SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

BENGAL INSTITUTE OF TECHNOLOGY

TECH TOWN, DHAPA MANPUR, ON BASANTI HIGHWAY, PO-HADIA,
KOLKATA - 700150
700150
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Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Introduction

Bengal Institute of Technology (BIT), Kolkata - a unit of Techno India Group, established inyear 2000, is one of the earliest self-financed institutes in the State of West Bengal, set with the objectives of imparting higher education, research, and training in various fields of engineering & technology. BIT aims to bring out the best engineers, entrepreneurs, and researchers, who will work for a better tomorrow in society. The institute is affiliated with Maulana Abul Kalam Azad University (MAKAUT), Government of West Bengal. From its inception in 2000 till the academic year 2021-2022, BIT has been pursuing **4**-AICTE approved undergraduate courses, namely CSE, IT, ECE, and Biotechnology, while from the academic year 2022-2023, it has **5-AICTE** approved UG courses namely, CSE, IT, AI & ML, ECE, and Biotechnology. Since its inception, the students' intake varied from 210 (until 2018) to 270 (in 2019) and 300 from 2020 to the present with the distribution of CSE-120, IT-60, AI & ML-60, ECE-30, and Biotechnology-30.

Located about 8 km away from the main urban conglomerations of Kolkata city, BIT holds a fascinating location in the urban fringe area with a very good academic ecosystem without noise and air pollution. The Institute has two premises located about 800 m apart, which comprise an area of 8069 sq. m, respectively. The main campus houses four departments, namely, CSE, IT, AI & M, and ECE, while the other campus holds the Biotechnology Department and the major part of the first-year classrooms including the chemistry lab. The workshop, physics lab., and language lab. are located on the main campus. A total of 54 faculties for a total student strength of 768 as of the academic year 2021-2022 follow the teaching-learning ecosystem of the Institute. The Institute has a good library facility on both the premises with reading, book banking, and book lending facilities. The library has 3454 titles and 35679 volumes of books. The Institute follows the Knimbus E-library platform as a digital library solution. The Institute's governance is guided, directed, and monitored by a "BOG" comprising members from government, academic, and industry sectors.

Vision

Vision

To become an institute of excellence in engineering and technical education, and produce skilled technical manpower of high quality with a high degree of social commitment to compete in the global market as a quality human resource to the society and industry.

Mission

Mission

M1. To offer a state-of-the-art undergraduate programme by providing a congenial teaching-learning (T-L)

and contending environment;

M2. To create an ambiance in which new ideas and cutting-edge research flourish through effective curriculum and infrastructure so as to produce the motivated leaders and innovators of tomorrow;

M3. To apply and disseminate Information and Communication Technology (ICT) in T -L process including providing both hard and soft skills to students;

M4. To provide quality resources (Physical & Human) for producing ethically strong & morally elevated human resources to serve mankind.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

Institutional Strength

• Institute currently pursues 5 UG programs (CSE, IT, AI & ML, ECE & Biotechnology)than previously 4 UG programs (CSE, IT, ECE & Biotechnology) with the same annual student intake of 300; these limited students intakeprovide better student-teacher interaction, coordination,and management.

• Institute’s 22 years of continuation since 2000 has put it into the professionally young age of services, and hence, has incredible potential to grow on all fronts.

• Average age and experience of faculties areabout 40 years and 15 years, respectively; this age range and experience help ignite and motivate one’s dynamism to take on new challenges.

• ~ 30% of faculties are Ph. D.holders and many are in queue to acquire Ph D. The Institute has well-experienced and motivated faculties.

• BIT ranked 91 in NIRF India ranking and 5thin West Bengal in 2016. It also got placed in NIRF rankingsin the years 2018 and 2020. Institutes' Innovation Council (IIC) is dedicatedly involved in promoting and motivating students and faculties towards innovative ideas, new knowledge generation, entrepreneurship, and R & D activities. In the year 2020-21, the IIC of BIT has been awarded 4-star by AICTE-MoE, GoI.In the current year, it has scored 25 out of 25 upto the second quarter.

- Students every year organize open competitive ‘Tech Fest’ & ‘Cultural Fest’ for technology and cultural demonstration, respectively and these help students develop motivational professional services, and also become culturally strong to excel in professional careers.

• The Institute has an excellent student and teacher relationship. Being located in the urban fringe area, facultiescan have access to involve students for more time in technical and academic mentorship activities.

• Students generously participate in national and regional projects demonstration events, viz, Smart India Hackathon,Bengalathan, etc, and claim several awards.

• Students have access to growing professionally by developing skills through running several in-house technical clubs, namely, Robotics Club, , and Students' Association of Biotechnology-BIT(SABBIT).

• BIT has students with rural, urban and different lingual backgrounds and thus, always has a competing educational environment.

• Being a self-financed institute, it has a challenging and competing environment.

Institutional Weakness

Weaknesses

- Being an Institute of undergraduate courses, it has limited scope for higher teaching-learning processes including R & D persuasion.
- Limited scope exists for advanced instrumentation and state-of-art laboratories.
- Being an affiliated Institute, its academic activities, and academic governance are guided by the terms & conditions of the affiliated University.
- Institute has some constraints toward budgetary allocation and expenditures.
- The Institute is located in a rural area under the fringe area of urban sprawling with limited access to commercial facilities in the nearby area.
- The Institute is operated from two separate units located nearly 800 m apart, as a result, optimal space and resource utilization become a challenging issue.

Institutional Opportunity

Opportunities

- Being an Institute with a cohesive and collective team spirit of faculties and staff members, it has tremendous potential to take on emerging technical challengesand to show results.
- The Institute operatesadvanced UG courses, which have incredible scope of integration of one tool to another for developing soft computing techniques to achieve improved prediction and for new knowledge generation.
- Although the Institute has a locational disadvantage, however, it has been providing a respectableworking opportunity viz. availability of more in-house time by both faculties and students, for academic and knowledge cultivation activities.
- Availability of more time for R & D, skill development, and entrepreneurial activities.
- Less urban noises and pollution.
- More scope for biotechnology and environmental research works;being located in the wetland and near the Sundarbans area.
- Students with mixedbackgrounds (urban and rural, economically affluent &poor) providea good opportunity to maintain a competing environment.
- Scope exists for developing entrepreneurship, startup,and motivational skills.

Institutional Challenge

Challenges

- Reduced employment opportunities and a competing environmentwith limited pay packagesare emerging as a big threat to attracting students to conventional engineering education.
- Changing dimensions in the Global job markets due to the emerging threat of financial conditions is another threat to the academic institution.
- Emerging virtual teaching-learning methods and their societal acceptance may emerge as a new threat or opportunity for the faculties.
- Changing Global scenarios and expected pass-out students may mismatch students' inflow to self-financed Institute, and hence toward its economic health.
- Changing dimensions of engineering and technology courses from time to time, particularly for the market-driven emerging courses, poses a real challenge to the self-financed institutions in maintaining sustainability.
- Faculty Development is an essential component for keeping pace with the advanced knowledgeand it has to be promoted from time to time.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Curricular Aspects

The Bengal Institute of Technology (BIT)follows the curricula prescribed by MAKAUT with whom it is affiliated, and adheres to the academic calendar provided by the university for a continuous internal evaluation system.The Institute ensures effectivecurriculum delivery throughwell-planned academic activities.Academic Committee prepares the academic calendar of the Institute and the concerned departments prepare their departmental academic calendars. The academic calendar specifies suitable dates for significant academic and other activities that help students, faculties, staff, and other stakeholders of the Instituteas a source of information. The academic calendar also shows the start and end of each semester, the internal evaluation schedule, the tentative schedule of external evaluation, and also the dates of commencement and completion of the syllabus, schedules of internal exams, etc. Tentative dates of practical exams and viva-voce and theory examinations are also given in the academic calendar. The Institute follows extracurricular and social activities such as the celebration of birth and death anniversaries of the national icons, the celebration of various national and international days, etc as per the list of the university.

The institute also conducts curricular and extra-curricular activities on a regular basis. Students are facilitated to organize annual 'Tech Fest', and 'Cultural Fest' to demonstrate innovative ideas and cultural ecosystem of the country. Sports are also conducted annually.Extra lectures by resource persons from industries and renowned academics are conducted at regular intervals to give exposure toprofessional matters.

To motivate and guide students for higher studies and preparedness for employability; GATE coaching, mock personal interview sessions, abroad career counselling for MS & PhD, writing 'Statement of Purpose' for foreign universities, helping in preparing industry-ready and target-oriented CV; training on TOEFL,ibt, and

IELTS, etc are promoted from time to time.

Students have the following technical clubs: Robotics Club of BIT to supplement education with hands-on experiences, official coding club of BIT to establish a coding culture by making every student competent in problem-solving skills, and Students' Association of Biotechnology, BIT to promote research consciousness amongst Biotechnology students. Senior students provide guidance to junior students in those technical activities.

Teaching-learning and Evaluation

Teaching-learning And Evaluation

Being an affiliated Institute, it is governed by the academic curricula of the MAKAUT. The subjects, syllabi, course contents, and the overall academic calendar are prescribed by the university itself. The semester exams, exam routines, question banks, etc are also decided and prepared by the university. The Institute plays role in the teaching-learning processes of the students, completion of syllabi, conducting various exams, evaluating students through Continuous Assessment (CA) & Practical Continuous Assessment (PCA), and uploading marks of CA & PCA in the university's portal.

BIT takes pride in its quality teaching-learning process. Besides the usualMAKAUT's approved syllabus-oriented studies, the students arealso exposed to participation and organization of a number ofinterdisciplinary programmes likedebates, group discussions,group tasks, seminars, webinars, hackathons, and brainstorming sessions. These programmes help in inspire,encourage and motivate students to develop their leadershipquality, and interpersonal and communication skills. The studentsare assessed using several continuous assessment methodssuch as unit tests, quizzes, assignments, projects, and termpapers, and finally, on the basis of the university end-semesterexaminations.

The Institute employs different teaching-learning methodologies like blended learning, holistic learning, Problem-based learning, and Outcome-based education with an objective of developing and nurturing a culture of excellence in Teaching, Training, and Research in Engineering Education.

Every student is mentored by a faculty member. Students' performance monitoring sheets are circulated to all faculty members to capture progressive information about students' subject-wise and overall attendance, results in university exams, undertaking MOOC courses, participation in training and placement activities, preparation for competitive exams, etc. Performance assessment of students' university semester results is carried out regularly to identify the students who require special attention in subsequent semesters.

During COVID-19 pandemic,BIT had successfully carried out enormous online classes, virtual and physical labs, and conducted virtual Webinars/Workshops, etc. The online platforms included Zoom classes, Google

Form, Video Posted on YouTube, Webinars, email & telephones, etc. From 18th March 2020 until December 2021, the Institute conducted 8,746 no. of online classes including labs; faculties participated in 201 FDPand organized/attended 120 no. of Webinars/ Workshops.

Research, Innovations and Extension

Research, Innovations,And Extension

Being a UG pursuance Institute, research activities in BIT are relatively less, however, faculties by their own persuasion and interest carry out R & D activities and publish research papers in reputed International and National Journals, Conferences, write book chapters, etc. Faculties also pursue undertaking sponsored R & D projects, organizing training courses, etc. From 2019 until April 2022, faculties published 54 papers in SCI, SCOPUS, and WoS indexed journals, 47 papers in international conferences,7 papers in National conferences, authored 9 books, edited 3proceedings, contributed 27 book chapters, and obtained 1 patent. Students of BIT under the guidance of faculties published 17 papers atdifferent national conferences.

