



SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

GURU NANAK INSTITUTE OF TECHNOLOGY

**GURU NANAK INSTITUTE OF TECHNOLOGY 157/F, NILGUNJ ROAD,
PANIHATI, SODEPUR NORTH 24 PARGANAS WEST BENGAL**

700114

www.gnit.ac.in

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NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Guru Nanak Institute of Technology was established in the year 2003 at Panihati, Kolkata, West Bengal and continues to be an Institute of Excellence in Higher Education aimed at producing successful and responsible professionals. It is approved by AICTE and affiliated to Maulana Abul Kalam Azad University of Technology and achieved Autonomous status in 2016. It has NBA-accredited degree programs in engineering (UG) and holds the distinguished NIRF Rank given by MoE, Govt of India. The Institute got NAAC accredited in 2014 and got extension in 2019. The college received the prestigious financial support DST-FIST Level 0 for the infrastructural support. The Institute is also the recipient of funds from UGC, AICTE, MOPFOI and other non-government funding agencies for research projects, Awareness camp, STTP, Seminar, and other grants and also consultancy from different organisations. The institute possess the recognition of 2(f) & 12(B) under the UGC Act.

The institute has been awarded with QS I-GAUGE E-LEARNING EXCELLENCE FOR ACADEMIC DIGITISATION (E-LEAD) 2020 and QS Gold Rank with Diamond in Employability along with India Today Ranking, Career 360 Ranking, Times Engineering Ranking, The Week Ranking etc. The Institute has also incorporated the MHRD-AICTE Stanford University Project - Assessing and Improving the Quality of Engineering Education to calibrate our students in terms of global knowledge.

The Institute has a powerful R&D cell with immense contribution from the scholarly faculty members along with students and alumni. There is an enormous repository of International and National Journals, E-books. The Institute has been selected as a local chapter under NPTEL and also providing the platform to students for AICTE-Internship programme. The college is in collaborations (MoU) with different organizations of repute for R& D and innovation and the students have the opportunity to interact in the International and National platform through different collaborations, workshops, conferences, and special teaching-learning sessions. Apart from academics, the students get exposure to holistic development through co-curricular, extra-curricular and ISR activities. The keystone of the thriving progression of the Institute lies in its innovative teaching-learning process, ragging-free environment, vigilant mentoring of the future technocrats and nurturing of innovative and entrepreneurial skills.

Vision

To ignite young minds with creativity and empowering lives and educate them to produce a galaxy of young professionals of outstanding ability who can become leaders in their profession and responsible citizens who can meet the challenges faced by the society

Mission

- To meet the demands for skilled manpower on a global basis in the field of engineering, technology and management
- To inculcate amongst the students and inspire them to take up higher studies and research
- To impart high quality education by providing the ambience needed for developing requisite

skill for excellence in education and industry

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

1. NAAC Accredited (Cycle I)
2. NIRF Ranked (2021)
3. IIC Rating – 5 stars
4. QS - GOLD Rating with Diamond in Employability.
5. The institute works with eminent intellectual workforce with 45 Doctorate faculty members.
6. Meritorious and economically weak students benefit from scholarships and provision is offered for payment of fees in installments.
7. Close mentoring of students and a healthy faculty-student relationship.
8. Bridge courses and remedial teaching sessions are conducted for the students who require assistance to improve their academic performance.
9. Incorporated Profile Building from 1st Year onwards.
10. The Campus is fully equipped with Digital mode of entire Operations Online powered by QS E-LEAD Certification with QS i-Gauge GOLD rating.
11. Active Student's chapters of professional body.
12. Sports, literary, cultural and other extracurricular activities are promoted in the form of Club Engagements
13. Social awareness is instilled in the students through a number of extension activities like Village Adoption Programme, School Development Programmes etc.
14. Research excellence award offered to students and staff pursuing research and selected for national and international recognition.
15. Staff Welfare schemes.
16. Established local chapter under NPTEL and also providing the platform to students for AICTE- Internship programme.
17. Funded projects from DST, UGC, AICTE etc.
18. Faculty profiles created in IRINS Library.
19. Seed grant facility for quality faculty members to create research ambience.
20. Centre of Excellence have been established to make the students industry-ready
21. Collaborative research atmosphere with many national and international bodies
22. Fully Wi-Fi enabled campus with ICT enabled classroom.
23. MOU with one of the world's leading online education company, Coursera, and offer their MOOCs to students at free of cost
24. Eco-friendly green campus.
25. Online examination and evaluation system
26. Repository of video lectures of each subject developed by institutional faculty members
27. Proactive Institutional Innovation Council under the aegis of MIC Govt of India.
Mentor Institute declared by MoE IIC.
29. Project based learning (PBL) methodology adopted for experiential and problem-based learning.
30. Alumni Connect Platform opens wide conversation among existing students and Alumni thereby benefitting from Industry Exposure, Research Assistance and Jobs.
31. Strong IPR Cell to scrutinize and file good number of patents every year.
32. Dedicated Entrepreneurship Development Cell aiming at creation of BIO NEST BIOINCUBATORS)

Institutional Weakness

1. Though women students are many in numbers still the women student ratio could be improved.
2. More solar power installations are needed to rely on non-conventional energy source.
3. Despite of several fended projects bagged by the institute, still it is trying for mega project (>1 crore) for higher ranking in NAAC.
4. Having achieved more than 80% student placement offer, institute still driving for Core Company/ non-it placement

Institutional Opportunity

1. To become fully autonomous
2. Potential contribution to economic development of the region.
3. More innovative and collaborative research programs.
4. Resource generation through the consultancy
5. To establish incubation center for entrepreneurship development and start-up culture.
6. More number of social relevant project to be improved.
7. Strengthen the Alumni Association to enhance the employability of the students.
8. Govt/Non-govt funding for research project.
9. Faculty & student exchange programme with National & Foreign Universities
10. Establishment of Centre of Excellence in all the Departments

Institutional Challenge

1. To Cope up with rapid technological changes and Accustomed with the socio-economic development **and switch to Cloud Platform.**
2. To build up more number of future entrepreneur from student Industry sponsored live project
3. To get more research funding from external agencies
4. Less students opted for higher studies
5. Motivate/Encourage faculty to undertake applied research

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The curriculum and syllabus for the undergraduate and postgraduate programs of the institute are designed in compliance with the guidelines of the regulatory bodies and affiliating university. The curriculum is developed in accordance with the institutional and departmental vision, mission, and the defined Program Outcomes and the Program Educational Objectives, emphasizing on the issues such as employability, skill development, human values and professional ethics, etc. to ensure holistic development of the students.

The curriculum revision involves reduction of the total credit points for 2018-19 admission batches. Also, courses such as Project and Innovative Activities have been incorporated in curriculum for all undergraduate engineering for training the students towards outcome based education. From 2021 onwards, the curriculum has been revised to incorporate the following salient features of National Education Policy, keeping into considerations of the guidelines of the affiliating university.

- Multidisciplinary holistic development by increasing the percentage of Open Elective courses
- Faculties are given Autonomous right to develop online courseware for outside world. Faculty feedback is integral part of curriculum revision.
- Institute participates in professional academic and carrier counseling through various programs in Doordarshan/ Swayam Prabha.
- Institute supports digital repositories from 2020 onwards and credit based recognition of MOOCS to achieve additional honors degree.
- Institute promotes digital education by conduction of online classes and different examinations through its learning management system and exam copy evaluation through Digital Valuation System.

The best practice of the Institute involves arranging Beyond Curriculum Training programs on value added courses to enhance skill development, employability, and entrepreneurship prospect of the students. The institute also organizes visit to International Institutes such as AIT, Bangkok, ECAM Lyon School of Engineering, France, etc. on regular intervals. In addition, faculties and students are encouraged to get certified in latest skills through national and international platforms such as SWAYAM, Coursera, etc.

Structured curriculum feedback for design and development of curriculum and syllabus is obtained from Students, Faculties, Alumni, and Employers on every academic year. Stakeholders' feedbacks are analyzed and subsequent Action Taken Report is prepared to revise the curriculum and syllabus accordingly.

Teaching-learning and Evaluation

- Teaching-learning process is an important parameter for outcome-based education (OBE). Teachers creates enthusiasm, ignite passion and create curiosity in the students. On the other hand, in order to upgrade their own knowledge and to be acquainted with the new and cutting-edge technologies, the teachers regularly participate in Conferences, Seminars and Symposia, Faculty Development Programs and Refresher Courses. This also gives a boost to their research and teaching capabilities. A healthy Student - Full Time Teacher Ratio of 15:1 exists.
- The students can take admission in various courses offered by Guru Nanak Institute of Technology, as per the rules and regulations of the affiliating and regulatory authorities and the directives issued by the state Government.
- After taking admission in a course, the learning ability of the student is assessed through various performances in the induction program, followed by diagnostic tests in Physics, Chemistry, Mathematics, and English. The learning ability of the students in successive years are assessed on the basis of the analysis of the score obtained in the qualifying examination before taking admission to an undergraduate program, communication and soft skills, behavioral traits, attendances in theory and practical classes, performance in Class test/ Online test/ Practical experiment etc., and participation in Extracurricular and co-curricular activities.
- IQAC conducts quality audits and conducts programs for improving the quality of teaching.
- Guru Nanak Institute of Technology has a very strong Mentorship Program. Mentorship Program covering all

four undergraduate years and Post graduate students with Mentor card documenting interactions to identify slow learners and provide effective counseling in academics, social and peer relationships and career progression. Therefore, it is easy to identify the slow learners and provide them the required the guidance accordingly like remedial classes. Mentors also inspire the advance learners by imparting them beyond curriculum training and special trainings. The institute has spacious classrooms, smart boards, language lab, smart classrooms, and E-learning resources to provide the best learning opportunities to its students.

- Well Defined Academic Calendar displayed on the Institute website. The Institute prepares effective planning for execution of all the activities following the academic calendar published

Research, Innovations and Extension

- Guru Nanak Institute of Technology is always trying to excel in the research area with the initiatives of the Research & Development (R&D) committee by defining various well-defined policies like promotion of research, Seed Money Grant, and Code of Ethics.
- The Institution provides financial support for the research by providing seed money and incentives for publications to faculty and students.
- The Institute also conducts workshops/seminars on Research Methodology, Intellectual Property Rights (IPR), entrepreneurship and skills development in association with external resource persons.
- The Institute has received research grants from Govt. & Non- Govt. funding agencies and also generated revenue through consultancy.
- The Institute has signed MoUs with National/International organizations for academic and research collaborations and established Innovation & Incubation center also.
- Faculty and Students of the college have published more than 1000 research papers in Peer Reviewed / SCOPUS / SCI Journals, books and conference proceedings and also more than 65 patents were published in the last five years.
- Many faculty members have received grants from Govt. & Non- Govt. funding agencies for research projects and also received fellowship awards for advanced studies.
- Students are made aware of the moral and social obligations through the NSS unit (SFU) such as Distribution of Educational kit, hand sanitizer (made by GNIT Chemistry section), mask (made by BHM dept.), chocolates and sweets among the Sabar girl students from Belpahari, Jhargram, Preparation of Sanitizer for distribution among local people, during 2nd wave of Covid 19 pandemic in the locality, Student members of PRAGAATI distributed the essential commodities (Food, Medicines etc.) after the cyclone YAAS among the homeless people in addition to technical exhibitions.
- College has received awards and recognitions from the Government/ recognized bodies for extension activities. Many programs like plantation, Swatch Bharath, blood donation camps, Environmental Awareness workshops, etc. were conducted in the last five years.

Infrastructure and Learning Resources

- The vision of Guru Nanak Institute of Technology (GNIT) is to constantly improve teaching learning process by implementing the best infrastructure at par with the best and most prestigious institutions of the country.
- GNIT is actively trying to reach the quality of teaching and learning with regular and improved ambient infrastructure support by following the norms of the concerned statutory bodies like A.I.C.T.E. , M.A.K.U.T., etc.

- The academic building of GNIT consists of five floors well connected with two lifts. There are sufficient numbers of well-furnished theory class rooms, laboratories, library, seminar hall, auditorium etc.
- The campus has approximately 44 ICT enabled class rooms each with an average 60-75 seating capacity, well equipped laboratories, well stacked library, spacious playground and gymnasium.
- The college has one indoor auditorium with seating capacity of 300.
- Each department is given an exclusive staff room. Every department is equipped with adequate number of computers having internet connectivity via LAN and Wi-fi.
- GNIT offers different types of indoor and out door game facilities, well equipped Gym and area for Yoga.
- The college is equipped with LCD projectors to facilitate the Modern teaching methods. Seven class rooms have been made smart class room.
- New facilities have been augmented during last year where several class rooms and laboratories have been added by incurring an expenditure of about Rs.106.70 lakhs
- The total expenditure towards books and journals in the past five years has been Rs. 31.01 lakhs with approximately about 53946 books being added. GNIT resources has been sufficiently strengthened in the institution with Computer to Student ratio being about 3.12: 1.
- Expenditure incurred on maintenance and renovation works in the college stands at about Rs. 94.67 lakhs. The housekeeping work of the college has been outsourced.
- An in-house System Administrator and a technician are appointed for the purpose of Maintenance of the building, computers and equipment.
- An electrician is appointed to supervise the maintenance of electrical fixtures and electrical connections in the college. The college library has reprographic service and other essential services. ICT learning resources are available in the college.

Student Support and Progression

Guru Nanak Institute of Technology has a well-structured and organized student support and progression system. The institute supports the financially challenged students to avail scholarships provided by government and non-Government agencies. To enhance knowledge and skill of students, and to make them aware of recent trends in technology, the Institute encourages students to participate in seminars, workshops, webinars and field studies. The Institute arranges value-added courses on soft skills, language and communication skills and life skills like yoga and physical fitness activities to enhance values. During the study, students are under the direct supervision of Mentors, and if they face any personal or professional problem they interact with their Mentors. The Institute has well-structured student centric policies to handle issues against anti-ragging with zero-tolerance norms, and hence has formed an Internal Complaint Committee, Grievance Redressal Committee, Prevention of Sexual Harassment Committee and Anti Ragging Committee. The Institute has an adequate infrastructure and international collaboration, so that students can carry out their co-curricular activities and get exposure in Asian Institute of Technology, Bangkok and Russia. The Student Council of the Institute has several Clubs that motivate the students to participate in different kind of activities like coding competition, photography competition, NSS activities, which in turn promotes the holistic development of the students. To enhance the cognitive domain knowledge the Institute takes initiative as the students can participate in different national and international-level competitions. The Institute inculcates different training programs beyond the curriculum so that the students can be placed in different government organizations and MNCs and the students who are willing to pursue higher studies may pursue their desired options. The Alumni Association is the strength of the Institute. The Alumni Association contributes financially/in hand support to make their Alma Mater strong and they often arrange seminars and workshops to enhance networking between the present

students and the alumni.

Governance, Leadership and Management

- The governance of Guru Nanak Institute of Technology (GNIT) is based on its **Vision and Mission** and the institute is running successfully over the years by following the **Strategic plan**. We also have a strong **E-Governance policy**, by which we are benefitted in pandemic time. The governing body of GNIT always provides the opportunities to students and faculty members to **enhance their skills** with **financial support**.
- GNIT functions in a decentralized and democratic manner which has been reflected through the functions of **different committees and departments**. **Head of the Institute, different committees, Board of Governors, Departmental HODs, different stakeholders** are the part of decision making policy of this Institute. 90 percent faculty members are integral part of different committees of this Institute.
- GNIT has a strong **IT based e-governance** for smooth running of this Institute where software partner Hash technology plays a vital role. **Hash technology** is used for different purposes like, **students admission, training of students, video lectures collection for students, Online Examination etc**. We have also strong **ERP system** for maintaining **financial activities**. GNIT has **Wi-Fi Campus** with adequate 62 access points, **Highend Firewall device** with 500 Mbps Allianc line connections to augment the implementation of the IT measures.
- **Faculty development** is a continuous process for uplifting the status of **outcome based education**. In 2020-21, 86% faculty members attended faculty development program (FDP) and GNIT has conducted many **FDPs in collaboration of different agencies**.
- GNIT has strong and fully fledged **internal quality assurance committee (IQAC)**. Under the banner of this cell, different activities have been performing over the years for **quality assessments of this Institute**.
- Apart from that we have **grievance handling committee, purchase and maintenance committee, anti-ragging committee** for smooth running of its governance policies. The Management and Principal of this Institute has a good plan to enhance the quality of this Institute in future days where IQAC is the integral part of this.

Institutional Values and Best Practices

Institutional Values and Social Responsibilities:

This criterion evaluates the standards maintained by the Institute as an environmentally aware, eco-friendly unit promoting sustainable development.

- The **Renewable Energy** (like solar energy) and **LED-based lighting** arrangements are implemented in the campus for **energy conservation, Rain water harvesting for water conservation, and tree plantation** and practices for **waste management** are followed.
- The **gender equity sensitization** programmes are conducted frequently inside and outside the campus. The Institute provides **barrier-free environment** for **disabled (Divyangjan)**.
- The Institute creates an inclusive environment promoting tolerance and **harmony in cultural** and socio-

economic diversities and celebrating **National and International commemorative days**. Students and employees actively participate in various social awareness programmes, conducted by NSS unit for **holistic development**.

- **Code of conduct** for students and employees are adhered to.

Best Practices

1. Beyond Curriculum Training (BCT) on Value Added Courses :

Beyond curriculum training on value added courses is included for empowering students for high-end employability, higher education and self-entrepreneurship.

Objectives of the Practice

- To impart technical skill training in areas in high demand
- To enhance employability of weaker students.
- To make advanced learners ready for higher education, high-end employment or research.
- To bridge the industry-academia gap.

Basic programming and other skills are offered to every student from the BCT basket, in which each student opts for 6 courses. BCT is run in **association with external agencies**, with training by industry professionals. Course-end **Certification** is given.

2. Community Development Initiatives

The Institute fosters humanitarian activities of students **and the amelioration of the disadvantaged and community development**.

