71	1.35	1.20	0.94	1.24	
Stakeholder feedback survey		2.46	2.46	2.44	2.48	2.48	2.40	2.52	3.00	2.50	
20% of Stakeholder feedback survey		0.49	0.49	0.49	0.50	0.50	0.48	0.50	0.60	0.50	
PO Attainment		2.47	2.50	2.40	2.23	2.20	1.83	1.70	1.54	1.74	
Target value		2.10	2.10	2.10	2.10	2.00	1.50	1.50	1.50	1.50	
Gap		NO GAP	NO GAP	NO GAP	NO GAP	NO GAP	NO GAP	NO GAP	NO GAP	NO GAP	
PO Attainment (%)		82.19	83.27	80.14	74.28	73.36	61.11	56.68	51.25	57.94	
Target value (%)		70.00	70.00	70.00	70.00	66.67	50.00	50.00	50.00	50.00	
Gap (%)		NO GAP	NO GAP	NO GAP	NO GAP	NO GAP	NO GAP	NO GAP	NO GAP	NO GAP	

Sample of CO-PO Attainment

B.Tech – CSE – 2016-2020 Batch

File Description	Document
Any additional information	View Document

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

Response: 99.34

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

Response: 754	
2.6.3.2 Total number of final year students who appeared for the examination conducted by the Institution.	
Response: 759	
File Description	Document
Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)	View Document
Any additional information	View Document
Link for the annual report	View Document
Link for additional information	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process	
Response: 3.39	
File Description	Document
Upload database of all currently enrolled students	View Document

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

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

Response:

Research being Institution's major thrust area, has been emphasized since 2012 by creating the Research & Development (R&D) cell which was further strengthened by creating research policy in 2015 and approved by Board of Governors under agenda no 8 dated 27.08.2015, followed by subsequent amendments in the year 2016, 2017,2018 and 2019. The R&D policy is focused to promote research, funding, systematic monitoring of research works. The Research Policy was laid down bearing in mind the necessity of promoting the research environment and culture amidst the faculty members which is available in the website www.nit.ac.in and copies in central library and departmental library for easy access to faculties.

All faculty members follow the R&D policy to establish a research environment in the institute. The Research & Development initiatives aim to build research attitudes for faculty.

Initiatives are taken towards promoting research activities:

1. Study leave for faculty pursuing Ph.D. under different fellowships
2. on-duty leave for Ph.D. coursework.
3. Seed money for the project for faculty.
4. Management funded research and innovation promotion schemes.
5. Training for writing papers.
6. Guiding to write a proposal for Govt. Funded Projects.
7. Incentives for publication.
8. Financial assistance for a student project.
9. Create Centres of excellence and incubation centre.
10. IPR promotion.
11. Funding for filing and Publishing patents.
12. Leave for presenting papers at the conference.
13. Collaborations with foreign universities for research activities.

The R&D committee, Research Advisory Committee, and Research Ethics Committee organize periodical meetings, where all ongoing research new developments etc,are discussed along with upcoming areas of research for faculty and students. the progress of faculties doing Ph.D. and ongoing funded projects are discussed. Research and innovation are promoted among students by revising the undergraduate course curriculum in the year 2018 where a mini-project has been introduced from the very first year. The institute emphasises on to promote collaborative research work and multidisciplinary research work has been one of the major thrust areas of these committee.

Output of which some of the unique facilities are created:

- Bosch Rexroth Centre of Excellence for hydraulics training and fluid power control laboratory
- Sensor and Embedded System laboratory

- Concrete, Soil Mechanics, Highway and Transportation, Survey, Geology, Environmental laboratory.
- Advanced RF and Microwave engineering laboratory
- VLSI Circuits and System laboratory
- PCB Design laboratory

In this regard some of the other initiatives which are landmark activities for Institute are:

2016: MoU between the Confederation of Indian Industry and institute was done to provide consultancy and technology sharing.

2018: The Institute is recognized as Host Institute by MSME. The Institute Innovation Council was established in 2018 and various activities prescribed by MIC, MHRD was conducted to promote innovation and start-up.

2019 :the IIC section of Narula Institute of Technology scored 5 stars and was listed in the top 5 institutes in the Eastern region.

Other than these some common initiatives like National and International conference ,Hackathon are regular feature in the Institute like Benglayhon 2019,Smart India Hackathon 2020.

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	View Document
Any additional information	View Document
URL of Policy document on promotion of research uploaded on website	View Document

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

Response: 3.21

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

2019-20	2018-19	2017-18	2016-17	2015-16
5.23	4.27	2.96	1.97	1.61

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

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

Response: 0.38

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

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

File Description	Document
List of teachers and their international fellowship details	View Document
e-copies of the award letters of the teachers	View Document

3.2 Resource Mobilization for Research

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

Response: 118.88

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

2019-20	2018-19	2017-18	2016-17	2015-16
21.72	45.90	33.83	12.67	4.76

File Description	Document
List of project and grant details	View Document
e-copies of the grant award letters for research projects sponsored by government and non-government	View Document

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

Response: 4.87

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

2019-20	2018-19	2017-18	2016-17	2015-16
19	18	8	4	2

File Description	Document
Names of teachers having research projects	View Document
Any additional information	View Document
Link for additional information	View Document

3.2.3 Percentage of teachers recognised as research guides

Response: 5.43

3.2.3.1 Number of teachers recognized as research guides

Response: 12

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	View Document
Any additional information	View Document
Link for additional information	View Document

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

Response: 45

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

2019-20	2018-19	2017-18	2016-17	2015-16
7	4	4	1	2

3.2.4.2 Number of departments offering academic programmes

2019-20	2018-19	2017-18	2016-17	2015-16
8	8	8	8	8

File Description	Document
Supporting document from Funding Agency	View Document
List of research projects and funding details	View Document
Any additional information	View Document

3.3 Innovation Ecosystem

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

Response:

The Institute strives to promote innovation, entrepreneurship skills among the students and faculty to extend knowledge and transfer technology.

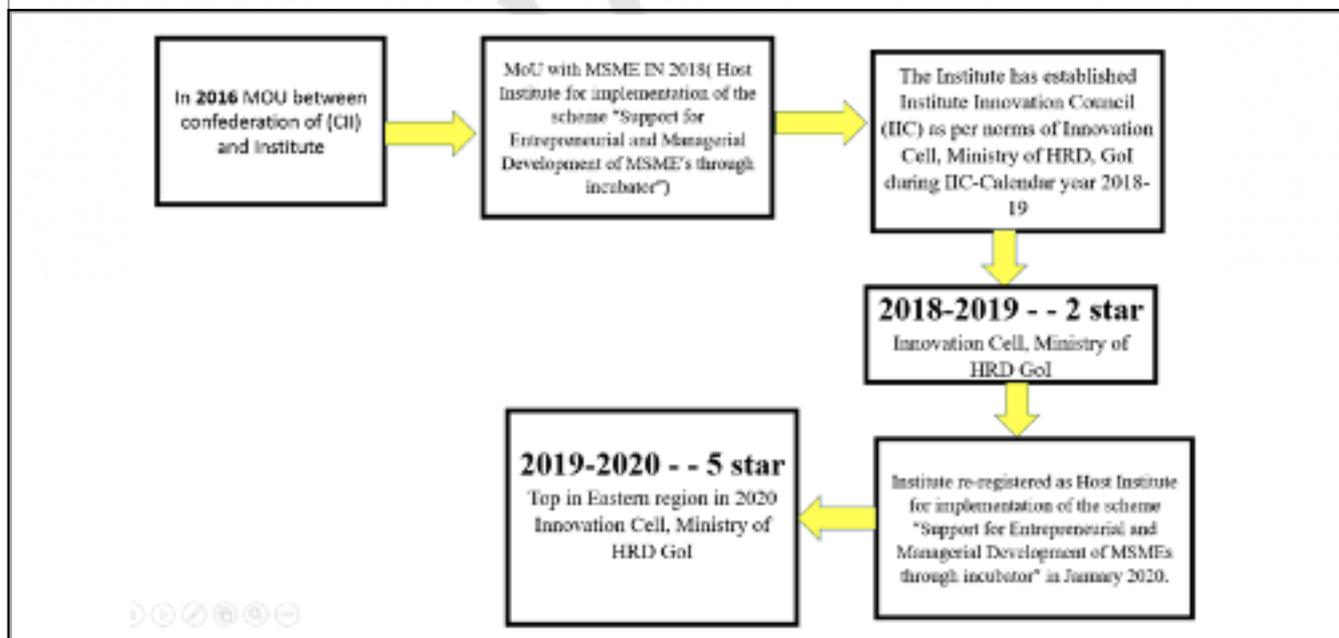
As time passed the Institute has taken no: of initiatives to involve students and faculty for innovation. Over a decade, one of the unique practices is organizing project exhibition where students come with their new ideas which is funded by Institute.

Since 2016 industry and Government started collaborating with Institutes for Innovation for innovation and incubation. Institute also actively initiated in collaborating with these bodies for betterment of students and faculty.

Some of the Initiatives are:

- **2016:** MoU between Confederation of Indian Industry (CII) and Institute was done to provide consultancy and technology sharing.

- **2018:**Institute is also recognized as Host Institute for implementation of the scheme “Support for Entrepreneurial and Managerial Development of MSME’s through incubator” on May 2018. This facilitates to promote ideas, innovations for funding from MSME for budding entrepreneurs.
- **2018-19:**The Institute has established Institute Innovation Council (IIC) as per norms of Innovation Cell, Ministry of HRD, GoI during IIC-Calendar year 2018-19.
- **2018-19:**The Institute undertook various activities prescribed by the Innovation cell, Ministry of HRD, GoI to promote innovation and start up in campus during the year 2018-19 and scored 2 stars.
- **2019-20:**The Institute undertook various activities prescribed by the Innovation cell, Ministry of HRD GoI to promote innovation and start up in campus during the year 2019-20 and scored 5 stars and listed in the top 5 institutes in the Eastern region.
- **2020:**Institute re-registered as Host Institute for implementation of the scheme “Support for Entrepreneurial and Managerial Development of MSMEs through incubator” in January 2020.
- **2020:**6 Faculty members have undergone the Innovation Ambassador Training in March 2020. One faculty member has been nominated for the NISP training and implementation in the Institute.
- Events like hackathon, Idea Competitions, Project exhibition were organized for the students to exhibit their innovative ideas.



Some of the outstanding outcomes have been:

1. An Italian delegate team from CII visited Narula Institute of Technology on 7th Feb 2019.
2. Student Solar Ambassador Workshop in collaboration with IIT, Bombay on 1st October 2019.
3. NASA SPACE APP Challenge Hackathon was organised on the 19th Sept 2019.

4. Innovation Day Campaign from 23rd September 2019 to 15th October 2019
5. Awareness Workshop on National Innovation and Start-up Policy (NISIP) for Students and Faculties in Dec 2019.
6. Internal Hackathon for Smart India Hackathon 2020 was held on 28th Jan 2020
7. Organized CONQUER COVID-19 Hackathon in online mode in April 2020.
8. Idea-o-Meter was implemented in May 2020, for idea collection and further support for commercialization.

Some achievements:

- Joint winner in SIH 2020 Hardware section of Problem Statement SG67 under MSME category
- 1st prize in Elderly Care problem statement in Bengalthon 2019 and won 5Lakhs.
- Motivational Prize in MHRD Mega Online Challenge Samadhan:Fight Corona Ideathon, student innovators category of Fight Corona Ideathon and cash prize of Rs. 10000/-.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

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

Response: 99

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

2019-20	2018-19	2017-18	2016-17	2015-16
38	19	17	14	11

File Description	Document
Report of the event	View Document
List of workshops/seminars during last 5 years	View Document
Any additional information	View Document

3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of

Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee**Response:** A. All of the above

File Description	Document
Any additional information	View Document

3.4.2 Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/supervisors provided at 3.2.3 metric) during the last five years**Response:** 2.08

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

Response: 25

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

Response: 12

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
URL to the research page on HEI web site	View Document

3.4.3 Number of research papers per teachers in the Journals notified on UGC website during the last five years**Response:** 1.31

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

2019-20	2018-19	2017-18	2016-17	2015-16
65	41	38	58	73

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document
Any additional information	View Document

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

five years

Response: 1.75

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

2019-20	2018-19	2017-18	2016-17	2015-16
92	88	66	91	30

File Description	Document
List books and chapters in edited volumes / books published	View Document
Any additional information	View Document

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

Response: 3.06

File Description	Document
Bibliometrics of the publications during the last five years	View Document

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

Response: 11

File Description	Document
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View Document

3.5 Consultancy

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

Response: 83.64

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

2019-20	2018-19	2017-18	2016-17	2015-16
35.95	15.8	10.24	18.44	3.21

File Description	Document
List of consultants and revenue generated by them	View Document
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	View Document
Any additional information	View Document

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

Response: 14.48

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

2019-20	2018-19	2017-18	2016-17	2015-16
4.775	3.536	2.935	1.944	1.292

File Description	Document
List of training programmes, teachers and staff trained for undertaking consultancy	View Document
List of facilities and staff available for undertaking consultancy	View Document
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	View Document
Any additional information	View Document

3.6 Extension Activities

3.6.1 Extension activities are carried out in the neighbourhood community, -sensitising students to

social issues, for their holistic development, and impact thereof during the last five years**Response:**

The holistic development of the students is one of the integral concerns of the Institute. To build good Samaritans for the future in a broader sense, the habit of addressing the social issues enthusiastically is being inculcated from the very beginning through extended activities. The mindset to work for the betterment of the neighbourhood community and society is being nurtured through the mandatory non-credit course of NSS and extended activities for Mandatory Additional requirements (MAR). The practice of rewarding students with points, based on the activities ensures integrity in terms of work and impacts the perspective towards the role of the volunteer. In the process, the sense of holism, nationalism, and zeal for social work are inculcated in the young minds that bear significance in the long run.

To instill the socialistic approach among the first-year students, the National Service Scheme (NSS), an initiative by the Ministry of Youth Affairs and Sports, Central Government of India, is considered mandatory. Due to the presence of this opportunity, the students of the first-year volunteer to aid the society and lend a helping hand to the community in need. Several social works like tree plantation, NGO visits, distribution of handmade paper bags as an alternative to plastic bags to the commoners, mass distribution of masks and sanitizers in the dark hours of the pandemic are some of the major steps taken to aid society under the scheme of NSS.