Towardsinnovation pursuance,students of BIT are encouraged and motivated to participate in Hackathons organized by different organizations, e.g., students participated with innovative projects in Smart India Hackathon by AICTE; Future Proof Hackathon by Techno India Group;Bangalathanby the West Bengal Department of IT and Electronics; India international Science Festival-2019 by CSIT,Kolkata; India Innovation Challenge Design Contest (IICDC), etc. and received several awards.

The training programs offered to the students of BIT are scientifically planned and organized to ensure that students derive the maximum possible benefits. The flagship training program viz., Animus, Mock tests, Coding classes, and skill development classes,are offered to the students.Under the Students Development Program (SDP), IIC organizes several webinars by inviting experts from industries, academia, and entrepreneurs. Studentsare motivated to participate in NPTEL and Courseracourses.Online interactive sessions on entrepreneurship, Coding,skill development,and project on different subjectsnamely, Data Structure using C language, Python, etc. are arranged for the students.

Personality development programs, communication skills, and aptitude training are blended with the regular timetable to ensure that the students are provided with structured and periodic interventions to equip themselves with life skills. English Language Classes are conducted for the benefit of the final year students.

Infrastructure and Learning Resources

Infrastructure And Learning Resources

The Institute functions from two premises located 800 m apart; the main campus houses the administrative unit, principal’s office, departments of CSE, IT, AI & ML, ECE, and part of Basic Science Humanities and their

laboratories; while the other campus holds department of Biotechnology & its laboratories, classrooms of 1st year, and Chemistry lab. The main library and the workshop are located onthe main campus; the other campus also has a library. Both the campuses haveseparate canteens and common rooms for the students. The playground is located on the main campus.

The Institute has a total of 20 classrooms of 66 sq. m. each againstAICTE's normsof 18, 6 tutorial rooms of 33 sq.m each against the requirement of 6, 1 computer center of 150 sq. m against the requirement of 1, 2 libraries of 400 sq. m each against the requirement of 1, 1 language lab of 66 sq. m. against the requirement of 1, 1 seminar hall of 132 sq. m. against the requirement of 1, and 1 drawing hall of 132 sq m. against the requirement of 1. The Institute has administrative areas/units, cabins for HoDs, faculty rooms, placement office, etc.satisfying the requirement of AICTE.

Availability of PCs, legal System & legal Application Software, Lan & internet facility, and internet speed is essential for the faculties and students. The Institute has a total of 230 PCs available for the students against the requirement of 195 as per the AICTE's norms; 3 legal Systems and 20 legal Application software satisfying the requirement of 3and 20, respectively; all PCs in the labs,PCs available with the HoDs& faculties, and office have access to the LAN & internet facility with an internet speed of 50 Mbph against the requirement of 32 Mbph.

The library has reading, book bank, and book lending facility. It has KnimbusE-library platform as a digital library solution. The library has a total of 3454 book titles and 35,679 volumes against the requirement of 3400 titles and 18,250 volumes, respectively. The library subscribes 17 journals, of which, 10 are international.

Student Support and Progression

Student Support And Progression

The institute puts a high value on developing and maintaining a congenial relationship between students and the Institute. Faculties pay special attention to students for their soft skill development programs like Attitudinal development, Personality development, Inter-Personal Skills, Time Management, Debating ability, Professional ethics, etc. Students are trained in communication, teamwork, leadership development, attitude building, etc.

The training and placement cell (TPC) of BIT has an excellent track record of placement of students in reputed companies through on-campus and off-campus interviews. TPC maintains a congenial relationship with the students and guides them in training and placement-related matter. Last 18 years data showed that almost all

students hadsuccessfully placed in reputed companies. To mention a fewother student supportive activities of TPC are: it conducts various programs developed by corporate; trains faculties on different skill sets asrequired for effective classroom delivery; leveragesdifferent industry connections for offeringcontinuing education programs; provides demand-driventraining to studentsto ensuremaximum possible benefits; organizes flagship training program viz., Animus, to students, and specialized training by evolving MoU with organizations in India and Abroad.

The Institution Innovation Cell (IIC) of BIT organizes a number of popular and aspirational lectures on a regular basis by inviting experts from academia, industries, and alumni of BIT under the Student Development Program (SDP). Students are also motivated and mentored to participate in competitive hackathons with innovative projects and encouraged on skill development and entrepreneurial activities by organizing competitive poster sessions.

Institute holds two student chapters of professional bodies: one is the Indian Society for Technical Education (ISTE), and another one is the student chapter of the Institution of Engineers (India) (IEI). Under these banners, a number of technical and promotional activities are undertaken. In addition, the Institute has a few MoUs with institutions/organizations abroad (Onstitute, USA, and IBM-Open Power Foundation) and in India (Infosys Campus Connect) through which workshops and training programmes are organized from time to time.

BIT has three clubs; Robotics Club, Coding Club, and Students' Association of Biotechnologyexclusivelyrun by the students for technical activities. These are categorized as the best practices by students.

Governance, Leadership and Management

Governance, Leadership And Management

The Institute is run by a registered trust named "Tech Trust", and has a three-tier governance system; a) Society; b) Board of Management (BOM), andc) Board of Governors (BOG)**.**The society of the Instituteis the main trusty that decidesthe overall arrangement of courses to be operated and the number of seats to be maintained including providing finances to the Institute. The Institute's overall responsibility lies with Society. The BOM is the body that comprises top officials from Techno India Group's corporate and the Principal of the Institute takes direction from the Society and implement those for regular operation and management to achieve the goals of the Institute. The BOM works as a bridge between the Society and the Board of Governors and does all such thingsrequire for the advancement and strengthening of the Institute. The BOM decides the annual budget of the Institute including the implementable plan and program. The BOG is the body that guides, decides, monitors,and approves the academic, administrative, management, plan, and programof the Institute is comprised of 18 members including Chairman drawn from academia, MAKAUT, corporate, AICTE,

government department, etc. The Chairman of the BOG is a renowned academician and the Principal of the Institute is the member secretary. Usually, the BOG meeting is organized quarterly and the progress of various activities viz., academic performances of the Institute, students' activities, new initiatives, management, administrative aspects, etc are reported to the BOG. Decisions given by the BOG and actions taken thereof are monitored in the subsequent meeting.

The principal is the Head and Chief Executive Officer of the Institute. The principalprovides the leadership in pursuing all activities after obtaining permission and direction from the BOG & the BOM. The principal is the liaison between the Institute and the University, between the Institute and the BOG & BOM. The principal is responsible for the successful implementation and run of the programs, and also the overall administration and coordination of the Institute. Institute has a maintenance and service unit, placement cell, and library in addition to the administration, andfinancewing.

Institutional Values and Best Practices

Institutional Values And Best Practices

Recognizing that Institutional values are those, which add value to the Institute's excellence, integrity, promotion of gender equity, inclusiveness, water conservation, facilities for alternate sources of energy, and socialresponsibilities, BIT with its available resources has tried to deliver the best and committed to continue with the best practices.

Excellence: To accomplish and maintain the spirit of vision and mission of the Institute, BIT provides a good environment of teaching-learning mechanism, motivates students in aspirational activities&competitive environment, provides exposure to the outer domain, etc. These institutionalized values helped alumni of BIT maintain a repute in the professional world.

Integrity: Although integrity is a relative term, however, within the given frameworkof academic and financial responsibilities,we try to keep our morale high and give the best to students. The Institute has the responsibility to implement policy decisions of MAKAUT on the academic front and Techno India Management on the financial front.

Promotion of gender equity: About 38% of employees and 26.5% of students are female. Emphasis has always been given to havinga respectable representation of females in all types of activities. Quick response is given to the matter reported by female employees and students. Being a non-residential college, the Institute

has responsibility forstudents during the college’s days and hours.

Inclusiveness: Institute provides access and opportunity to all groups of students irrespective of their social class, caste, gender, or ethnicity to participate ineducation. Admission is based on WB-JEE, and JEE-main, and the seat allocation is as per the counseling of WB-JEE, on the other hand, academic persuasion is based on the curriculum of MAKAUT, therefore, inclusiveness is inbuilt in the ecosystem.

Water conservation: The Institute is located in wetland areas around, and the area has very good rainfall, there is limited scope for water conservation.

Facilities for alternate sources of energy: Institute has already taken an initiative to implement solartechnology-based electric energy generation.

Social responsibilities: TheInstitute is located in a village panchayat area. Therefore, as social responsibility, Institute promotes a number of activities, such as blood donation camps, plantations, awareness of various societal issues, etc.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	BENGAL INSTITUTE OF TECHNOLOGY
Address	TECH TOWN, DHAPA MANPUR, ON BASANTI HIGHWAY, PO-HADIA, KOLKATA - 700150
City	Kolkata
State	West Bengal
Pin	700150
Website	www.bitcollege.in

Contacts for Communication					
Designation	**Name**	**Telephone with STD Code**	**Mobile**	**Fax**	**Email**
Principal	Narayan Chandra Ghosh	033-6292219054	8442889695	-	admin.bit@bitcollege.in
IQAC / CIQA coordinator	Debasish Pradhan	033-6292219053	8240556003	-	debasish.pradhan@bitcollege.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 minroity institution	No

Establishment Details

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		
12B of UGC		

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	25-06-2021	12	AICTE approval date for academic year Twenty Twenty One Twenty Two We have also received the AICTE approval for Twenty Twenty two Twenty three session

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?	No

Location and Area of Campus				
Campus Type	**Address**	**Location***	**Campus Area in Acres**	**Built up Area in sq.mts.**
Main campus area	TECH TOWN, DHAPA MANPUR, ON BASANTI HIGHWAY, PO-HADIA, KOLKATA - 700150	Urban	6.16	8069

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	Candidate must have passed Class Twelve with Physics and Mathematics along with any one of Chemistry Biotechnology Biology Computer Science Computer Application	English	120	120
UG	BTech,Information Technology	48	Candidate must have passed Class Twelve with Physics and Mathematics along with any one of Chemistry Biotechnology Biology Computer Science Computer	English	60	60

			Application			
UG	BTech,Electronics And Communications Engineering	48	Candidate must have passed Class Twelve with Physics and Mathematics along with any one of Chemistry Biotechnology Biology Computer Science Computer Application	English	90	24
UG	BTech,Biotechnology	48	Candidate must have passed Class Twelve with Physics and Mathematics along with any one of Chemistry Biotechnology Biology Computer Science Computer Application	English	30	14

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				0				2				50
Recruited	0	0	0	0	1	1	0	2	23	27	0	50
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				24
Recruited	21	3	0	24
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				13
Recruited	10	3	0	13
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	1	1	0	4	8	0	14
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	15	15	0	30
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/MCH	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	4	4	0	8
UG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/MCH	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	3	2	0	5
UG	0	0	0	0	0	0	0	0	0	0

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

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	133	23	0	0	156
	Female	50	9	0	0	59
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Category		**Year 1**	**Year 2**	**Year 3**	**Year 4**
SC	Male	6	4	4	4
	Female	3	2	7	0
	Others	0	0	0	0
ST	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	21	22	20	8
	Female	6	6	4	6
	Others	0	0	0	0
General	Male	101	100	147	94
	Female	48	44	43	29
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		185	178	225	141