Objectives of the Practice

- **To encourage students to aid the weaker sections of society.**
- **To foster learning initiatives for economically disadvantaged students**
- **To encourage women's empowerment, environment conservation, social justice and equity.**

Caring for the Community

The Institution has been evolving this practice by encouraging varied welfare and social outreach activities. By fostering Covid-19 lockdown support initiatives, free education, natural disaster relief, elder care, the Institute remains focussed on community care initiatives and promoting holistic development.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	GURU NANAK INSTITUTE OF TECHNOLOGY
Address	Guru Nanak Institute of Technology 157/F, Nilgunj Road, Panihati, Sodepur North 24 Parganas West Bengal
City	Kolkata
State	West Bengal
Pin	700114
Website	www.gnit.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Dr. Santanu Kumar Sen	033-25233900	9432012683	033-25637957	principal_gnit@jisgroup.org
IQAC / CIQA coordinator	Sunipa Roy	033-22393944	9830751850	033-22893945	iqac@gnit.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 approval GNIT.pdf
If Yes, Specify minority status	
Religious	SIKH
Linguistic	
Any Other	

Establishment Details	
Date of Establishment, Prior to the Grant of 'Autonomy'	16-08-2003
Date of grant of 'Autonomy' to the College by UGC	09-03-2016

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	23-02-2012	View Document
12B of UGC	25-02-2013	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	10-07-2021	12	Extension of 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	Ministry of Education
Date of recognition	09-09-2021

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Guru Nanak Institute of Technology 157/F, Nilgunj Road, Panihati, Sodepur North 24 Parganas West Bengal	Urban	7	33516

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,Computer Science And Engineering	48	Class Twelve	English	180	180
UG	BTech,Electronics And Communication Engineering	48	Class Twelve	English	120	112
UG	BTech,Information Technology	48	Class Twelve	English	90	74
UG	BTech,Electrical Engineering	48	Class Twelve	English	60	41
UG	BTech,Food Technology	48	Class Twelve	English	60	44
UG	BTech,Applied Electronics And Instrumentation Engineering	48	Class Twelve	English	30	10
PG	Mtech,Computer Science And Engineering	24	Undergraduate	English	9	6
PG	Mtech,Electronics And Communication Engineering	24	Undergraduate	English	9	9
PG	MCA,Computer Application	24	Undergraduate	English	30	29

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	18				35				110			
Recruited	13	5	0	18	18	17	0	35	58	52	0	110
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				51
Recruited	31	20	0	51
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				42
Recruited	28	14	0	42
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.	12	5	0	14	12	0	2	0	0	45
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	1	0	0	4	5	0	56	52	0	118

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.	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

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		Total
	8		2		10

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	1280	81	0	5	1366
	Female	588	41	0	1	630
	Others	0	0	0	0	0
PG	Male	50	4	0	0	54
	Female	41	0	0	0	41
	Others	0	0	0	0	0
Diploma	Male	42	15	0	0	57
	Female	32	2	0	0	34
	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	27	26	30	37
	Female	19	13	12	13
	Others	0	0	0	0
ST	Male	2	2	1	1
	Female	1	0	0	1
	Others	0	0	0	0
OBC	Male	40	40	43	42
	Female	12	12	11	11
	Others	0	0	0	0
General	Male	281	273	295	0
	Female	166	162	133	0
	Others	0	0	0	0
Others	Male	0	0	0	280
	Female	0	0	0	133
	Others	0	0	0	0
Total		548	528	525	518

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

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

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	<p>The institute understands the vision of the National Education Policy, which is to deliver high-quality education in order to develop human resources in our country as global citizens. Faculty members discussed the core principles of NEP, such as variety in all curricula and pedagogy, technology advancements in teaching and learning, supporting logical decision making and innovation, critical thinking, and creativity. In response to the NEP, the university has established new interdisciplinary centers that bring together many departments in addition to the current inter/multidisciplinary research and academics.</p> <p>Multidisciplinary/Interdisciplinary courses are being offered as electives in academic programs. All programs are designed to give students the most freedom in selecting elective courses from different departments, such as computer vision and cloud computing, robotics, hardware monitoring etc. It can be said that the Institute is proactively working towards the implementation of NEP.</p>
2. Academic bank of credits (ABC):	GNIT will formally register in the ABC portal as soon as the order released from the affiliating University.
3. Skill development:	<p>AICTE has introduced a Skill Development (SD) Cell to train youth by providing them skills through AICTE approved Colleges with objective for enhancing their Employment/Self-Employment opportunities. GNIT is one of the institute to implement this concept to implement its own skill development strategy. In support of “Start-Up Policy for Technical Institutions”, institute has started the start-up initiatives and good numbers of students and faculty members are engaged with start-up activity. GNIT Super 30 – The Entrepreneurs’ Elite Club has been developed mainly to create and nurture the Entrepreneurship talents in some potential students and create an eco system for entrepreneurial engagements thereby up-scaling and up-skilling the GNIT-ians. The main focus of this GNIT Super 30 concept is to empower individuals with the entrepreneurial skills. GNIT Super 30 aspires to support business ideas and innovators as they</p>

	<p>develop, launch, and commercialize their top-skill and motivate the students to bring out their latent spirit of Entrepreneurship. MoU has been signed with the agency enlisted under start-up India and many more are in order. Aptitude and Soft skill trainings are conducted from Training and Placement cell in support of employability enhancement. The institute implemented a policy of Beyond Curriculum training realizing the importance and the necessity for developing skills among students, and creating work ready manpower on large scale. This newly adopted curriculum and the training imparted will help the program aspirants to get fully trained in accordance with the SD Cell. GNIT aims at providing quality education combining class room centered formal education and training with experience sharing of Industry practitioners and internships in business houses. The focus is towards integrated knowledge acquisition and upgrading human skill towards creating a new league of employable youth. Teaching and training methodology of courses offered under GNIT are designed accordingly as per the requirements of Industry 4.0 by introducing Intellectual property right and Entrepreneurship and Innovation skill.</p>
<p>4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):</p>	<p>GNIT encourages learning of Indian knowledge system by incorporating the mandatory courses like “Essence of Indian knowledge tradition” and “Constitution of India” in the curriculum. Programs including webinars and seminars are also offered to enhance the traditional knowledge of stakeholders and to understand the cultural values. Further, Values & Ethics in curriculum B.Tech, teaches cultural values in Indian tradition so an engineering student can imbibe value orientation while in job.</p>
<p>5. Focus on Outcome based education (OBE):</p>	<p>GNIT is focused on outcome based education. All its programs are offered as outcomes-based education (OBE) which are designed keeping in mind the regional and global requirements. GNIT has implemented outcome-based education with clearly stated Program Outcomes, course outcomes and Program Specific Outcomes. All courses are designed in support with Bloom’s Taxonomy by incorporating different levels like remember, understand, apply, analyze, evaluate and create. Apart from the domain-specific skills, learning outcomes at all levels confirm social awareness and ethics, as well as</p>

	<p>entrepreneurial skills so that student contribute proactively to economic, environmental and social happiness of the nation. The Program Educational Objectives (PEO) are in alignment with Vision and Mission of the institute. Course Objectives (COs) are also aligned to the PO-PSO philosophy. All course syllabus has been designed with due consideration towards 'More holistic and Multidisciplinary Education' to apply the spirit of NEP.</p>
6. Distance education/online education:	<p>As a result of the COVID-19 pandemic, educational institutions across the country are increasingly relying on digital platform to engage students, organize conferences, and hold meetings. Leaving aside the disadvantages of lack of face-to-face learning, online education has broken down geographical barriers, allowing professionals and students from different parts of the world to engage. The liberalization of the economy, including that of educational institutions, has prepared the door for the adoption of a hybrid method of instruction using a learning management system (LMS) that combines online and offline resources. This can be thought of as the new normal, which is also envisioned in the New Education Policy. Access to online resources for instructors and students will no longer be a constraint, thanks to the experience learned during Covid-19's closing period.</p>

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2020-21	2019-20	2018-19	2017-18	2016-17
09	09	09	09	09
File Description		Document		
Institutional data in prescribed format		View Document		

1.2

Number of departments offering academic programmes

Response: 7

2 Students

2.1

Number of students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
2091	2054	1986	1856	1817
File Description		Document		
Institutional data in prescribed format		View Document		

2.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
541	508	478	397	485
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**

2020-21	2019-20	2018-19	2017-18	2016-17
4182	4108	3964	3744	3672
File Description		Document		
Institutional data in prescribed format		View Document		

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

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

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

2020-21	2019-20	2018-19	2017-18	2016-17
1480	1415	1415	718	718
File Description		Document		
Institutional data in prescribed format		View Document		

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

2020-21	2019-20	2018-19	2017-18	2016-17
163	154	157	167	169
File Description		Document		
Institutional data in prescribed format		View Document		

3.3

Number of sanctioned posts year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
163	154	157	167	169
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**

2020-21	2019-20	2018-19	2017-18	2016-17
612	606	617	620	671
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**

2020-21	2019-20	2018-19	2017-18	2016-17
132	138	143	143	143
File Description		Document		
Institutional data in prescribed format		View Document		

4.3**Total number of classrooms and seminar halls****Response: 45****4.4****Total number of computers in the campus for academic purpose****Response: 810**

4.5

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

2020-21	2019-20	2018-19	2017-18	2016-17
698.59	922.41	832.19	720.04	700.51

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:

After receiving autonomous status from the academic session 2016-17, Guru Nanak Institute of Technology (GNIT) has continuously aimed to design the curriculum and syllabus for the undergraduate and postgraduate programs in compliance with the guidelines of regulatory bodies and affiliating university, considering all **stakeholders' feedback on the existing curriculum**. The curriculum of each program is in accordance with the **institutional and departmental vision, mission**, the defined **Program Outcomes (POs)** and the **Program Educational Objectives (PEOs)** to address the developmental needs of the fraternity. **The references are taken from local/ regional, national, and global sources such as Directorate of Employment, West Bengal, Ministry of Skill Development and Entrepreneurship, WBSDM, AICTE, MAKAUT, UNESCO, MSME, NAPCC, NITI Aayog, etc.** The curriculum is developed by emphasizing **on the issues such as employability, skill development, human values and professional ethics**, etc. to ensure holistic development of the students.

The key components for planning and developing the curriculum and syllabus are:

- Stakeholder's feedback and corresponding analysis report to identify the current needs
- Curriculum of different Pioneer institutes of regional, national, and international repute
- Suggestions from different academic and industry experts
- Modern emerging trends on technological enrichment
- Environmental and societal challenges

The process of development and regular revision of the curriculum and syllabus goes through several committees such as Departmental Academic Committee (DAC), Board of Studies (BoS), Academic Council (AC), and finally the Board of Governors (BOG). At first, courses are chosen for each program in tune with the identified key components, POs, and the Program Specific Outcomes (PSOs) and the corresponding Course Outcomes (COs) are devised for each course from the revised Bloom's Taxonomy to appraise learning on a different cognitive levels. After that, each devised CO is mapped with POs and PSOs and included in the syllabus. The draft curriculum and syllabus, as prepared by departmental faculty members after deliberate discussion in DAC, is placed before BoS for necessary modification and approval by internal and external academic and industry experts. Then, the framed curriculum is produced at the Academic Council for further approval. Finally, the approved curriculum is placed at the BOG of the Institute for necessary recommendation to submit the same to the affiliating University.

The curriculum incorporates courses of various types such as Basic Sciences, Humanities, Engineering Sciences, Professional Core, Professional Electives, Open Electives, Mandatory Core, application-oriented based Projects, and Innovative Activities such as Internship/ Innovation/ Entrepreneurship related activities. Several courses are mapped with focus **on the issues related to Employability, Environment, Sustainability, Gender Equality, Skill Development, and Entrepreneurship in alignment with the various policies of State and Central Government as well as international bodies.**

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: 88.89

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

Response: 9

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

Response: 8

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
Link for 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: 60.21

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

2020-21	2019-20	2018-19	2017-18	2016-17
906	867	867	421	421

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any	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

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.

Response: 28.22

1.2.1.1 How many new courses are introduced within the last five years

Response: 215

1.2.1.2 Number of courses offered by the institution across all programmes during the last five years.

Response: 762

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

1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).

Response: 100

1.2.2.1 Number of Programmes in which CBCS / Elective course system implemented.

Response: 9

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:

GNIT keenly emphasizes on the holistic development of the students and thereof focuses on important areas such as Professional Ethics and Human Values, Gender Equality, Environment and Sustainability.

The courses that address Professional Ethics and Human Values:

Keeping focus on Professional Ethics and Human Values, the curriculum and syllabus has been framed to incorporate relevant courses to skill the student towards self and moral development, comprehend the effects of technological growth and educate the ethics and human values in organization.

Course Name	Course Code	Program Code
Values & Ethics in Profession	HU 301/ HU 401/ HU701/HU702/ HU802	CSE(01), ECE(02), AEIE(05), FT(09)
Essence of Indian Knowledge Tradition	MC801	CSE(01), ECE(02), AEIE(05), FT(09)
Universal Human Values 2: Understanding Harmony	HSMC 303	CSE(01), ECE(02), FT(09)
Human Resource Development and Organizational Behavior	OEC-CS-801A	CSE(01)
Human Resource Management	OEC-IT803C	IT(04)
Values & Ethics	HU 401	MCA(41)
Values and Ethics in Profession	MCA20-E105E	MCA(41)

The courses that address Gender:

The curriculum includes appropriate courses to raise consciousness in psychological, social, and economic issues, such as women development and gender parity in institution. The courses aim to create awareness through activities linked with Women's Cell of the institute.

Course Name	Course Code	Program Code
Extra Curricular Activity (NSS/ NCC)	XC 181	CSE(01), ECE(02), EE(03), FT(09)
Constitution of India	MC401/ MC 501/ MCA601/ MCA20-E105C	CSE(01), ECE(02), EE(03), FT(09), MCA(41)
NSS/Physical Activities/ Meditation & Yoga/ Photography/Nature Club	MC 281	CSE(01), ECE(02), EE(03), FT(09)
Gender Culture and Development	HSMC 402/ HSMC403	CSE(01), ECE(02), EE(03), FT(09)

The courses that address Environment and Sustainability:

Institute integrates several courses addressing Environment and Sustainability in the curriculum to create consciousness towards the natural environment and its correlation with human behavior. The objective of the courses is to realize the necessity of preserving the natural resources and prevent its depletion by moving towards renewable and non-conventional energy sources.

Course Name	Course Code	Program Code
Extra Curricular Activity (NSS/ NCC)	XC 181	CSE(01), ECE(02), EE(03), FT(09)
Environmental Science	MC 301/ MC401/ MC 501	CSE(01), ECE(02), EE(03), FT(09)
NSS/Physical Activities/ Meditation & Yoga/ Photography/Nature Club	MC 281	CSE(01), ECE(02), EE(03), FT(09)
Non-Conventional Energy Sources	EI703B/ EI 603B	AEIE(05)
Renewable source and applications	EC 704C	ECE(02)
Non-conventional Energy Sources and Applications	EE605A	EE(03)
Power Plant Engineering	EE801C	EE(03)
Environmental Engineering	CH(FT) 301/ CH(FT) 391	FT(09)

Waste Management of Food Industries	FT701	FT(09)	
Renewable Energy Technology	FT702 B/ FT 703B	FT(09)	
Plant Maintenance, Safety & Hygiene	FT702 C/ FT 801C	FT(09)	
Project Engineering & Food Plant Layout	FT801/ FT801B	FT(09)	
Social Awareness	MC 581/ MC781	CSE(01)/ FT(09)	
Renewable Energy Sources & Applications	EC 504B	ECE(02)	
Wind and Solar Energy Systems	EE 801A	EE(03)	
Renewable Energy - I	EE 505A	EE(03)	
Renewable Energy - II	EE 605A	EE(03)	
Renewable Energy Management and sustainability	EE801A	EE(03)	
Environmental Biotechnology	FT 604B/ FT 692B	FT(09)	
Environmental Protection Initiatives	MC 481/ MC 381	CSE(01), ECE(02), EE(03)	
Stress management through Yoga	MCA20-E105D	MCA(41)	

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: 90

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

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

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
Link for Additional Information	View Document

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

Response: 50.65

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

2020-21	2019-20	2018-19	2017-18	2016-17
1058	1064	1051	967	833

File Description	Document
List of students enrolled	View Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response: 96.41

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

Response: 2016

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
Link for Additional Information	View Document

1.4 Feedback System

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

Response: A. All 4 of the above

File Description	Document
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
Link for Additional Information	View Document
URL for stakeholder feedback report	View Document

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

Response: A. Feedback collected, analysed and action taken and report made available on website

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: 85.71

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

2020-21	2019-20	2018-19	2017-18	2016-17
546	548	528	525	518

2.1.1.2 Number of sanctioned seats year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
588	618	636	636	636

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	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: 69.53

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

2020-21	2019-20	2018-19	2017-18	2016-17
90	101	93	97	105

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

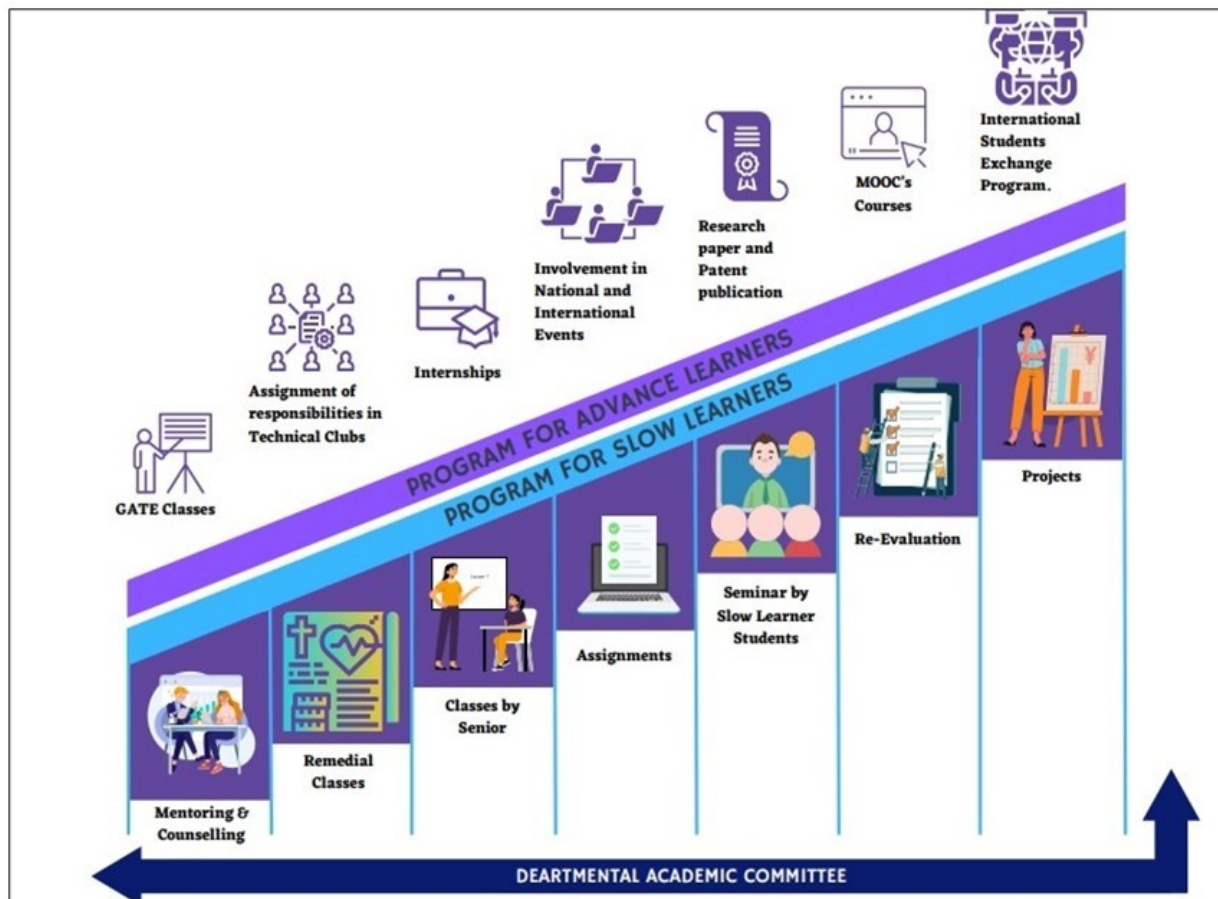
2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

Response:

The students admitted into this institution are from diverse social, economic, cultural and vernacular backgrounds, with different levels of knowledge and skills; hence their learning process gets varied based on the aforementioned distinctness. Students are our primary stakeholders and they are taken care with mentoring, counselling and providing ample opportunity to upgrade themselves to exhibit talent during their course tenure at the Institute and excel in their future life.