To accomplish the above-mentioned endeavour, the NSS, and Institutional Social Responsibility wings of the institute have taken steps to promote the following programs:

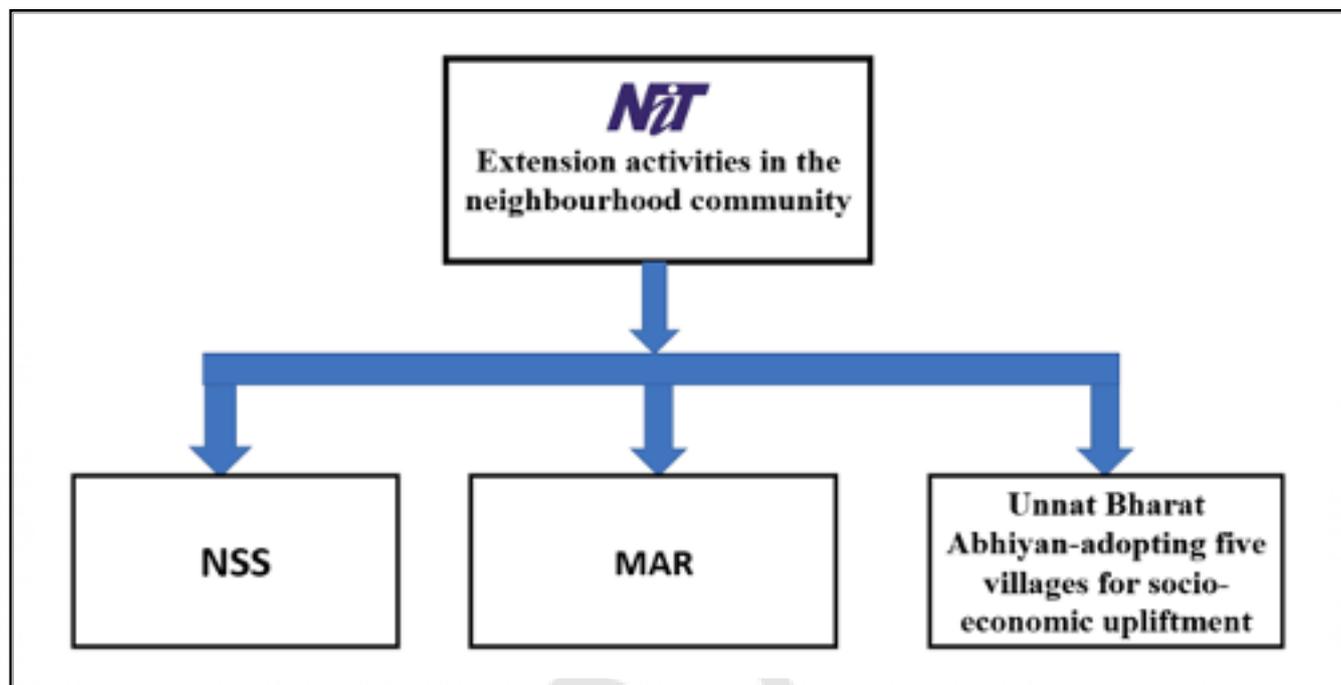
1. Swachh Bharat Abhiyan
2. Blood Donation Camps
3. Plantation Programmes
4. AIDS Awareness Programmes
5. World Water Conservation Day
6. World Tobacco Prohibition Day
7. Special Programmes Related to Health and Hygiene among students in surrounding community people.
8. Women Empowerment Programmes etc.

To maintain the concord of the students to alleviate the society does not end after crossing the border of the first year. In the urge to amass at least 100 MAR points in total, they remain unified with the process and earn a significant portion of it through Extended activities for Mandatory Additional requirements (MAR). Under this scheme the students of the second year onwards participate in various activities as follows:

- Rural Reporting
- Tree Plantation and up keeping (per tree)
- Participation in Relief Camps
- Blood donation camp organization etc .

Under the initiative of Unnat Bharat Abhiyan, by the Ministry of Education, the institute has extended its activities to five different villages in an attempt to bring about the light of socio-economic upliftment of the families. The students undertook a comprehensive survey of these villages and the same was analyzed for the identification and selection of various development activities. As a result, the students are sensitized

towards various problems of the society, and gradually they deviate from the count of rewards and evolve as couth and conscientious professionals, who take up the duty for the betterment of the society with good grace.



File Description	Document
Upload Any additional information	View Document
Paste link for additional information	View Document

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

Response: 8

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

2019-20	2018-19	2017-18	2016-17	2015-16
8	0	0	0	0

File Description	Document
Number of awards for extension activities in last 5 year	View Document
e-copy of the award letters	View Document

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

Response: 71

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

2019-20	2018-19	2017-18	2016-17	2015-16
25	23	7	6	10

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	View Document

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

Response: 70.89

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

2019-20	2018-19	2017-18	2016-17	2015-16
2356	2280	1692	1718	2057

File Description	Document
Reports of the event	View Document
Average percentage of students participating in extension activities with Govt or NGO etc	View Document
Any additional information	View Document

3.7 Collaboration

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

Response: 3.8

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

2019-20	2018-19	2017-18	2016-17	2015-16
10	4	2	1	2

File Description	Document
Number of Collaborative activities for research, faculty etc	View Document
Copies of collaboration	View Document
Any additional information	View Document

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

Response: 8

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

2019-20	2018-19	2017-18	2016-17	2015-16
02	0	0	03	03

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	View Document
Details of functional MoUs with institutions of national, international importance, other Institutions etc during the last five years	View Document
Any additional information	View Document

NVAAC

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

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

Response:

The institute has adequate infrastructure as per the regulatory norms. It has 52 numbers of separate classrooms (provided with proper ventilation, reverberation free and all are ICT enabled) for UG and PG programs along with adequate numbers of tutorial rooms, 8 numbers of seminar halls, one conference room and adequate faculty seating rooms. Adhering to the specifications laid down by the regulatory body. The institute maintains all its UG and PG laboratories (including research laboratories for each department), highly equipped workshops and basic science's laboratories. It boasts of a state-of-the-art in central computing facility and also in language lab with the most advanced AV System and ISIL software. All the departments are equipped with excellent instruments to name a few in the State-of-the-art laboratories in diverse and emerging areas have been established. Some of the beyond curricular laboratories/ industry sponsored laboratories like Remote Sensing, PCB design and Fluid Power Control.

The institute possess worldly laboratories which are the paradigm of modern day automation including Hydraulic Lab, PLC (programmable Logic Controller), along with Industry 4.0 digital transformation which are equipped with most modern industrial setup procured from global technology giants such as BOSCH, Siemens, Honeywell etc.

In recent days, computer system has become the inseparable component for every academic activity. The entire campus has 925 active PCs with the latest i5/i3/Core2Duo, 8GB/4GB/2GB DDR4 RAM technology with different types of LaserJet black and colour printers. All PCs are equipped with 19 numbers of licensed system software and 54 numbers of licensed application software and annually renewed Microsoft campus agreement. Beyond the basic requirement of teaching and learning the institute has several application software as IBM RATIONAL ROSE, CATIA V6, DEL STATISTICA, STAAD PRO, ANSYS, CADENCE, Visual T-CAD, Symica AMS IC Design Tool Kit, Proteus VSM, Synopsys EDA Tools, Mathematica, Caspock, Matlab, LabView, MiPower. The institute also has a central computer centre for the students to fulfil their academic and research activities.

In addition the institute has one digital studio which has the facility for recording and projection with audio visual system.

File Description	Document
Upload Any additional information	View Document

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

Response:

Participating in extracurricular activities make the students do well in their academics, since they learn discipline, time management, scheduling which leads to a better learning process. The institute tries to provide the best of facilities for these. Some of them are as follows:

Facilities for cultural activities: The institute has 2 multipurpose rooms each of 278 sq. m area with 400 seating capacity for cultural activities which are well equipped with four numbers of microphone, two numbers of maple, four numbers of loud speakers and four numbers of multicolour lights are available. Besides these institute proclaims to have 2 common rooms with capacity of 60 each and open space with a capacity of 100 for cultural activities.

Facilities for Yoga Center: A specific Yoga room of 278 sq. m area is there which can accommodate 40 numbers of students and faculties at a time. There is a dedicated Yoga trainer who teaches Yoga every day and the schedule is properly circulated to all the students in the academic calendar.

Games and Sports: The institute encourages the students to do physical activities which substantially remain an integral part of our education system.

At the outset, the institute is having sufficient, adequate and varied facilities available to sustain the diverse indoor and outdoor activities. The distinguished amongst these are:

Indoor Games: The Institute has indoor game facilities for both boys and girls. Indoor sports room having 66 sq. m area comprises of 2 TT tables, 4 Carom boards, and 5 chess boards, 6 ludo boards, 5 rubix cube. Boys and Girls hostel consists of 1 TT table and 2 carom boards each.

Outdoor Games: The institute has multipurpose ground having area of over 3685 Sq. m. to accommodate games like Cricket, Football, Hand Ball, Volley Ball, Kabaddi, Kho-Kho and Tug of war. Beside this the institute has a dedicated badminton court of area 82 sq. m.

1. **Cricket:** A practice net and two numbers of cricket kits are available.
2. **Football:** Five footballs are available.
3. **Handball:** Five numbers of balls with two portable goal post are available.
4. **Volleyball:** Two volleyball courts at a side of the multipurpose ground are there with four numbers of volleyball.
5. **Other sports facilities:** Shot put, Javelin throw, discuss throw facilities are available.
6. **Gymnasium:** There are one modern Gymnasium with the latest equipments to maintain body fitness for the use of students and teachers. The area of the gymnasium is 69 sq. m. The gymnasium has following equipments:

Name of Equipment	Number of ite
DUMBBELLS	1 set
PUSH UP PAD	2 nos
PUSH UP BAR	
SKIPPING ROPES	1 nos
BENCH PRESS	1 nos
MEDICINE BALL	1 nos
4 kg	

RUBBERISED BOUNCY PLATES	1 set
WEIGHT LIFTING ROD STEEL WITH LOCKS - 3 FT.	2 nos
WEIGHT LIFTING ROD STEEL WITH LOCKS - 4 FT.	2 nos
WEIGHT LIFTING ROD STEEL WITH LOCK - 5 FT	2 nos
WEIGHT LIFTING ROD STEEL WITH LOCKS - 6 FT	2 nos
WEIGHT LIFTING ROD STEEL WITH LOCKS EZ - 4 FT	2 nos
GYM SET	1 set

7. Auditorium: Institution also has a dedicated sound proof auditorium of 278 sq. m with seating capacity of 400 which helps to organize different educational and cultural programs.

File Description	Document
Upload any additional information	View Document
Geotagged pictures	View Document

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

Response: 40

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 24

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

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

Response: 20.77

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

2019-20	2018-19	2017-18	2016-17	2015-16
74.58	40.27	75.73	281.88	35.54

File Description	Document
Upload Details of Expenditure , excluding salary during the last five years	View Document
Upload audited utilization statements	View Document
Upload any additional information	View Document

4.2 Library as a Learning Resource**4.2.1 Library is automated using Integrated Library Management System (ILMS)****Response:**

The library is automated using the Integrated Library Management System. Library & Documentation Centre has been automated since 2006. Earlier Libsys 4.0 was used as Library Management Software and it continued till 2016. From 2017 onwards Library Management Software has shifted to LIBMAN software and it comprises seven Library modules to operate all library housekeeping operations automatically. Details of LIBMAN are as follows-

- Name of the ILMS software: # LIBMAN
- Nature of automation (fully or partially): Partial Automated
- Year of automation: 2017

Library Module (# LIBMAN)

Seven modules of LIBMAN Software will support the workflow of the automated Library system.

1. MASTER:

This module would assist to prepare a library database on Students, Staffs, Departments as well as other related persons like publishers & other related issues. This will support the entire process later on to operate library housekeeping activities. Submodules are mentioned as follows-

- Import Students
- Version Master

- Material Type Master
- Publisher Master
- Reader Data Update
- Serial Control Master
- Holiday Master
- Staff Master
- Department Master

2. CATALOGUING

This module would help to prepare a catalogue of every single holding of the library and are comprised of following sub modules-

- Accession Generation
- Accession Cancellation
- Accession Sub allotment

3. CIRCULATION

This module would support the entire transaction of library holdings. This module comprises of following sub modules-

- Accession Issue
- Return of Accession
- Late Fine Recovery
- Accession Re-Issue

4. SERIAL CONTROL

This module is meant for controlling library holding on Serial Publications.

5. UTILITY

This module is to change passwords for security purposes at any point of time.

6. QUERY

This module has two sub modules to meet any queries regarding any accessed materials of the library & also has a provision to print Bar Code for Library holdings. Two sub modules are -

- Queries on Accession
- Barcode Print

7. REPORTS

This module helps to generate 7 types of report on the basis of Library Accession & Transaction details of Library both for students & staff.

This module comprises of 7 sub modules as follows-

- Accession Register
- Accession Cancellation Register
- Accession Issue Register
- Accession Return Register
- Fine Recovered Register
- Accession Transaction Register
- Department Wise Average Issue

8. Web OPAC

Institutional OPAC may be searched to check the accessible status of books through the URL <http://122.252.249.26:92/forms/frmdashboard.aspx#> . OPAC search is available under Author Name, Title, Call No. & ISBN criteria.