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	Bengal Institute of Technology (BIT) is an affiliated Institute under the MAKAUT, Government of West Bengal, therefore, its curricula and academic calendar are prepared and decided by the university. The

	Institute doesn't have any freedom and obligation to decide the syllabi and curricula. Within the framework given by the university, the Institute can provide innovative and improved teaching-learning methods. BIT has the following UG pursuits courses: CSE, IT, ECE, AI & ML, and Biotechnology. There is enormous scope to integrate one subject of one stream into another stream, or there exists scope for a multidisciplinary education to explore curricula from various disciplines. For example, students from CSE & IT can explore one/two subjects of Biotechnology/environmental sciences and vice versa; students from ECE can explore subjects from CSE & IT and vice versa, etc. Students of BIT in different hackathons and competitive tech programs/festivals, participate in socially relevant projects, whose subject matters contain multidisciplinary/interdisciplinary approaches. The team of a project comprises students of different disciplines that eventually provide multiple subject knowledge to help achieve the solution of a problem. BIT is already practicing this approach indirectly, however, a formal interdisciplinary subject curriculum will help both faculties and students understand the usefulness of a subject to a stream. BIT is ready to accept the changes likely to emerge from NEP.
2. Academic bank of credits (ABC):	Academic Bank of Credits (ABC) will allow the institute to maintain a digital repository of credits earned by students; under ABC, students can choose to study one course in a year in one institution and switch to another one the next year. It will also enable students to open their accounts and give multiple options for entering and leaving colleges. This is indeed an appreciable approach for balancing the socio-economy and brain stabilization of a student, Presently, students' academic and personal record details are maintained by the institute. Repositories of Students' grade cards, results, etc. are maintained by the affiliated University. For the upcoming changes due to the implementation of NEP, it would be binding to all the Institutes to maintain ABC, BIT will have no exception, but will join the scheme generously.
3. Skill development:	The vision set in NEP as skill development is to empower the youth through the set of vocational, employable, and entrepreneurial skills at different

	stages of training and education. There are three types of skills: functional, self-management, and special knowledge. i. Functional skills are practical skills in English, mathematics, and information and communication technology (ICT) that allow individuals to operate confidently, effectively, and independently in life and work. ii. Self-management means one's ability to manage his/her behaviours, thoughts, and emotions in a conscious and productive way. Someone with strong self-management skills knows what to do and how to act in different situations and it gives the ability to know how to manage time wisely. iii. Specialized knowledge includes a range of factual, theoretical, and practical knowledge, as well as competencies and skills in a particular discipline or profession. Students can use their specialized knowledge to understand the field and its interconnectedness and limits. The most significant advantage of specialized knowledge is that it helps solve complicated issues that don't have a standard or a typical solution. With the above understandings, the language lab of BIT follows different modes (conducting debates and seminars, writing paragraphs, and professional CVs, training students for IELTS, TOFEL, and ibt, etc) of practicing students to develop their functional skills. As such, the focus on self-management aspects is relatively less. To a reasonable extent, by organizing students' activities viz., cultural fest, tech fest, and mentorship, students are given an understanding of how to work with self-management. Regarding specialized knowledge, students of BIT's overwhelming participation in different hackathons, competitive festivals, and internal technical competitive programs help students enhance their practical knowledge and competence. Dealing with the multidisciplinary project, students get exposure to a real-life problem and its potential solution. A regular curriculum under the academic persuasion of the Institute will help both faculties and students to study such things in a structural knowledge manner. BIT, in such a case, will come forward in making students industry-ready and self-employed professionals.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	As of now, teaching-learning methods in engineering education are in English; the reasons being, that literature is mostly available in English, and common

	and internationally accepted terminologies are used in English. Students will prefer those, which are widely accepted and which will provide them with better employment opportunities. It is a known fact that India has a long tradition of the wisdom of culture, knowledge, agriculture, water harvesting, business, ayurvedic medicines, etc., which our young generation should know. However, there is a need of developing appropriate literature and syllabus in common Indian languages, which could be integrated into the regular curriculum as a credit optional course. BIT is located in Kolkata; therefore, it can pursue Indian knowledge heritage in Bengali provided it comes as a mandatory curriculum.
5. Focus on Outcome based education (OBE):	In Outcome-based education (OBE), emphasis is on an articulated idea of what students are expected to know and be able to do. OBE primarily requires a combination of three types of competence:(i) practical: to know how to do things, and the ability to make decisions, (ii) fundamental: to understand what one is doing and why, and (iii) reflective: learn and adapt through self-reflection; apply knowledge appropriately and responsibly. OBE comprises four (4) major components, which cover: (i) curriculum design, (ii) teaching and learning methods, (iii) assessment, and (iv) continual quality improvement (CQI) and monitoring. Benefits from the OBE are expected to be: Clarity-the focus on outcomes creates a clear expectation of what needs to be accomplished by the end of the course; Flexibility-with a clear sense of what needs to be accomplished, instructors could be able to structure their lessons around the student's needs, etc. Having recognized all the above aspects, however, the challenges of OBE are: class size, expectations of learner characteristics and reality, teaching practice and evaluation, and student motivation. Self-reported instructor characteristics and the perceived role of the instructor often contradict the OBE model of learning. The present curricula, by and large, are focused on the OBE approach, however, its design, assessment, CQI, and monitoring depend on institutional framework and commitments. It is strongly believed that the implementation of NEP will bring a uniform mechanism and monitoring system. BIT is committed to providing OBE-based education in a more focused way.

6. Distance education/online education:	The COVID-19 pandemic, in another way, has given a lesson to the academic community on how the education system can continue when there are social crises and hazards. A huge number of online platforms have been developed and put in place in public domain for academic and professional activities. During the COVID-19 pandemic period (2020-22), all Institutions continued academic activities by evolving, online classes, online labs, debates, competitions, exams, marks uploading, sharing of lecture notes, online tests, doubt clearing classes, interaction with students, seminars, etc. through online modes. These online academic activities have exposed all academic Institutions to a new mode of pursuing academic activities. Institutes are now ready to pursue academic courses in blended mode as well, which is helping the Institute to continue with the classes if there is any social disruption of the system. BIT being an Institute of self-financed UG pursuant courses, has to assess the sustainability of introducing a new curriculum, however, the Institute is enthusiastic to pursue any given responsibility of a new academic challenge. BIT can undertake to organize and perform any short-term training courses, vocational training, skill development activity, etc. on topics supporting its academic courses through online /distance education mode.

Extended Profile

1 Students

1.1

Number of students year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
759	723	791	772	763

File Description	Document
Institutional data in the prescribed format	View Document

2 Teachers

2.1

Number of teaching staff / full time teachers during the last five years (Without repeat count):

Response: 58

File Description	Document
Institutional data in the prescribed format	View Document

2.2

Number of teaching staff / full time teachers year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
52	48	44	45	45

3 Institution

3.1

Expenditure excluding salary component year wise during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
99.09	81.54	197.83	167.82	150.88

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

1.1.1 The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

Response:

Bengal Institute of Technology, a unit of Techno India Group of colleges, was established in the year 2000, with a vision of imparting quality education to the young budding minds, nurturing their quest for knowledge. The institute has been trying to enhance the technological skills amongst the students, so that they become resourceful not only for the industry but also for the society.

The Institute is affiliated to the Maulana Abul Kalam Azad University of Technology (MAKAUT),WB and follows the university curriculum, guided by the AICTE and UGC norms following Outcome Based Education (OBE) such as Program Educational Objectives (PEOs), Program Outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes (COs). The institute strictly adheres to the academic calendar of the university, which is published at the very beginning of any session. On the basis of the university academic calendar, the institute develops its own academic calendar, incorporating various events and programs at the institute-level viz., unit tests, seminars, webinars, technical and cultural fests, community developmental programs, etc., within the schedule formulated by the university.

Not only completing the prescribed syllabus by MAKAUT, the objective of BIT is to promote out-of- the-box thinking amongst the students which will help them serve the mankind in some way. For this, in addition to the given syllabus, project and practical-based subjects are included in the curriculum and focused upon more. Additional subjects or topics corresponding to a particular subject, of a particular course are introduced, keeping up with the premier national and international institutes. The curriculum is reviewed periodically and updated as per the national, regional and global developmental needs, following the guidelines of AICTE, UGC and the affiliating university, MAKAUT.

1.2 Academic Flexibility

1.2.1 Number of Add on /Certificate/Value added programs offered during the last five years

Response: 16

File Description	Document
Institutional data in the prescribed format	View Document

1.2.2 Percentage of students enrolled in Certificate/ Add-on/Value added programs as against the total number of students during the last five years

Response: 55.38

1.2.2.1 **Number of students enrolled in subject related Certificate/ Add-on/Value added programs year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
522	328	400	382	477

File Description	Document
Institutional data in the prescribed format	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:

BIT curriculum effectively integrates cross-cutting issues relevant to professional ethics, gender, environment and sustainability, and human values,which leads to a strong value-based holistic development of students. Various activities are organized throughout the year as part of the curriculum that helps students in their endeavor.

i) Gender Sensitivity: Gender-related activities are an integral component of various programs. Students are sensitized and encouraged to work towards gender equity from a cross-cultural perspective. Gender sensitization camps are organized in and around the rural areas nearby villages that include, women's importance in society and their rights, human rights, child rights, gender justice, and gender equality. AICTE's curriculum under the orientation program along with the wide range of community outreach programs that include health and hygiene camps, and social awareness program,enables exposure to real-life situations are carried out on annual basis. BIT annually organizes cultural fest, debate competitions, tech fests, seminars, guest lectures, and exhibitions that help in gender sensitizationamong students.

ii) Environment and Sustainability:BIT's strong community-orientated work culture promoted by the Techno India Group,whichinvolves the integration of Swachhata Abhiyan, education and healthcare, agriculture, and bio-agricultural practices, innovation, and human values, is recognized as sustainable environmental activities. BIT attempts to undertake diversified activities related to Water, Waste Management, Renewable Energy, Dairy Technology, Agriculture, and Environmental and Green Technology. Environment awareness camps, seminars, workshops, guest lectures, and industry visits are organized. Environment Day, Earth Day, and Water Day are annually observed.

iii) Human Values and Professional Ethics: Few faculties obtained training from the workshop organized by AICTE on Universal Human Values. Professional ethics is a subject that needs focused promotion in the Institute. These include : i) Cultural Education (to take pride in national ethos so that one may not lose one's moorings);ii) Scientific Methodology, General Knowledge, and Current Affairs (to nurture a scientific temper and be aware of contemporary developments); iii) Rural Development: (to foster a fuller understanding of the rural life with a view to appreciate properly the polity and economy of our country and social forces at work);iv) Agricultural Operations (to inculcate a spirit of working with one's own hands and develop an understanding of the contribution of rural life); v) Social Service: (to engender the spirit of brotherhood of man and to facilitatethe establishment of the casteless and classless society). vi) Comparative Study of Religion: (to create a spirit of tolerance and awaken the spirit of Brotherhood of Man and Fatherhood of God). vii) Co-curricular Activities (for all-round development of personality); and viii) Environment Studies (for environmental consciousness and its impact on everyday life).