Mentoring and counselling helps towards overall development of students. After a student gets admitted in the institute, the student is immediately assigned to a faculty member who serves as her/his mentor for the duration of his/her study at the institution. The Departmental Academic Committee comprising of head of the department and faculty members who also act as mentors meet at least once a month to discuss academic matters including the challenges faced by the student and academic growth of the students and accordingly decisions are taken to overcome the problems for the benefit of the students

As soon as students are admitted in a course, a diagnostic test on Physics, Chemistry and Mathematics are conducted to assess the learning levels of the fresh undergraduate students. After this test, the result is analyzed and initial category of the slow learners and advanced learners are identified. Based on their proficiency and competency levels the students are given different the form assistances for a reasonable growth ahead. Apart from diagnostic tests, students are also identified as slow-learners and advanced learners through Unit Tests from 2nd year onwards for appropriate guidance and assistance.



Slow Learners:

To ensure that every student receives adequate time and attention, each mentor is assigned a maximum of twenty to thirty students maximum. Assistance is provided for slow learners in a number of ways as mentioned below:

- Mentors identify academically weak students through the unit test and work with the concerned subject teacher to design a plan for these students
- Students are offered Remedial classes
- Classes by Senior Students are conducted
- Assignments are given for attainment of subject knowledge.
- Seminar topic is assigned to the Slow learners to present on the topic
- Re-evaluation is done
- Project work is given to the slow learners after re-evaluation.

Advanced Learners:

The Institute facilitates the progress of advanced learners through various programs:

- GATE Classes
- Assignment of responsibilities in Technical Clubs: The students are assigned different responsibilities in technical clubs such as Robotics, IIC Cell and Tech Fests, Bit-2-Byte Club, Cyber Security Club etc.
- Involvement in National and International Events: like ICPC, SIH(S/W) SIH(H/W), AICTE Chatra Viswakarma, SD4, IE Student conclave etc
- Research paper and Patent publication
- MOOC's Courses
- International Internship.

File Description	Document
Any additional information	View 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
Link for 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 institute offers a constructive platform for students to sharpen their skills and knowledge and enhance moral values to mould their career and attitude towards right direction. All departments of GNIT conduct multiple programs that stimulate creative ability of students and provide them a platform to nurture their problem-solving skills and ensure participative learning. Each department of the institute organizes technical fest apart from the institutional technical fest to showcase their technical potentiality through real-life models in the form of innovative projects. The institute also organizes cultural fest every year where students showcase their cultural diversity and talents. Students are always encouraged to take part in state level, national level as well as international level of events and competitions.

The institute uses several student-centric methods for enhancing learning skills and abilities of students. Active involvements and efforts of faculty members ensure the effectiveness of the activities through adoption of the following student-centric methods.

1. Experiential Learning: All the seven departments of GNIT employ the following experiential learning techniques to improve creativity and understanding levels of the students.

1. Peer Assisted learning

1. Virtual lab

1. Workshop

1. Activity based learning
2. Technical report writing

1. Internship
2. Industry visit
3. Demonstration by students

2. Participatory Learning: In participative learning, students get involved in various activities such as seminar, presentation, group discussion and skill based add-on courses. These following participative techniques are extensively followed.

1. Seminar by students
2. Blended learning
3. Group discussion
4. Technical presentation
5. Quiz
6. Debate

3. Problem-solving methods: All the departments encourage students to develop and acquire problem-solving skills. In this regard, college organizes lectures and model displays on various topics, induce students to join MOOCs courses and engage them to participate in the following problem solving

methods.

1. Open book exam

1. Simulation techniques

1. Case study

1. Prototype modeling and display

1. Project based learning

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:

To implement the effective teaching learning process, Guru Nanak Institute of Technology (GNIT) uses all possible avenues of ICT techniques and tools and online resources. GNIT has its own Online Learning Management System (LMS) where students can get variety of resources like video lectures of his/her own class teachers as a repository. Students also can access courser courses as GNIT has signed MOU with Coursera for value added courses. ..The teachers use the ICT enabled classes to enhance the quality of teaching-learning process. Apart from our own LMS, the teachers also use the our own procured and dedicated MyPerfectice online teaching platform and Whiteboard facility to conduct online classes, upload the course materials, technical presentations, learning materials, assignments etc in the LMS portal. They can also make some announcement prior to the next class through this portal.

Teachers prepare the online courseware for each subject, develop video lectures for each class as per the lesson plan and upload the same in the video lecture web portal. The online learning materials are enriched with animations, QA and simulations to enhance the efficiency of the teaching- learning process. The campus is facilitated with high speed Wi-Fi connection to impart an ICT enabled eco-system. Apart from this, each department has a well equipped Smart Classroom for the audio-visual presentation and

demonstration for better understanding of the classes. The smart interactive boards are used for making presentation for seminar presentation by both teachers and advance learners and senior students during per learning sessions. Moreover, many classrooms have Android based smart TV for audio-visual presentation for better adoptability during learning phase. Teachers along with the technical assistants use virtual labs to conduct laboratory experiments. The corresponding lab manuals are sent to the students through the LMS portal well in advance the experiment is performed. Lab facility is used to create video lectures and upload in the video lecture portal for students to use as extra learning resources. To teach all the derivations and solve the numerical in online platform the teachers use various authorized and purchased online tools like Microsoft teams, Zoom, Google meet and Graphic tab etc. For the online tests teachers use the LMS portal for giving the question papers, also for evaluation process. Online quizzes are regularly arranged to map the continuous evaluation process. With all ICT tools apart from regular teaching learning process Mentors can effectively monitor and guide the students to prepare them industry ready by conducting regular online tests through MyPerfectice platform which is an online learning platform and it allow the students to take test anytime-anywhere. This continuous evaluation and teaching-learning process helps teachers to find out the particular learning needs of the students, their strength and weakness and identify the slow learners and advanced learners. The teachers also refer 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 huge collections of e-books from renowned publishers.

File Description	Document
Any additional information	View Document
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	View Document
Link for Additional Information	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: 104

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:



Guru Nanak Institute of Technology (GNIT) devotedly follows **systematic approaches** so as to strictly follow to the well-organized academic calendar by strict adherence to the teaching plans developed by each individual teacher keeping into consideration of the prior distributed academic calendar to all. GNIT is keenly focused to the holistic development of the students. The well-organized teaching process helps the students to grow completely. Like academic calendar, which is shared to all stakeholders through the institutional website before the commencement of every semester, the teaching plan also gets shared by each individual teacher to his/her students so that before attending the class, students remain aware of the class to be conducted by the respective teacher. Moreover, timely completion of syllabus which is a very important phenomena in academics gets supported to complete 100% syllabus much before the semester examination so the students get sufficient time to revise their studies and get clarity, good preparation before the final semester examination. The lesson plans also enable teachers to function more effectively in the classroom by giving a detailed outline that they adhere to during each class. This timely schedule helps teachers in maintaining order and also support the students to get mentally prepared regard the class and its content. The faculty members conduct the classes through **participation, experiential and problem solving process throughout the semester that enables the students to get well involved and helps to learn to learn the subject effectively**. An academic calendar is to keep students, faculty, and staff reminded of key dates throughout the academic semester and year. It is also useful for prospective students,

alumni, and parents as well.

The Academic Calendar is developed bi-annually and much before the commencement of the new semester classes. The calendar gets reviewed after every 3 months for any relevant post date edition. **The calendar consists of academic and non-academic activities which consists of the teaching days, holidays, important national days, mandatory seminar/conference/workshop dates, Internal Test (both Unit Test –I and Unit Test –II) dates, Question paper submission date, answer script evaluation deadline date, semester examination date and alike which are relevant to the students and as well as all staff members.**

The sole purpose of incorporating academic calendar is to improve the teaching-learning qualities, to finish the assigned task within deadlines and in still among the teachers and students regard the importance of professional standard. However, apart from the scheduled activities as mentioned in the academic calendar or teaching plan, sometimes teachers conduct out of plan classes **for remedial classes, surprise tests depending on the necessity for the benefit of the students.**

Teaching Plan includes the following parameters;

- Day
- Faculty Name
- Subject Name
- Subject Code
- Module
- Sub Module (Topic)
- Lecture

File Description	Document
Upload Academic Calendar and Teaching plans for five years	View Document
Any additional information	View Document
Link for Additional Information	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
Link for 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: 25.22

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

2020-21	2019-20	2018-19	2017-18	2016-17
45	41	38	43	37

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document
Link for 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: 5.9

2.4.3.1 Total experience of full-time teachers

Response: 961

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	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: 17.4

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

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

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document
Link for 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: 0.21

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

2020-21	2019-20	2018-19	2017-18	2016-17
07	09	11	08	07

File Description	Document
Number of complaints and total number of students appeared year wise	View Document
Any additional information	View 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:

Student Online Examination Form Fill up process:

The entire evaluation work is done through an online examination management system and is completed within time after examination.

Since 2016-17 session students register in an online portal and use their id and password. Students are able to view detail on that portal after the registration and take printout of the filled application form and submit the examination fees along with the application form. After the last date of form fill up the list of students appearing in examination is prepared automatically for attendance and further processing. Printed admit card is downloaded.

Since 2016-17 session along with the above-mentioned process of form fill up attendance approval from respective Head of the Department is introduced which is automatically approved on the basis of class attendance then only students are able to do form fill up.

Since 2017-18 students 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 the examination schedule has been entered into the online system so questions can be printed only on the day and at specified time for the transparency of examination. Printed copy of day-wise attendance sheet is available online.

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

Step 1 – Accounts approval for fees clearance.

Step 2 – Attendance approval by Head of the Department.

Approved students do the process of form fill up in online portal through college website using their user id and password through login.

Approved students list are automatically generated by the online system and are accessible to the Controller of examination for further processing.

Online Answer sheet Evaluation and Result publication process:

All marks are entered in the Examination Portal from the department using login IDs of faculty. Marks submission reports are generated and submitted to the COE. External or internal faculty members are appointed for Examination copy checking and tabulation. After completion of these tabulations results are published in the online portal.

All evaluation was carried out by the examiners with annotations by accessing the Digital Valuation System (DVS) system using the internet through separate login IDs for each Examiner. Tabulation and scrutiny is completely automated using the DVS. For distribution to head examiners, 10% of the answer script are randomly selected by the DVS and mapped to head examiners. Re-evaluation is carried out by the head examiners with annotations by accessing the DVS system through separate login IDs for each Head Examiner. From the 2019-20 sessions the online moderation process is introduced with the existing method of examination.

Students appeared in the semester examination through an online platform.

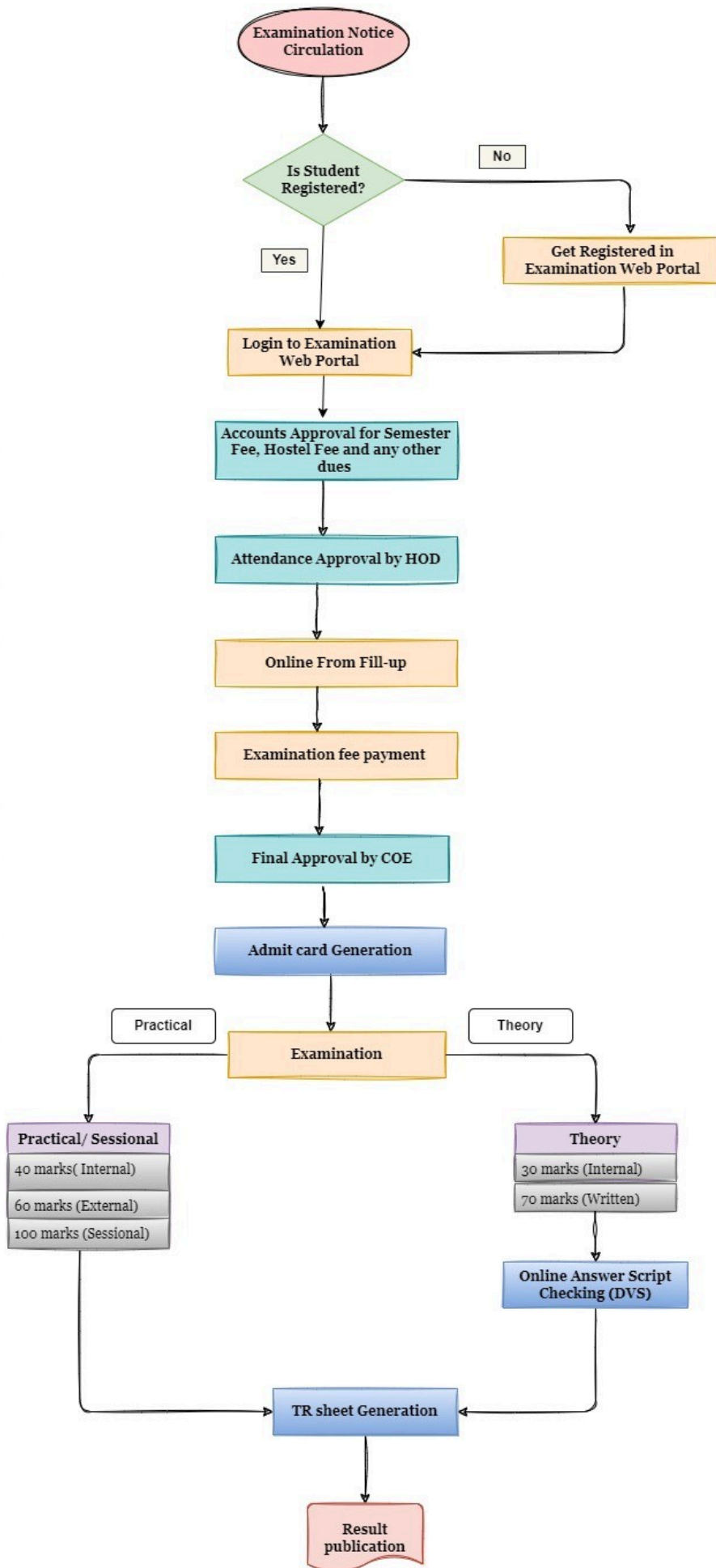
The list of the paper setters (two paper setters per subject) are prepared by the Controller of Examination (COE). COE appoints the paper setters and selects one moderator for each subject from the panel of external moderators. Examiners are appointed by COE from both internal and external faculties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

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 the respective department and conducted by the subject teacher. Class test, quizzes on different subject topics are carried out by the 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 assignment and class test were in place. In 2016 one more assignment was incorporated with two slot tests, one assignment 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 based teaching learning methodologies have been adopted and it has been incorporated in the continuous assessment. In 2018 out of two slot tests the first slot test was conducted online through Moodle. In 2019 MCQ based class tests were introduced and one more assignment was given in addition to two slot tests, two assignments. In 2020 the class tests were taken after completion of each Module and question patterns 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. Examiners may put any comments / feedback on the answer script in the specified box for the purpose.



1. Impact of IT Integration:

1. With the ERP system, Subject teachers login with their user id and enter the marks for the Continuous Internal Assessment (CIA) system. The Mark's entry for CIA by the subject teacher concerned ensures transparency and integrity. The Heads of department approves the marks through their log-in after verification which ensures near about zero error.
2. Complete automation of examination helps in the successful execution of form fill up process, examination processes & examination evaluation.
3. Automated system of Question paper setters' facilitated on-time and quality output from setters.
4. The automated process facilitated the analysis of students' performance course-wise with much ease and we were able to undertake necessary measures for improvement

1. Positive impact on CIA :

1. The schedule to conduct of the Continuous Internal Assessment test is notified on the college website.
2. The Students are well informed about the schedule of the CIA through the notification on the college website.
3. This system helps students to prepare consistently and outshine not only CIA but also in Autonomous semester examinations.
4. The assessment process gives enough scope to the students to improve their performance and analyse their progress on a time to time basis.

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:

The Institute switched over to Outcome Based Education (OBE) in 2016 to impart education through student centric approach, to increase the students' employability and follow outcome-oriented teaching learning process. Programme Outcomes (POs), Programme Specific Outcomes (PSOs), Course Outcomes (COs) as well as Program Educational Objective (PEO) has been formulated for all the UG and PG programs. Programme Outcomes (POs) represent the graduate attributes formulated as per Washington Accord and adopted by National Board of Accreditation. Programme Specific Outcomes (PSOs) are

specifically designed for the different distinct programmes getting executed in the institute focusing on specific outcomes which the graduates have to acquire by the end of the particular UG/PG programme. PSOs are framed by all the departmental faculty members under the supervision course coordinator and it is approved in departmental Board of studies. All the COs of all courses of the curriculum are defined clearly with the CO-PO mapping to indicate its importance and included in the syllabus. All the Programme Outcomes and Course Outcomes for all Programmes offered by the institution are shared to all the stakeholders in the form of different activities and displaying on the institutional website. These got communicated time to time to all teachers and students in a well-defined way through seminar/workshop and placing display boards in important locations and laboratories of the respective departments. Program Outcomes (POs), Program Specific Outcomes (PSOs) of all the UG and PG Programmes have been disseminated to the stake holders as follows:

- **Display Media:** All Laboratories, Departmental Corridors, faculty room, classroom and department library
- **Print media:** i. corresponding COs are also printed on each laboratory manuals and issued to all students at the beginning of laboratory classes.

1. In every course file the corresponding COs and the COs - POs mapping are mentioned

- **Electronic Media:** www.gnit.ac.in
- **Communication Media:** In the following meets all the stake holders are getting aware about the POs, PSOs and COs i.e. Departmental Academic Committee meeting Orientation Program, Induction Program, Alumni meet, different Meetings, Mentor's Meet etc.

File Description	Document
Upload COs for all courses (exemplars from Glossary)	View Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response:

At Guru Nanak Institute of Technology, all the departments have prepared the curriculum by considering the POs and PSOs of the corresponding program to certify mapping of all COs, POs and the PSOs of the curriculum .

The COs of each course have been structured and mapped with corresponding POs .

To implement the Outcome Based Education in the Institute, the attainment of Course Outcome (CO) is evaluated through Direct and Indirect assessment tools. The result of attainment of CO is used to evaluate the attainment of Programme Outcome (PO) and Program Specific Outcome(PSO).

The attainment calculation is done in a decentralised manner.