File Description	Document
Upload any additional information	View Document

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

Response: B. Any 3 of the above

File Description	Document
Institutional data in prescribed format	View Document
Details of subscriptions like e-journals, e-books , e-ShodhSindhu, Shodhganga Membership etc	View Document

4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

Response: 17.85

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

2019-20	2018-19	2017-18	2016-17	2015-16
23.31	11.27	9.26	21.97	23.42

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

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

Response: 2.54

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

Response: 80

File Description	Document
Details of library usage by teachers and students	View Document

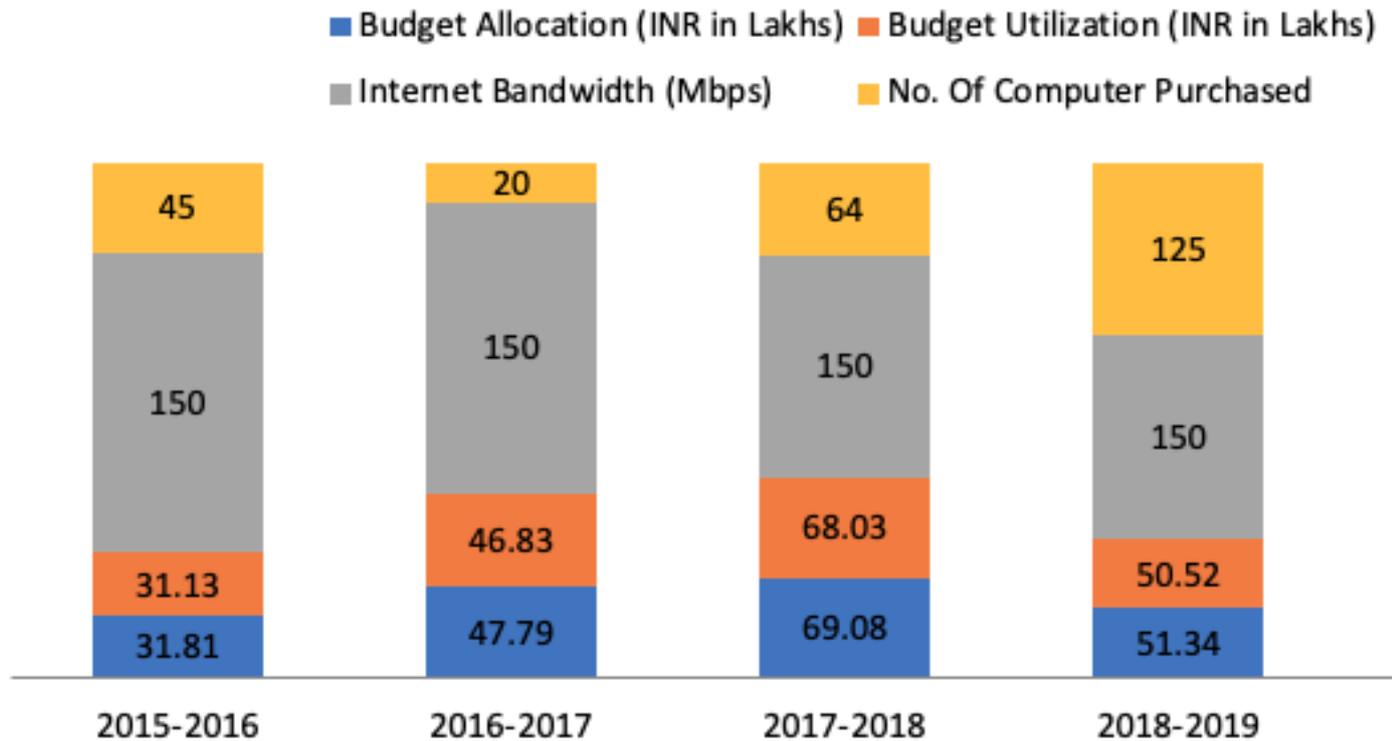
4.3 IT Infrastructure

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

Response:

The institute has embraced an effective **ICT** policy relating to security and user services. Infrastructure is regularly upgraded to provide IT requirements which include Internet/Wi-Fi /Storage/Security/Smart classroom up to date.

IT Infrastructure Upgradation Bar Chart Wise



Initiatives implemented for upgrading IT facilities:

Internet Bandwidth:

A constant bandwidth of 150 Mbps is being provided by the institute during the last 5 years.

Wireless Network:

The institute has effectively and periodically marched on from a handful of Wi-Fi hotspots to a robust and seamless Wi-Fi campus by regularly reviewing usages and requirements. It has 25 access points.

No of Computers:

The Institute has 925 numbers of working computers with another 150 old but working PCs as emergency replacement support.

The list of PCs purchased and the allocated budget (2015-2016 to 2019-2020) for upgrading the IT facilities are as follows:

Year	No. of PCs Purchased	Computer Specifications	Budget Allocation (INR Lakhs)
2015-2016	45	Intel Core 2 Duo/Intel Core i3, 2 GB RAM, 250 GB/500 GB HDDs, 18.5" TFT monitor	31.81
2016-2017	20	Intel Core i3, 2 GB RAM, 500 GB HDDs, 18.5" TFT monitor	47.79
2017-2018	64	Intel Core i3/i5, 4 GB DDR4 RAM, 500 GB/1 TB HDDs, 19" TFT monitor	69.08
2018-2019	125	Intel Core i3/i5/i7, 8 GB/16 GB DDR4 RAM, 500 GB/1 TB HDDs, 19.5" TFT monitor	51.34
2019-2020	137	Intel Core i3/i5/i7, 8 GB/16 GB DDR4 RAM, 500 GB/1 TB HDDs, TFT monitor	57.94

Network & Security:

NIT is secured by a formidable 300E Fortigate UTM which acts as the central gateway to its hierarchical layered and structured network managed by Core switches, Distribution layer switches and Access layer switches over a 1Gb fibre-optic backbone.

Surveillance and Communication:

The entire campus is covered by over 305 numbers of CCTV cameras which provide 24x7 surveillance with 15 days backup facility.

Projectors:

The institute reviews its projector requirements and allocated budgets accordingly. The institute has a handsome number of ICT-enabled classrooms with overhead projectors with another 8 projectors being added in the last financial year.

Biometric machines:

Institute currently has 3 biometric sensor machines for its fingerprint attendance.

Server:

The institute has the best and most advanced Server Room. It is equipped with a dedicated Server Room with 7 high-end Servers. The whole IT infrastructure is being maintained through this Server Room. Following are the customized features:

- 6 IBM Servers
- 1 HCL Server
- 2 Proxy Servers

- 1 ERP Server
- 1 DBMS Server
- 1 Bio-metric and Attendance Server
- 2 Data Servers
- Fiber Optic backbone
- Gigabit Ethernet
- Cyberoam UTM
- 1 Layer-3 Xtreme Networks Managed Core Switch
- 1 Cisco 3560G Managed backup Core Switch
- 12 Cisco 2950 Managed Layer-2 Switch
- Centralized 36u Tower Rack for management and monitoring
- 39 Mbps dedicated Leased Line Internet Service (1:1)
- Structured Networking
- UPS backup

Firewall: The institute has a firewall security device that monitors incoming and outgoing network tracking and permits and blocks data packets based on security alerts.

File Description	Document
Upload any additional information	View Document

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

Response: 3:1

File Description	Document
Upload any additional information	View Document
Student - computer ratio	View Document

4.3.3 Bandwidth of internet connection in the Institution.

Response: 750 MBPS

File Description	Document
Details of available bandwidth of internet connection in the Institution	View Document

4.3.4 Institution has the following Facilities for e-content development

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

Response: C. 2 of the above

File Description	Document
Upload Additional information	View Document
Institutional data in prescribed format	View Document
Link for Additional information	View Document

4.4 Maintenance of Campus Infrastructure

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

Response: 9.35

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

2019-20	2018-19	2017-18	2016-17	2015-16
33.17	35.10	102.02	49.14	45.68

File Description	Document
Upload any additional information	View Document
Details about assigned budget and expenditure on physical facilities and academic facilities	View Document
Audited statements of accounts	View Document

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

Response:

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
2. The institute deposes 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.

All the necessary items like various types of chairs, benches, physical and digital boards, electrical and mechanical equipment are looked after by trained personnel who routinely visit all the departments to scrutinize these pieces of equipment. The institute carries out routine maintenance work of computers, LCD projectors, CCTV cameras, software installations, and networking handled by AMC or service providers/IT officers/software partners. Institute has a designated system administrator who is taken care of the utilization and maintenance of IT infrastructure. All expected facilities with high-end equipment, including lifts, water coolers, air conditioners, fans, lights installed in the whole building, have AMCs which are renewed periodically.

Maintenance

Building:

For maintenance of the building, the designated civil engineer and site supervisor inspect the whole campus regularly. A register for civil maintenance eased to complain with a complaint number filled with signature, date, time, and problem type.

Then it is inspected within a stipulated period by the civil supervisor in the presence of the head of the department. Then the final repairing work is being done.

The electrician frequently does electrical maintenance through routine checks of different locations in the institute and the electrical complaint register noted by different sections. If the significant problem persists, then outsourcing is required through the concerned supervisor with register permission.

The plumbing maintenance and checking are done regularly twice a semester. If any problem occurs, then a complaint is logged to the complaint register through the department. Finally, after supervisor inspection, the problem has been resolved through the outside vendor and plumber with permission and final approval of the admin executive and register.

Laboratories:

The equipment of the laboratory is maintained and checked fortnightly. If any damage or breakdown of the equipment occurs, it is repaired or maintained through skilled technical assistants. The information is also mentioned in the monthly report by the lab in charge. If the technical assistant does not solve the problem, then the concerned lab in charge reports the matter to the department head. The head of the department informs the concerned vendor through the admin executive to sort out the problem.

Furniture: If any furniture gets damaged, it is reported in the complaint register through the departmental head and deputed in charges of that section. Then the matter is inspected by the supervisor, who contacts the concerned vendor (as per AMC) to repair that particular furniture.

Grounds: The ground is being maintained by the designated staff under the guidance of the site supervisor regularly.

Transport: The institute provides bus service for the students and the staff. Separate logbooks containing the details of oil consumption, distance traversed, and timing is being maintained for three buses by the concerned staff. The cleaning of the buses is also being done regularly.

Generator: A separate generator house is there in the institute. It is maintained regularly by designated staff. The logbook has been maintained for the generators. Periodic observation and inspection by internal electricians are being done. If any malfunctioning occurs, it is reported to the supervisor by the electrician, who contacts the AMC agency to resolve the problem.

Lift: Lifts are operated in the institute by the liftman. Periodic observation and inspection by the deputed staff are being done. If any malfunctioning occurs, it is reported to the supervisor by the electrician, who contacts the AMC agency to resolve the problem.

Utilization

Classroom: Classroom allotments are done by the timetable committee.

Laboratories: Laboratories allotments are done by the respective head of the department.

Seminar Hall: The seminar hall booking is made by HOD.

Auditorium: The auditorium booking is made through the "Registrar section" with prior resource mapping and utilization.

Transport: Students can avail of the college bus facilities through enlisting their names to admin executive as per the availability.

Sports: The sports materials and ground allotments are done by the sports-in-charge as per the availability.

File Description	Document
Upload any additional information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

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

Response: 7.67

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

2019-20	2018-19	2017-18	2016-17	2015-16
247	237	236	200	174

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

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

Response: 0

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

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

File Description	Document
Upload any additional information	View Document
Number of students benefited by scholarships and freships besides government schemes in last 5 years	View Document
Institutional data in prescribed format	View Document

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

Response: B. 3 of the above

File Description	Document
Details of capability enhancement and development schemes	View Document
Any additional information	View Document
Link to Institutional website	View Document

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

Response: 37.96

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

2019-20	2018-19	2017-18	2016-17	2015-16
1057	726	1244	1254	1102

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	View Document
Any additional information	View Document

5.1.5 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases 1. Implementation of guidelines of statutory/regulatory bodies

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

Response: A. All of the above

File Description	Document
Upload any additional information	View Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document
Details of student grievances including sexual harassment and ragging cases	View Document

5.2 Student Progression

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

Response: 85.64

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

2019-20	2018-19	2017-18	2016-17	2015-16
652	641	578	597	593

File Description	Document
Upload any additional information	View Document
Self attested list of students placed	View Document
Details of student placement during the last five years	View Document

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

Response: 5.01

5.2.2.1 Number of outgoing student progressing to higher education.

Response: 38

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education	View Document
Any additional information	View Document

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

Response: 10.28

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

2019-20	2018-19	2017-18	2016-17	2015-16
15	11	5	2	0

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

2019-20	2018-19	2017-18	2016-17	2015-16
74	61	54	52	51

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

5.3 Student Participation and Activities

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

Response: 12

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

2019-20	2018-19	2017-18	2016-17	2015-16
1	4	4	3	0

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

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

Response:

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.

File Description	Document
Upload any additional information	View Document

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

Response: 6.4

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

2019-20	2018-19	2017-18	2016-17	2015-16
6	6	8	8	4

File Description	Document
Upload any additional information	View Document
Report of the event	View Document
Number of sports and cultural events / competitions organised per year	View Document

5.4 Alumni Engagement

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

Response:

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 official What's app 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 conclave, departmental seminar, and industry visit, 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 What's app 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. The Alumni members in various industries share their openings of training and internships in the official What's app 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.

File Description	Document
Any additional information	View Document
Link for additional information	View Document

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

Response: A. ? 15 Lakhs

File Description	Document
Any additional information	View Document
Link for additional information	View Document

NAAC

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

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

Response:

The institute aims at delivering Engineering education through an effective teaching learning process to compete with global standards. The process gets more efficacious after getting its 'Autonomy' status in the year 2015. The institute's core tenets are evident in the Vision and Mission which was revised in 2018.

Vision

To make the Institute excellent in technological education and research by imparting equitable, inclusive, ethical, flexible and multidisciplinary knowledge to budding technologists to serve the society.

Mission

1. To establish continuously improving academic ambience in the Institute in order to prepare the students with beyond curriculum knowledge, creativity, innovation, problem solving abilities, teamwork, communication skills etc. for their holistic development.
2. To collaborate with Institutes of higher education, Professional Societies, R&D and Industrial organizations for continuous improvement of the academic research environment in the Institute and to build a strong Industry-Institute interface.
3. To promote and nurture entrepreneurial and innovative quality of the students providing proper education, training and supportive facilities so that future entrepreneurs emerge with flying colors.
4. To strengthen quality and knowledge-base of faculty through faculty development programmes for continuous up gradation to remain in tune with dynamically changing technology.
5. To become a responsible contributor in the socio-economic development of the society through excellence in education and research.

Quality Policy

1. Promoting the adoption of appropriate standards and practices for good governance, to bring in transparency of all operations and thereby improving credibility at all levels.
2. We target towards industry-ready students to be through interactive teaching learning process involving state of the art class rooms, laboratories, libraries, corporate exposure and innovative project work.
3. Encouraging higher studies/research for both faculty & staff for up gradation of knowledge through participation in Quality Improvement Programs, Seminars, FDP's, Workshops and Webinars etc.
4. The institute boasts of upgraded and updated equipment based laboratories in emerging areas to promote R&D activities including participation in Govt. and Industry funded projects.
5. Having continuous interaction with Professional Societies that would encourage professional growth and

development of the students, faculties and staff for mutual benefit.