1.3.2 Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)

Response: 23.45

1.3.2.1 **Number of students undertaking project work/field work / internships**

Response: 178

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

1.4 Feedback System

1.4.1 Institution obtains feedback on the academic performance and ambience of the institution from various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website (Yes or No)

Response: Yes

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Enrolment percentage

Response: 73.18

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

2021-22	2020-21	2019-20	2018-19	2017-18
215	141	225	178	185

2.1.1.2 **Number of sanctioned seats year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
300	300	270	210	210

File Description	Document
Institutional data in the prescribed format	View Document

2.1.2 Percentage of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy during the last five years (Exclusive of supernumerary seats)

Response: 0

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

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

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

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

File Description	Document
Institutional data in the prescribed format	View Document

2.2 Student Teacher Ratio

2.2.1 Student – Full time Teacher Ratio
(Data for the latest completed academic year)

Response: 14.6

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 using ICT tools

Response:

BIT provides an effective platform for students to develop the skills, knowledge, attitude, and values to shape their behavior in a straightforward manner. All departments conduct innovative programs, which stimulate the creative ability of students and provide them a platform to nurture their problem-solving skills and ensure participative learning. The institute organizes an annual technical fest, BIT2BYTES, in which students showcase their learning in the form of innovative projects. Also, students are motivated to participate in inter-college as well as state-level(Banglathan) and national-level competitions (Hackathon). The institute focuses on student-centric methods of enhancing lifelong learning skills. Faculty members make efforts in making the learning activity more interactive by adopting various student-centric methods of learning, as given below:

1. **Experiential Learning:** Each department conducts add-on programs to support students in their experiential learning. Institute imparts the following experiential learning practices to enhance creativity and cognitive levels of students:

- Laboratory Sessions are conducted with content beyond syllabus experiments.
- Summer Internship -Students get hands-on training while working in the company.
    - Project development on the latest technologies by students where they showcase their working model in different technical and competitive fests.

- Certification Courses (Value Added Courses) by the corporate/industry experts such as IBM/Microsoft/Infosys/ NSE etc. to develop their expertise.
    - Participation in simulated events such as hackathons where they acquire experience of working on some real-life model.

1. **Participatory Learning:** In this type of learning, students participate in various activities such as seminars, group discussions, wallpapers, projects, and skill-based add-on courses. Students are encouraged to participate in activities where they can use their specialized technical or management

skills, such as

- Annual Tech Fest – organized every year by the students,in which selected projects from the Institute and from other Institutes are displayed on the larger platform.
- Annual cultural program – organized every year by the studentsto demonstrate innovative vents and the cultural ecosystem of the country.
- Regular Quizzes/Debates- Quizzes& Debates are organized for students' participation inthe intra or inter-college level competition and also improve students' communication and knowledge skills.
- Seminar Presentation – Students develop technical skills while presenting papers in seminars.
- Presentation and publishing of papers in conferences and journals - The objective is to give them exposure to learn and imbibe new skills.

2. **Problem-solving methods:** Departments encourage students to acquire and develop problem-solving skills. For this, the college organizes expert lectures on various topics, motivates students to join MOOC courses, and encourages students to participate in various inter-college and intra-college technical fests and other competitions.

In addition to the above, students have the following technical clubs: Robotics Club of BIT to supplement education with hands-on experiences, official coding club of BIT to establish a coding culture by making every student competent in problem-solving skills, AeroBiT club to share their ideas, collaborate with each other with a unique solution to prepare drones and other robotics-based technical projects, and Students' Association of Biotechnology, BIT to promote research consciousness amongst Biotechnology students. Senior students provide guidance to junior students in those technical activities.

2.4 Teacher Profile and Quality

2.4.1 Percentage of full-time teachers against sanctioned posts during the last five years

Response: 96.69

2.4.1.1 **Number of Sanctioned posts / required positions for teaching staff/ full time teachers year wise during the last five years:**

2021-22	2020-21	2019-20	2018-19	2017-18
54	48	42	42	56

File Description	Document
Upload supporting document	View Document

2.4.2 Percentage of full time teachers with NET/SET/SLET/ 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: 31.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
15	15	14	14	15

File Description	Document
Institutional data in the prescribed format	View Document

2.5 Evaluation Process and Reforms

2.5.1 Mechanism of internal/ external assessment is transparent and the grievance redressal system is time- bound and efficient

Response:

The institute has devised an efficient mechanism to deal with examination-relatedissues and grievances.Being an affiliated college under MAKAUT, at the Institute level, an academic committee constituted comprising of HoD of each department, select senior faculty members from each department,Registrar,and the Principal as the Chairman decides,conducts,and addresses internal and external (university level) exams.For the university-related matter, an OIC from the Instituteis nominated to coordinate, liaison, and address issues of students and the Institute on the exam-related matter.The semester examinationsare conducted by the university; the Institute has a role to invigilate and organize the exams; whereas, for internal assessment; Institute decides and conducts necessary internal assessment mechanisms. The Institute follows strictly the guidelines and rules issued by the affiliating university while conducting internals and semester examinations. For conducting internal assessment tests, an Institute level committee is constituted todevise and coordinatethe smooth conduction of the internal assessment tests/mechanism. The following mechanisms are followed in general:

1. Three or more, as per the requirement of affiliating university, internal assessment,and practical/sessional tests are conducted each semester at the department level,
2. Timetable for tests is prepared well in advance and communicated to students,
3. A proper seating plan is followed for internal assessment tests and it is displayed on notice board and in front of exam rooms,
4. After evaluation of internal assessment answer scripts, scripts are shown to students to check for any discrepancy or doubt in checking,
5. If they come across any doubts, clarification is given by faculty to enable them to fare better in the future.
6. By adopting the criteria as per the direction of affiliating university, complete transparency is maintained in internal assessment tests.
7. After preparing the assessments report by faculty it is shown to HoD and a copy is submitted by the concerned faculty to the exam coordinating committee,

8. The assessment marks of all the tests are recorded in the departmental/college ERP,
9. The final internal assessment marks calculated on the basis of attendance, marks of internal tests, and assignment marks, are uploaded on the university ERP as per the timeline prescribed by the University,
10. Any grievances related to university question papers like, out of syllabus, repeated questions, an improper split of marks, marks missed, or wrong question number during semester exams are addressed to the University (Controller of Examinations/Exam representative) by the OIC of the Institute immediately,
11. University decision or information after resolving the grievances/correction in the questions is intimated immediately to the students during the examination through the examination committee members.
12. After examination, the answer scripts are evaluated by digital mode at different evaluation centers designated by the university, and the final result is declared.
13. If a student has any grievances related to the evaluation of university answer scripts, a student can apply for challenge evaluation/scrutiny.
14. University declaresthe result of the challenge evaluation/scrutiny after completing the process on the university website.

2.6 Student Performance and Learning Outcomes

2.6.1 Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website and attainment of POs and COs are evaluated

Response:

- Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs) are normallyoutlined by the department based on the guidelines and frameworks given by the affiliating University that preparessubject-wise COs through extensive consultation with experts and stakeholders, in conformity with the objectives of Outcome Based Education (OBE). The Institute takes part in devising well-derived teaching and learning methods. The information is well displayed on the website along with the vision, mission, and Objective statements.
- In the University's subject-wise syllabi, Course Objectives, Course Contents, COs, etc are categorized properly.

- The teaching staff counselors engaged in the admission process explain to the prospective students about the learning outcomes, objectives of the program, career prospects, and the domain-related value-added programs offered along with the university syllabus.

- During the Inaugural program of all the courses, along with parents and students, the principal gives the knowledge of POs, PSOs, COs, Vision, Mission, and the rules and regulations of the Institute.
- Following effective pedagogic strategies, facultiesarticulate the learning objectives and expected outcomes for each course at the beginning of a session and before each unit in the syllabus. This helps students appreciate the topic being covered in class and its relevance.
- The alumnaeare invited at various events as chief guests or judges to interact with students and teachers. They share their experiences on how a specific course helped shape their career and

encourage aspirants to look positively towards the outcomes of programme. The alumnae interaction helps the faculties get feedback on the program and course outcomes.

- All the departments maintain a department file containing the list of Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes by the program.
- To strengthen the learning outcomes, the institutemakes efforts byorganizing or attending FDP's, workshops, conferences, and seminars by inviting industrial experts, professionals, and resource people, which helps improve the knowledge base of faculty members.
- Assessment of POs and COs is examined through students' performance in the internals and university exams.
- An indirect assessment of the fulfillment of outcomes is done by teachers after every unit test/assignment/presentation to find if students had been able to do what was intended when they are admitted to the course. Various indicators showed that students of BIT are well placed in the private or government sector or abroad or aspiring as entrepreneurs.
- The institute conducts at least two internal written examinations every semester to check whether the stated objectives of the curriculum are achieved during the implementation. Class tests are also arranged to gain confidence in a relevant subject, and weaker areas are identified and discussed with students.Each faculty is given charge of 20 students (Mentor/Mentee) who in turn observethe development of students, give counseling if required, calculate attendance, and communicate with parents periodically if needed. Apart from written tests, assignments and seminars are also arranged forstudents to enable them to gain more knowledge on the subject. The subjects in which students seem to lag behind are taken for remedial classes.

2.6.2 Pass percentage of Students during last five years

Response: 99.68

2.6.2.1 **Number of final year students who passed the university examination year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
176	185	203	205	170

2.6.2.2 **Number of final year students who appeared for the university examination year-wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
178	185	203	206	170

File Description	Document
Institutional data in the prescribed format	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response: 3.27

File Description	Document
Upload database of all students on roll	View Document

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

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

Response: 0.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
0	0.2	0	0	0

File Description	Document
Institutional data in the prescribed format	View Document

3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

Response:

Being a UG pursuance Institute, research activities in BIT are relatively less, however, faculties by their own persuasion and interest carried out R & D activities and published several research papers in reputed International and National Journals, Conferences, write book chapters, books, etc. Faculties also pursue undertaking sponsored R & D projects& training courses, etc.

However, the institute iscontinuouslypursuing to createan effective ecosystem for Research and Innovation by recruiting & developing desirable human resources, taking initiative for the creation & dissemination of knowledge, and establishing a result-orientedinfrastructure.The details are as under:

i) Promoting Innovation: The Institute has an Institution's Innovation Council (IIC), Incubation Cell, and National Innovation & Start-up Policy (NISP) for promoting innovation & entrepreneurship activities. The formation of IIC and NISP is as per the guidelines of MoE& AICTE. Students are encouraged to present their innovative working project models & products through the annual project contest "BIT2BYTES" and also encouraged to participate with promising projects in other national & state-level contests. The contest witnessed the participation and achievements of a number of national and state-level awards across all the departments**.**The Institute's well-documented "National Innovation and Start-up Policy (NISP)",brought out by a committeecomprising members from different ecosystems,uploaded on the AICTE's portal, will help the institute provide a new dimension in promoting its Research, Innovations, and Extension activities.

ii)Technology Incubation Cell: Institutehas also established a Technology IncubationCell under the framework of IIC and it has initiated various activities like pre-incubation support, start-up initiatives & training programs. Project proposals are under preparation for submission and obtaining funding from different sponsoring organizations.

iii) R & D Cell: Institute has created an R & D Cell under which**,** faculties & students are encouraged to take up research & developmental (R & D) activities by utilizing the existing resources. In the year 2020, BIT joined a consortium with a number of foreign collaborators for a mega R & D project proposal on "Plastic Pollution Mitigation" under the Global Challenges Research Fund (GCRF) of the UK, however, the project failed to receive the grant. Currently, the Institute has joined in a consortium to another mega National project on "Arsenic Mitigation", which is expected to sponsor by the Ministry of Jal Shakti, GoI. The Institute is on its way to developing necessary skills & innovative projects in various domains.

iv)Human Resources: The institute from time-to-time recruits dynamic &required qualified faculty to mentor and channelize the young minds and encouragesfaculties to pursue their Ph.D. work under the part-time leave rules. Faculties are also encouraged to participate in various skill enhancement programs under govt. schemes.

v)Collaborations: The Institute has a collaboration (MoU) with the "Onstitute Developer",ofthe University of Wisconsin- Platteville, USA, and OpenPOWER FOUNDATION OF IBM, USA, another MoU is with Infosys Campus Connect, India through which students and faculties get opportunities to organize and participate in workshops, training programmes and inpersuasion of collaborative research.