CO Assessment Processes:

The subject teacher develops the Course Outcomes for the subject and maps POs, PSOs with them. For each subject, the number of evaluation components is pre-defined as per academic regulations. After the proper mapping the target level of attainments are set and finalized.

Department collects and prepares data to evaluate the attainment of Course Outcomes (COs).

Followings are the methods to find attainment of the COs:

Student's knowledge and skills from their performance in the

? **Continuous Internal Assessment tests**

? **Semester End Examinations**

All the COs are mapped in the end semester questionnaires, Mid-semester Assessments (Unit Tests), Assignments and Quizzes. Through this the subject teacher can evaluate the competency of the student after the completion of the course.

PO and PSO are carried out through **Direct method** and **Indirect method**.

Measuring CO attainment through Cumulative Internal Examinations (CIE)

CO attainments are measured considering assignments, Unit Tests through CIE.

CO attainment is obtained through Cumulative Internal Examination (CIE) and Semester End Examination (SEE).

Attainment Level of courses is set as below by the program:

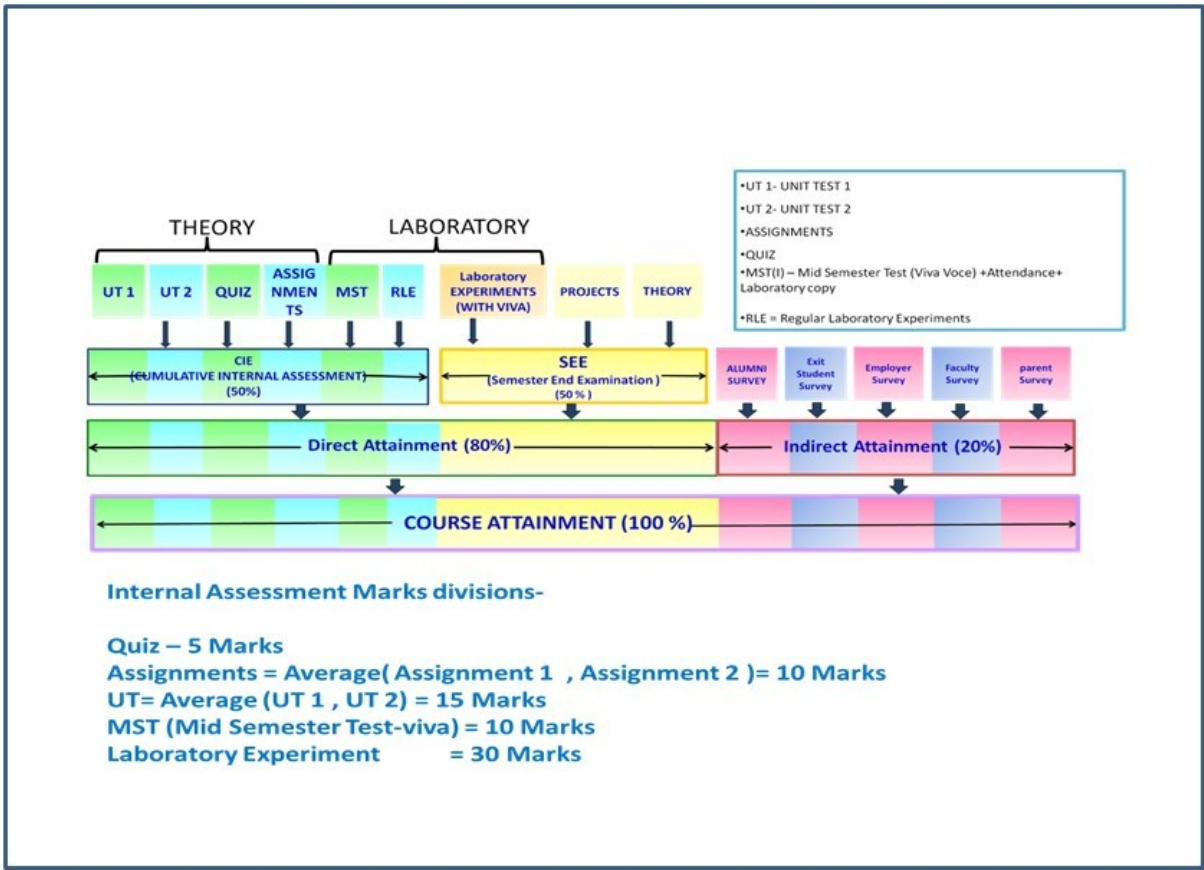
CO-Attainment Level -Target level 1: 60% students obtaining 60% and above

CO-Attainment Level -Target level 2: 70% students obtaining 60% and above

CO-Attainment Level -Target level 3: 80% students obtaining 60% and above

Overall CO attainment is obtained considering 50% credit from CIE and 50% from SEE,ie,

Overall CO attainment=50% credit from CIE + 50% credit from SEE.



Overall PO & PSO Attainment Calculation:

Overall PO/PSO attainment = (80% of Direct Attainment) + (20% of Indirect Attainment)

Direct Attainment is measured through -

- **Semester End Examination (SEE)**
- **Cumulative Internal Examinations (CIE)**

The direct attainment level is calculated using CO attainment level and CO-PO articulation Matrix. The CO attainment levels of the course are correlated with POs of the program on a scale of 3 (3-High; 2-Medium ; 1- Low).

Indirect Attainment is measured through various surveys as follows:

- **Alumni survey**
- **Program Exit (final year students) Survey**
- **Employer Survey**
- **Faculty Survey**
- **Parent Survey**

The questions mentioned in the surveys are mapped to the POs and PSOs (on the scale of 1 to 3)

The responses and the mappings are used for indirect computation of PO & PSO attainment

Self Study Report of GURU NANAK INSTITUTE OF TECHNOLOGY

Course code	Course Name	Overall 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	PO10 attainment out of 3	PO11 attainment out of 3	PO12 attainment out of 3	PSO1 attainment out of 3	PSO2 attainment out of 3	PSO3 attainment out of 3
M 101	Mathematics I	1.5	1.44	1.53	1.52	1.63	-	-	-	-	-	-	-	1.57	1.73	1.55	2
CH 101	Chemistry	1.4	1.6	2	1.25		1	-	1	-	-	-	-	1	1.5	1.5	-
EE 101	Basic Electrical Engineering	2.75	2.76	2.755	2.779	2.754	-	2.803	3.894	2.803	2.796	2.85	2.844	2.76	2.755	2.728	2.757
HU 101	English Lang. And Tech. Comm.	2	-	-	-	-	-	2	2	1.94	1.83	2	1.75	1.96	1.94		1.96
ME 101	Engineering Mechanics	2.5	2.5	2.45	2.5	2.44	3	-	-	-	2.5	-	2	2.5	2.6	2.5	2.43
HU191	Lang. Lab. and Seminar Presentation	2.91	2.9	-	2.94	2.85	-	2.92	2.93	2.9	2.9	2.9	-	2.93	-	3	2.94
CH 191	Chemistry Lab	2.95	3	3	3	3	3	3	3	-	3	-	-	3	3	3	-
EE 191	Basic Electrical Engineering Lab	2.8	2.71	3	2.6	2.8	2.8	3	2.87		2.8	2.6	2.87	2.8	2.5	2.7	2.84
ME 191	Engineering Drawing & Graphics	2.83	2.89	2.7	2.83	2.87	2.7	2.85	-	-	2.85	2.85	-	2.85	2.83	2.8	2.8
<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"> Semester II Semester III Semester IV Semester V Semester VI Semester VII Semester VIII </div> <div style="font-size: 2em; margin-right: 10px;"> ↑ ↓ </div> <div style="border: 1px solid black; padding: 5px;"> Hidden Layers </div> </div>																	
HU 801	Economics for Engineers	2.76	2.77	2.80	2.91	2.60	3.00	2.67	2.76	2.88	2.76	2.76	2.80	2.80	2.76	2.73	2.78
EC 801	Advanced Communication Systems	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
EC 802 A/B/C	Mobile Communication and Network	2.56	2.60	3.00	2.44	2.27	2.49	2.63	2.64	2.56	2.53	2.68	2.53	2.54	2.66	2.62	2.51
EC 803 A/B/C	Soft Computing	2.90	2.92	2.89	2.88	2.88	2.90	3.00	2.90	2.50	2.90	3.00	3.00	2.90	2.88	2.90	2.94
EC 891	Advanced Communication Lab	2.91	2.92	2.92	2.91	2.92	2.94	2.92	2.93	2.90	2.93	3.00	2.85	2.89	2.92	2.91	2.90
EC881	Project II	2.98	2.40	3.00	2.80	2.60	2.40	1.67	3.00	3.00	1.67	1.67	2.00	3.00	2.25	1.80	2.00
EC882	Grand Viva	2.97	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
PO attainment through Direct Method			2.58	2.6	2.59	2.56	2.57	2.6	2.69	2.63	2.6	2.61	2.63	2.56	2.58	2.6	2.62
80 % of PO attainment through Direct Method			2.07	2.08	2.07	2.05	2.06	2.08	2.15	2.1	2.08	2.09	2.1	2.05	2.06	2.08	2.1
Stakeholder Feedback Survey(Indirect Method)			3	2.59	2.18	2.21	1.97	2.08	1.5	2.32	2.02	2.07	2.03	2.07	2.08	2.29	2.18
20 % of Stakeholder Feedback Survey(Indirect Method)			0.6	0.52	0.44	0.44	0.39	0.42	0.3	0.46	0.4	0.41	0.41	0.41	0.42	0.46	0.44
PO attainment(80% of Direct Method + 20% of Indirect Method)			2.67	2.6	2.51	2.49	2.45	2.49	2.45	2.56	2.48	2.5	2.51	2.46	2.48	2.54	2.53
Target Value			2.57	2.59	2.41	2.19	2.17	2.02	2.14	2.07	2.1	2.08	2.09	2.49	2.4	2.19	2.2
Gap			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO
PO attainment (In %)			88.86	86.61	83.62	83.07	81.65	83.15	81.76	85.48	82.82	83.33	83.55	81.99	82.63	84.72	84.46
Target Value (In %)			85.67	86.33	80.33	73	72.33	67.33	71.33	69	70	69.33	69.67	83	80	73	73.33
Gap(In %)			NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO

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

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

Response: 99.82

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

Response: 541

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

Response: 542

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:

File Description	Document
Upload database of all currently enrolled students	View Document
Upload any additional information	View Document
Link for any additional information	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:

The prime objective of Research & Development (R&D) committee of Guru Nanak Institute of Technology (GNIT) is to nurture and upgrade the research potential of the students and faculty members of the GNIT for brighter and prospective careers. R&D committee has strengthened the research activities by incorporating a well-developed Research Policy in 2016, approved by the Board of Governors (BOG) dated 12.07.2016, with subsequent amendments in the year 2017, 2018, 2019 and 2021.

GNIT provides ample research facilities in terms of infrastructure, financial assistance, awards, appreciation, interdisciplinary research scopes, collaborative research facilities with outside world and upgraded laboratory facilities to promote and inculcate research culture. The R&D policy is focused on regular updation of Research Directory and internal research facilities to promote research activities.

The updated Research Policy of the Institute is made readily available on the Institutional website, https://gnit.ac.in/upload/gnit-naac/criteria-3/3.1.1_Policy_document_on_promotion_of_research.pdf.

Glimpses of the Research & Development initiatives of the institute are:

- ? To promote interdisciplinary research under different laboratories of different departments and establish policies or involving external agencies/experts in different projects.
- ? To incubate innovative ideas into commercialization through seed money grants.
- ? To establish links with local, national, regional and global institutions through collaborations and MoU.
- ? To engage in consultancy and extension activities.
- ? To sustain the faculty development by providing grants for attending seminars or conferences.
- ? To motivate the staff to utilize the skills towards enhancement of knowledge.
- ? To crystallize the research attributes of faculty members by providing PhD fellowship.
- ? To enhance the research credentials of faculty members by inspiring them to apply and receive different government/ non government funds.
- ? To implement research-based learning.
- ? To enter into research partnerships with other institutions.

- ? To ensure integrity, quality and ethics in research.
- ? To create an awareness about patents and Intellectual Property Rights and motivate them to apply for patents.
- ? To create an ecosystem for Innovations including Incubation center and other initiatives.

Apart from the R&D committee there exists two more R&D support committees viz. Research Advisory Committee and Research Ethics Committee which organize periodical meetings. The Research Advisory Committee mainly focuses on new developments, emerging areas of research and ongoing funded projects for faculty and students. The Research Ethics Committee deals with the assessments of proposals and respect to ethical standards.

The progress of faculty members doing PhD and ongoing funded projects are discussed in periodical meetings. Research and innovation are promoted among students by revising the undergraduate course curriculum. The institute emphasizes on promoting collaborative and interdisciplinary research work.

Facilities developed for R&D activities are

- ? Centre of Nanoscience and Technology Research
- ? Centre for Cyber Safety and Advance Securities
- ? Advanced Communication Laboratory
- ? Advanced RF and Microwave engineering Laboratory
- ? Food Technology R&D Laboratory
- ? Communication and Cryptography Laboratory

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: 3.38**3.1.2.1 The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).**

2020-21	2019-20	2018-19	2017-18	2016-17
4.756	3.895	3.082	2.923	2.225

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:** 1.11**3.1.3.1 The number of teachers awarded national / international fellowship for advanced studies / research year wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
5	3	1	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
Any additional information	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:** 244.81**3.2.1.1 Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)**

2020-21	2019-20	2018-19	2017-18	2016-17
30.55	27.86	121.0	43.4	22.0

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](#)

Any additional information

[View Document](#)**3.2.2 Percentage of teachers having research projects during the last five years****Response:** 3.95**3.2.2.1 Number of teachers having research projects during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
3	3	7	17	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:** 42.33**3.2.3.1 Number of teachers recognized as research guides****Response:** 69

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: 45.71

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

2020-21	2019-20	2018-19	2017-18	2016-17
3	2	4	5	2

3.2.4.2 Number of departments offering academic programmes

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

File Description	Document
Supporting document from Funding Agency	View Document
List of research projects and funding details	View Document
Any additional information	View Document
Paste link to funding agency website	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:

Guru Nanak Institute of Technology (GNIT) has established dedicated centers for research, entrepreneurship, community orientation, Incubation to inculcate the values of research, innovation, creation and transfer of knowledge to support the students and stakeholders.

In accordance with NISP (National Innovation and Startup Policy), GNIT has undertaken a number of efforts to engage students and faculty in the process of innovation and entrepreneurship. GNIT has several practices like hosting a project exhibition, model display competition, pitching deck, awareness program where students can present their innovative ideas with or without prototype. GNIT has also taken an active role in collaborating with various private and government bodies for the benefit of students and faculty members.

GNIT has established Institution Innovation Council (IIC) under MIC & Entrepreneurship Development Cell (EDC) to support the student and faculties to achieve technology ready and transfer level of research and innovation. GNIT has secured four-star and five-star rating by IIC, Government of India (GoI), for the academic years 2018-2019 and 2019-2020 respectively. Furthermore, 8 Faculty members have undergone the Innovation Ambassador Training in June 2020 conducted by National Innovation and Startup Policy. One faculty member has been nominated for the NISP training and implementation in the Institute.

Some Initiatives:

- **2016**
- MoU between GNIT and Confederation of Indian Industry (CII) was done to provide consultancy and technology sharing.
 - **2017**
- MoU between GNIT & MSME Tool room Kolkata under MSME, Govt. of India for implementation training to advance the skill of the student.
 - **2018**
- GNIT has established IIC as per norms of Innovation Cell, MHRD, GoI during IIC-Calendar year 2018-19.
 - **2019**
- GNIT undertook various activities prescribed by the Innovation cell, MHRD, 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 of India.
 - **2020**
- 8 Faculty members have undergone the Innovation Ambassador Training in June 2020.
- One faculty member has been nominated for the NISP training and implementation in the Institute.
- Events like hackathon, Ideathon Competitions, Project exhibition were organized for the students to

exhibit their innovative ideas.

Some achievements:

- Shilpita Hazra, Sampreet Dey, Shakya Mridhya selected for regional round for 4th AICTE-Chhatra Vishwakarma Awards 2020 in the year 2020-2021.
- Ankita Sarkar holds the 1st position in paper presentation 11th Inter University Engineering, Science Technology Academic meet 2020 Innovative model competition.

- Sristi Mandal, Joyita Khan, Purnasaha Paul students from foodtechnology department in collaboration CSE department has positioned for 3rd in AICTE Chhatra Vishwakarma Awards in 2020.
- AGNIVA DUTTA was finalist in AICTE-ECI Chhatra Vishwakarma Awards-2017.

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.

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

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
Link for 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:** 0.33

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

Response: 23

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

Response: 69

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:** 2.95

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

2020-21	2019-20	2018-19	2017-18	2016-17
141	91	82	70	94

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:** 2.69

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

2020-21	2019-20	2018-19	2017-18	2016-17
90	253	23	41	28

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:

File Description	Document
Bibliometrics of the publications during the last five years	View Document
Any additional information	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:

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

3.5 Consultancy

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

Response: 101.92

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

2020-21	2019-20	2018-19	2017-18	2016-17
23.56	21.05	20.31	19.1	17.9

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: 11.96

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

2020-21	2019-20	2018-19	2017-18	2016-17
3.48	3.14	2.52	1.62	1.2

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:

Guru Nanak Institute of Technology has always focused on the holistic development of the students by addressing the social issues. The mindset to work for the betterment of the community and society is being nurtured through the mandatory non- credit course including National Service Scheme (NSS) and extended activities for Mandatory Additional Requirements (MAR). To instigate the socialistic approach among the first-year students, the NSS, an initiative of the Ministry of Youth Affairs and Sports, Government of India, is considered mandatory. The Self Financing Units (SFU) of NSS implement the distribution of educational kit, hand sanitizer (made by GNIT), mask , chocolates and sweets among the Sabar girl students from Belpahari, Jhargram. It encourages the preparation of sanitizer to distribute among local people during the second wave of Covid-19 pandemic situation. Student members of Progressive Rural Advancement Globally Accepted Traditional Initiatives (PRAGATI) distributed the essential commodities viz. food, medicines etc. after the cyclone "YAAS" among the homeless people. Student members of PRAGATI also organised a visit to Sangbedan, a home for differently-abled persons at Sovabazar, Kolkata and distributed food packets, chocolates, masks, sanitizers on the auspicious occasion of Bengali New Year. Students were engaged in their social activities and distributed the essential commodities and food items to the needy people, badly affected during the COVID-19 lockdown. Students were also involved as Climate Counsellor for Green Revolution - Global Certification programme by United Nations' Framework Convention on Climate Change (UNFCC).

For extension activities, the college has received awards and recognitions from the Government/ recognized bodies like Young Warrior Movement activated by the Ministry of Youth Affairs and Sports, CBSE, YuWaah (Generation Unlimited India), United Nations International Children' Emergency Fund (UNICEF) and UNFCC.

Many programs like Tree Plantation, Swachh Bharat, Blood Donation Camps, Earth Day Celebration, Environmental Awareness Workshops, World Environment Day, International Day of Yoga (IDY 2021) etc. were conducted in the last five years.