The Institution excels in academics for over two decades due to the continuous review and improvement of quality policies under the effective leadership bodies of BOG, Academic Council, BOS, IQAC along with Principal, Registrar, HODs, faculty etc. The efficient leadership of the Management helps to achieve the Vision, Mission and Quality Policy of the institute reflected through a host of innovative activities like teaching-learning, creation of state of art infrastructure, placement drive and in organizing several other activities.

The BOG comprises of a team of academicians, professionals and philanthropists whose sole motto is to serve the society with national/international standards of quality education; motivate and encourage the budding students to build entrepreneurship qualities and excel in research and development.

Therefore, through effective leadership the governance of the institute targets toward the attainment of the Vision, Mission and Quality Policy stated above.

File Description	Document
Any additional information	View Document
Link for additional information	View Document

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

Response:

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, employer, etc.

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 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 R&D,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, equipments 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.

A case study showing degree and extent of powers in financial decentralization is also provided in additional document.

File Description	Document
Any additional information	View Document
Link for strategic plan and deployment documents on the website	View Document
Link for additional information	View Document

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

Strategic/Perspective plans are most important for any institution to grow and develop a vision and mission in a global environment. The institute way back in the year 2015 vide BOG agenda no.10 dated 27th August 2015 conceptualized a five-year strategic/perspective plan for quality enhancement. The broad features of the plan were:

i)Target in Ranking and accreditation:

? NAAC A+ grade by 2021

? QS Rating-4 STAR for the institute and 3 STAR for one department by 2019

? NBA-accreditation of eligible UG and PG programs by 2017, and UG programs of ME by 2020

? All eligible Programs accreditation by 2021 with a score of more than 650

ii) Encouragement in Research culture in faculty and students

iii) Empowering Human Resource Management

iv) Strengthening collaboration with Industry

v) Enhancing Outcome of Students

vi) Restructuring and upgrading need-based Curriculum.

All the above initiatives were launched on war-footing in subsequent years with an eye on year-marked milestones. However, due to faculty crunch and resource up-gradation on various fronts, the achievements remained tardy and all-out vigorous efforts were being made to reach the expectations very shortly.

The activity successfully implemented based on the strategic plan:

To keep pace with the changing technological advancements, the institute has collaborated with **BOSCH-REXROTH** of Germany, to form a Centre of Excellence with training facilities. It was formed in 2019 to provide facilities to students and faculty to adopt the latest emerging technology in the subject domain. The students get exposure to go through hands-on training in a simulated environment. They also get ample opportunity to try various innovative ideas in the field.

A Faculty Development Program on “Fluid Power Control System-Hydraulic & Pneumatic” was organized on 1st-5th July 2019 at the Bosch Rexroth Centre of Excellence. Good numbers of faculties of different fields were benefited by attending FDP on Fluid Power & Control. The participants were familiarized with the various ingredients of the devices in the Bosch Rexroth Centre of Excellence. The extensive hands-on training was performed which helped to understand the working principles of the machines, troubleshooting and maintenance of the systems.

Various studies in the field of Fluid Power Control are conducted by the faculties and students through this Centre of Excellence. Few of the studies mentioned below

- Study of construction and working Hydraulic pumps, motors and Pneumatic Compressors
- Study of Basic hydraulic circuit for the working of the double-acting cylinder and a hydraulic motor
- Study of Speed control circuits. Meter-in circuit for extending speed control and Meter-out circuit for retracting speed control
- Study of Circuits for the Use of different direction control valves and valve actuation in the single and double-acting cylinder and multi actuation circuits.

Through the above studies, the latest emerging technology in the subject domain is adopted with encouragement for innovative propositions.

Four students have done internships under this domain and got placement in various companies such as Qualcomm Solutions, AO Smith etc in 2019 onwards.

File Description	Document
Link for Strategic Plan and deployment documents on the website	View Document
Link for additional information	View Document

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

Response:

The Institutes administration has been decentralised to a great extent. The Statutory and the Non-Statutory Committees look after the academic and administrative procedures. The Statutory Committees are constituted as per guidelines of the Regulatory Bodies

The pictorial representation of various academic and administrative setups shown in the organogram.

The Institute is operated through various key heads like Training and Placement officer, Dean R&D, Head of the Department, Controller of Examination, Librarian, Registrar and Sports officer. Principal, as the head of Institute, operates and implements as per guideline given by Board of Governors (BOG). Principal is assisted by Academic Council, IQAC and Finance committee. One major pillar of the institute is Dean R&D who looks after all Research & Development activities including Patent and Innovation.

The Head of the Department is responsible for academic activities of the respective department and is supported by BOS. The Institute has introduced the practice of rotation of the HOD (Head of Department) once in five years amongst the professors of the department as per seniority list from 2018 vide BOG agenda no. 12 dated 9th June 2018. The Controller of Examination is assisted by the Board Of Examination and takes care of all examination related activities. Registrar takes care of administrative activities including Housekeeping, Security, and Transport. Warden, Store In charge & Civil Engineer look after in domain activities as per instructions given by Registrar.

Statutory Committee	Responsibility	Frequency of the meeting/year
BOG	Define the role and mission of the college and set the strategic directions for the college to achieve.	Four
ACADEMIC COUNCIL	Maintain of standards of education, teaching and training, interdepartmental coordination, research, examinations etc,	Twice
BOS	Frame the content of various courses, reviewing and updating the content from time to time, introducing new courses, mapping of CO-PO. Review of attainment level etc.	Twice
FINANCE	Monitor the Institute's budget and finance.	Twice
INTERNAL QUALITY ASSURANCE CELL	Develop a quality system for consistent and catalytic programmed action to improve the academic and administrative performance of the College.	Four

The service rules of the institute were updated and finalized in the year 2018. As per the Service Rules all appointments to the posts of teaching and non-teaching staff of the institute is made following the recruitment policy by appointing Authority on the recommendation of the selection committee constituted by competent authority. Recruitments are made following the eligibility criteria prescribed by the statutory bodies. In addition, there are several Committees that operate in functional areas like co-curricular, extra-curricular activities, community connect program, innovative idea and project competition, different Students' welfare activities etc

The institute has an annual appraisal system for all staff members. This is a well-defined process wherein the employee fill up their self-appraisal form and feedback is collected in a structured manner from the immediate Head of the Department, Head of the Institution and Students. The data collected is analysed and annual increment is given on the basis of performance appraisal

The institute has a well defined promotional policy which is prepared following the guidelines of the statutory bodies. The faculty and staff submit their application for consideration under Career Advancement Scheme of the Institute and the same is processed as per the Promotional Policy of the Institute

Awards and recognition are given to the faculty for their contribution in R&D activity

Leave management, payroll management, etc. are done on ERP in a transparent and effective manner

File Description	Document
Link to Organogram of the Institution webpage	View Document
Link for additional information	View Document

6.2.3 Implementation of e-governance in areas of operation

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

Response: A. All of the above

File Description	Document
Screen shots of user interfaces	View Document
Institutional data in prescribed format	View Document
ERP (Enterprise Resource Planning) Document	View Document
Any additional information	View Document
Link for additional information	View Document

6.3 Faculty Empowerment Strategies

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

Response:

This institute offers numerous welfare measures for teaching and non-teaching staff as below. These are briefly summarized as under:

Leave Rules: (For all employees except categorically mentioned)

A. CL(Casual Leave): 12 days annually

B. EL(Earned Leave):

i. 30 days annually for vacationalemployees (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 for Teaching and Non-Teaching Staff

- 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 patents, corresponding details of assistantship has been furnished in criteria 6.3.2
- e. 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

File Description	Document
Link for additional information	View Document

6.3.2 Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years.**Response:** 76.8**6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
221	217	154	138	85

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document

6.3.3 Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.**Response:** 5.8**6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
10	8	6	5	0

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).**Response:** 65.1

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

2019-20	2018-19	2017-18	2016-17	2015-16
185	120	134	168	080

File Description	Document
IQAC report summary	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

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.

File Description	Document
Any additional information	View Document

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

Response: 25.67

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

2019-20	2018-19	2017-18	2016-17	2015-16
07.05	05.15	4.69	4.61	4.17

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

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

Response:

Resource mobilization policy and procedure of the Institute as follows.

The Institute generates its fund from student fees, Hostel fees, Project Fund and contribution from Trust for infrastructural development for carrying out its regular activities.

Student fees constitute the bulk share but the total funds generated always remain in short supply to meet emerging demand. The Finance Committee of the college makes strenuous effort to find ways and means to generate additional resources . Efforts in recent past have been made for additional resources through sponsored research funds , entrepreneurship development programmes and other funding mechanisms .

The institute utilises its funds on the basis of systematic budgetary control. It utilises its funds for investment towards cost of Infrastructure development and augmentation, new laboratory setup, procurement of new laboratory equipments, value addition to its old equipments, to meet the staff cost i.e. Salary with perquisites and benefits to the faculty and staff members, expenditure towards library books, journals, subscriptions and other reading course materials, to purchase the consumables for laboratory use, maintenance for academic support and physical support facility, holding seminars and workshops for faculties and students. Fund utilised for maintenance for hostel facility, recurring expenditure like electricity, internet, registration and affiliation, security and other running expenses. Fund utilised as financial assistance to Faculty and Staff members to attend seminar, conference and workshop, Fund utilised as seed money for research work, conducting National and International Seminar & Conference.

Fund also utilised for student Stipend for higher study, Scholarship to financially weaker students and to the students on the basis of merit, for student training, projects, cultural activity, sports and other related activities.

Funds are utilised as per the budget sanctioned for a particular year. All out efforts are made that there is no excessive expenditure; money is spend as per administrative sanctions and purchases are made as per standard procedure.

File Description	Document
Any additional information	View Document

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes visible in terms of – Incremental improvements made for the preceding five years with regard to quality (in case of first cycle) Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)

Response:

Internal Quality Assurance Cell (IQAC) conducts activities to ensure the qualitative aspects of the Institute's functioning units. Since the inception of IQAC on 3rd January 2012, it has been contributing significantly in key areas by assuring quality strategies.

Strategy-1: Ensuring efficient and progressive performance of academic, administrative and financial tasks through timely audit in each session with reformatting of performance parameters if required.

Strategy-2: Tracking the progress of research activities through dedicated R & D Cell with the encouragement of research activities by awarding special credit in the faculty-performance appraisal system.

Strategy-3: Introducing LMS and MOOCs to facilitate the integration of modern methods of teaching and learning.

Strategy-4: Ensuring implementation of the Outcome-Based Education (OBE) through revision of syllabus and preparation of question paper based on Bloom's Taxonomy and emphasis on modern pedagogical training to teachers to shape their actions, judgments, and other teaching strategies.

Strategy-5: Adequacy, maintenance, and proper allocation of support structure and services by ensuring availability of resources e.g., Library Books (soft and hard copies), Journals, Lab Equipment, Supporting Staff, etc.

Strategy-6: Sharing research findings and networking with other institutions in India and abroad by conduction of FDPs, conferences, workshops, seminars, research collaborations, membership of

professional bodies, Memorandum of Understanding (MOU) with academia and industries.

As examples, the following two practices are provided which are exercised meticulously as a result of institutionalizing the quality assurance initiatives by IQAC.

Practice 1: Facilitating Digitization of Teaching-Learning Process:

The Learning Management System (LMS) as an integral part of the teaching-learning process had initially got cognizance in IQAC meetings in the year 2018, and following practices are ensured.

- **Creating Updated LMS Contents:** At the beginning of the semester, course instructors ensure the availability of updated video lectures and study materials in alignment with the lesson plan.
- **Ensuring Quality and Utilization:** To ensure the quality and utilization of the LMS content, feedback and usage reports are collected from students at the end of the semester.
- **Using LMS as Assessment Tool:** Throughout a semester, the course instructors upload assignments and quizzes in the LMS to assess the students.

Practice 2: Facilitating Outcome-Based Education:

The importance of the OBE system for the assessment of a learner's ability is based on Bloom's Taxonomy.

- **Mapping of CO-PO & CO-PSO:** During syllabus preparation, the course outcomes (CO) for each course are prepared using action verbs of various learning levels recommended by Bloom's Taxonomy. Correlation levels of COs with POs and PSOs are also decided.
- **Preparing CO Mapped Question Papers:** Each question in the final semester examination is mapped with CO for tracking proper distribution of Bloom's Taxonomy Levels. It also helps in the assessment of the PO and PSO attainment level of a course.
- **Assessing CO Based PO & PSO Attainment:** At the end of a semester, results are analyzed to generate CO based PO & PSO attainment report.

File Description	Document
Any additional information	View Document

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities (For first cycle - Incremental improvements made for the preceding five years with regard to quality For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives)

Response:

Prior to 2012, Institute would review its teaching-learning process, structures & methodologies of operations, and learning outcomes as departmental level exercises. After the establishment of IQAC, the review is being carried out for the teaching-learning process, structures & methodologies of operations, and learning outcomes at periodic intervals through institutionalized set up by IQAC.

The IQAC plays a vital role to make sure that whatever strategy has been adopted to improve the quality of the teaching-learning process is being implemented properly and the intended outcome is achieved. In order to do this, the IQAC establishes review procedures and modalities to collect reports periodically on various aspects of the teaching-learning process and learning outcomes for preparing its Annual Quality Assurance Report (AQAR). In order to discuss qualitative aspects of various review reports, IQAC conducts periodical meetings throughout the academic year.

The followings are the two examples of reviews and their implementation on the teaching-learning process facilitated by the IQAC.

Example 1. Review Mechanism of Teaching-Learning Process:

In general, IQAC periodically collects reports from various departments/units holding several discussions with the concerned authorities for preparing AQAR on various criteria of the Teaching-Learning Process. In order to review the teaching-learning process, IQAC verifies some contextual review items periodically to ensure the quality of various academic aspects. The nature of the data collection by IQAC from various institutional departments/units for review is outlined below.