3.2.2 ***Number of workshops/seminars/conferences including on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship conducted during the last five years***

Response: 15

3.2.2.1 **Total number of workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
09	05	01	00	00

File Description	Document
Institutional data in the prescribed format	View Document

3.3 Research Publications and Awards

3.3.1 ***Number of research papers published per teacher in the Journals on UGC care list during the last five years***

Response: 0.79

3.3.1.1 **Number of research papers in the Journals notified on UGC CARE year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
16	11	08	06	05

File Description	Document
Institutional data in the prescribed format	View Document

3.3.2 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years

Response: 1.03

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

2021-22	2020-21	2019-20	2018-19	2017-18
21	08	11	09	11

File Description	Document
Institutional data in the prescribed format	View Document

3.4 Extension Activities

3.4.1 Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the last five years.

Response:

BIT organizes and participates in various extension activities to promote the Institute-Neighborhood-Community network. Major emphasis is given to student engagement, service orientation, and the holistic development of students. The neighborhood community has a large number of families which could be recognized as the economically weaker section. This has put an additional challenge on the Institute, how to sensitize, educate, and aware that community in a holistic way.

Under the orientation program for incoming 1st-year students, the Institute organizes several programs like

blood donation camps, education awareness, tree plantations, Swachata Abhiyan, health and hygiene camps, social awareness programs, etc. Students organize various events such as sports, and co-curricular activities by involving local youths. Biotechnology students are taken onexcursionsto Sundarbans areas to give them field and environmental exposure.

Students also participate in various patriotic events with enthusiasm, be it the celebration of Independence Day, or Republic Day.Institute organizes regular activities on social &environmental issues including seminars, invited talks by social figures, orientation programs, the celebration of Yoga Day, etc.

Some annual events are as follows:

- Every Year, programs are organized where students and staff participate voluntarily in community-based activities in the neighborhood.
- Various awareness programs, such as workshops, cleanliness, green environment & tree plantation, and gender sensitization, are also organized.
- Efforts to build up relations and tie up with organizations/NGOs to carry forward humanitarian work in the future.
- Develop a passion and brotherhood towards community, affected people/animals, and destitute.
- Involving local people and youths in Institute's outreach and extension activities.
- Developingskills and aptitude among the students and local community for problem-solving. The skills developed include social skills communication skills, management skills, leadership skills, analytic skills, perceptual skills, etc.

Impact on Community: Institute maintains excellent harmony with the local community. Being a non-residential campus and Institute, a lot of students both boys and girls are residing in the houses of the local community around the Institute. No complaintswere registered until now either from the students or from the community. The local community considers them the local guardians of the students. This eventually indicates the harmonical relationship of the college students with the local people.

3.4.2 Awards and recognitions received for extension activities from government / government recognised bodies

Response:

AWARDS AND REGOCNITIONS RECEIVED FOR EXTENSION ACTIVITIES FROM GOVT./GOVT. RECOGNISED BODIES

RECOGNITIONS:

SL NO	GOVT./GOVT. RECOGNISED BODIES	NAME OF THE RECOGNITION	YEAR
1	MINISTRY OF EDUCATION (MoE) GOVT. OF INDIA	NATIONAL INSTITUTIONAL RANKING FRAMEWORK (NIRF)	2016-17
2	MINISTRY OF EDUCATION (MoE) GOVT. OF INDIA	NATIONAL INSTITUTIONAL RANKING FRAMEWORK (NIRF)	2018-19

3	MINISTRY OF EDUCATION (MoE) GOVT. OF INDIA	NATIONAL INSTITUTIONAL RANKING FRAMEWORK (NIRF)	2020-21
4	INSTITUTION'S INNOVATION COUNCIL (IIC), MINISTRY OF EDUCATION INITIATIVE	Cumulative Performance Report for the IIC Calendar Year 2020-21	2020-21
5	Atal Ranking of Institutions on Innovation Achievements, Ministry of Education, Government of India	ARIIA RANKING 2021	2021-22

AWARDS

1. R. Ranjan, P. Saha, S. Guhathakurata, S. Saha, L. K. Sharma, and S. Daripa, Finalist, **Smart India Hackathon** (Largest Hackathon of Asia), 2020, Software Edition, conducted virtually From Banaras Hindu University on 1-3 August 2020 under the mentorship of Dr. Jyoti Sekhar Banerjee.

2. S. Biswas, R. Roy, R. Ranjan, S. Saha, and P. Chatterjee, FinalistS, **Smart India Hackathon** (Largest Hackathon of Asia), 2019, Hardware Edition, on 8-12 July 2019 under the mentorship of Prof. Jyoti Sekhar Banerjee.

3. S.Biswas, R. Ranjan, S. Saha, and L. K. Sharma, Joint Winners, **Bengalathon**, 2019-20 conducted by Department of Information Technology and Electronics, Govt. of West Bengal under the mentorship of Prof. Jyoti Sekhar Banerjee.

File Description	Document
Upload Additional information	View Document

3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organised in collaboration with industry, community and NGOs) during the last five years

Response: 4

3.4.3.1 **Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	01	02	01

File Description	Document
Institutional data in the prescribed format	View Document

3.5 Collaboration

3.5.1 Number of MoUs, collaborations/linkages for Faculty exchange, Student exchange, Internship, Field trip, On-the- job training, research and other academic activities during the last five years:

Response: 15

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 Availability of adequate infrastructure and physical facilities viz., classrooms, laboratories, ICT facilities, cultural activities, gymnasium, yoga centre etc. in the institution

Response:

Particulars	AICTE requirement	Available		
No. of PCs/Laptops to students ratio (Min 20 PCs)	195	266		
No. of Class Rooms (size 66 sq.mt each)	18	20		
No. of Tutorial Rooms (size 33 sq.mt. each)	06	06		
No. of PG Class Rooms (size 33 sq.mt. each)	Not Applicable	Not Applicable		
No. of Laboratories other than First year (size 66 sq.mt. each)		Available As per MAKAUT Syllabus		
No. of Laboratory for Post Graduate Courses (size 66 sq.mt.)	Not Applicable	Not Applicable		
No. of Research Laboratory for Post Graduate (size 66 sq.mt.)	02	02		
No. of Work Shop (size 200 sq.mt. each)	01	01		
No. of Computer Centre (size 150 sq.mt. each)	01	01		
No. of Drawing Hall (size 132 sq.mt. each)	01	01		
No. of Library (size 400 sq.mt. each)	01	01		
No. of Language Laboratory (size66 sq.mt.)	01	01		
No. of Seminar Hall (size 132 sq.mt. each)	01	01		
No. of Principal / Director Office (size 20 sq.m. each)	01	02		
No. of Board Room (size 20 sq.m. each)	01	01		
No. of Office all inclusive (size 150 / 300 sq.m. each)	01	01		

No. of Cabins for Head of Departments and Department Offices (size 20 sq.m. each)	04	04		
No. of Faculty Rooms (size 5 sq.m. each)	05	05		
No. of Central Stores (size 30 sq.m. each)	01	01		
No. of Maintenance (size 10 sq.m. each)	01	01		
No. of Security (size 10 sq.m. each)	01	02		
No. of Housekeeping (size 10 sq.m. each)	01	01		
No. of Pantry for Staff (size 10 sq.m. each)	01	01		
No. of Examinations Control Office (size 30 sq.m. each)	01	01		
No. of Placement Office (size 30 sq.m. each)	01	01		
No. of Toilets (Ladies & Gents) (size 350/150 sq.m.in total)	1	5		
No. of Boys Common Room (size 100/75 sq.m. each)	1	2		
No. of Girls Common Room (size 100/75 sq.m. each)	1	2		
No. of Cafeteria (size 150 sq.m. each)	1	2		
No. of Stationery Store & Reprography (size 10 sq.m. each)	1	2		
No. of First Aid cum Sick room (size 10 sq.m. each)	1	1		
Principal's quarter (size 150 sq.m. each)	1	0		
Guest House (size 30 sq.m. each)	1	Available		
Sports Club / Gymnasium (size 200/100 sq.m.)	1	1		
Auditorium / Am phi Theater (Size 400 / 250 sq.m.)	1	0		
Boys Hostel	1	0		

Girls Hostel	1	0		

Note: Items related to the Sports activities like Football, Cricket, Carom, Table Tennis, Volley Ball etc. are available in the Campus.

4.1.2 Percentage of expenditure, excluding salary for infrastructure augmentation during last five years (INR in Lakhs)

Response: 17.68

4.1.2.1 **Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)**

2021-22	2020-21	2019-20	2018-19	2017-18
38.29	13.97	42.94	11.55	16.54

File Description	Document
Institutional data in the prescribed format	View Document

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS), subscription to e-resources, amount spent on purchase of books, journals and per day usage of library

Response:

Library is automated using **LIBSYS software**:

LIBSYS is a popular, dynamic, robust and versatile library management software in India having more than 3500+ installations in different types of library. They are compatible with a wide range of hardware and operating systems like Unix, Linux, Windows.

Various international standards are incorporated in the LIBSYS system for interoperability and resource sharing like MARC 21, RDA,Z39.50, SRU/W, SIP2/NCID, Dublin Core, AACR2 etc.

In a library multiple operations can be performed using the same bibliographic record and each operation may concern with individual copies of title.

LIBSYS web based library management Software automates and controls all the library operations in a systematic way from a single point of access. It helps in keeping records of all the library resources like books, catalogs, journals, e-books, CDs, newspapers, etc. all these processes in an integrated library management system having an acquisition system, cataloguing system, circulation system, serials system, indexing and OPAC.

Features :

Inventory Management

Knowledge Management

Catalog Management

Barcode Scanning

Acquisition Management

Bar-coding

Circulation Management

Fee Collection

OPAC

YEAR	Amount Spent for Books In Rs.	Amount Spent for Hard copy Journals In Rs.	Amount Spe In Rs.
2019-20	2,99,078.00	51,801.00	0.00
2020-21	49,990.00	52,503.00	34,267.00
2021-22	2,24,888.00	52503.00	46,157.00

.* NOTE: Average number of users visited in library 65.