Extended activities for MAR are included to maintain the concord of the students to alleviate the society. Students remain unified with the process and they have to earn minimum 100 points through MAR activities. Under this scheme the students of the second year onwards participate in various activities as follows:

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

Under the initiative of Unnat Bharat Abhiyan, offered by the Ministry of Education, GNIT has extended its activities to uplift the socio-economic status of the needy families. The students undertook a comprehensive survey of different villages and the survey was analyzed for the identification and selection of various developmental activities.

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: 71

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

2020-21	2019-20	2018-19	2017-18	2016-17
33	19	15	2	2

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: 60

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

2020-21	2019-20	2018-19	2017-18	2016-17
13	10	10	11	16

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
Any additional information	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: 72.5

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

2020-21	2019-20	2018-19	2017-18	2016-17
953	1511	1579	1563	1447

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: 110.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
296	136	76	23	20

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: 35

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

2020-21	2019-20	2018-19	2017-18	2016-17
18	03	04	07	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

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 vision of Guru Nanak Institute of Technology (GNIT) is to constantly improve teaching learning process by implementing the best infrastructure at par with the best and most prestigious institutions of the country.

Therefore GNIT is actively trying to reach the quality of teaching and learning with regular and improved ambient infrastructure support by following the norms of the concerned statutory bodies like A.I.C.T.E., M.A.K.U.T., etc.

The academic building of GNIT consists of five floors well connected with two lifts. There are sufficient numbers of well-furnished theory class rooms, laboratories, library, seminar hall, auditorium etc.

Smart Seminar Rooms: 07 (Seating Capacity of 75)

Smart Seminar rooms are equipped with Smart interactive board facility, Wi-Fi, Audio and Video facilities for effective teaching learning process.

Number of ICT enabled classrooms: 37 (Seating Capacity of 60-75 each room)

All classrooms are equipped with adequate lighting and good ventilation, Multimedia Projector/Smart TV, Wi-Fi, Podium, Fan, Light, Green board. All class room are ICT enabled.

Number of Auditorium: 02 (Seating Capacity of 100 and 300)

Auditorium are equipped with LCD Projector with Wi-Fi, Audio and Video facilities

Number of Drawing Halls: 02 (Seating Capacity of 45)

Drawing halls are equipped with Drawing tables, Chairs, Fans, Light with good ventilation and ambience.

Number of Laboratories: 49

All Laboratories are equipped with state of the art facilities with periodic maintenance including system maintenance, antivirus updations, software updations, calibration and servicing. Each lab is provided with necessary display boards and adequate safety measures.

Number of Language Lab: 2

It provides facilities which allows the student to listen to model pronunciation, repeat and record the same, listen to their performance and compare with the model and to do self- assessment. Institute has two

language labs furnished with computers, headphones, overhead audio system, LAN connection, etc.

Number of Computer Centre: 1

The central computer center is well-equipped with computing resources to cater to the academic needs of the students. It has **100** computer systems.

Library:

College Central Library has a spacious built up area of 660.43 sq.mts, with sitting capacity of 200 members. The Library has

- 54083 volumes with 5666 titles of books.
- 08 magazines.
- More than 4731 e-journals.
- Remote access facility through NDL & E-Sodhsindhu.

Apart from above every department has it's own departmental library for faculties and specially abled students.

Computing equipment:

The college campus has a well-established state of the art IT-infrastructure and facilities. The campus infrastructure established with high speed leased line internet connection with 500 Mbps fibre optic backbone network supplemented intranet connection and also with Wi-Fi support to cover maximum area.

Centre of Excellence Lab: 02

The institute has two centre of excellence. One is “Centre of Nano Science and Technology Research” lab which was sponsored by DST-FIST, Govt. of India. The other one is “Centre for Cyber Safety and Advanced Security Lab”.

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

The institution provides adequate facilities for physical fitness and recreation to its leaners. GNIT has sprawling **7 acres Centrally Located Campus** with lush green fields having flowering/nonflowering plants and palm trees gracing the walkways. Adjacent to the College building, **2 acres of Multipurpose**

Grounds exist to conduct sports and recreational activities.

The institution provides its learners, **Cricket & Football Grounds**, along with **Volleyball**, Badminton Court, High jump cum Long Jump pit, Cricket net practice area. Well maintained **Badminton Court** and **Basketball Court** are present at the South-West Corner of the Campus. The lawns are kept upkeep and maintained with a **lawn mower, pitch roller and essential ground staff** and gardeners deployed.

Indoor Games & Facilities are present in the **GNIT College Building** which houses the Student Life Centre having Unisex Gymnasium, Cultural & Yoga Centre and Student Counselling Room. The **Girls & Boys Common Rooms** are well equipped with Table Tennis Board, Carom Board and Indoor Board Games (Ludo, Chess, Scrabble) in each room. The **Gymnasium** has Treadmill, Cross Trainer, Promax Multi-Utility Gymnasium System, Magnetic Bike, Swiss Ball and Skipping Rope, Weights/Dumbbells of 2.5/5/10/15 kgs and Squat Racks. There is a gymnasium houses and separate timings exist for boys and girls. There are fixed time slots of Gym outside the college hour.

The **Yoga & Cultural Centre** is used by the students for practising for, practising for Dance/Drama/Cultural Shows and for Meetings/Discussions of the Club/Council Affairs. There are lots of cultural activities organised by the institute throughout the year as per academic year. These various types of program not only enrich student's cultural s kill but these help to enhance their creative skills. In the activities of Yoga, institute encouraged the students in this area by celebrating 'Yoga Day'. College incorporate Yoga as a sport in all sport events.

File Description	Document
Upload any additional information	View Document
Geotagged pictures	View Document
Paste link for additional information	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: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 45

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

4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during

the last five years (INR in Lakhs)

Response: 17.46

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

2020-21	2019-20	2018-19	2017-18	2016-17
106.7	176.04	163.87	122.93	113.42

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 Sstem**. Library and Documentation Centre has been automated since 2003. Earlier Libsys 4.0 was used as Library Management Software which continued till 2016. From 2017 onwards Library Management Software has been replaced by a more advanced software - **LIBMAN** which comprises of seven Library modules to operate all library housekeeping operations automatically. Details of LIBMAN software are as follows-

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

Library Module (# LIBMAN)

There are seven modules of LIBMAN Software that supports the workflow of the automated Library system.

- 1.MASTER
- 2.CATALOGUING
- 3.CIRCULATION
- 4.SERIAL CONTROL
- 5.UTILITY
- 6.QUERY

7.REPORTS

Library Resources and Facilities:

The library offers a comprehensive repository of reference materials and facilities for fulfilling the student's interest.

1. Printed Books
2. Magazines
3. News Papers
4. Semester Exam Question Papers
5. Hard copy Journals
6. Audio Books and Braille Books for blind students.
7. Book Bank
8. Student Project Papers
9. Teacher's and Student's Publications
10. OPAC and Web OPAC (<http://122.252.249.26:92/forms/frmLogin.aspx>)
11. Internet facility through Wi-Fi and LAN
12. Reference and Referral Services
13. CAS (Current Awareness Service)
14. Video Lectures

Area of the Library:

Total Carpet Area of Library is 660.43 Sq.Mt and it is subdivided as follows:

Section Name	Coverage Area
Reading Area	200.09 Sq. M
Stack Room	311.05 Sq. M
Circulation Area	44.05 Sq. M
Acquisition Room	30.04 Sq. M
Asstt. Librarian Room	21.07 Sq. M
Librarian Room	20.03 Sq. M
OPAC Room (Student)	19.07 Sq. M
OPAC Room (Teachers)	15.03 Sq. M
Total	660.43 Sq. M

Computer facility in Library:

GNIT Library is equipped with 15nos. of computers and their distribution is as follows:

Sl. No.	Name the Area	No. of Computers
1	Librarian	01
2	Asstt. Librarian	01
3	Circulation Counter	03
4	Students	05

5	Teachers	02
6	Differently/ Abled (Blind Students)	01
7	Digital Library	02
Total		15

Lending facility in Library:

Library provide Book Bank, Monthly Issue & Daily Issue services for all the students.

Type of Issued Books	No. of Books	Fine
Book Bank	The book bank facility is provided as per the number of subject defined in the respective curriculum.	No Fine
Library Books	4nos.	Issued for 30 days. After 30 days per book Rs. 1 /day
Daily Issue	1 no.	Issued for 01 day. After that per book 1 rupee/day

e-Resource facility in Library:

The following facilities are provided by library so that students can access the e-Resource smoothly.

1.e-ShodhSindhu

2.e-books

3.e-journals

4.N-LIST

5.NDLI

Apart from the above the library has institutional membership with different reputed organization. The ID-Card issued by the Institution is also used as the ID-Card for gaining entry into the Library, including borrowing of books.

File Description	Document
Upload any additional information	View Document
Paste Link for 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: A. Any 4 or more 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: 24.53

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

2020-21	2019-20	2018-19	2017-18	2016-17
31.01	30.80	23.90	20.32	16.62

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: 24.49

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

Response: 552

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 a well-defined IT policy relating to network security and user services. Infrastructure is regularly upgraded to provide IT requirements which include Internet/Wi-Fi /Storage/Security/Smart classroom up to date.

- **Wireless Network and LAN: (500 MBPS)**

All computers in the institute have internet facility through LAN and Wi-Fi. The institute has effectively and periodically upgraded from a handful of Wi-Fi hotspots to a robust and seamless Wi-Fi campus by regularly reviewing usages and requirements. Currently it has 66 wireless access points.

- **No of Computers:**

The Institute has 810 numbers of working computers. In between this 753 computers are distributed in lab in various department for the students usage. Beside this there are 44 laptops for institutional uses.

- **Network and Security:**

GNIT is secured by a Cyberoam UTM 500 iNG Firewall which acts as the central gateway to its hierarchical layered and structured network managed by Core and distribution switches. Currently the Cyberoam firewall has been upgraded to Sophos Firewall with much advanced features and security enhancements

- **Surveillance and Communication:**

The entire campus is covered by over 136 numbers of CCTV cameras which provide 24x7 surveillance with 30 days backup facility.

- **Server:**

The institute has state of the art Server Room. The whole IT infrastructure is being maintained through this Server Room. There are 9 Servers with the following specification.

- **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
Paste link for 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: D. 1 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: 14.62

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

2020-21	2019-20	2018-19	2017-18	2016-17
94.67	132.63	121.80	110.33	106.66

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 institute has well defined procedures for maintaining and utilizing physical, academic and support facilities in accordance to the maintenance policies as follows:

1. The institute deposes supervisor and senior administrative officer for the inspection of the Institute building for any repair for maintenance.
2. Peer vigilance is being conducted through physical and digital modes on a regular basis.
3. The institute follows Annual Maintenance Contracts (AMC).
4. Repair of various items are done by trained personnel under the supervision of senior administrative officer.
5. Periodical training is being provided to faculty, technical assistants and staff members for performing maintenance of various laboratory equipment.
6. The institute conducts preventive checking and regular maintenance to reduce unwanted breakdown.
7. Calibration of laboratory equipment is done regularly by experienced technical assistants under the guidance of faculty / laboratory-in-charge.
8. The institute has fixed protocols for maintaining academics, library, computers, classrooms, laboratories, yoga, gymnasium, hostels, auditorium, college field, general building and canteen. The Repair & Maintenance staff and administrative personnel monitor the maintenance of these facilities.
9. The institute has sufficient housekeeping staff for maintaining the cleanliness and health hygiene of the campus.

Internal Operating Procedure for Maintenance:

1. Maintenance of Physical Facilities:

- **Building maintenance:** The institute has an on-campus Civil Supervisor who does regular inspections to maintain the building for dampness, leaks in wall and floor / under tiles, and cracks. Fire Safety Equipment is checked regularly by Supervisor and Senior Administrative Officer and maintained as per the guidelines of the service provider. Checking and repairing of blockage or damage in plumbing, water pump; cleaning of overhead tank and underground tank and Water Treatment is done by Supervisor and plumber. Safety of electrical equipment, transformer and restricted access to Electricity Board Equipment is monitored by Supervisor and electrician. A team of housekeeping staff, gardeners and ground staff are designated to maintain the common areas of the campus.
- **Furniture maintenance:** All the necessary furniture like various types of chairs, benches, desks, physical boards are looked after by supervisor who routinely visits all the departments to scrutinize these and contact the carpenter for further inspection, maintenance and repair.
- **Generator maintenance:** A separate generator house is there in the institute. It is maintained by a designated staff. Periodic observation and inspection by internal electricians are being done. If any malfunction occurs, it is reported to the Supervisor by the electrician, who contacts the AMC agency to resolve the problem.
- **Lift maintenance:** Periodic observation and inspection of Lifts by the deputed staff are being done. If any malfunction occurs, it is reported to the Supervisor by the electrician, who contacts the AMC agency for maintenance and service to resolve the problem.
- **Playground maintenance:** The ground is being maintained by a designated staff under the guidance of the Supervisor regularly. Preparation of the college ground, its cleanliness and the arrangements for drinking water, waste disposal, placement of dustbins, arrangements for ground markings for different events is done by Supervisor and Sports in-charge.
- **Sports and games facilities maintenance:** Maintenance and cleanliness of the sports accessories, gym facilities and arrangements for sports and fitness related different events are done under the supervision of Sports in-charge.
- **Canteen maintenance:** Maintaining the quality, quantity and variety of the food and beverages for the canteen, and regular observation is done. The arrangement for cleanliness of the canteen is done by Senior Administrative Officer and the Canteen Manager.

2. Maintenance of Academic Facilities:

- **Classroom maintenance:** Allotment of department and period wise classroom is done by time table committee convener. The periodical checking and maintenance of Projector Screens, ICT Board and Overhead Projector, and repair and replacement of existing electrical outlets, lights and bulbs is done by electrician under the supervision of System Administrator. Up-keeping and repairing of students' desks, teachers' desks and tables is done by the carpenter. Classroom cleanliness and classroom security with lock system is maintained by Supervisor.
- **Laboratory maintenance:** Maintenance of the teaching equipment and the analytical equipment inventory list, followed by verification of the calibrations or performance checks in each Laboratory is done by concerned Junior Technical Assistant. Regular checking and updating of software to the latest version is done by Lab-in-charge and System Administrator. Advance procurement list for lab tools is also prepared by Junior Technical Assistant under guidance of Lab-in-Charge and departmental HOD.
- **Computer Facilities, Network / Wi-Fi Maintenance:** Around 810 computers, 44 printers and scanners and the software in the laboratories are checked and maintained by computer hardware

technicians under the supervision of senior faculty members. The college intranet and internet facility is monitored and maintained by the hardware technicians in association with Network administrator. Fiber-optic cable issues are resolved by relevant suppliers. Any up-gradation or modification of the existing Network Model is carried out by inviting quotations from external agencies following the central purchase procedure.

3. Maintenance of other facilities:

- The institute has adequate number of water purifiers, which provide 24X7 drinking water facility. Sufficient number of water coolers is available in the floor to provide clean drinking water. The condition of water purifier is tested periodically by reputed company through AMC.
- Adequate manpower is employed to maintain cleanliness of the campus, classrooms and staff rooms, seminar halls and laboratories, wash rooms and students' common rooms are well maintained.
- The green cover of the campus is well maintained by full time gardeners.
- The campus security is monitored through surveillance cameras and is maintained by the supplier under AMC.

File Description	Document
Upload any additional information	View Document
Paste link for 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: 5.84

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

2020-21	2019-20	2018-19	2017-18	2016-17
167	91	120	121	77

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: 7.75

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

2020-21	2019-20	2018-19	2017-18	2016-17
240	193	148	104	88

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: A. All 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: 27.28

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

2020-21	2019-20	2018-19	2017-18	2016-17
776	549	371	516	474

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: 81.92

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

2020-21	2019-20	2018-19	2017-18	2016-17
454	431	383	313	397

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: 7.02

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: 79.98

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

2020-21	2019-20	2018-19	2017-18	2016-17
17	16	11	11	7

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

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

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: 26

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

2020-21	2019-20	2018-19	2017-18	2016-17
12	7	4	2	1

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
Any additional information	View Document

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

Response:

The Student Council was established with an aim to provide a representative structure through which students can undertake initiatives for the benefit of the Institute. To incorporate student participation in the wellness and upgradation of the institution in all perspectives, students are encouraged to be part of administrative and academic bodies which thus enable them to be empowered with planning, leadership skills, and accountability, and learn the importance of being a resourceful individual while working in teams. It provides a platform for students to express their ideas, interests, and views on the issues of concern to them and also renders their contribution for the Institution to attain its vision, mission and to be a renowned one in the segment. Beyond their curriculum, students show interest in cultural activities, arts and crafts, sports activities, NSS, NCC and many more.

OBJECTIVES:

- To make students a part of the development of the Institute.
- To enhance communication between students, management, staff and parents.
- To promote an environment conducive to educational and personal development.
- To represent the views of the students on matters of general concern to them

- To develop their personality, organizational skills through interactive programs with the faculty, administration and society.
- To promote the team spirit, social responsibility and value formation.
- To create a sense of ownership of the college and its activities among the student population.

Student members are involved in several Institute and Department level committees with active participation. These are explained below.

Internal Quality Assurance Cell: Student representatives are nominated for this cell, and participate in the decisions regarding the quality initiatives of the Institute.

Women Cell & ICC: Girl students are actively involved here and involved in significant social work, Cell newsletter, donation in slum areas/ old age home and many more.

NSS: NSS is also encouraged in the Institute, enabling the student to participate in service activities like organizing blood donation, rural health and sanitation, adult education, and environmental awareness camps in the neighbouring areas as a social responsibility.

Anti Ragging Committee: Students are actively involved to keep the campus ragging free.

Hostel and Canteen Committee: Students member of this committee take care of the issues related to hostel and canteen

Student clubs: There are various student clubs actively working in the Institute. Student club details are available on the institutional website.

- Cyber Security Club
- Robotics Club
- Media Club
- Science Club
- Music Club
- Sports Club
- Bit-2-Byte (Coding Club)
- Drama Club
- Photography Club
- Debate Club

Committee members meet once in a semester to ensure smooth flow of activities organized by the institution.

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

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

Response: 6.8

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

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

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:

Guru Nanak Institute of Technology has a strong Alumni Association established in the year 2013 that got registered under the West Bengal Societies Registration Act, 1961. Registration Number: 6893 of 2013 – 2014. The information about the Alumni Association is available in the Institute website and the direct webpage link for the Alumni Association is . The Alumni are also connected with the Institute through the Institute official social media links like LinkedIn, Twitter, Instagram and Facebook and Alumni Chapters like Pune Chapter and Bangalore Chapter.

The Alumni Association of GNIT intends to engage and stimulate the GNIT Alumni network. It desires to

work with alumni members towards understanding and fulfilling the interests of alumni and ensuring intensive connectivity services and reinforcing the network. It facilitates academic and professional development, support and guidance to the students for enriching and successful career and life.