- The following reports/information/data items are collected from each Department
 - Course files containing lesson plans in alignment with the Academic Calendar, Time Table, availability of learning resources are collected at the beginning of the semester.
 - Syllabus coverage, availability of course materials, number of conducted classes, attendance reports, course assignments, and the respective student performance reports are collected.
 - Reports regarding slow-learner and advanced learner are collected for active measures.
 - Reports on extracurricular events conducted by the departments and the achievements of the students are also collected.
 - Data on Higher studies are collected at the end of each academic session.
 - Reports on CO, PO & PSO attainment are collected and analyzed.
- Controller Section: The following are collected from the Controller Section at the end of the semester.
 - CO mapped question papers
 - Results of the students
- Training & Placement Cell (T & P): The following are collected from T & P cell at the end of the academic session.
 - Consolidated report on placement records.
 - Report on special training programs for the students conducted by T & P cell.
 - Feedbacks of employers.
- Research & Development Cell (R & D):
 - Reports on R & D activities (publications, patents, funded projects, collaborations, etc.) are collected.
- Alumni Association:
 - Feedback on the teaching-learning process is collected from Alumni.
 - Activity reports of Alumni interactions.

Academic and Administrative Audit: IQAC conducts Academic and Administrative audits each year based on the data collected from various departments/units. Subsequently, the IQAC analyses Academic and Administrative audits report for necessary action.

Example 2. Review Mechanism of Attainment of Course Outcomes(COs), Program Outcomes(POs), Program Specific Outcomes (PSOs) :

In order to ensure the attainment of learning outcomes, the Institute follows the Outcome-based Education (OBE) process. In this context, IQAC reviews the attainment of COs after publishing end-semester results. IQAC also reviews the attainment of POs & PSOs for each program after completion of each academic session. Gap analysis between attainment level and target level is carried out. If the attainment of COs, POs, and PSOs are achieved, then IQAC suggests to increase the target level. However, if the target level of attainment is not achieved, IQAC suggests to take necessary action.

A few Examples of Initiatives for improvement of the teaching-learning process:

- Introduction of Bloom's taxonomy-based CO mapping in question papers
- Project-based learning
- Participative learning
- Introduction of soft skill training
- Introduction of Coding and project competitions (Hackathon, Ideathon) and establishment of student chapters with professional bodies
- Introduction of LMS
- Participation in MOOCs
- Conduction of domain-specific webinars, workshops, training programs
- Emphasis on research activities of students and faculties
- Recognition and awards to students, faculties, and staff on various aspects of academics

File Description	Document
Any additional information	View Document

6.5.3 Quality assurance initiatives of the institution include:

- 1.Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements**
- 2.Collaborative quality initiatives with other institution(s)**
- 3.Participation in NIRF**
- 4.Any other quality audit recognized by state, national or international agencies (ISO Certification)**

Response: 3 of the above

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Paste web link of Annual reports of Institution	View Document
Link for additional information	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

Response:

The Institute gives special emphasis on the promotion of gender equity in the campus, cutting across administrative and academic levels. The Institute aspires to foster optimum academic output from all its students, cutting across gender boundaries. Steps are taken to ensure that students safely move around on the college campus at all times, especially during their late college hours for practical classes. Students are sensitized at all levels through awareness programs, campaigns, street –plays, workshops on gender equality, etc. organized by the Institute throughout the year in ensuring the students understand the value of gender dignity as well as equality.

The number of gender equity promotion programs organized by the institution during the last five years are as follows:

Number of gender equity promotion programs organized by the institution year-wise during the last five years

Year	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016
No. of program Conducted	9	7	8	8	6

(a) Safety and Security:

The institute maintains safety and security. Men and Women security guards are posted across the campus. Security checkpoints at all campus entries and exits where the Identity cards of every stakeholder are properly checked. Rotational duty is maintained by all faculty members for discipline and security. The Campus is well protected through close circuit cameras in different locations. A total 185 numbers of close circuit cameras (security cameras) are installed in different locations and floors of the institute. A separate monitoring room is located ground floor of the institute. Separate hostels for girls properly care for respective lady wardens.

(b) Counselling :

The Institute relies on strong counseling practices. In this regard, students are effectively guided by psychologists for career advancement and overall character development. A well-defined mentoring system is practiced in the Institution. Students are continuously monitored and guided in all aspects of academic matters, contact parents/guardians if the situation demands.

(c) Common rooms:

The Institute maintains two separate common rooms for boys and girls for healthy recreation and creative activities. The space has been designed to give students a place to relax, study, have informal discussions during free time.

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

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

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

Response: C. 2 of the above

File Description	Document
Geotagged Photographs	View Document
Any other relevant information	View Document

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

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

Response:

Solid waste management: The institute strictly maintains the waste segregation rules, laid by the government in new solid waste management Rules. All solid wastes from college and hostel are segregated at source and disposed properly. Green/Blue/yellow colour dustbins for biodegradable waste and red colour

dustbins for non-biodegradable waste are placed in every floor along with hostels and canteen. The biodegradable waste is recycled using the composting machine installed in the college campus. The non biodegradable wastes are handed over to suitable external vendors.

Liquid waste management: NA

Biomedical waste management: NA

E-Waste Management

The institute has successfully recycled 9348.15 Kg of E-Waste in the 2019-20 financial year. In recognition of the institute's efforts towards ethical collection and systematic channelization of such a huge quantity of E-Waste materials, a Green Certificate has been awarded to the institute by Hulladek (Eastern Regions' only recognized/certified recycler).

After tediously tabulating, categorizing the different types of scraps/E-Waste present at the institute premises, the process of vendor selection and subsequent disposal of these E-Waste was carried out with the highest quoting vendor.

The Institute maintains and carries out an organic method of selecting and cataloguing every single one of unserviceable E-Wastes like computers, printers, cables, floppies, CDs, mouse, keyboards and other IT items, which are then disposed off through selected vendor as per guidelines for implementation of E-Waste (Management and Handling) Rules, 2016 issued by the Central Pollution Control Board.

The process is repeated every five years.

Steps followed:

The E-Waste/scraps are selected, tabulated and then catalogued for systematic quoting procedures from a minimum of 3 qualified/certified recyclers. Then a CSQ with recommendation is forwarded to the NIT's Internal E-Waste committee by the System Administrator. Then each recycler is interviewed and a uniform yearly price negotiation takes place for selection of the most competent vendor/recycler. The items are then audited by the selected auditor along with the NIT's internal designated auditor (normally the team of System Administrator, Stores Manager and Accounts Officer). The said items are disposed off and recycled as per official Government's norms. The recycler then awards the Green certificate in recognition of the institute's green initiative.

Waste recycling system

As per the new solid waste management Rules, laid by the government it has been advised that the biodegradable waste should be processed, treated and disposed of through composting or bio-methanation within the premises of the institute.

The institute strictly following the guidelines have set up a few portable, odour free, bio-composters and a biogas plant in the campus. The composters have two chambers where each chamber can accommodate a biodegradable solid waste load of approximately 10kg/day. The 2nd chamber is used after filling up the 1st chamber. By 30 days the composting process is complete in a chamber and the compost is collected.

Hazardous chemicals and radioactive waste management: NA

The laboratory of the institute mostly uses harmless soluble inorganic salts, dilute acids and alkalis which are disposed of following the laboratory guidelines.

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	View Document
Geotagged photographs of the facilities	View Document
Any other relevant information	View Document

7.1.4 Water conservation facilities available in the Institution:

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

Response: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document
Link for any additional information	View Document

7.1.5 Green campus initiatives include:

1. Restricted entry of automobiles
2. Use of Bicycles/ Battery powered vehicles
3. Pedestrian Friendly pathways
4. Ban on use of Plastic
5. Landscaping with trees and plants

Response: B. 3 of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	View Document
Any other relevant documents	View Document

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

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

Response: A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Certification by the auditing agency	View Document
Certificates of the awards received	View Document
Any other relevant information	View Document

7.1.7 The Institution has disabled-friendly, barrier free environment

- 1.Built environment with ramps/lifts for easy access to classrooms.**
- 2.Divyangjan friendly washrooms**
- 3.Signage including tactile path, lights, display boards and signposts**
- 4.Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment**
- 5.Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading**

Response: B. 3 of the above

File Description	Document
Policy documents and information brochures on the support to be provided	View Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document

7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).

Response:

The institute is a very successful minority institution which 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 through 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 to the mainstream society. In terms of sociological inclusivity efforts, the institute is at the forefront as a minority institution. The institute has been proud receiver and patron of several financial assists meant to help students with strained financial condition.

Being a Sikh 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 under-privileged communities, stationeries and books to under-privileged 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 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 is 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 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.

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document

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

Response:

The institution inculcates Constitutional values within the students. The highlights of such activities conducted by the institute are as follows-

Education and Awareness building of the Constitution and Constitutional Rights -

On 26th November each year the Institute celebrates Samvidhan Divas to remember and remind its wards of the country's greatest vanguard of democratic rights. The day is spent understanding the basic and fundamental law as well as a living document and to analyse the preamble of the constitution and to identify the core values reflected in it. The Institute organizes oath taking ceremonies, seminars and webinars every year on this day.

Values and Ethics in Profession is an essential part of the curriculum of the students from second year onwards. This part of their syllabus covers the essential parts of the professional as well as personal ethics, values and rights that one needs to learn in order to become a productive citizen.

The Constitution of India is taught as an prescribed course as a method of educating as well as building awareness of the same.

Events that pertain to The Constitution-

Vigilance awareness week is celebrated in the institute complete with pledge taking ceremony which is the reaffirmation of **Right Against Exploitation**.

The institute celebrates Rashtriya Ekta Divas or National Unity Day on 31st October as a general culmination of the **Right To Freedom** highlighting Equity among diversity which is unique to our country's demographics.

In the general mayhem of the Covid-19 Pandemic, the institute organized some events that mark the responsibilities of citizens during the time of a national emergency. Students organized serious volunteering network arranging for medical relief, hospital beds, blood and plasma for patients. They also worked tirelessly to arrange for food and resources for people afflicted with either the disease. This is a reaffirmation of **Human Rights**.

On 4th March every year, the institute celebrates National Road Safety Day. It is a citizen's duty to observe traffic and road safety when availing roads either as a motorist or a pedestrian. The day aims to

raise awareness among students to follow road safety rules for the sake of personal safety as well as the preservation of the next person on the road. This day also aims to eventually yield lesser traffic accidents on Indian roads annually.

On 2nd October, the institute celebrates Gandhi Jayanti, the birth anniversary of the Father of the nation. The day is an ultimate inculcation of most constitutional rights along with the age old practice and teaching of three Gandhian Principles of never lying, never hearing maledictions and never witnessing malpractice.

Apart from these the Institute celebrates events and commemorative days and weeks throughout the week to promote values for being responsible citizens as reflected in the Constitution of India.

File Description	Document
• Details of activities that inculcate values; necessary to render students in to responsible citizens	View Document

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

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

Response: B. 3 of the above

File Description	Document
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	View Document
Code of ethics policy document	View Document
Any other relevant information	View Document

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

Response:

The institution celebrates/organizes national and international commemorative days, events and festivals. It is a widely acknowledged fact that an educational institution has great duty towards civilizing their wards and that happens when the students learn about the heritage, culture and history of the space they

inhabit. Students of this institute are on a mission towards better India by breaking the boundaries of religion and caste. Some commemorative days are observed by students to learn from remembering, the other days have a symbolic status and through the discourses and activities planned for the day the students take part in discussing their thoughts and ideas. The observing of the various days of importance in ,any ways serves to provide a platform for students where they may reflect safely without fear of judgement, scorn or ridicule. Thoughts of great Indian personalities sowed into the young minds through the exhibitions and programs conducted on these days. The institution practices pluralist approach towards all religion functions and encourages the students and faculty to showcase the same. Every year our institute organizes the national festivals and birth / death anniversaries of the great Indian personalities. Staff and students get to know the importance of national integrity in the country in general and their role in it in particular.

These events and festivals for the last 5 years are as follows:

COMMEMORATIVE DAYS

YEAR	DATE	EVENT
2016	12 th January	Birth Centenary of Swami Vivekananda
	26 th January	Republic Day
	30 TH January	Martyr's Day (Mahatma Gandhi's Death Anniversary)
	8 th March	Women's Day
	14 th April	Ambedkar Jayanti (Birth Anniversary of B. R. Ambedkar)
	22 nd April	World Earth Day
	16 th May	National Plant A Tree Day
	18 th May	Rabindra Jayanti (155 TH Birth Anniversary of Rabindranath Tagore)
	15 th August	Independence Day
	19 th August	World Photography Day
	20 th August	Sadbhavna Divas
	31 st October	National Unity Day
	5 th September	Teacher's Day (Birth Anniversary of Dr. Sarvepalli Radhakrishnan)
	26 th November	Constitution Day

YEAR	DATE	EVENT
2017	12 th January	(National Youth Day) Birth Anniversary of Swami Vivekananda
	26 th January	Republic Day
	30 TH January	Martyr's Day (Mahatma Gandhi's Death Anniversary)
	21 st February	Bhasha Divas (International Mother Language Day)
	8 th March	Women's Day
	14 th April	Ambedkar Jayanti (Birth Anniversary of B. R. Ambedkar)
	22 nd April	World Earth Day
	18 th May	Rabindra Jayanti
	1 st July	Van Mahotsav (National Tree Plantation Day)
	15 th August	Independence Day
	19 th August	World Photography Day
	20 th August	Sadbhavna Divas
	31 st October	National Unity Day
	5 th September	Teacher's Day (Birth Anniversary of Dr. Sarvepalli Radhakrishnan)
	26 th November	Constitution Day
	7 th November	National Cancer Awareness Day
	10 th December	International Human Rights Day
22 nd December	National Mathematics Day (Birth Anniversary of Srinivas Ramanujan)	

YEAR	DATE	EVENT
2018	12 th January	(National Youth Day) Birth Anniversary of Swami Vivekananda
	26 th January	Republic Day
	30 TH January	Martyr's Day (Mahatma Gandhi's Death Anniversary)
	21 st February	Bhasha Divas (International Mother Language Day)
	8 th March	Women's Day
	14 th April	Ambedkar Jayanti (Birth Anniversary of B. R. Ambedkar)
	22 nd April	World Earth Day
	18 th May	Rabindra Jayanti
	1 st July	Van Mahotsav (National Tree Plantation Day)
	21 st July	International Yoga Day
	15 th August	Independence Day
	19 th August	World Photography Day
	20 th August	Sadbhavna Divas
	29 th October- 3 rd November	Vigilance Awareness Week
	31 st October	National Unity Day
	5 th September	Teacher's Day (Birth Anniversary of Dr. Sarvepalli Radhakrishnan)
	15 th September	National Engineer's Day (Birth Anniversary of Mokshagundam Visvesvaraya)
	26 th November	Constitution Day
	7 th November	National Cancer Awareness Day
	10 th December	International Human Rights Day
14 th December	National Energy Conservation Day	
22 nd December	National Mathematics Day (Birth Anniversary of Srinivas Ramanujan)	