Particulars	AICTE requirement	Available
No. of Book Titles #(course-wise)	3400	3454

No. of Volumes #(course-wise) in the College Library	18250	35679
No. of Journals Published in India (course-wise) in the College Library	Essential	17 (including 1 Journals)
No. of Journals Published at Abroad (course-wise)	Desirable	10 Journals(Hardcopy
Reading Room's seating capacity for the number of students 15% (Max 150) for UG and 25% (Max 100) for PG	150	150
Multimedia PCs for Digital Library / Internet Surfing located in reading room	Essential	10
Total numbers of Titles and volumes shall be increased in continuation till 15 years, which shall be the minimum stock of books. Institutions shall have to add annual increment of Books based on the changes in Curriculum and Syllabus from time to time by the Affiliating University / Board.		Almost 200 titles and 1000 volumes
Reprographic facility	Essential	Available
Books shall also include subjects of Science and Humanities, Management and Social Science as per the requirements of the Curriculum .		Available
Document scanning facility	Essential	Available
Annual Increment equally distributed per subject		Available
50% of total number of Titles and Volumes each can be in the form of E-books with internet access is mandatory in case of Post Graduate Level Programme(s) and shall be desirable in case of UG/ Diploma Programme (s).		Partially available
Digital Library facility with multimedia	Essential	Available
Library books/non books classification as per standard classification methods and cataloging system is essential	Essential	Available
Facilities to access the Online Courses are essential.	Essential	YES
Library automation software including Bar coding is desirable	Desired	Available

Institution should be a member of National Digital Library. Aggregators shall also be used.		Applied for membe

File Description	Document
Upload Additional information	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection

Response:

The IT facilities of the institute are according to the curriculum and as required for the project-based and lab-based teaching-learning process. The infrastructure is updated from time to time as per the requirements.

ITEM	DESCRIPTION
Server	IBM Rack Server - 7945X; 6 cores, 2.4 GHz, 16 GB RAM, 300 GB x 2 HDD
PC	(Lenovo V50T) - Intel Core i5 - 10400 10th Gen Processor / 8GB RAM / 1 TB HDD (7200F Integrated Graphics / USB KB / USB Optical Mouse
PC	(Lenovo V530-15ICB) - Intel Core I 5 (8400 cpu 2.80 Ghz), Intel Chipset M/B, 4 GB DDR3 RAM wide Colour LCD, 1 TB HDD, USB Keyboard; Optical Mouse, ATX Cabinet.
PC	Intel PIV Core 2 DUO (1.86 Ghz), Intel 946 Chipset M/B, 512MB X2 DDR2 RAM (667 Mhz), 17” Monitor, 80 GB HDD, Combo Drive, Keyboard, Optical Mouse, ATX
PC	(Lenovo Think Center - 4089 AM8) - Intel PIV Dual Core (3 ghz), Intel 945 Chipset M/B, 2 GB DDR2 RAM,, 17” wide Colour LCD, 500 GB HDD, DVD RW, USB Key Optical Mouse, ATX Cabinet.
PRINTER	LASER (Colour and Black and white) /DESKJET

UPS: All the computers and the peripheral devices are connected to the power supply through the 60 KVA, central UPS, which is never turned off.

Network and Internet: The central server is configured as DHCP, FTP and DNS servers. A K3 antivirus server is also there. All the computers and the peripheral devices are connected to each other through LAN and Wi-Fi. The internet is provided by 50Mbps (upload/download), Alliance P2P leased line, with fiber cable.

Softwares: All the necessary software as per the requirement of the course curriculum are licensed

versions except some which are open source.

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

Response: 2.85

4.3.2.1 **Number of computers available for students usage during the latest completed academic year:**

Response: 266

4.4 Maintenance of Campus Infrastructure

4.4.1 Percentage of expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the last five years (INR in Lakhs)

Response: 0

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

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

File Description	Document
Institutional data in the prescribed format	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Percentage of students benefited by scholarships and freeships provided by the Government and Non-Government agencies during last five years

Response: 19.75

5.1.1.1 **Number of students benefited by scholarships and freeships provided by the Government and Non-Government agencies year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
203	128	142	127	152

File Description	Document
Institutional data in the prescribed format	View Document

5.1.2 ***Capacity building and skills enhancement initiatives taken by the institution include the following***

1. ***Soft skills***
2. ***Language and communication skills***
3. ***Life skills (Yoga, physical fitness, health and hygiene)***
4. ***ICT/computing skills***

Response: A. All of the above

File Description	Document
Institutional data in the prescribed format	View Document

5.1.3 Percentage of students benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years

Response: 14.81

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

2021-22	2020-21	2019-20	2018-19	2017-18
116	108	94	134	112

File Description	Document
Institutional data in the prescribed format	View Document

5.1.4 The Institution has a transparent mechanism for timely 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: C. Any 2 of the above

File Description	Document
Upload supporting document	View Document

5.2 Student Progression

5.2.1 Percentage of placement of outgoing students and students progressing to higher education during the last five years

Response: 66.38

5.2.1.1 **Number of outgoing students placed and / or progressed to higher education year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
123	119	106	156	124

5.2.1.2 **Number of outgoing students year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
178	185	203	203	177

File Description	Document
Institutional data in the prescribed format	View Document

5.2.2 Percentage of students qualifying in state/national/ international level examinations during the

last five years (eg: JAM/CLAT/GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

Response: 75.89

5.2.2.1 ***Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ Judicial Services/Public Prosecution services/All India Bar Exams/State government examinations) year wise during last five years***

2021-22	2020-21	2019-20	2018-19	2017-18
07	18	19	27	14

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

2021-22	2020-21	2019-20	2018-19	2017-18
11	22	25	33	21

File Description	Document
Institutional data in the prescribed format	View Document

5.3 Student Participation and Activities

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

Response: 0

5.3.1.1 ***Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year wise during the last five years***

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

File Description	Document
Institutional data in the prescribed format	View Document

5.3.2 Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)

Response: 3.6

5.3.2.1 **Number of sports and cultural programs in which students of the Institution participated year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
04	1	01	06	06

File Description	Document
Institutional data in the prescribed format	View Document

5.4 Alumni Engagement

5.4.1 There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

Response:

BIT values it's alumni and gives utmost importance to remain connected to them through a strong network. The institute has an active registered alumni association, which by the way of feedback has been helping for the development of the institute. There are other ways also through which the alumni remains an integral part of the institute like the institute gets a very good response whenever they are invited for delivering technical talks during the events like webinars,seminars and workshops. They are also members of the different core bodies of the institute like IIC, NISP, IQAC, etc.

The Institute thus believes in motivating alumni to expand the network to come forward as inspiring stakeholders and join into the institute's pathway of growth and prosperity.

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The governance and leadership is in accordance with vision and mission of the institution and it is visible in various institutional practices such as decentralization and participation in the institutional governance

Response:

The Institute is run by a registered trust named “Tech Trust”,and it has a three-tier governance system; a) Society; b) Board of Management (BOM), and c) Board of Governors (BOG)**.**The Institute’s overall responsibility lies with Society. The BOM works as a bridge between the Society and the Board of Governors. The BOG is the body that guides, decides, monitors, and approves the academic, administrative, management, plan, and program of the Institute. Neither of the above governance systemsinterfereswiththe academic, professional, R & D, curricular, extra-curricular, and day-to-day maintenance activities of the Institute. These are considered Institute’s internal pursuits, which solely relyon the internal mechanisms derived by the principal.

The institute thus has a mechanism of providing operational autonomy to various functionaries in order to ensure a decentralized governance system.

1. Principal is the member secretary of the governing body and chairman of theIQAC. The principal in consultation with the Academic Committee nominates different committees for planning and implementation of academic, student administration and related policies. All academic and operational policies are based on the unanimous decision of the governing body, the IQAC, and the Academic committee.
2. **Faculty level:** Faculty members are given representation in various committees/cells nominated by the respective HOD and Academic Committee, which depending upon the role of the committee is put up to the Governing body for approval.

Faculties discharge an important role in implementing the vision and mission of the Institute and play a proactive role in the decision-making process. Heads of Departments have considerable administrative and academic autonomy in running their disciplinary units.

Faculties influence the institutional polity through the Academic Committee, through their representatives in the Governing Body, and through different Sub-Committees. Faculties through their autonomous interaction with the committees and sub-committees are able to contribute in a significant way to the participatory ethos of the institution. Following are the different sub-committees nominated by the Academic Committee:

- Admission Sub-committee
- University examination sub-committees
- Library sub-committee
- Student disciplinary sub-committee
- Sub-committee for games and sports

- Canteen sub-committee
- Cultural sub-committee
- Tech Promotion sub-committee

The composition of different sub-committees is reviewedevery year to ensure uniform exposure of duties for the academic and professional development of faculty members.

Following are additional committees constituted in accordance with the guidelines of AICTE & MAKAUT:

- Internal Complaints Committee
- Counselling and Career Guidance and Placement Unit
- Grievance Redressal Cell
- Website committee
- Anti-Ragging Committee

The principal provides leadership in pursuing all activities after obtaining permission and direction from BOG & BOM and also acts asthe liaison between the Institute and the University, between the Institute and BOG & BOM. The principal is responsible for successful implementation and run of programs, and also the overall administration and coordination of the Institute.

The institute thuspractices decentralization and participatory management involving faculty members and management staff in the governance ecosystem. A particular reflection of this practice may be seen in the extensive delegation of authority to the faculty and Heads of the various Departments in the Institute.

6.2 Strategy Development and Deployment

6.2.1 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, deployment of institutional Strategic/ perspective/development plan etc

Response:

The governance structure of the instituteis such that, it ensures sustaining of the institutional ideas, and tradition, and maintainswidespread viability. The action plan, which is derived in alignment with the vision and mission of the Institute, is ensured via a definite organizational framework, prospective planning, self-motivated leadership, and decentralized administration. The principal, as head of the institution, carries out academic administration and management through well-established statutory/non-statutory bodies. In accordance with the rules of the institution, the following organizational structure and decision-making processes are in place for enhancing the overall effectiveness:

Governing Body (GB): The GB guides, decides, monitors, and approves the academic, administrative, management, plan, and program of the Institute and it is comprised ofdrawn from academia, MAKAUT, corporate, AICTE, government department, etc. The Chairman of the GB is a renowned academician and

the principal is the member secretary. The finance, human resource, educational and research functions, and infrastructural arrangements are decided by the GB with the consent of the Board of Management (BOM). GB can develop policies and deliberate on academic, financial, and administrative initiatives for the future.

Academic Committee: The academic committee is the academic and related activities governancecommittee of the institute. It is responsible for the maintenance of standards of education, teaching and training, interdepartmental coordination, research, examinations, and tests within the institute and exercises such other duties and functions as deemed required for smooth functioning of academic and related activities.

Finance Committee: The finance committee has the responsibility forthe management of the financial aspect, renewing the institute's resources, and assisting the board in fulfilling its financial responsibilities. The committee reviews and prepares budget proposalsin consultation with the principal and submits it to the GB for approval.

Board of Studies (BOS): Being an affiliated Institute, its academic curricula are governed by the curricula decided by MAKAUT. The subjects, syllabi, course contents, and the overall academic calendar are prescribed by the university itself. Therefore, at the Institute level, there is no role of the Board of Studies, rather thedepartment performs the roleof BOS, etc. The departmental recommendations are forwarded to the academic committee for approval.