The Alumni members contribute financially/in hand support to the development of the Institution in the following ways:-

Academic contribution:

The Alumni Association of GNIT organizes invited talks, panel discussions, workshops and training programs. The alumni are invited by the respective departments for invited talks, seminars and workshops. These technical events facilitate the students to experience the real-time work of the industry, and the students get beyond curriculum knowledge which helps them to prepare themselves for placement. The selected alumni are also invited as member of department Board of Studies (BOS) and Institute Academic Council, where they play a major role for designing the curriculum. The alumni are invited in different student mentoring programs to motivate the students.

Placement contribution:

Some of the Alumni have started different start-ups and often hire GNIT students as interns and absorb them as employees. Various latest technologies adopted by the industries and companies are introduced to the students by the alumni to enhance their technical skills and also help the faculties to analyze industry requirements. The Alumni Association also uses Alumni links through the social media to extract contacts with industries and reputed universities for higher education.

Extra-curricular activities:

The Institute organizes an Alumni Meet every year. This program is bannered as “**SAMANWAY**”. The alumni network is helpful for the students and staff of the institute in different areas like academic, placement, mentoring and extra-curricular activities. The Alumni are invited as judge and evaluators for different techno-cultural events organized at Institute level.

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

NVAAC

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 decentralized **governance** of Guru Nanak Institute of Technology (GNIT) is focused on **vision** and **mission** of the institute to inculcate **effective leadership**.

Vision & Mission Integrated to Governance:

The institution achieves its slated goals by focusing on the following mentioned important objectives: i) continuous improvement of quality of Teaching–Learning process ii) Developing students' and teachers' skills to empower them iii) Providing platform to enhance technical knowledge by frequent Industry Interactions iv) Offering platform for enhancement of intellectual capital using research and innovation avenues, v) Enhancing societal connect through community services vi) empowering holistic development of students through co-curricular and extra-curricular activities.

The institute also provides facilities to arrange various national and international seminars and conferences so that all stakeholders can be made aware of the new research trends and activities and can also get a platform to interact with many researchers and academicians of high repute. Necessary initiatives are taken by the institution to improve **Entrepreneurship development** and **Industry-Institute-Interaction** by signing **MoUs** with various industries and academic institutions. The institution is keenly associated with different kinds of Extension and **Outreach activities** to fulfil its **institutional social responsibilities (ISR)**. The institute is constantly striving to improve its internal quality and sustainability.

Nature of Governance: The institution follows **decentralized and participative governance**. The operational decision-making process follows administrative guidelines, but with necessary flexibility for academicians to achieve desired educational outcomes. The institute has different **Statutory Committees** and **Non-Statutory Committees** for taking judicious decisions and to take all the necessary actions. **Statutory** and **Non-Statutory Committees** consist of adequate representation of stakeholders and faculty members as per AICTE and UGC guidelines. Two nominated senior faculty members act as members of **Board of Governors (BOG)**. All Head of the Departments and the professors are the members of the Academic council. All the HODs along with some other faculty members are associated with **Internal Quality Assurance Cell (IQAC)**. All the faculty members in the department are the members of their respective **Board of Studies (BOS)**. Every member of the department's faculty is automatically a member of the **Departmental Academic Council (DAC)**. All the faculty members are involved in mentoring activities, which is monitored by the respective HOD and finally by the head of the institution. The minutes of the meetings of the **BOG**, Academic Council **IQAC** particularly are circulated to all faculty and staff members via official emails so that all staff members of the institute become aware of the happening in the institute. The minutes of meetings organized by other Committees are recorded and circulated to the concerned members. Faculty members are involved in a variety of co-curricular and extracurricular activities.

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 Guru Nanak Institute of Technology (GNIT) has a practice of **participative management** at all levels of decision making through a **decentralized** structure. It gives all employees and stakeholders an opportunity to get involved in the important and relevant decision-making processes. The **decentralized governance** paradigm may be seen in every field including **academics, finance, and administration**. All issues are discussed and decisions are taken based on the suggestions of various **Statutory and Non-Statutory committees** that includes teaching and non-teaching personnel, students, parents, alumni, and the employer.

Practice of Participative Management and Decentralization:

The top management has delegated financial, administrative, and academic authority to the HOI, HODs, faculty members, and administrative personnel. They have planned and implemented both quantitative and qualitative parameters through decentralization and participative management since the institute's foundation. Decentralization and delegation of powers are efficiently achieved with the help and cooperation of different **statutory committees like Board of Governors (BOG), Internal Quality Assurance Cell (IQAC), Academic Council (AC), Finance committee and different non-statutory committees** such as the **Departmental Academic Council (DAC), Anti-Ragging committee, R&D committee, SC/ST committee** and so on. The following are some examples of decentralization:

Administrative Decentralization- Internal Quality Assurance Cell (IQAC) provides guidance to the **Institute** to empower students with education and employment opportunities, through different committees. The Registrar, Dean of Academics, Dean R&D, Dean Student Affairs, members of different statutory and non-statutory committees and Non-teaching personnel play important role in the day-to-day operations. To ensure the institute's smooth operation, all members meet on a regular basis to discuss and take the required actions to design and implement the institution's strategic plan.

Academic Decentralization- The participatory nature of Institute management is reflected in the composition of these organizations. The role of the **Departmental Academic Committee (DAC)** is to provide academic excellence in all activities. **DAC** raises different issues like reformulation and teaching approaches to enhance academic activity of the institute. Academic decisions are made by the **Board of Studies (BOS)** after taking feedback from the **Departmental Academic Committee (DAC)**. All the major decisions are approved by the **Academic Council (AC)**. Finally, some relevant important decisions get approved by the **BOG**

Fig. 1 Academic Decentralization

Financial Decentralization- Finance is one of the institute's most important components, and the **Finance Committee** is in charge of overseeing and formulating all of its actions. The Financial Autonomy is reflected on estimation of budget income from fees, grant received/receivable from external sources etc. The HOD prepares a draft budget as per the given template for the concerned year after analyzing the requirements of the department and discussing the same at the **DAC**. Department submits the draft budget to the **Finance Committee** and then the **Finance Committee** reviews the budget and submits the final version of the budget to the **Board of Governors**. Then the **Board of Governors** reviews the budget to make a final decision. After approval funds are allocated accordingly.



Fig.2 Financial Decentralization

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

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

The Perspective or Strategic plan is available in Institute and in linked documents. Strategic and Perspective plans are prepared considering the objectives which are aligned with the Vision and Mission of the Institute. For every five years institute prepares strategic plan for its overall upliftment. Set targets are achieved through the strategic plan which ensures the accountability process comprising of evaluation, review, reporting and, where necessary, re-planning. In two levels (Department, Institution), the plan is developed by the Internal Quality Assurance Cell (IQAC) which are duly approved by Board of Management.

The following artifacts are considered in the plans:

- Teaching-Learning
- Research & Development
- Human Resource Development
- Curriculum Development
- Human Research Management
- Library, ICT and Physical Infrastructure
- Industry Interaction / Collaboration
- Accreditation and Ranking
- Outcome of Students
- Student Support and Activities.
- Community Engagement

The notable points of the strategic plan for the five years term (2022-2026) for development of the Institution and its current deployment status has been given below in tabulated format.

Strategic Plan in Broad Parameter	Details of the Plan	Deployment Status	Target to achieve
Teaching & Learning	Enhancing E-Learning Initiatives	7 smart seminar rooms are available and we are using a Learning Management system.	At least 21 smart seminar rooms by 2026.
	Accreditation by NAAC and NBA	In progress.	Accreditation of all programs.
Research & Development	Ph. D. Degree	Approximately 30% Ph. D faculty members.	60% of the total faculty with PhD degree by 2026.
	Publications SCIE/SCOPUS/Web Science Journal	20% faculty members have indexed of journals in the academic year 2020-2021.	Each faculty should have publication in an indexed journal each year by 2026.
	Research Grant	4 departments received external grants.	External research grants available by each department

	Entrepreneurship Consultancy Work	7 entrepreneurs. One faculty member is involved in consultancy work.	At least 21 entrepreneurs 5 Faculty members to consultancy work using expertise.
Human Resource Development	Enhance Faculty Development Programs	86% faculty members participated in FDPs in the Academic year 2020-2021.	Our target is 90% in the
Community Engagement	Pursue Holistic Wellness	International Yoga day celebration has been regularized.	Establish a Yoga Centre
	Swachh Bharat Campus Initiatives	This activity first initiated in 2016, now it has been regularized.	To establish Panihati N the most cleaned municipality.
Library, ICT and Physical Infrastructure	Enhancing of Learning Infrastructure	Adequate reference books, e-books and some e-journals are available.	Addition of e-books, new journals to enrich collections Library infrastructure de

The strategic plain of the Institution in detail has been given in additional information.

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

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

Response:

To give support in decision making processes, Guru Nanak Institute of Technology has well defined organizational hierarchy and structure which are clear and consistent. To sustain institutional capacity and to enhance educational effectiveness, there is involvement of **stakeholders** in various **Committees**.

The main authorities of the institute are the **Board of Governors, Academic Council, Planning and Evaluation Committee**, and **Finance Committee** which have different nominees from academia and

industries of national repute. The **Board of Governors** is the principal policy making body in this institute which meets at least two times in a year and takes decisions to be implemented by the head of the institute.

In administration, the **head of the institute** is assisted by a well defined administrative structure including the office of the **Registrar** and other **non-teaching officials**. The chief implementation officer is the **Registrar** who is assisted by **Finance Officer, administrative staff members** and other functionaries in administration.

In academic matters, the **head of the institute** is assisted by **HODs** and **course coordinators**. The **Academic Council** takes any final decision regarding any academics related matter. The Principal presides over the Academic Council, which is comprised of eminent academicians and industry representatives. To plan for new programmes, curriculum, course work and other important matters related to academics, HODs make recommendations to the Academic Council through submitted proposals which have already been approved by the respective **Departmental Academic Committees (DAC)** and **BOS**, respectively. External members serve on various Boards and Committees in this institute to ensure system transparency and fairness. Aside from the aforementioned, our institution has a number of student and faculty committees/clubs for decentralized management of activities/affairs for better functioning and effective student learning.

Various committees such as **Finance Committee, IQAC, Grievance Redressal cell, Internal Complaint Committee, Examination Committee, Library Committee, Research Ethics Committee, R&D Advisory Committee, Student Welfare Committee, Admission Committee, Anti Ragging Cell, Purchase Committee, Training & Placement Committee**, etc., have been constituted at the institute level involving faculty and students for smooth functioning of the institution.

Apart from that, Guru Nanak Institute of Technology has well defined **Promotion Policies, Service Rules, Welfare Schemes, Grievance Redressal Mechanisms, R&D Policy, Green Campus Policy, E-Governance Policy, Seed Money Policy, Institutional Code of Ethics Policy**.

The responsibilities and roles of all the teaching and non-teaching staffs are clearly mentioned in the Service Rules and it is updated from time to time.

The transparent promotional policies are well known to all the staff members. This Appraisal System is totally based on performance.

Grievance redressal **Mechanisms sustain the dignity of the college by ensuring strife free atmosphere. It takes necessary measures** for the settlement of grievances and to maintain harmonious educational system.

File Description	Document
Any additional information	View 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:

The Institute offers numerous welfare measures for their staff members as described in the Service Rules and in the Research Policy. All the welfare measures are briefly explained below.

Welfare Measures for Career Development & Progression:

- For Attending National & International Conferences financial support has been provided.
- To take Professional Membership from different bodies like IEEE, IE (I), IET, ISTE financial support has been provided.
- For presenting the Research Papers in International / National Conferences and pursuing Collaborative Research on Duty Leave is provided to the faculty members
- For appearing in career advancement programs like Course Work / Examination for PhD / Comprehensive Examination for Professional Training & SWAYM Courses, on Duty Leave is granted.
- For Professional Training & Development, grant is available
- Annual Appraisal System
- Career Advancement Scheme
- Awards & Recognition for contribution of faculty in the field of research
- Seed money grant for pursuing minor research activities.
- Increments after completion of PhD
- Financial support is provided to the faculty for patents filing.
- Sabbatical Leave.

Others Welfare Measures for Staff Members have been given as follows:

- Group Medical Insurance.
- Provident fund.
- Ex-Gratia – For Non Teaching staff.
- Interest Free Loan
- ESI Facility
- On Duty (OD) Leave Facility
- Gratuities as per Government Welfare Schemes and Measures
- Leaves - 12 days of Casual leave , 10 Days Sick leave , 30 Days Earned Leave
- 90 days paid Maternity Leave and extra 90 days without pay maternity leave is also provided to female employees.
- Staff Quarters for Teachers are available
- Transport Facility – Transport facility (bus) is provided daily for Staff members
- Sick Room with doctor
- First Aid with all accessories are kept in the laboratories where moving machinery is installed and also at strategic locations.
- Inside the campus ATM Facility
- State Bank of India Branch inside the campus.
- Sports facilities
- Staff amenity centre
- Wifi campus
- Gym facility
- Canteen
- Cheap Store.

File Description	Document
Any additional information	View 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:** 45.54**6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
82	76	73	70	67

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: 13.4

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

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

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centres).	View Document
Reports of Academic Staff College or similar centers	View 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: 74.72

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

2020-21	2019-20	2018-19	2017-18	2016-17
141	123	116	114	110

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View Document
IQAC report summary	View Document
Institutional data in prescribed format	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** and **external audit** is conducted in Guru Nanak Institute of Technology (GNIT) at a regular interval. GNIT hereby confirms with conviction that both the internal and external audits were conducted from time to time, in due course, and feels extremely proud to declare that no serious financial irregularity was ever reported. Usually internal audit is conducted twice in a year, whereas external audit is conducted once in a year.

Internal audit scrutinizes all the transactions and maintenance of compliance level across the hierarchy. It also checks the accuracy in financial transactions with respect to the accounting standards and commercial laws. Internal audit is conducted by M/S Subhendu Dutta & Co, Cost Accountant, FRN No. 100863, 66 Malanga Lane, Kolkata 700012 for the year 2016-17. DPC & Associates, Cost Accountants, FRN No. 001147, 3 Kapalitala Lane, 1st Floor Kolkata 700012 conducted the same for 2017-18, 2018-19, 2019-20 and 2020-2021.

The Institution has appointed **External Auditors** as per the statutory requirement. The External Auditor organizes audit in accordance with the Generally Accepted Accounting Policies, appropriate Financial Reporting Framework, Statutory Provisions and regulations, etc. The Auditor performs audit in accordance with the ethics on auditing published by the Institute of Chartered Accountants of India (ICAI). Auditor conduct audit and pulls conclusion on the Financial Statements. Their key function is analysis of the legitimacy of financial data of the company to detect if there are any inconsistencies in the records because of scam, fault or fraud. An external audit also analyses financial statements, such as balance sheets to verify that they offer the entities of finances correctly.

M/s. Bandyopadhyay Associates, Chartered Accountants of 350(370/06) Pearpore Road, P.O-Sheoraphuli, Dist- Hooghly, Pin- 712223 West Bengal are the external auditor of the institute.

File Description	Document
Any additional information	View Document
Link for 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: 0

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

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

File Description	Document
Institutional data in prescribed format	View Document

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

Response:

Resource Mobilisation Policy and Procedure:

Being a Self – Financed Organization, the prime objective of our institute is to proffer the best resources and opportunities to students and faculty members realizing the vision and mission of GNIT. The main sources of funds are shown in Fig.1.

Fig.1 Source of Funds

The main internal source of fund is Tuition Fees from students. Based on Honourable Supreme Court guidelines, the Fee Fixation Committee of Government of West Bengal periodically fixed the Tuition Fee. The other internal resources are Contribution from Trust for Infrastructural Development, Hostel Fees and Interest on Savings Account.

In addition, external source of funds depends on research project grants, sponsorships, training and consultancy and loan from bank.

Utilisation of Resources:

To achieve superlative benefits, all round Development and **Quality Enhancement** of the institute the emanated resources are judiciously utilized on the basis of **Systematic Budgetary Control**. In different areas, the emanated resources are used. Different areas are as follows:

- (i) Procurement of new laboratory equipments
- (ii) Upgradation of old equipments
- (iii) Infrastructure development and augmentation
- (iv) New laboratory setup,
- (v) Salary of staff
- (vi) Purchase of library books, magazine, journals, subscriptions of e-journals and e-books.
- (vii) Purchase of consumables for laboratory use
- (viii) Maintenance expenses
- (ix) Seminars and workshops organization for students and staffs.
- (x) Maintenance for hostel facilities
- (xi) Recurring expenditure like electricity, internet, registration and affiliation, security and other running expenses.
- (xii) Stipend given to the students of this institute to pursue higher studies
- (xiii) Scholarships for financially weaker students
- (xiv) Scholarships given to the students as per their academic brilliance
- (xv) For student training and project
- (xvi) E-Government expenses, which include library operations, examination administration, and store and account operations (through ERP)
- (xvii) To facilitate research activity, seed money is provided to the faculty members.
- (xviii) Guest speakers honorarium
- (xviii) For cultural activities, sports and other activities.

Apart from that funds are also utilized for financial assistance to faculty and staff members to attend seminars/conferences/workshops, seed money for research work, organizing national and international seminars/conferences.

File Description	Document
Any additional information	View Document
Link for 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:

IQAC was set up on 28th February 2014 as per the **Guidelines of UGC** with representation from the necessary stakeholders, with a mission for institutionalizing the quality assurance strategies and processes to function optimally for excellence in education. It is established to integrate different academic activities with various supportive administrative tasks and to achieve faster actions which impact on quality objective of the institute.

Initiative 1: Digitization of Teaching-Learning Process

The Learning Management System (LMS) is an integral part of the teaching-learning process, and initially discussed in IQAC meetings in the year 2018, and following practices is 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.

E-Learning Materials from library: Students can access e-resources like e-books and e-journals from the library.

Other e-resources: All faculty and students can access the **e-resources of ‘National Digital Library of India’ (NDLI)**

Examination System: Our institute has a strong online examination management system through which students fill up their examination form. For online answer script checking and result publication, GNIT has

completely automated Digital Valuation System (DVS). Apart from that, a stringent online examination procedures has been followed in different matters related to examination, like Selection of paper setter & Moderator, Attendance approval, Semester end Examination form fill up, Seat allocation in examination hall, Invigilation in the examination hall, Selection of examiners, Evaluation of answer scripts, Publication of results, Grievances Selection of paper setter & Moderator, Continuous Internal Assessment test etc.

Initiative 2: Implementation of New techniques for quality improvement of teaching learning process

Simulation based learning: These techniques are used in GNIT to teach many topics in engineering. Simulation-based teaching is a constructive learning process which helps students to apply theoretical concepts to active hands-on practice.

Peer assisted learning: Peer Assisted learning involves students to help others to learn different topics. It is also called "co-operative learning" methods. These techniques are used in GNIT to assist other juniors or the same batch to learn.

Project based learning: These techniques are used in GNIT to provide deeper knowledge and skill development of the students in the curriculum through active exploration of real world problems or challenges.