YEAR	DATE	EVENT
2019	12 th January	(National Youth Day) Birth Anniversary of Swami Vivekananda
	26 th January	Republic Day
	30 TH January	Martyr's Day (Mahatma Gandhi's Death Anniversary)
	21 st February	Bhasha Divas (International Mother Language Day)
	8 th March	Women's Day
	14 th April	Ambedkar Jayanti (Birth Anniversary of B. R. Ambedkar)
	22 nd April	World Earth Day
	18 th May	Rabindra Jayanti
	1 st July	Van Mahotsav (National Tree Plantation Day)
	21 st July	International Yoga Day
	15 th August	Independence Day
	19 th August	World Photography Day
	20 th August	Sadbhavna Divas
	29 th October- 3 rd November	Vigilance Awareness Week
	31 st October	National Unity Day
	5 th September	Teacher's Day (Birth Anniversary of Dr. Sarvepalli Radhakrishnan)
	15 th September	National Engineer's Day (Birth Anniversary of Mokshagundam Visvesvaraya)
	26 th November	Constitution Day
	7 th November	National Cancer Awareness Day
	10 th December	International Human Rights Day
14 th December	National Energy Conservation Day	
22 nd December	National Mathematics Day (Birth Anniversary of Srinivas Ramanujan)	

YEAR	DATE	EVENT
2020	12 th January	(National Youth Day) Birth Anniversary of Swami Vivekananda
	26 th January	Republic Day
	30 TH January	Marty's Day (Mahatma Gandhi's Death Anniversary)
	21 st February	Bhasha Divas (International Mother Language Day)
	8 th March	Women's Day
	14 th April	Ambedkar Jayanti (Birth Anniversary of B. R. Ambedkar)
	22 nd April	World Earth Day
	18 th May	Rabindra Jayanti
	1 st July	Van Mahotsav (National Tree Plantation Day)
	3 rd July	International NO PLASTICS Day
	21 st July	International Yoga Day
	15 th August	Independence Day
	19 th August	World Photography Day
	20 th August	Sadbhavna Divas
	29 th October- 3 rd November	Vigilance Awareness Week
	31 st October	National Unity Day
	5 th September	Teacher's Day (Birth Anniversary of Dr. Sarvepalli Radhakrishnan)
	15 th September	National Engineer's Day (Birth Anniversary of Mokshagundam Visvesvaraya)
	26 th November	Constitution Day
	7 th November	National Cancer Awareness Day
10 th December	International Human Rights Day	
14 th December	National Energy Conservation Day	
22 nd December	National Mathematics Day (Birth Anniversary of Srinivas Ramanujan)	

EVENTS AND FESTIVALS

YEAR	DATE	EVENT
2016	15 th -18 th January	5 th Sardar Jodh Singh Trophy
	29 th January	Book Fair Performance
	30 TH January	"PARICHAY" (Fresher's Welcome)
	1-2 February	Annual Sports Meet
	12 th February	Saraswati Puja
	17 th -18 th March	Indoor Sports Tournament
	7 th -8 th April	"KRITANJ" (Techno-Management Fest)
	10 th April	Walk For Book
	16 th April	"NAVODAYA" (Cultural Fest)
	7 th May	"NIT Jewels" (Annual Award Event)
	30 th May	"Bidding Adieu 2k16" (Farewell Event)
	18 th August	Raksha Bandhan
	11 th October	Bijoya Sammilani
	18 th October	Vishwakarma Puja
	28 th October	Pre- Diwali Celebration
30 th November	Guru Nanak Jayanti	

YEAR	DATE	EVENT
2017	15 th -18 th January	Sardar Jodh Singh Trophy
	29 th January	Book Fair Performance
	30 TH January	"PARICHAY" (Fresher's Welcome)
	1-2 February	Annual Sports Meet
	1 st February	Saraswati Puja
	17 th -18 th March	Indoor Sports Tournament
	7 th -8 th April	"KRITANJ" (Techno-Management Fest)
	16 th April	"NAVODAYA" (Cultural Fest)
	7 th May	"NIT Jewels" (Annual Award Event)
	30 th May	"Bidding Adieu 2k17" (Farewell Event)
	7 th August	Raksha Bandhan
	17 th September	Vishwakarma Puja
	1 st October	Bijoya Sammilani
	18 th October	Pre- Diwali Celebration
	30 th November	Guru Nanak Jayanti
24 th December	Christmas Eve	

YEAR	DATE	EVENT
2018	15 th -18 th January	Sardar Jodh Singh Trophy
	22 nd January	Saraswati Puja
	1-2 February	Annual Sports Meet
	7 th March	"PARICHAY 2K18" (Fresher's Welcome)
	17 th -18 th March	Indoor Sports Tournament
	7 th -8 th April	"KRITANJ" (Techno-Management Fest)
	3 rd - 4 th May	"NAVODAYA" (Cultural Fest)
	10 th May	"NiT Jewels" (Annual Award Event)
	30 th May	"Bidding Adieu 2k18" (Farewell Event)
	27 th August	Raksha Bandhan
	17 th September	Viswakarma Puja
	21 st October	Bijoya Sammilani
	6 th November	Pre- Diwali Celebration
	30 th November	Guru Nanak Jayanti
24 th December	Christmas Eve	

YEAR	DATE	EVENT
2019	15 th -18 th January	Sardar Jodh Singh Trophy
	30 TH January	"PARICHAY" (Fresher's Welcome)
	1-2 February	Annual Sports Meet
	12 th February	Saraswati Puja
	13 th February	Book Fair Performance
	17 th -18 th March	Indoor Sports Tournament
	7 th -8 th April	"KRITANJ" (Techno-Management Fest)
	16 th April	"NAVODAYA" (Cultural Fest)
	8 th May	"NiT Jewels" (Annual Award Event)
	16 th May	"Bidding Adieu 2k19" (Farewell Event)
	14 th August	Raksha Bandhan
	18 th September	Vishwakarma Puja
	10 th October	Bijoya Sammilani
	26 th October	Pre- Diwali Celebration
	12 th November	Guru Nanak Jayanti
24 th December	Christmas Eve	

YEAR	DATE	EVENT
2020	15 th -18 th January	Sardar Jodh Singh Trophy
	29 th January	Saraswati Puja
	30 th January	Book Fair Performance
	1-2 February	Annual Sports Meet
	4 th - 5 th March	"KRITANJ" (Techno-Management Fest)
	12 TH - 13 TH March	"NAVODAYA" (Cultural Fest)
	9 th August	"Bidding Adieu 2k20" (Online Farewell Event)
	16 th September	Vishwakarma Puja
	20 th October	"NiT Jewels" (Online Annual Award Event)
	18 th November	Swagatam 2k20 (Induction for 1 st years)
	30 th November	Guru Nanak Jayanti (Online session)
	24 th December	Christmas Eve (Online Session)

File Description	Document
Any other relevant information	View Document
Annual report of the celebrations and commemorative events for the last five years	View Document

7.2 Best Practices

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

Response:

Title: Digitization of Script Evaluation System

OBJECTIVES: The institute has been a pioneer in the changing world of 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.

The institute has always maintained its endeavor to declare the results within 20 days from the end of examination. 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 requirement of lesser man hour.

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 huge number of answer scripts. The result declaration in this context is a lengthy procedure and also less reliable as it involves the threat of transcription error at many stages. Therefore to publish the results within the assigned timeframe, a technology-driven system is very important. The present system was introduced to keep the **assessment records safe and easily accessible in the cloud**. This leads to faster evaluation and smooth assessment process. This also minimizes the possibility of errors that were present in the manual setup.

The resource persons can work from any locations and thus unavailability of evaluators in certain regions is no longer an issue.

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 result 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 are not possible as they are encrypted
- Answer scripts can be evaluated by the Examiner / Head Examiner from any anywhere and anytime
- Outcome based performance analysis,
- Student request 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. Student's identity 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 synchronize 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 involvement of large number of manpower and after digitisation answers script distribution is done from the COE office on the same day.

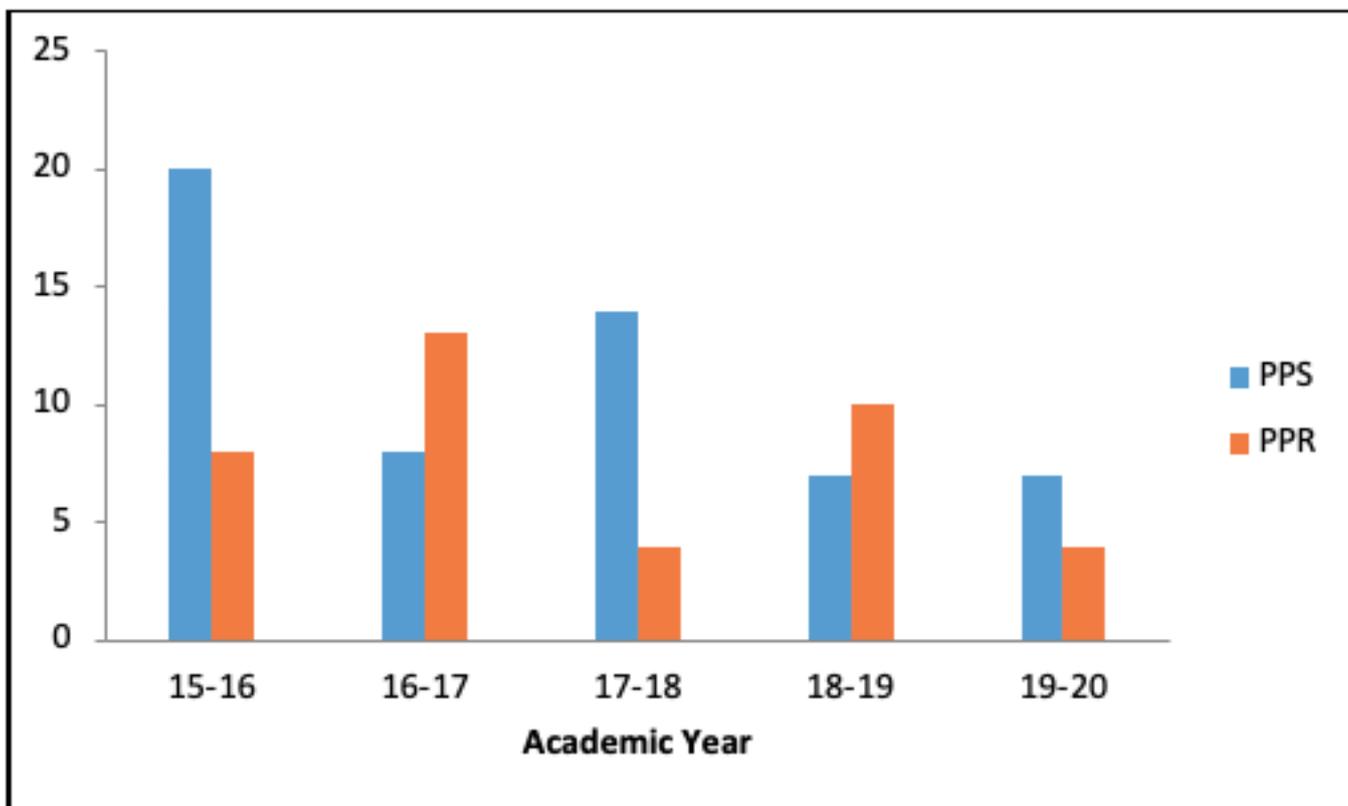
Internal Marks Entry: Before digitisation hard copy of internal marks was submitted by the faculty members to the COE office and the examination cell members used to enter the marks to preparation of marksheets.

After digitisation the internal marks are directly entered online by respective faculty members from the logins provided to respective department 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 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 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 student's grievances (PPR post publication review applications & PPS post publication scrutiny applications) was observed after digitisation which is depicted by bar diagram.



PROBLEMS ENCOUNTERED & RESOURCES REQUIRED

Senior faculties faced some problem to adapt to the new method of evaluation. As multiple agencies are involved in the process a strong synchronisation is required for successful implementation of the process. Master data uploading is a crucial part of the process which has to be absolutely error free and in a secured manner. Access to the data is restricted and cannot be accessed without permission. 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 & dot net and internet connectivity.

Best practice as BCT - Beyond Curriculum Training

Narula Institute of Technology has emerged as a spearhead in shaping the career of the students by making

them industry ready. The institute is in a constant process to build a strong bonding between the students, facilitators and researchers across the globe which opens up a novel scope in the field of technology to those who are in quest of technical education. In view of this the institute introduces new courses and revises its curriculum as per the demand of the ever-changing educational scenario to keep pace with the new trends worldwide.

Besides mastering the technical aspects of engineering the institute aims to ensure that students would also add new dimensions which will help them to cope up in this competitive world. For this the institute organizes **Beyond Curriculum Training (BCT)**. The training provides a platform for the students to interact with the professionals from various industries to fill up the gap between the Curriculum and the Industry needs. The institute arranges for industrial projects and internships for the students as a part of this training. BCT also helps to design and update the curriculum by taking suggestions from the industry experts on regular basis.

Objective: 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

Context: In this context to make the students more employable and enterprising in the job market, 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 enhance their adaptability. The courses are offered as per their stream in a form of subject basket from where the students can select one topic during each semester under the guidance of their respective mentors. After completion of these training, the students get certified through a process of evaluation.

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 global market with undaunted confidence and 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 semesters trainings 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 industry and collecting feedbacks from students and other stakeholders, few of the topics from BCT is incorporated in the curriculum. In the year of 2016 and 2018, certain topics from 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 trainings, 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. They have become more confident with their special qualities such as creative problem solving abilities, data analysis, designing etc.

The BCT training has shown a huge positive impact on the betterment of the students' skill sets. The training program has helped the students to participate in research works by working in association with their faculty advisors. The students are gradually becoming more self-reliant in their process of learning.