Research & Development Cell: The institute has established anR & D cell to monitor and address matters related to research promotion and ethics. The R & D cellaims to support and promote research and research training within and outside the institute. The cell comprises a senior faculty as the 'Faculty-in-Charge' with a team of faculties as other members. The cellendeavors to foster a research culture within the institute and encourage members of staff/students to apply for research grants.

Internal Quality Assurance Cell (IQAC): The Internal Quality Assurance Cell (IQAC) is headed by the principal as the chairman and it has the role to monitor the quality parameters of the institution. Quality assurance provides confidence to the stakeholders for developing competent graduates in an efficient and effective way.

6.2.2 Implementation of e-governance in areas of operation

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

Response: C. Any 2 of the above

6.3 Faculty Empowerment Strategies

6.3.1 The institution has effective welfare measures and Performance Appraisal System for teaching and non-teaching staff

Response:

Being a self-financed Institute, BIT follows employees' welfare measures as decided by BOMof the Techno India Group (TIG). The Institute has extended a Provident Fund scheme, medicalallowance, and HRA to the employees. The Institute also provides a fewstatuaries social and welfare schemes such as Maternity benefits, earned leave, etc.Recently, Techno India Group has extended medical insurance policy to its employees, in which employees are also included. TIG has a super specialty hospital at Kolkata "Techno India Group DAMA Hospital", where employees of TIG have access to necessary OPD & hospitalization facilities. Employees are also paid DA and annual incrementsfrom time-to-time keeping parity with the State Government.

The Institute provides due encouragement for career development equally for teaching and non-teaching by permitting higher studies, undergoing training programs, attending seminars, symposiums, conferences, and workshops at the National level with or without financial support, and providing duty leave. A number of faculties were granted leave or special casual leave to pursue Ph. D. as a part-time candidate, to avail of international fellowship for pursuing a higher level of intellectual attainment, to attend intellectual attainment for presenting research papers, and take part in conferences as participants or resource persons for other institutions.

In the last 4/5 years, the Institute has been very liberal in permitting the faculties to pursue research programs. Three faculties have acquired their PhDs and about 5/6 faculties are pursuing part-time Ph. D.

The Institute follows a 'Performance Appraisal System' for both the teaching and non-teaching staff. For faculties, largely AICTE's appraisal system is followed, while for the non-teaching staff, it is case-by-case as per the requirement and based on the guidelines being followed by other Institutions. Under that system, the performances of faculties are evaluated from time to time by constituting an expert committee and promoted as per the recommendation of the expert committee.

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

Response: 5.56

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**

2021-22	2020-21	2019-20	2018-19	2017-18
07	02	04	00	00

File Description	Document
Institutional data in the prescribed format	View Document

6.3.3 Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the last five years

Response: 41.03

6.3.3.1 **Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
27	34	20	11	04

6.3.3.2 **Number of non-teaching staff year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
00	00	00	00	00

File Description	Document
Institutional data in the prescribed format	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution has strategies for mobilization and optimal utilization of resources and funds from various sources (government/ nongovernment organizations) and it conducts financial audits regularly (internal and external)

Response:

Being a self-financed Institute, BIT is mainly operated by the revenuesacquired/obtained from the students as semester fees. It is neither funded nor received any financial grants, or, nor depended on any other financial sources from the Central/State Government or from any nongovernmental organizations. Deficits/shortfalls in the revenue obtained in the form of fees in a year than the expenditures incurred are met or provided by the Society. Whatever revenues (fees) are obtained, annual recurring and non-recurring costs are largely met from that resource. In addition, Institute earns marginal revenues by organizing workshops, and training courses, conducting national/state level exams, and also from the execution of R & D projects.

Largely the sources of fund and expenditures thereof are as follows:

Sl. No.	Sources of fund	Heads of expenditures

1.	Semesters fees from students	Salary of employees
2.	Examination fees from students	Running cost of Institute
3.	Overheads from conducting different technical events (workshops, training courses, State/ National level exams, execution of R & D projects, etc)	Procurement of Computers, Lab. Equipme Auxiliary office equipment, etc.
4.	Deficits/shortfalls of funds supported by Society.	Maintenance and service charges of dif stationaries, and other recurring costs.
		Expenditures on different annual events (Cultural fest, Tech Fest, Freshers Welcome
		Supports SDP & FDP events, Payi participation in events. Supports competit projects of students.

BIT being a unit of Techno India Group, both internal and external audits are carried out regularly; the internal audits are done by the finance wing of TIG, while the annual external audits are carried out by appointing registered Chartered Accountants. In the last three years (2018-2021), the external audits were carried out by M/s Ghosh & Basu LLP, Kolkata, CA (FRn No. 306040E/E300013; M. No. 15711).

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. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities

Response:

The objectives of IQAC being, as follows:

- To ensure continuous improvement in the entire operations of the Institute.
- To ensure stakeholders connected with Education in general, of its own quality and probity, in particular.
- To develop a quality system for conscious, consistent, and programmed action to improve the academic and administrative performance of the institute.
- To promote measures for driving institutional functioning towards quality enhancement and institutionalization of best practices.

To achieve those objectives, BITpursued the following efforts:

- As the realization of the vision and mission of the Institute and for POs quality policies assurance;promoted measures for functioning towards quality enhancement through initialization of quality culture and institutionalization of best practices.
- For ensuring the efficient, and progressive performance of academic, administrative, and financial tasks; faster decision-making processes, internal communication, functioning, application of quality benchmarks/ parameters for various academic and administrative activities of the Institute,

arrangement for feedback responses from students, and other stakeholders on quality-related processes,have been put in place.

- As the development of a system for conscious, consistent, and catalytic action to improve academic and administrative performance; frequent meetings of 'Academic Committee', communication and networking ecosystem with students, cultural and feel-good homogeneity between students and administration, etc, have been put in place.
- IQAC of the institute persistently strivedto frame strategies for bringingout an effective, cohesive, and mutually beneficial networking between members of the alumni, to improve the teaching-learning process through increased use of ICT, expanding the scope of the library, skill development courses, arranging industrial visit/training of students, assisting in placements, providing information on latest happenings by organizing seminars, conferences, workshops, guest lectures, training program, career consultations (higher studies, developing communication and interpersonal skills of students for interviews).
- IQAC facilitated the creation of a learner-centric environment by adopting the required knowledge and technology for the participatory teaching and learning process, andmaintainedthe institute's database, analysed feedback from various offline and online sources.
- Two practices are institutionalized, they are;the use of ICT in the teaching-learningprocess, and the implementation of many innovative teaching-learning methods in the form of orientation programs, flipped classes, video lectures, skill-orientedprograms, supportive classes, problem-based learning, student-assisted teaching, creative thinking, collaborative learning, crossword puzzles, students' seminars, and utilization of PowerPoint presentations, etc.
- Organizing invited industrial and resource person talks on latest technologies and on societal matters, both offline and online.
- Promoting student-centric technology clubs and encouraging students to students interactand learn processes. BIT has four clubs exclusive operated by the students; Robotics Club of BIT; official coding club of BIT; AeroBiT club to prepare drones and other robotics-based technical projects; and Students' Association of Biotechnology, BIT (SABBIT). And Encouraged students to participate more in competitive technical activities showcasing real-life solving projects.
- At regular intervals, IQAC conducts review meetings with academic coordinators, and heads of departments to keep a check on all curricular, co-curricular, and extracurricular activities, it also strives for upgrading infrastructure and all support facilities to meet the standards ofeducation and growing need of students.

6.5.2 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)/ membership of international networks**
3. **Participation in NIRF**
4. **any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA, ISO Certification etc**

Response: C. Any 2 of the above

File Description	Document
Institutional data in the prescribed format	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 and Institutional initiatives to celebrate / organize national and international commemorative days, events and festivals during the last five years

Response:

Gender equity is an integral component of an Institute's initiatives. Gender equity is essential for economic prosperity and for a safer and healthier society. Recognizing this importance, BIT and its mentor have always strived to maintain gender equity and respect women on all fronts of professional progressions, be it for girl students or women employees.

About 38% of employees and 26.5% of students are female at BIT. Emphasis has always been given to having a respectable representation of females in all types of activities. Quick response is given to the matter reported by female employees and students. Being a non-residential college, the Institute has responsibility for students during the college's days and hours.

In any internal committees and for promotional activities, our women faculties take lead roles and pursue the activities sincerely. It is always tried to give an adequate and respectable representation of women faculties and staff members in the formation of committees. Bengali women are very good in fine arts &culture, and they generously come forward and take part in the Cultural and Tech Fest of the Institute. Uptil July, 2022, all HoDs of different departments of BIT were women, currently, one department is headed by a male faculty. BIT takes pride in the performances of its women members.

With regard to the career advancement of women faculties, it is performance-oriented and score-based, hence, a performer, whether male or female, has a place to go up.

BIT follows guidelines of AICTE and State Government; it normally celebrates /organizesboth national and international commemorative days in different ways, unless there is any limitation. However, Independence Day and Republic Day arecelebrated invariably. Some of the national and international commemorative days, e.g., National Cleanliness Day, World Environment Day, World Water Day, International Literacy Day, etc are also celebrated by organizing special lectures from resource persons. IIC of BIT organizes such events.

7.1.2 The Institution has facilities and initiatives for

1. **Alternate sources of energy and energy conservation measures**
2. **Management of the various types of degradable and nondegradable waste**
3. **Water conservation**
4. **Green campus initiatives**
5. **Disabled-friendly, barrier free environment**

Response: C. 2 of the above

7.1.3 Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following

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

Response: D. Any 1 of the above

7.1.4 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and Sensitization of students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)

Response:

Most of the students of BIT have a rural background and come from different districts of West Bengal and also from nearby states, Bihar, Jharkhand, and Odisha. Some of the students are from the minority community and are socioeconomically communal. Thus, the Institute has an inclusive environment of a multi-cultural, regional, multi-lingual, and mixed economy. It has a challenging responsibility to maintain tolerance and harmony among students and employees.

To maintain ethics of tolerance and harmony, the Institute has conducted several programs for providing an inclusive environment. Students are encouraged to organize different cultures(singing, dancing, recitation, etc) and other extra-curriculum events (sports, debates, photography, drawing, etc.) by involving maximum representation of students crossing all social barriers. Faculties are associated as mentors and guides to see that no criss-cross takes place.

Several student scholarship schemes are provided by the MoE, AICTE, and State government; some are gender specific and some are community specific. The Institute extends all types of support to the students for achieving such scholarships. For the promotion of unity in diversity, the Institute ensures the representation of all communities of students in student-based committees.

The Institute organizes various cultural programs to celebrate the cultural diversity of India. Students from various regional and cultural backgrounds participate in such programs and present their regional or cultural folk songs and dances. These cultural events are organized at different levelsand on different occasions like Institute’s Foundation Day, Freshers welcome (Lithium), farewell, etc. Apart from the annual cultural event organized by the Institute, BIT Students Union conducts a week-longcultural (Impulse) and sports events. To cater to linguistic diversity, all student-related competitions like Essay Writing and Elocution are conducted.Institute conducts seminars, workshops, and outreach programs to

promote communal harmony and tolerance.

Students of BIT are also encouraged to participate in cultural events, debates, and painting competitions organize by other educationalinstitutes based on their potential without differentiating one's ability.