Participatory Learning: It is a process, where students get involved in different activities like presentation, group discussion, seminar etc. Participative techniques are as follows:

- i) Seminar by students
- ii) Group discussion
- iii) Technical presentation
- iv) Quiz
- v) Debate

Techniques for strengthening weak students: The following techniques are followed in GNIT to improve the performance of weak students.

- i) Mentoring
- ii) Counselling
- iii) Tutorial Class
- iv) Remedial Class
- v) Assignments

vi) Retake Examination.

File Description	Document
Any additional information	View Document
Link for 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:

From the quality point of view, Guru Nanak Institute of Technology reviews its teaching learning process, structure, methodologies of operations and learning outcomes, at regular intervals through its IQAC. All the processes, structures and methodologies have been reviewed by IQAC from the quality, student's satisfaction and outcome point of view. Feedback which is taken from different stakeholders has been analyzed and discussed who visit the campus for placements and interactive sessions. Many initiatives and changes have been brought about by IQAC based on its institutional reviews of teaching learning. Apart from different things the following two things are very important for improving and enriching the curriculum.

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

i)Review Mechanism of Teaching-Learning Process:

IQAC periodically collects reports from various departments/units holding several discussions with the concerned authorities on various criteria of the Teaching-Learning Process.

◦ **The following data/information are checked from each department:**

- Course files containing lesson plans, teaching plans as per Academic Calendar, Time Table, and availability of learning resources.
Syllabus coverage, availability of course materials, total number of conducted classes, attendance reports, course assignments, and the respective student performance reports are collected.
- Data regarding slow-learner and advanced learner
- Extracurricular events conducted by the departments
- Students achievements
- Data regarding higher studies are collected for each academic year.
- CO, PO & PSO attainment are collected and analyzed
- **Data from Controller Section:**
-

- Question paper with CO mapping
- Students result
- **Data from Training & Placement Cell (T & P):**
 - Placement records
 - Reports on special training programs conducted by T & P cell
- **Data from Research & Development Cell (R & D)**
 - R & D activities such as publications, patents, funded projects, collaborations, etc.
- **Alumni Association**
 - Feedback from Alumni on the teaching-learning process

IQAC conducts **Administrative** and **Academic audits** for each academic year which reviews the total data and then analysis this Academic and Administrative audits report for necessary action.

ii) Review Mechanism of Attainment of Course Outcomes (COs), Program Outcomes (POs) and Program Specific Outcomes (PSOs):

The institute follows the Outcome-based Education (OBE) process and regarding this context, IQAC reviews the attainment of COs after publication of semester results. At the end of each academic session IQAC also reviews the attainment of POs & PSOs for each program.

Initiatives for improvement of the teaching-learning process:

- Bloom's taxonomy-based CO mapping question papers
- Project-based learning
- Introduction of LMS
- Introduction of Coding and project competitions (Hackathon, Ideathon)
- Participation in MOOCs
- Conduction of domain-specific webinars, workshops, training programs
- Recognition and awards to students, faculties, and staff on various aspects of academics.

File Description	Document
Any additional information	View Document
Link for 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: All 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
Link for additional information	View Document
Paste web link of Annual reports of Institution	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:

Guru Nanak Institute of Technology (GNIT) emphasizes on gender equity and women empowerment. At GNIT, 49% employees including faculty and staff are women and 30% students are girl students. At GNIT, 87.5 % HODs are women and overall 60% women are in various administrative and higher positions. GNIT ensures transparency in treating employees and students irrespective of any gender biasness and ensures equal treatment in terms of rights, benefits, obligations and opportunities. GNIT motivates and recognizes any achievement attained by any employee or student. The Institute encourages self defense and fitness programme for girls. It arranges multiple sessions to train faculty members, staff and students to understand better **safety strategies** to deal with potential assault or abuse. GNIT always gives importance to safeguard and promote well-being of all women employees of the organization. The Institute takes utmost care of all complaints on sexual harassment of women at workplace, the **Internal Complaints Committee (ICC)** vigilantly monitors all grievances and complaints and appropriate actions are taken against the complaints. The **Women's Cell** of the Institute, consisting of external members apart from internal members, regularly organizes various gender equity activities as mentioned below:

- Discussions on legal issues (laws) related to women's interests
- Awareness Program on *Visakha* Guideline
- Awareness Program on Breast Cancer
- International Women's day celebrations
- Self - Defense workshop for women
- Counselling services by a Professional counsellor
- Debate competition on women's issues
- Essay competition on Women's role under COVID-19 pandemic
- Magazine publication by Women's Cell
- Cervical cancer sensitization and distribution of sanitary pads to local underprivileged residents
- Workshop on Self-defense for women

Gender sensitization action plan is settled on behalf of the institution year-wise as per Institutional mission and vision. This consists of inclusion of gender equity and sensitization contents in curriculum as well as in co-curricular activities for all engineering courses. Our curriculum encourages our students to enhance their knowledge in the field of **Constitution of India** and fundamental rights and **Values and ethics in Profession**. According to 2016 and 2018 curriculum, gender equity and sensitization issues are addressed in two papers, **Constitution of India** and **Values and Ethics in Profession**. As per 2016 and 2018 curriculum, **Values and Ethics in Profession HU 702** (For EE, AEIE, FT), **HU 802** (for IT), **HU 302** (for CSE) deals with human values in organization, code of professional ethics, whistle blowing and beyond. Students are encouraged to apply for all scholarship schemes for girls, namely the **Kanyashree Prkalpa Scholarship, the Pragati Scholarship for Girl Students in Technical Education, the Bigyani Kanya Medha Britti (BNSTS Scholarship)** and others. Women faculty members are encouraged to apply

for awards schemes like the **DST Women Scientist Scheme, Women Scientist Scheme by DBT**. GNIT strictly follows *Vishaka* guidelines against sexual harassments in the workplace. GNIT maintains a **Girl's Hostel inside Campus, Girl's Common Room** for female students, and a **child daycare centre** for children of female employees. All these facilities are **under 24x7 CCTV surveillance**.

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: A. 4 or All 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:

The Institute implements effective waste management through waste segregation and recycling of the waste.

1. Solid Waste management:

Guru Nanak Institute of Technology (GNIT) authority promotes waste management by sensitising the younger generation about managing solid waste in a hygienic and scientific manner. In Institute canteens, the biodegradable vegetable peels are collected in a separate bin which is sent to a nearby Plant nursery and they convert it to fertilizer to use for their gardening.

Solid Wastes like Plastic, Paper, Aluminium foils and others (stationary items, pencil sharpening, etc.) are separately collected in the bins placed at every department and different places of the administrative block. GNIT ECO Club has taken the initiative of plastic waste segregation. Red and Blue coloured bins are placed at different floors of the college building for collecting crushed plastic bottles and single use plastics respectively. The sweeper collects the wastes from all the places and are properly stacked in designated places and later disposed of in the Dustbin provided by the Municipality. The bins outside the campus are cleared on a daily basis by the Municipality. The Institute discourages use of plastic in the campus, issuing notices for students as well as Staff of GNIT.

Faculty and staff members of the Chemistry section have taken initiative to prepare bio-sanitizer from the fruit peels and vegetable peels. So these types of biodegradable solid wastes are collected for the preparation of bio-sanitizer. The remaining waste after the preparation of bio-sanitizer can also be used as organic manure.

2. Liquid Waste Management

GNIT has a contract with a private agency to manage the Liquid waste especially human excreta, which leads to health and environmental problems. Regular removal of sludge from pits and septic tanks the Institute provides an eco friendly ambience inside the campus. In the GNIT campus, liquid waste from the washrooms is safely disposed through a big sewage pipeline and collected to the municipal sewage connection.

3. E-waste management:

GNIT has MOU with private agency to segregate and collect the E-waste from the Campus. Regarding the E-WASTE Management, the GNIT has a dedicated team who invokes the initial segregation and identification of different wasted products collected from different laboratories mainly. This team also works to identify some spare parts from a composite non-working product so that the removed spare parts could be used for the other purposes. However, after this initial screening the remaining products are declared as E-wastes and those wastes are processed for proper disposal.

4. Waste Recycling:

- Bio Hand sanitizer from waste Fruit Peels
- Decorative Items made from Solid Wastes
- Solid Waste Management Awareness cam

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: A. Any 4 or All 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
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: A. Any 4 or all 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
Details of the Software procured for providing the assistance	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:

Guru Nanak Institute of Technology (GNIT) is focused on an inclusive environment along with comprehensive development of its students and employees. The Institute caters programs to promote a sense of **attachment to the motherland, social awareness, awareness for environment, gender equality; human values and relationship.** To inculcate **Universal values and moral values** within the students they are exposed to various activities from the very beginning of their course.

To inculcate the relevance of reading books and to **inculcate linguistic harmony**, the college regularly **organises or participates in fairs, awareness rallies.** Faculty members donate books to the library to promote regional and cultural values. GNIT participates in the **Kolkata International Book Fair.** The student volunteers take part in different types of social rallies organised by National and International government organisations, **and has been associated, for example, with the U.S. Consulate General, Kolkata.**

Seminars and events are organised in the Institute to **promote and enrich gender equity, empowerment of women, along with socio-economically backward people.**

GNIT is situated in West Bengal, the home of Bengali culture. So, Bengali culture and practices are observed in this institution for raising awareness about local culture. **Poila Baishak** (The starting of Bengali New Year) is celebrated every year. **Rabindra Jayanti** (Birth Anniversary of Rabindra Nath Tagore) is observed annually. The starting of Sharodiya Utsav (Durga Puja) and Bijoya Dasami, the ending of Durga Puja is celebrated every year with sweets distribution. National festivals like **Holi, Eid, Dipabali, Christmas etc** are also celebrated in the college campus where students and faculty members take part.

“*All for one and one for all*” is the motto of GNIT when it comes to Unity.

Events like run for Unity, Cleaning missions under *Swaccha Bharat Aiviyaan*, community services, tree plantation, walk to propagate awareness on different local/national/Environmental issues are held, where students and employees, irrespective of cultural, socio-economic or religious backgrounds, participate enthusiastically which inculcates the value of the age old saying “*Unity in Diversity*”.

Below is the list of events to inculcate inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socio-economic and other diversities

Sl. No.	Social Outreach programs on special Days	Day of observation or celebration
1	Independence Day	15th August
2	Teachers' Day	5th September
3	Engineers Day	15th September
4	Viswakarma puja	17th September
5	Swaccha Bharat Aiviyaan	September-October
6	National Festival :Durga Puja	As per calendar
7	National Festival :Dipavali	As per calendar
8	National Festival : Holi	As per calendar

9	National Festival : Eid	As per calendar
10	Guru Nanak Birthday	As per calendar
11	National Festival : Christmas	25th December
12	National Unity Day	31st October
13	International youth Day	12th January
14	Republic Day	26th January
15	Saraswati Puja	As per calendar
16	International Mother Language Day	21st February
17	National Science Day	28th February
18	International Women's Day	8th March
19	Poila Boishakh	15th April(As per Bengali Calender)
20	Rabindra Jayanti	9thMay(As per Bengali calendar)
21	World Environment Day	5th June
22	International Yoga Day	21st June

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

Guru Nanak Institute of Technology (GNIT) has always been keenly focused on developing ethically sensitive and responsible citizens. The Institute believes in holistic development, value enrichment and is involved in manifold activities to promote community development.

Observances of Citizenship Duties: The Institute observes basic citizenship duties through various relevant activities including Independence Day, Republic Day and Unity Day celebrations. The spirit of harmony is promoted by singing the **National Anthem** after all Institute events.

The Institute inculcates tolerance and respect for all, irrespective of differences, through varied programs aiming at creating socially aware citizens of tomorrow.

Donations to the underprivileged: The Institute promotes the values of community service. During Sharodiya, Diwali, and Institute Foundation Day, clothes and sweets are gifted to inmates of several orphanages. During the pandemic, organic hand sanitizers were developed in-house, and distributed to the surrounding community. GNIT Media Team also donated to the **Prime Minister's National Relief Fund**,

the **Chief Minister's Relief Fund**, distributed masks, hand sanitizers and food grains to people in need. During the **Amphan** cyclone, students from PRAGATI (**P**rogressive **R**ural **A**dvancement **G**lobally **A**ccepted **T**raditional **I**nitiatives) Club participated in relief camps in the Sunderbans. Blanket distribution is also regularly undertaken.

Community Support Activities: Our students, under the NSS program and PRAGATI Club have aided underprivileged sections of the community for more than a decade.

- They have contributed to the *educational needs* of economically backward learners by donating books .They provide free teaching to children in need through organizations like **Digital Shiksha** and **Arunoday**. They also contributed to **The Community Library Project (TCLP),New Delhi's books for slum children** and distributed educational and sanitizing kits among the Sabar girl students from Belpahari, Jhargram and at Satyabharati Orphanage in Nabagram, Hooghly.
- Students actively participate in the comprehensive support to two villages adopted under the **Unnat Bharat Abhijan**.
- The students also provide *active support to orphans*. They have donated money for the welfare of orphans to the Calcutta Orphanage, visited Gobinda Home orphanage and distributed clothes and food packets there.
- **Support to charitable and welfare organizations**. By donating clothes and money to **Bharat Sevashram Sangha** (Gobardanga), the **Missionaries of Charity** (Mother Teresa), the **Ramkrishna Mission**, Rahara Ramakrishna Mission Boys Home and the Ramakrishna Vivekananda Mission, Barrackpore, students have aided support programmes for the distressed.
- **Working with NGOs like GOONJ**: Students visited **GOONJ** in Kolkata, and donated clothes and other materials for the needy.
- **Protecting the Environment and Ecosystem**: Students have also helped in ecological conservation by donating to the **World Wildlife Fund (WWF), India**. They regularly organize and take part in a **“Save Water”** and **“Plastic Free Campus”** initiative. **World Environment Day** is regularly observed in June through tree plantation and other programs.
- **Azadi ka Amrit Mahotsav Afforestation drive**: Students and staff took the initiative to **plant 75 saplings** in the campus to coincide with **Azadi ka Amrit Mahotsav** celebrations.
- **Cleanliness drives**: Students and staff have regularly taken part in campus cleaning and in **“Swachh Bharat Abhiyan”**.

File Description	Document
• Details of activities that inculcate values; necessary to render students in to responsible citizens	View Document
Any other relevant information	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: A. All 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:

Different State, National and International commemorative days and festivals are celebrated sincerely in the Institute. Students and employees participate in the programs which inculcate the value of unity and significance of the relevant events.

Every year on 15th of August **Independence Day** is celebrated with hoisting of the National flag and National Anthem. On 5th September all the students of the college celebrate Teacher's **Day** to mark the birth anniversary of Dr. Sarvepalli Radhakrishnan. The program strengthens the teacher-student bonding. Cultural programs are organised. It gives an opportunity to acknowledge the contribution of teachers in the society. **Engineers Day** is observed every year on the 15th September to address the crucial role and contribution of an engineer building the nation and the society. The hardship and sacrifices made by the engineers for the development of the country in each and every field. "**Clean GNIT Mission**" is organised annually to promote Swachh Bharat Aviyaan. The main objective is to promote cleanliness, sanitation coverage and to encourage hygienic practices. The **National Unity day** is observed every year on 31st October. It aims to spread awareness about unity and integrity of our motherland. On 21st February **International Mother Language day** is celebrated with cultural programs to honour the significance of mother language in our life. Seminars and events are organised on 28th February every year to celebrate **National Science Day** to explore issues and developments in the field of science. On 8th March, every year **International Women's Day** is celebrated to give tribute to the contribution of women in the society and the human race. The birth Anniversary of Nobel Laureate **Rabindranath Tagore** is observed to honour his role in spreading awareness about unity and harmony in the society both at the National and International level. On 12th January **International Youth Day** is celebrated to mark the birth Anniversary of Swami Vivekananda.

National Festivals, commemorative days and special events are celebrated every year with lights, sweets, cakes, colours and candles in the college.

In the following list the events and the dates are mentioned:

Sl. no	National and International commemorative Days and festivals	Day of observation or celebration
1	Independence Day	15th August
2	Teachers' Day	5th September
3	Engineers Day	15th September
4	Viswakarma puja	17th September
5	Swachh Bharat Aviyaan	September-October
6	National Festival :Durga Puja	As per calendar
7	National Festival :Dipavali	As per calendar
8	National Festival : Holi	As per calendar
9	National Festival : Eid	As per calendar
10	Guru Nanak Jayanti/Guru Purab	As per calendar
11	National Festival : Christmas	25th December
12	National Unity Day	31st October
13	International Youth Day	12th January
14	Republic Day	26th January
15	Saraswati Puja	As per calendar
16	International Mother Language Day	21st February
17	National Science Day	28th February
18	International Women's Day	8th March
19	Poila Boishakh	15th April(As per Bengali Calendar)
20	Rabindra Jayanti	9thMay(As per Bengali calendar)
21	World Environment Day	5th June
22	International Yoga Day	21st June

File Description	Document
Geotagged photographs of some of the events	View 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:

1. Beyond Curriculum Training on Value Added Courses

1. Title of the Practice

Beyond curriculum training programs on value added courses are included for making students industry ready and empowering them for high-end employability, higher education and self-entrepreneurship

1. Objectives of the Practice

- To impart training in technical skill areas currently in high demand
- To enhance soft skills of slow learners to make them employable.
- To equip more advanced learners with skill sets necessary for higher education, high-end employment.
- To bridge the industry-academia gap.

1. The Context

In the globalized 21st century corporate workplace, the work environments are usually multi-skilled and various domain-specific technical skill areas are in great demand. The Institute provides training programs for every student in specialized courses with certification to give them added employability potential. These courses, run by industry professionals, leverage them towards more specialized jobs in various sectors. They also provide requisite value addition and knowledge enrichment giving them a competitive edge over others in future career advancement.

1. The Practice

The Institution provides **well-structured Beyond Curriculum Training (BCT) programs** for all students of all Streams, from the 2nd year onwards.

The screening of the learners, based on their passion and tastes, is initiated in the 1st Year through a **Diagnostic Test** and a **Bridge Course** held, which provides a means of improving their behavioural and other aspects. This categorization provides a basis for the later offering of specialized courses to them from their 2nd Year graduation onwards.

The details of the formulation and execution of these training programs are mentioned below:

- These courses are scientifically formulated through a **Graded Sequential Selection Process**—being initially chosen on the basis of **Student and Alumni feedback** on Value Added Courses. They are then approved by the Departmental Academic Committee (DAC) of the concerned Department, and then approved by the Board of Studies (BOS) and finally the Academic

Council (AC).

- Students are offered a choice of **varied multidisciplinary courses from the BCT Basket**, with each student choosing **2 courses per year**.
- These courses are **run mostly in association with external agencies like Ardent Infotech Ltd., Webskitters etc.**, with experienced industry professionals imparting training.
- **Minimum 30 hours of practical training** for each course are provided and every **student can avail 6 courses** during their programme to build industrial competency.
- Certification is provided to all successful students.
- **These courses also encourage Entrepreneurship efforts.**

Courses:

Most of the recruiting companies now expect the students to have **advanced programming skills** irrespective of the branch of engineering or technology they pursue. This is the learning gap that the BCT program hopes to bridge.