This training process is gradually preparing the students for better positions in industry or academia, where they can contribute towards the improvement and advancement of the community and society at large.

According to the new regulation of curriculum of 2018, the incorporation of training related subjects which are very much needed for the preparation of the students to be industry ready has shown its immense effectiveness. The students are getting chances in internships from the pre final year and also are able to prepare themselves for the entrepreneurship oriented initiatives through their real life project outcomes.

Problems encountered and resources required:

1. As Beyond Curriculum Trainings are not having any credits associated with it and Non-Credit basically implies that the classes won't be counted toward any degree requirement, some students are found not to attend the courses regularly.

Solutions: Beyond Curriculum Trainings are made a part of Mandatory Additional Requirement (MAR), under which the students must mandatorily earn certain marks to complete their course. This has helped to improve the attendance. The mentors also motivate the students to understand the importance of earning additional certificates of skills for getting employment. For such students separate training is imparted for the GATE examination.

2. Non availability of quality trainers having knowledge in latest industry requirement remains a challenge.

Solutions: The institute is training their own faculty members with latest technology by sending them to various Faculty Development Programs "Train the Trainers", motivating them and funding the faculty members for the MOOCs courses related to the same. The institute also organizes seminars workshops and other developmental programmes.

3. All students are not interested in joining industry and hence don't attend the training.

Solutions: There are three categories of mindset among the students –

1. To be Industry professionals
2. To pursue Higher Studies
3. To be 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 other renowned institute of Higher learning.
- Need of more laptops and licensed software.

- Requirement of adequate smart classrooms.

File Description	Document
Best practices in the Institutional web site	View Document

7.3 Institutional Distinctiveness

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

Response:

Novelties through Institution Innovation Council

As per the guideline of 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 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 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.

Innovation Cell focuses on creating a complete ecosystem that fosters the culture of Innovation across all educational institutions from idea generation to pre-incubation, incubation, and graduating from the incubator as successful start-ups. The primary mandate of Ministry of Education Innovation Cell (MIC) is to encourage, inspire, and nurture young students by supporting them to work with new ideas while they are in formative years. MIC has envisioned the creation of the Institutional Innovation Council (IICs) across selected HEIs. A network of these IICs promotes innovation in the Institution through multitudinous modes leading to an innovation promotion eco-system on these campuses.

The MHRD IIC council of the institute aims to provide a platform to the ideas having great potential to become successful product, solving some social issues. The Cell support students and faculty to participate in different events viz. hackathon, innovation contest etc. to promote their idea/products and aims to graduate successful entrepreneur and commercialize new technologies. This helps to bring a socio-economic change and promote START UP INDIA. A team from the institute was the winner in the category of "Creative Problem Solving" in the 2nd INNOMPIC Games 2018, held at University of Kuala Lumpur, Malaysia from 27th September-30th September, 2018, by defeating the global competitors like Vietnam, Malaysia, Uzbekistan, Russia and another team from India. Most importantly they defeated the winner team (Russia) of the previous year. The institute always encourages students to participate in different National and International Innovation Competition. The institute has joined the campaign on implementing National innovation and start-up policy (NISP) under the aegis of the Ministry of Education Innovation Cell (MIC) and adopted the policy framed by MIC. The aim of the National Innovation and

Start-up Policy (NISP 2019) is to promote innovation and entrepreneurship in the students and faculty to build a start-up ecosystem.

The institute has been selected as a Host Institute by MSME for carrying on the scheme “Support for Entrepreneurial and Managerial Development of SMEs through Incubators”. The Technology Business Incubator of Narula Institute of Technology (TBI-NIT) is a self-sustainable incubator program for incubating socio-economic and innovative entrepreneurial ventures, through active mentoring, support and facilitation. The institute has tied up with Ministry of Micro, Small & Medium Enterprises (MSME) to offer assistance to the business incubator through host institution (HI) in public private partnership (PPP) mode and to help the entrepreneurial venture to succeed.

The institute has set-up the Idea-O-Meter with the mission to connect, encourage, promote and celebrate the best creative minds. It is a platform meant for the students, faculty, staff and alumni alike. Ideas from diverse fields like technology, software, film, music, art, games, fashion, photography, comics, craft are considered. In this system the creators always control how the work comes together, no lengthy investor applications and no donors demand for modification of the ideas. Besides funding, Idea-O-Meter provides the necessary support framework through mentorship, industry connect, customer outreach, startup bootstrapping, etc.

The institute offers project-based studies in different departments, where the newly admitted students get opportunities to develop their own projects and continue them in the course of their study. After completion of their study programmes, they can further work on their project through the innovative idea development programmes under various schemes. As a result of spreading awareness among the students and faculty, by organising awareness programs, motivational sessions, talks by successful entrepreneurs, they started coming up with innovative product ideas, which got scaled at a later stage. A student named Tuhin Banik, from the Department of ECE, batch of 2013-2017 has started a start-up called Website SEO Services and Thatware LLP. Aritro Ghosh, from the Department of EE, batch of 2015-2019, started Habbtech Technology dealing with trading and service related to electrical and electronic equipment.

List of students securing position in different Hackathons and external competitions:

	Name of event	Type of activity	Organizing Agency	Total no. of participation from the institute	Position secured	Title of Innovation
1	SIH 2020 (Hardware)	Hackathon	AICTE	6	Joint winner in hardware section	IoT Web App Monitoring of Irrigation System
2	SIH 2020 (Software)	Hackathon	AICTE	6	Selected for Grand Finale	Digi Doc for problem statement VA47
3	BENGALATHON 2019	Hackathon	Govt of West Bengal	4	1st Prize in Elderly Care Problem Statement	EOG Based Wheelchair for Quadriplegic Patients
4	Tech TOY 2020	Hackathon	Start-up Cell: Prakousol, National Institute of Technology, Arunachal Pradesh	2	7 th (All India Rank)	Logic Driven Smart Wifi Car(Infinite Range)
5	National Youth Science Fair	Demo Day	Govt of West Bengal	6	1st Position	Low Cost Gesture Control Wheel Chair
6	Model Exhibition-Student Youth Science Fair 2019	Innovation Contest	Govt of West Bengal	15	1st prize worth Rs. 10,000	Gesture Controlled Wheelchair and Home Automation Control
7	NASA international Space Apps Challenge 2019	Hackathon	Thinkagain Educational Services LLP	220	1st prize at Institute and State Level	Lunar Dust Detection and Mitigation
8	Model Exhibition	Innovation Contest	IEM, Kolkata	25	2nd Prize	Home Automation
9	Model Exhibition	B-Plan Competitions	IIT, Guwahati	8	3rd Prize worth Rs. 10,000	Gesture Controlled Wheelchair and Home Automation Control
10	Model Exhibition	Innovation Contest	IIT, Guwahati	8	2nd Prize worth Rs. 40,000	Gesture Controlled Wheelchair and Home Automation Control

List of proposals submitted to MSME

Sl. No.	Incubatee Name	Title of Idea
1	Sounak Chatterjee	Operation of the electrical vehicle powered by wireless charging
2	Arnab Nag	Low-cost gesture-controlled wheelchair
3	Sattick Bhadra	Smart restaurant menu ordering and billing system
4	Dr. Bidyut Kumar Medya	Divya Drishti Smart Blind Stick
5	Raktim Pratihari	Design of UAV for handling medical emergencies, search and rescue operations.

File Description	Document
Any other relevant information	View Document
Appropriate web in the Institutional website	View Document

NAAC

5. CONCLUSION

Additional Information :

The Institute aspires to maintain the quality of education and for that necessary reforms take place as per requirement. The participation of industry and Academic experts in various committees like Board of Governors, Academic Council, Internal Quality Assurance Cell, Board of Studies, Research & Development cell ensures to maintain the reforms. The ISO 9001:2015 certification makes the quality assurance more pronounced. The Institute has given the efforts to initiate the full-fledged online classes even before the official lockdown was announced in the year 2020 so that the teaching learning process has been continued without any delay during the pandemic. The pandemic in no way hampered the academic career of the students in the Institute. All the semester examinations had been conducted and the results have been declared on time. The training and campus placement activities have been continuing through digital platform since of starting of lockdown. Moreover all the annual events of the Institute is being organized digitally and there is a spontaneous response from the student community. The faculty members of the Institute went across the four walls of the Institute and have taken the efforts to empower the school students in this pandemic situation by designing an e-learning platform titled INGENIOUS2021. The school students have been trained in English language, communication skills, Programming with C, Robotics and many other relevant topics. The Institute has significantly focussed in executing social responsibilities when the re-surge of COVID has coerced the entire mankind on tenterhooks. It took an exemplary step by initiating Free of Cost Vaccination Camp for the students and alumni along with their family members, faculty and staff members including their family members and also the local people. Besides that the students and staff members distributed hand sanitizers, medicines and dry food to the economically challenged people in the nearby slums. The students under the mentorship of the faculty member have sketched different innovative projects to fight the pandemic which proved to of much use and have been also appreciated in various national platforms.

Concluding Remarks :

The Institute has showcased an indefatigable focus to satisfy the different stakeholders by providing optimum support in the relevant areas. The Institute aims to get all the programmes NBA accredited in the coming days. It is focusing on strengthening the research and consultancy activities at the Institute and plans to get more National and International rankings. The Institute practices need-based education which helps them to nullify all the impediments towards comprehensive academic enhancement. In this new normal the Institute has taken an unequivocal effort to continue the quality and sustainable education to make the students professionally proficient. The Institute fosters a sense of belongingness among faculty and students through the functioning of Student clubs and outreach activities. In accordance with the National Education Policy-2020, the Institute looks forward to amplify the cognitive skills of the learners by making the classrooms more student-centric. Narula Institute of Technology constantly strives to create an effective academic platform that can drive social, cultural, scientific, economic and technological reforms for the Nation. The end state vision is to mature into a global interface through promoting knowledge exchange beyond National boundaries. The preparation of the SSR for the second cycle of NAAC accreditation is a phenomenal learning experience. The Institute strongly believes that excellence is infinite and is incessantly putting the endeavours for betterment.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
1.1.2	<p>Percentage of Programmes where syllabus revision was carried out during the last five years.</p> <p>1.1.2.1. Number of all Programmes offered by the institution during the last five years. Answer before DVV Verification : 12 Answer after DVV Verification: 12</p> <p>1.1.2.2. How many Programmes were revised out of total number of Programmes offered during the last five years Answer before DVV Verification : 12 Answer after DVV Verification: 11</p> <p>Remark : MTech in Structural Engineering is not considered since the program revision is only 3.70%</p>																				
1.1.3	<p>Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years</p> <p>1.1.3.1. Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years.. Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>832</td> <td>804</td> <td>616</td> <td>616</td> <td>351</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>797</td> <td>770</td> <td>581</td> <td>581</td> <td>319</td> </tr> </tbody> </table> <p>Remark : Observation accepted, edited accordingly.</p>	2019-20	2018-19	2017-18	2016-17	2015-16	832	804	616	616	351	2019-20	2018-19	2017-18	2016-17	2015-16	797	770	581	581	319
2019-20	2018-19	2017-18	2016-17	2015-16																	
832	804	616	616	351																	
2019-20	2018-19	2017-18	2016-17	2015-16																	
797	770	581	581	319																	
1.3.2	<p>Number of value-added courses for imparting transferable and life skills offered during last five years.</p> <p>1.3.2.1. How many new value-added courses are added within the last five years Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>7</td> <td>9</td> <td>11</td> <td>9</td> <td>9</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>19</td> <td>17</td> <td>11</td> <td>9</td> <td>9</td> </tr> </tbody> </table>	2019-20	2018-19	2017-18	2016-17	2015-16	7	9	11	9	9	2019-20	2018-19	2017-18	2016-17	2015-16	19	17	11	9	9
2019-20	2018-19	2017-18	2016-17	2015-16																	
7	9	11	9	9																	
2019-20	2018-19	2017-18	2016-17	2015-16																	
19	17	11	9	9																	

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
2819	2624	2435	1667	2052

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
2317	1854	1251	1086	1545

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification : 1335

Answer after DVV Verification: 1229

Remark : Observation accepted, edited accordingly

1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from

1) Students, 2) Teachers, 3) Employers,

4) Alumni

Answer before DVV Verification : A. All 4 of the above

Answer After DVV Verification: B. Any 3 of the above

Remark : Observation accepted, edited accordingly. 1) Student, Teacher & Alumni names are not mentioned. 2) As per the observation the input is edited by considering option 1,2,3

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

Answer before DVV Verification : A. Feedback collected, analysed and action taken and report made available on website

Answer After DVV Verification: C. Feedback collected and analysed

Remark : Observation accepted, edited accordingly.

2.1.1	<p>Average Enrolment percentage (Average of last five years)</p> <p>2.1.1.1. Number of students admitted year-wise during last five years Answer before DVV Verification:</p> <table border="1" data-bbox="308 309 1046 376"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>2.1.1.2. Number of sanctioned seats year wise during last five years Answer before DVV Verification:</p> <table border="1" data-bbox="308 456 1046 591"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>924</td> <td>924</td> <td>924</td> <td>924</td> <td>942</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="308 669 1046 804"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>852</td> <td>792</td> <td>792</td> <td>810</td> <td>810</td> </tr> </tbody> </table>	2019-20	2018-19	2017-18	2016-17	2015-16						2019-20	2018-19	2017-18	2016-17	2015-16	924	924	924	924	942	2019-20	2018-19	2017-18	2016-17	2015-16	852	792	792	810	810
2019-20	2018-19	2017-18	2016-17	2015-16																											
2019-20	2018-19	2017-18	2016-17	2015-16																											
924	924	924	924	942																											
2019-20	2018-19	2017-18	2016-17	2015-16																											
852	792	792	810	810																											
2.1.2	<p>Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (exclusive of supernumerary seats)</p> <p>2.1.2.1. Number of actual students admitted from the reserved categories year wise during last five years Answer before DVV Verification:</p> <table border="1" data-bbox="308 1122 1046 1256"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>154</td> <td>140</td> <td>139</td> <td>123</td> <td>100</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="308 1335 1046 1469"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>0154</td> <td>0140</td> <td>139</td> <td>123</td> <td>100</td> </tr> </tbody> </table> <p>Remark : 1) Observation accepted, edited accordingly. 2) Since HEI is minority Institution hence others(student) were also considered but as Observation the input is edited.</p>	2019-20	2018-19	2017-18	2016-17	2015-16	154	140	139	123	100	2019-20	2018-19	2017-18	2016-17	2015-16	0154	0140	139	123	100										
2019-20	2018-19	2017-18	2016-17	2015-16																											
154	140	139	123	100																											
2019-20	2018-19	2017-18	2016-17	2015-16																											
0154	0140	139	123	100																											
2.3.3	<p>Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)</p> <p>2.3.3.1. Number of mentors Answer before DVV Verification : 158 Answer after DVV Verification: 150</p> <p>Remark : Input edited as per the clarification provided by HEI.</p>																														
2.4.2	<p>Average percentage of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)</p>																														

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
60	54	51	53	45

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
53	51	48	51	43

Remark : Observation accepted, edited accordingly.