These **BCT basket** includes following skill sets:

Name of Department	Name of Subjects in BCT basket
CSE & IT	Introduction to Matlab, Mobile Application Development, Ethical Hacking, Python, Automatic System Design Using Arduino, Game development using Python, System Analysis and Solution
ECE	System Vulnerability Analysis and Solution, Basics of Automata theory, Introduction to Learning , Python Programming, Mobile Application Development, Shell Programming, Full Stack Web Development, OriginLab for graphing and analysis, System Vulnerability Analysis and Solution
EE	Introduction to IoT, Application of CASPOC using PV syst software, Python Programming, Application Development, PCB Design using PROTEUS, System Vulnerability Analysis and Solution
FT	Introduction to Data Analysis, Introduction to IoT, JAVA Programming, Python, Time and Task Management, Nanoscience in Food Technology, Automatic System Design Using Arduino, Food Safety Training and Certification
AEIE	Nanotechnology & Nanosensors, Mobile Application Development, PHP Learning, PCB Design using PROTEUS, Fundamentals of Big Data , Ethical Hacking, System Vulnerability Analysis and Solution

1. Evidence of Success

Fruits from BCT skill training include:

- **More than 19 value added courses** were run in **the last 5 years** and all the students enrolled in these courses with the majority of students completing them successfully.
- All the students were motivated to take subjects from BCT basket and have shown their interest by opting 4 - 6 subjects. Continuous improvement in their performance scores was reflected in the cases of all learners.
- In progressing through these practices in the campus, the graduates could reach to Internationally reputed Institutions by competing with globally competitive benchmarks for their next level of education, for example, **Oindrilla Ghatak (ECE, 2016-20 batch)** subsequently pursued the **Master of Science degree at the University of Edinburgh**, was selected for the position of Student Ambassador in the Business School, received the **Edinburgh Award for Students as Change Agents twice** (Summer and Winter) and the **Edinburgh Award for Professional Development**. She has also authored 2 books, *A Backpack of Memories* and *Three Bodies One Soul*.
- In the same line BCT could bring confidence building amongst the slow learners in their academic life as one of **Rajib Banik, (ECE, 2016-20 batch)** was identified as a slow learner, scoring an average of 60-65% marks. After completing the BCT courses he gained employment in the Airports Authority of India, and is currently working as Signal and Navigation Engineer in Tripura.

With the implementation of BCT as one of the Best and popular practices of the campus, well executed by faculty, staff and students, bringing good results for ON-Campus recruitment, start-up culture, a combined effort of the Institution and students, the Institution has achieved very good results during on-campus recruitment processes. This has led to the increase in the quality, as well as, the number of recruitments. Placement Summaries for the last 5 years indicate that the students have been performing consistently well and are recruited by reputed companies and the average pay package has been increasing every year.

And all the above, a holistic development culture in the campus which may be reflected through our placement records shown here:

2016-2017 – 77.86% students secured jobs with an average pay package of Rs. 2.4 LPA

2017-2018 – 79.79% students secured jobs with an average pay package of Rs. 2.4 LPA

2018-2019 – 88.94% students secured jobs with an average pay package of Rs. 3.6 LPA

2019-2020 – 80.75% students secured jobs with an average pay package of Rs. 3.8 LPA

2020-2021–83.235% students secured jobs with an average pay package of Rs. 3.9 LPA

A summary of internships for five years given below:

S.No.	Academic Year	Students Opted internships
1	2016-2017	80.6%
2	2017-2018	83.4%
3	2018-2019	84.3%
4	2019-2020	86.7%
5	2020-2021	91.2%

6. Problems encountered and Resources Required:

Problems Encountered:

Whenever the reformations are enforced for the betterment of learner, their acceptability is always found to be a challenge, as they always look for easy going learning and show less interest to learn out of the box, especially when it is linked to their curriculum. To overcome this challenge, the Institution has designed BCT basket, linking to some of the rewarding activities like Internal Hackathon, Technical Fest, show your talents etc. to build the team spirit amongst the learners and incentivize their skills enhancement through BCT.

It is always a challenge to motivate the Faculty for their involvement in such kind of additional practices other than the regular routine. At the same time, without the faculty involvement, no such practices can be made the Best Practices of the Institution.

The management of the Institution has supported the leadership of the campus for additional incentives, benefits for the faculty to put their efforts to make this BCT as benchmark and Best Practice for the campus.

Resources Required:

- Computer facility along with the advanced software tools for training programs.
- Flipped classrooms designed for the slow learners.

2.	Community Development Initiatives
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1. Title of the Practice

Enabling humanitarian activities by the students leading to their involvement in amelioration of living conditions for the socially and economically disadvantaged and overall community development.

1. Objectives of the Practice

- To encourage students to provide aid and support to the disadvantaged, distressed or weaker sections of society.
- To foster self-supporting learning initiatives for students lacking economic support.
- To encourage gender equity activities and issues in women and education.
- To promote and participate in environment and wildlife conservation activities.
- To develop the spirit of selflessness, sacrifice, and dedication to social justice and social empowerment.

1. The Context

In the 21st century, academic programs increasingly include a community focus, social orientation and environmental conservation perspectives. Guru Nanak Institute of Technology (GNIT) also believes in caring and sharing, spreading the hope of betterment among the socially or economically disadvantaged. And Students, associated with Faculty, have constituted one club, “PRAGATI,” to promote such activity under *Unnat Bharat Abhijyan*. For years the Institute has been fostering donations or funding activities, aiding organizations providing humanitarian relief and encouraging students to contribute to community support services. Inspired by the spirit of selflessness inculcated through social welfare programs, students and alumni have emerged as role models in promoting community improvement.

1. The Practice

The Institution has been evolving this practice by encouraging welfare and social outreach activities of every kind. Students are involved in aiding the underprivileged through active aid and support. In developing this practice, the **warm Mentor-Mentee relationship** already pre-existing in the Institute has

further motivated and inspired the students to work for social development. Some of the important initiatives undertaken by the Institute include the following:

The following practices under PRAGATI initiative of GNIT are made as our Best and Most appreciative practices since the beginnings of the Institution:

(“PRAGATI”) -

Progressive Rural Advancement Globally Accepted Traditional Initiatives

NSS initiatives:

GNIT has a chequered history of community service through the NSS activities of the students, and the diverse activities of the **self-financed NSS Unit**, organized since 2009-10. Students regularly participate in campus cleanliness drives like **“Swachh Pakhwada”**, **rallies on “Save Water”** to spread awareness on societal benefits. **Donations to charitable organizations** like **Missionaries of Charity (Mother Teresa), the Ramkrishna Mission, Bharat Sevashram Sangha**, are regularly made by students, and there are goodwill visits to old age homes and orphanages to nurture values of compassion and social justice.

“Plastic-free Campus”: The Institute maintains a plastic-free campus, with special bins and collection points. Students play a notable role in the collection and awareness raising efforts in banning plastics.

Books for all: Book donations to underprivileged children like the **Community Library Project (TCLP, New Delhi)** and for small community libraries in Kolkata and adjoining areas have helped many children get books and educational materials.

“Gift a Sapling” drive: All Resource Persons are gifted saplings in the Institute and all faculty and staff presented saplings as incentives. This encourages sustainable thinking among students.

Blood donation camps:

The Institute has been a lifeline in organizing of **blood donation camps**. Camps have been organized on campus since 2013, mostly in association with Barasat District Hospital, North 24 Parganas thereby saving countless lives.

Pandemic Support Initiatives:

Relief during COVID -19 Lockdown and Cyclone “Amphan”:

Students distributed masks, food grains and essentials to the people worst affected by the lockdown in April 2020. They contributed to the **PM and CM’s Relief Fund** through donations and by organizing the **online fundraiser “Felicific”**. They also participated in relief camps for villagers in the Sunderbans affected by the devastating cyclone Amphan, by distributing babyfood, plastics and other building materials.

Free Vaccination Drive:

During the Covid-19 pandemic in July 2021, the Institute organized a free vaccination drive on campus, in association with Belle View Clinic and CMRI, Kolkata, where more than 5000 citizens have been vaccinated through GNIT.

Preparation and Distribution of Hand sanitizers:

GNIT, led by the Chemistry Section, took the lead in preparing organically safe, WHO-approved hand sanitizers during the first lockdown. These were distributed among people in need in the local community.

Evidence of Success:

The impact of various social outreach and community-focussed activities has been far-reaching, setting records in community service:

- A **Student Alumnus, Suman Kar**, has set up a **voluntary social welfare organization, Pragati Club**, manned entirely by GNIT students and alumni, engaged in supporting the underprivileged sections of society like destitute children, elders and the homeless. Regular distributions of food, clothing, rainwear and blankets during winters, books and pens to needy children are made. **PRAGATI** provided foodgrains and essentials to daily wage earners affected by the lockdown, food and medicines after Amphan. They are also associated with **?????? (“Sangbedan”)**, a home

for differently-abled children.

- Students have also formed free voluntary teaching organizations for children in need. **Digital Shiksha**, run by Swaraj Gupta, Manab Basak, Sandeep Kundu, is involved in preparing children for JEE and NEET exams and imparting computer education. Sandeep Kundu, an alumnus, has donated 8 computers for this learning program. **Arunodaya** (run by a charity, **Pratyasha**), provides free quality education for all. Located at the Ganga brick factory, Kankinara, North 24 Parganas, it started with 40 students and now has 83. They also teach children in villages, taking education to the grassroots level.
- GNIT students have also emerged as **conservationists**. They earned accolades from the **World Wildlife Fund, India**, for contributing to conservation efforts in “**Project Tiger**”. They are also engaged in conservation efforts through the **Eco Club**, which promotes disposal of biodegradable and other wastes and recycling initiatives.

6. Problems encountered and Resources Required:

Problems Encountered:

- Getting the right funding and sponsors for the student welfare organizations and projects is sometimes challenging.
- The number of socially disadvantaged people in the community is large, so catering to all becomes problematic.
- People in need are sometimes based in distant areas, so in order to reach out to them, resources and costs for travel are involved.
- Insufficient facilities for the long-term storage of food and perishable items for distribution.
- Reaching out to the distressed in times of the Covid-19 pandemic, especially the total lockdown phases in 2020 and 2021, was a major challenge.

Resources Required:

- Interface with NGOs, welfare agencies, groups with large outreach and long-standing contacts with people in need.
- An existing digital database of all the people in the local community and surrounding areas covered by the outreach programs.
- A vehicle dedicated for relief work and other outreach programs.
- Provisions for buying medicines and emergency medical supplies during natural disasters.

File Description	Document
Best practices in the Institutional web site	View Document
Any other relevant information	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:

Distinctiveness: Holistic Development

Distinctiveness is a legacy of any Institution which could be built up through managements support, Faculty involvement and learners outcome. To achieve this, all initiatives under the Vision and Mission of the Institution would contribute, including those designed and strengthened by the Institution's Best Practices like BCT, PRAGATI, Co-Curricular activities, Technical festivals, Industry alliances, Global Curriculum, Local Social involvement. The journey of any Institution to following the ideology and Mission can never be an easy task due to drastic change in the mind set of the learners, investment of the new augmentation, and scarcity of the competitive faculty members. It is proudly mentioned over here that GNIT is known to be an Institution in the region of GURUKUL of Technology, with the impression of Holistic Development of the learners as the contribution made by every GNIT family member from day one with their dedication, devotion and belongingness for the campus.

These are repositories since the last 10 years:

In the globalized 21st century environment, learning is increasingly becoming interdisciplinary and students are facing new emerging career choices. In this context, GNIT believes in nurturing holistic learning. While **curriculum** changes have broadened the scope of learning to include project-based learning (PBL), Seminar presentation by students, learning modules have also incorporated **Human Values and Ethics in Profession, Universal Human Values, Human Resource Development and Organizational Behaviour, Human Resource Management, Constitution of India, Gender Culture and Development** and **Community Services**. Courses on **Environment and Sustainability** issues like non-conventional and renewable energy sources, waste management, biotechnology and environmental protection have been introduced. Focusing on issues like **gender equity, climate change** and **professional and organizational ethics**, the new curriculum prepares students to be industry-ready professionals and gender-sensitive citizens.

Students have achieved a distinctive track record of involvement in different sports, cultural activities, corporate conclaves and tech fests and artistic/cultural events at the local, regional, national and international levels.

GNIT encourages **sports, including yoga and physical fitness activities**. Sporting events like basketball, volleyball, cricket, football and athletics are encouraged for both boys and girls. A skating basketball and an all-women's volleyball team have earned distinction. Over 334 prizes and championships, at national and regional levels, have been won by both boys and girl students in the past few years. GNIT also **provides regular free health check-up facilities in association with premier health care providers for all students**.

Student performance in **winning recognition for academic merit has been consistently high**. During 2016-21, students have won 781 **scholarships**, 300 **internships**, numerous awards and prizes for academic distinction. Students have benefitted notably from the Sibling, Alumni and Employee Scholarship Schemes. They have actively participated in conferences **and achieved 64 patent publications**. Many **innovative projects** have been developed by students. Several innovations are in prototype stage like Currency Sanitizing Machine, Food Adulteration Testing Machine, Low Cost E-Vehicle, Hospital Automatic Baby Care System, Telescope Making etc. In developing cross cultural understanding, the students have benefited from **Foreign Internships**. A MOU with **Asian Institute of Technology, Bangkok**, has enabled student toppers to visit Bangkok. Students have also visited Moscow University, **Russia**. There is also a **MOU with ECAM Lyon School of Engineering, France**. **Visiting professors from France and Greece** have trained students every year since the last five years through internships leading to enrichment of current industry practices.

Advanced research facilities and learning assistanceship programs are notable areas of strength. The Institute promotes **Peer-assisted Learning** with Students as pro-active teacher facilitators. Teaching Assistantship positions are offered to Post-Graduate students. The Institute has two **centres of excellence**—the Centre of Nanoscience and Technology Research (CNTR) and the Centre for Cyber Safety and Advanced Security (CCSAS), with advanced research facilities for carrying out research and thesis writing provided to M Tech students. Project-based Learning has enabled students to develop patents and publications in good SCOPUS-indexed journals, with Institute financial support. The Institute also provides **free MOOCs courses** by Coursera and NPTEL to students, enabling them to develop specialized interests and domain-specific skills.

Various **Student Clubs** have been set up to encourage holistic learning. These include a **Debating Club Coding Club (Bit-2-Byte), Conservation Club, Media Club Cyber Security Club, PRAGATI, Photography Club, Sports Club, Space Club, Robotics Club**, which provide the students forums for expressing their talents, new skill learning and future specialization-building opportunities.

Students also participate in national, international and regional technological, artistic and cultural

events conducted by IITs and other esteemed institutions. Student regularly participate in events organized by **big corporate conclaves like BCCI, CII and ASSOCHAM ,FICCI**. Students also take part in **Technical festivals and fairs, like the Industrial India Trade Fair, tech fests at IIT, Kharagpur and other places. Felicific** – the Media Fest- was immensely popular during the pandemic. Students also participated and won in **Smart India Hackathon, Software & Hardware Edition, ACM ICPC, Berlin Film Festival, UK Film Festivals, International Literary Meets**. Film making, Logo Designing contests and Photography are notable areas of participation, and students have also won awards from International Film Festivals and National Geographic.

GNIT is noted for its **community development and outreach activities**. Student initiatives under the National Service Scheme (NSS) contributed to regular donations to **Missionaries of Charity, the Ramkrishna Mission, to libraries for slum children (TCLP, New Delhi), wildlife conservation (WWF, India), orphanages and homes for elder care, and charities like GOONJ**. Students provided food donations during the lockdown and Amphan cyclone, contributing to the **PM and CM’s Relief Fund. Organic hand sanitizers** were developed in-house and distributed to the needy. **Vaccination camps** in association with Belle View Clinic and CMRI, Kolkata set up by GNIT, benefited nearly 5000 people. Student involvement in various eco-friendly initiatives has been consistent. Students have worked to ban and recycle plastics, making the Institute campus a **“plastic-free” zone**. They have also served as **United Nations Green Ambassadors for Climate Change**.

GNIT has not only achieved a distinctive profile as an Institute promoting holistic growth of students but is also further strengthening itself to nurture empowered technological professionals with a wide variety of interests and specializations.

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

5. CONCLUSION

Additional Information :

Guru Nanak Institute of Technology strives to maintain the highest possible standard of education, and to that end, appropriate modifications are implemented as needed. The involvement of industry and academic professionals in several groups such as the Board of Governors, Academic Council, Internal Quality Assurance Cell, Board of Studies, and Research and Development Cell guarantees the changes are maintained. The ISO 9001:2015 certification emphasizes the importance of quality assurance. The Institute worked hard to start full-fledged online programs even before the official lockdown in 2020 was announced so that the teaching and learning process could continue without interruption during the pandemic. The pandemic had a diminutive effect on the Institute's students' academic careers. All of the semester exams were completed, and the results were released on schedule. Since the commencement of the lockdown, training, and campus placement activities have been conducted via a digital platform. Furthermore, all of the Institute's yearly activities are digitally arranged, and the student community has responded positively. The Institute's faculty members have gone beyond the Institute's four walls and created an e-learning platform called GNITDIGICONCLAVE, which aims to empower Institute students in this pandemic circumstance. The students were taught English, communication skills, C programming, robotics, and a variety of other subjects. When the resurgence of COVID has put the whole world on edge, the Institute has placed a strong emphasis on carrying out societal obligations. It made an outstanding step by establishing a Free of Charge Vaccination Camp for students, alumni, and their families, teachers and staff members, as well as nearby residents. Aside from that, students and staff members provided hand sanitizers, medications, and dry food to the poor residents in the adjacent slums. Under the guidance of the faculty member, the students devised a variety of creative pandemic-fighting initiatives that have shown to be very useful and have been recognized on a national level.

Concluding Remarks :

The Institute has demonstrated an unwavering commitment to meeting the needs of many stakeholders by offering the best possible help in the appropriate areas. In the following days, the Institute hopes to have all of its programmes NBA certified. It is concentrating on improving the Institute's research and consulting operations, intending to achieve higher national and international rankings. The Institute uses a need-based approach to education, which enables them to overcome all barriers to overall academic improvement. In this new normal, the Institute has made an unwavering commitment to provide high-quality, long-term education to prepare students for professional success. Through the operation of Student groups and outreach programs, the Institute develops a sense of connection among teachers and students. According to the National Education Policy-2020, the Institute intends to improve students' cognitive skills by making classrooms more student-centric. Guru Nanak Institute of Technology is continually working to provide an excellent academic platform that may help the country with social, cultural, scientific, economic, and technical changes. The supreme vision is for the system to grow into a global interface by facilitating information sharing across national borders. Preparing the SSR for NAAC accreditation's second cycle has been an incredible learning experience. The Institute firmly believes that greatness is limitless and is always striving for improvement.