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

2.4.3.1. Total experience of full-time teachers

Answer before DVV Verification : 1379

Answer after DVV Verification: 1367

Remark : Observation accepted, edited accordingly. Considered only full time teachers who has been worked for 90% of statutory number of working hours for the academic session (2019-2020)

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
5.76	4.71	3.27	2.21	1.36

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
5.23	4.27	2.96	1.97	1.61

Remark : Input edited as per audited statement provided by HEI.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
204.96	159.00	101.61	131.96	168.35

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
21.72	45.90	33.83	12.67	4.76

Remark : 1) Input edited for session 2015-2016 as per the utilization certificate provided by HEI in page no. 106 and e-copy of research grant = $1.01 + 3.750 = 4.76$ 2) Under this metric only research project grants has been considered. 3) Grants for STTP, MODROBS, Entrepreneur Awareness Camp(EAC), Faculty Development program etc. are not considered.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
28	21	11	4	3

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
19	18	8	4	2

Remark : Observation accepted, edited accordingly.

3.2.3 Percentage of teachers recognised as research guides

3.2.3.1. Number of teachers recognized as research guides

Answer before DVV Verification : 19

Answer after DVV Verification: 12

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
28	21	11	4	3

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
7	4	4	1	2

3.2.4.2. Number of departments offering academic programmes

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
8	8	8	8	8

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
8	8	8	8	8

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
42	19	17	14	11

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
38	19	17	14	11

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification : 29

Answer after DVV Verification: 25

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

Answer before DVV Verification : 19

Answer after DVV Verification: 12

Remark : 1) Observation not accepted, because HEI has provided e-copies from University asked by DVV partner. 2) As per the observation if this metric input is not accepted then 3.4.2 metric is not

applicable to HEI. 3) HEI claimed for 19 number of teachers recognized as guides but in clarification document HEI provided list of 15 number of full time teachers with Ph.D. 4) All documents cross verified but following names are not reflecting in the E-copies submitted by HEI. i) DR. TAPAN KR. MUKHOPADHYAY ii) DR. SARADINDU PANDA Hence the input remains same as previous.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
79	50	46	64	85

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
65	41	38	58	73

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
98	89	67	93	33

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
92	88	66	91	30

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification:

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2019-20	2018-19	2017-18	2016-17	2015-16
40.22	30.09	18.86	19.31	13.12

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
35.95	15.8	10.24	18.44	3.21

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
30	14	6	4	3

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
8	0	0	0	0

Remark : 1) Input edited as per the E-copy of award letters provided by HEI. 2) Participation and appreciation letters are not considered.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
31	30	9	8	11

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
25	23	7	6	10

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
2928	2928	2710	2647	2629

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
2356	2280	1692	1718	2057

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
21	14	5	2	8

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
10	4	2	1	2

Remark : Observation accepted, edited as per the copies of collaborative activity documents provided in clarification.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
3	2	1	5	5

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
02	0	0	03	03

Remark : Observation accepted, edited accordingly.

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

4.1.3.1. **Number of classrooms and seminar halls with ICT facilities**

Answer before DVV Verification : 60

Answer after DVV Verification: 24

Remark : 1) Observation accepted & edited accordingly. 2) 18 Fixed LCD's to classrooms & 6 portable projector has been considered.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
139.74	420.03	384.70	128.12	351.60

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
74.58	40.27	75.73	281.88	35.54

Remark : Observation accepted, edited accordingly.

4.2.2 **Institution has access to the following:**

1. e-journals
2. e-ShodhSindhu
3. Shodhganga Membership
4. e-books
5. Databases
6. Remote access to e-resources

	<p>Answer before DVV Verification : A. Any 4 or more of the above Answer After DVV Verification: B. Any 3 of the above</p>																				
4.2.3	<p>Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)</p> <p>4.2.3.1. Annual expenditure of purchase of books/e-books and subscription to journals/e-journals year wise during last five years (INR in Lakhs) Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>23.31</td> <td>11.27</td> <td>9.26</td> <td>34.14</td> <td>53.56</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>23.31</td> <td>11.27</td> <td>9.26</td> <td>21.97</td> <td>23.42</td> </tr> </tbody> </table> <p>Remark : Input edited as per the audited statement provided by HEI.</p>	2019-20	2018-19	2017-18	2016-17	2015-16	23.31	11.27	9.26	34.14	53.56	2019-20	2018-19	2017-18	2016-17	2015-16	23.31	11.27	9.26	21.97	23.42
2019-20	2018-19	2017-18	2016-17	2015-16																	
23.31	11.27	9.26	34.14	53.56																	
2019-20	2018-19	2017-18	2016-17	2015-16																	
23.31	11.27	9.26	21.97	23.42																	
4.2.4	<p>Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year</p> <p>4.2.4.1. Number of teachers and students using library per day over last one year Answer before DVV Verification : 784 Answer after DVV Verification: 80</p> <p>Remark : Observation accepted, edited accordingly.</p>																				
4.3.4	<p>Institution has the following Facilities for e-content development</p> <ol style="list-style-type: none"> 1. Media centre 2. Audio visual centre 3. Lecture Capturing System(LCS) 4. Mixing equipments and softwares for editing <p>Answer before DVV Verification : B. 3 of the above Answer After DVV Verification: C. 2 of the above Remark : Observation accepted, edited accordingly.</p>																				
4.4.1	<p>Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years</p> <p>4.4.1.1. Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year wise during the last five years (INR in lakhs) Answer before DVV Verification:</p>																				

2019-20	2018-19	2017-18	2016-17	2015-16
33.17	35.10	102.02	49.14	45.68

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
33.17	35.10	102.02	49.14	45.68

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
266	237	236	200	174

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
247	237	236	200	174

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
103	107	80	48	46

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

Remark : Observation accepted, edited accordingly.

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

students capability**1. Soft skills****2. Language and communication skills****3. Life skills (Yoga, physical fitness, health and hygiene)****4. Awareness of trends in technology**

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: B. 3 of the above

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
2723	2711	2629	2578	2553

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
1057	726	1244	1254	1102

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
664	641	578	597	593

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
652	641	578	597	593

Remark : 1) Observation accepted, edited accordingly. 2) Internship letters are not considered for the session (2019-2020)

5.2.3	<p>Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)</p> <p>5.2.3.1. Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, etc.) year-wise during last five years</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="304 465 1046 600"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>17</td> <td>8</td> <td>2</td> <td>4</td> <td>3</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 678 1046 813"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>15</td> <td>11</td> <td>5</td> <td>2</td> <td>0</td> </tr> </tbody> </table> <p>5.2.3.2. Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="304 972 1046 1039"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	2019-20	2018-19	2017-18	2016-17	2015-16	17	8	2	4	3	2019-20	2018-19	2017-18	2016-17	2015-16	15	11	5	2	0	2019-20	2018-19	2017-18	2016-17	2015-16					
2019-20	2018-19	2017-18	2016-17	2015-16																											
17	8	2	4	3																											
2019-20	2018-19	2017-18	2016-17	2015-16																											
15	11	5	2	0																											
2019-20	2018-19	2017-18	2016-17	2015-16																											
5.3.1	<p>Number of awards/medals won by students for outstanding performance in sports/cultural activities at inter-university/state/national / international level (award for a team event should be counted as one) during the last five years.</p> <p>5.3.1.1. Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="304 1397 1046 1532"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>14</td> <td>11</td> <td>3</td> <td>2</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 1610 1046 1744"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>4</td> <td>4</td> <td>3</td> <td>0</td> </tr> </tbody> </table> <p>Remark : Observation accepted, edited accordingly.</p>	2019-20	2018-19	2017-18	2016-17	2015-16	2	14	11	3	2	2019-20	2018-19	2017-18	2016-17	2015-16	1	4	4	3	0										
2019-20	2018-19	2017-18	2016-17	2015-16																											
2	14	11	3	2																											
2019-20	2018-19	2017-18	2016-17	2015-16																											
1	4	4	3	0																											
5.3.3	<p>Average number of sports and cultural events / competitions organised by the institution per year</p> <p>5.3.3.1. Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.</p>																														

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
34	20	22	20	16

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
6	6	8	8	4

Remark : 1) Observation accepted, edited accordingly. 2) All activities conducted under an event is counted as one event and edited accordingly.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
221	217	176	152	122

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
221	217	154	138	85

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
54	51	52	53	50

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
10	8	6	5	0

Remark : Observation accepted, edited accordingly.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
187	183	173	168	158

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
185	120	134	168	080

Remark : Observation not accepted because One teacher is counted as one for the academic session. DVV partner asked for the certificate of 50 teachers for last 5 years. 1) FDP, Orientation Program, Induction, Refresher Course, STTP considered under this metric and edited accordingly. 2) Workshop is not considered.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
7.05	5.15	4.69	4.61	4.17

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
07.05	05.15	4.69	4.61	4.17

Remark : Input accepted w.r.t audited statement.

6.5.3 Quality assurance initiatives of the institution include:

- 1. Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements**
- 2. Collaborative quality initiatives with other institution(s)**

	<p>3. Participation in NIRF</p> <p>4. Any other quality audit recognized by state, national or international agencies (ISO Certification)</p> <p>Answer before DVV Verification : All of the above Answer After DVV Verification: 3 of the above Remark : Observation accepted, edited accordingly.</p>
7.1.2	<p>The Institution has facilities for alternate sources of energy and energy conservation measures</p> <ol style="list-style-type: none"> 1. Solar energy 2. Biogas plant 3. Wheeling to the Grid 4. Sensor-based energy conservation 5. Use of LED bulbs/ power efficient equipment <p>Answer before DVV Verification : A. 4 or All of the above Answer After DVV Verification: C. 2 of the above Remark : Observation accepted, edited accordingly. Option 4 & 5 has been considered.</p>
7.1.5	<p>Green campus initiatives include:</p> <ol style="list-style-type: none"> 1. Restricted entry of automobiles 2. Use of Bicycles/ Battery powered vehicles 3. Pedestrian Friendly pathways 4. Ban on use of Plastic 5. landscaping with trees and plants <p>Answer before DVV Verification : A. Any 4 or All of the above Answer After DVV Verification: B. 3 of the above Remark : Observation accepted, edited accordingly. Option 3,4&5 has been considered.</p>
7.1.7	<p>The Institution has disabled-friendly, barrier free environment</p> <ol style="list-style-type: none"> 1. Built environment with ramps/lifts for easy access to classrooms. 2. Divyangjan friendly washrooms 3. Signage including tactile path, lights, display boards and signposts 4. Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment 5. Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading <p>Answer before DVV Verification : A. Any 4 or all of the above Answer After DVV Verification: B. 3 of the above Remark : Observation accepted, edited accordingly. Option 1,2&3 has been considered.</p>

7.1.10	<p>The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.</p> <ol style="list-style-type: none"> 1. The Code of Conduct is displayed on the website 2. There is a committee to monitor adherence to the Code of Conduct 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff 4. Annual awareness programmes on Code of Conduct are organized <p>Answer before DVV Verification : A. All of the above Answer After DVV Verification: B. 3 of the above Remark : Observation accepted, edited accordingly. Option 1,2 & 4 has been considered.</p>
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2.Extended Profile Deviations

ID	Extended Questions																				
1.1	<p>Number of programs offered year-wise for last five years</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="196 913 986 1025"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>12</td> <td>12</td> <td>12</td> <td>12</td> </tr> </tbody> </table> <p>Answer After DVV Verification:</p> <table border="1" data-bbox="196 1104 986 1216"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>12</td> <td>12</td> <td>13</td> <td>13</td> </tr> </tbody> </table>	2019-20	2018-19	2017-18	2016-17	2015-16	12	12	12	12	12	2019-20	2018-19	2017-18	2016-17	2015-16	12	12	12	13	13
2019-20	2018-19	2017-18	2016-17	2015-16																	
12	12	12	12	12																	
2019-20	2018-19	2017-18	2016-17	2015-16																	
12	12	12	13	13																	
2.2	<p>Number of outgoing / final year students year-wise during last five years</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="196 1373 986 1485"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>754</td> <td>736</td> <td>670</td> <td>699</td> <td>710</td> </tr> </tbody> </table> <p>Answer After DVV Verification:</p> <table border="1" data-bbox="196 1563 986 1675"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>759</td> <td>736</td> <td>670</td> <td>699</td> <td>710</td> </tr> </tbody> </table>	2019-20	2018-19	2017-18	2016-17	2015-16	754	736	670	699	710	2019-20	2018-19	2017-18	2016-17	2015-16	759	736	670	699	710
2019-20	2018-19	2017-18	2016-17	2015-16																	
754	736	670	699	710																	
2019-20	2018-19	2017-18	2016-17	2015-16																	
759	736	670	699	710																	
2.4	<p>Number of revaluation applications year-wise during last five years</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="196 1843 986 1955"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td>26</td> <td>37</td> <td>48</td> <td>45</td> <td>56</td> </tr> </tbody> </table> <p>Answer After DVV Verification:</p> <table border="1" data-bbox="196 2033 986 2089"> <thead> <tr> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	2019-20	2018-19	2017-18	2016-17	2015-16	26	37	48	45	56	2019-20	2018-19	2017-18	2016-17	2015-16					
2019-20	2018-19	2017-18	2016-17	2015-16																	
26	37	48	45	56																	
2019-20	2018-19	2017-18	2016-17	2015-16																	

11	17	18	21	28
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3.1 **Number of courses in all programs year-wise during last five years**

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
828	782	783	764	772

Answer After DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
828	782	783	794	802

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
1128.33	1504.65	1381.27	951.28	1195.27

Answer After DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
573.78	673.97	658.28	422.88	529.46