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:

For an educational Institute that pursuits only UG courses with the representation of students from mixed socioeconomic and sociocultural backgrounds, the following two aspects are very important:

1. Mentoring System for Students
2. Teaching-Learning Process

1. **Mentoring System for Students**

This is important because of the following reasons:

- To minimize dropouts,improve performance, and reduce the stress of students through personal counselling.
- Underperformed students suffer various problems of stress- personal, academic, physical, and mental. Students from educationally weak backgrounds feel complex and hesitant in class and unable to perform well due to inhibitions.

Normally student-teacher ratio in classrooms remains high; therefore, itbecomes difficult to give personal attention to students in class. This can be overcome by assigning a 'Mentor'to a group of students. A mentor can form a bond with students in a true sense to attain emotional stability and promote clarity in thinking and decision-making for the overall progress of underperformed students. The mentorship measure is practiced in BIT very effectively and successfully; the details are as follows:

- Each faculty is assigned around 15-20 students, depending upon the size ofstudents in a class, for the complete duration of their study.
    - Mentors & Mentees meet at least once a month to discuss, clarify and share various problems which may be personal or academic, etc.
    - Mentors encourage mentees to participate in co-curricular and extracurricular activities and sports. The academic performance and other activities are all recorded.
    - Mentors also keep in touch with parents on their attendance, test performance, fee payment, examinations, etc.
    - Mentors take special care of weak students by giving advice on how to study, preparing a timetable for study and clarifying the doubts, and alsoby giving notes to study.

- Mentors also counsel the students in need of emotional problems.
- Mentors take special care of weak students and give advice on how to study, prepare a timetable for study and clarify doubts.
- Students' problems are discussed with the departmental heads, and other faculties for resolving the issue, if anything is found serious in nature.

Results: The success of the above practiceswas evidently observed, which included: better results in examinations, improved attendance, fewerdropouts, increased participation in co-curricular and extracurricular activities, a better relationship among students, and a respectful relationship between teachers and students.

ii) Teaching – Learning Process

This is a very important component of an educational Institute to attain its mission. The goals of the Teaching-Learning process are as follows:

- To ensure completion of syllabus according to the academic calendar of the Institute.
- To encourage teachers to adopt advanced pedagogical methods in classroom teaching.
- To improve students' performance by enhancing pass percentage and average marks in each semester, and begginga number of ranks at the university level examinations
- To increase the placement of college by promoting industry-oriented teaching, and integrating professional coaching in classroom teaching.

Different teachers have different methods of teaching in class. They teach at different paces. It is normally observed that syllabus completion remains a challenge when there is a need for maintaining uniformity. Teachers find it difficult to keep pace with the techno-savvy student learners. A need of maintaining uniformity and standard setting is felt forenabling everyone to meet the objective of best teaching practices. Adaptation of the latest pedagogic styles by including ICT in classroom teaching has been found successful in that context.

In BIT, it is practiced by adopting the following approaches:

- Academic calendar as per the guidelines of the university is planned by the respective department obtaining consent from the principal.
- Academic calendar is uploaded on the website and shared with the students, teachers, and others for their information.
- Based on that, every faculty prepares the academic plan in the form of a course file, which is reviewed by the department head.

- Feedback is obtained from students from time to time on the content delivery by different teachers.

- The heads of different departments monitor the teachers' plan of completion of the syllabus.
- Assignments, tests, and evaluations are conducted as per the scheduled dates to improve the performance of students in the semester examinations.

Results: Timely completion of the syllabus is observed. Attendance in the classes increased. Results found improved. Every year,the Institute claims a number of ranks in theuniversity-level exams.

This practice requires a meticulous monitoring system, which can show progress and gaps at each point of time. The institute needs further improvement and upgradation on this aspect.

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:

Keeping in view the vision of the Institute that states "To become an institute of excellence in engineering and technical education, and produce skilled technical manpower of high quality with a high degree of social commitment to compete in the global market as a quality human resource to the society and industry", the priority of BIT was mainly focused towards promoting the core values of engineering and technical education by providing best teaching-learning methods, nurturing the human values, aspiration, and ethos of students, to help them come out as high-quality technical manpower to compete in the global market for serving the society and industry.

For achieving the goals of the Institute, BIT followed a comprehensive framework of activities for fostering students in their four years journey of college life. The comprehensive framework of activities is as follows:

1. Socializing of new students with the Institute through the orientation program.
2. Promoting socialization of new students with batch mates and seniors through cultural, sports, social, and other competitive activities.
3. Providing ICT-based teaching-learning platforms together with the provision of maximum hands-on classroom practices and laboratory/practical classes.
4. Pursuing assignments, tests, and evaluations from time to time for improving the performance of students in the semester examinations.
5. Providing Mentors-Mentees facility to look after the issues & problems of underperformed students.
6. Developing an environment of the good and interactive relationship between teachers and students.
7. Encouraging participation of students along with innovative projects in inter-college and intra-college technical fests and other competitions such as Hackathons, Banglathon, etc.
8. Encouraging students to acquire and develop problem-solving skills by joining Institute's students' clubs for nurturing knowledge and developing skills in solving real-life problems.
9. Providing exposure to students on advanced technologies, knowledgebases and innovations by inviting/arranging special talks from resource persons, entrepreneurs, industry personnel, etc. under the activities of IIC.

10. Promoting special professional training for the students focusing on making students ready for employment.
11. Grooming students by conducting several Animus classes, Mock tests, Coding classes, Communication skill development classes, etc., for facing challenges of employability.
12. Grooming students by conducting 'mock personal interview'; abroad career counseling for higher studies (MS &Ph.D.); guiding students in writing 'Statement of Purpose' for foreign universities; helping in structuring industry-ready and target-oriented CV; training of students in TOEFL and IELTS for studying abroad.
13. Assigning mini projects to solve real real-life problems by Data Structures using C language, Python, etc.
14. Conducting weekly tests to strengthen the technical skills in Data Structures using C, DBMS, Python, etc., and assigning mini projects to solve real-life problems.

Results: The above-mentionedattempts have brought out and/or are bringing out very fascinating results for the Institute. The average pass rate (~ 100%) and average CGPA (between 8 and 9) of students of BIT in the university level exams found very competitive and encouraging. Students of BIT claimed ranks in the university-level exams. Employability of students in on-campus employment varied between 85% and 95% excluding students opted for higher studies. Students received a number of awards from Smart India Hackathon by AICTE; Future Proof Hackathon by Techno India Group; Bangalathan by the West Bengal Department of IT and Electronics; India International Science Festival-2019 by CSIT, Kolkata; India Innovation Challenge Design Contest (IICDC), etc.

These eventually demonstrate an excellent track record of the Institute's performances. The main thrust of the Institute is to retain its academic credentials and to emerge as an Institute known for its credibility in the teaching-learning process and producing superior quality technical manpower.

5. CONCLUSION

Additional Information :

Additional Information

The Institute has a very good track record of providing on-campus employmentopportunities to the students. Nearly 85% to 95% of students get on-campus employment in different companies; even during the COVID-19 pandemic years (2020-2022), it varied from 71% (2020) to 88% (2021) and exceeded 85% (2022) till date. The Institute is known for good teaching-learning processes, which helped students to claim good positions in university exams. Faculties have very good prospects of team spirit activities that provide scope to take on bigger challenges. In West Bengal, few colleges/universities have biotechnology courses, of which. BIT is one of those. Biotechnology is one of the futuristic areas to grow in multi-facets. The Institute is located in the Sundarbans wetland areas and it has Kolkata city areas wastewater flowing canals around; the Institute has very good potential to pursue R & D activities in areas related to solid wastes and wastewater treatment & management, biodiversity, climate change impact, ecosystem sustainability, solar energy, croppingin saline dominant areas, etc by developing smart and advanced laboratories.

Concluding Remarks :

Conclusion

Being an Institute pursuing a few courses with limited studentintake, and being a 22 years old institute with mostly middle-aged faculties, theBengal Institute of Technology (BIT) has substantial strengths and opportunities than fewer weaknesses and challenges. The major strengths include better student-teacher interaction-coordination-management, persistent efforts to achieve IIC credits, NIRF ranking, students' aspiration to participate in different hackathons and technological competitions, technical clubs operated by students, cohesion and team spirit amongst faculties, etc, while weaknesses include a lack in higher teaching-learning and advanced R & D pursuits, non-existent of advanced instrumentation and smart laboratories, financial constraints, etc. The Institute has an immense opportunity to grow in multi-dimensional and directional activities, which contain the integration of courses for advancing soft computing techniques for new knowledge generation, scope exists for developing entrepreneurship, startup, and motivational skills, etc. There are a number of underlined challenges that are driven by the globallychanging environment and ecosystem services. Aligning somewhat toward R & D pursuitsalong with a regular academic curriculum on emerging professional courses and with the scope of on-campus employability may help BIT grow sustainably.

6.ANNEXURE

1.Metrics Level Deviations

<table>
<tr><td>Metric ID</td><td>Sub Questions and Answers before and after DVV Verification</td></tr>
<tr><td>1.2.1</td><td>Number of Add on /Certificate/Value added programs offered during the last five years

Answer before DVV Verification :
Answer After DVV Verification :16
Remark : DVV has made the changes as per considered only Add on /Certificate/Value added programs.</td></tr>
<tr><td>3.3.1</td><td>Number of research papers published per teacher in the Journals on UGC care list during the last five years

3.3.1.1. Number of research papers in the Journals notified on UGC CARE year wise during the last five years
Answer before DVV Verification:
<table>
<tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr>
<tr><td>20</td><td>16</td><td>15</td><td>11</td><td>11</td></tr>
</table>
Answer After DVV Verification :
<table>
<tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr>
<tr><td>16</td><td>11</td><td>08</td><td>06</td><td>05</td></tr>
</table>
Remark : DVV has considered the publications in UGC care list.</td></tr>
<tr><td>3.3.2</td><td>Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years

3.3.2.1. Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year wise during last five years
Answer before DVV Verification:
<table>
<tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr>
<tr><td>25</td><td>18</td><td>19</td><td>15</td><td>15</td></tr>
</table>
Answer After DVV Verification :
<table>
<tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr>
<tr><td>21</td><td>08</td><td>11</td><td>09</td><td>11</td></tr>
</table>
Remark : DVV has considered the books and chapters with ISBN numbers only.</td></tr>
<tr><td>4.4.1</td><td>Percentage of expenditure incurred on maintenance of infrastructure (physical and academic</td></tr>
</table>

support facilities) excluding salary component during the last five years (INR in Lakhs)

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
99.09	81.54	197.83	167.82	150.88

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

Remark : Amount of Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary has not reflected in given report.

5.1.4

The Institution has a transparent mechanism for timely 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**

Answer before DVV Verification : A. All of the above
Answer After DVV Verification: C. Any 2 of the above
Remark : DVV has made the changes as per shared report bY HEI.

5.3.1

Number of awards/medals for outstanding performance in sports/ cultural activities at University / state/ national / international level (award for a team event should be counted as one) during the last five years

5.3.1.1. ***Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year wise during the last five years***

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
1	0	0	0	0

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

	Remark : Award certificates has not shared by HEI.
6.2.2	**Implementation of e-governance in areas of operation** 1. **Administration** 2. **Finance and Accounts** 3. **Student Admission and Support** 4. **Examination** Answer before DVV Verification : A. All of the above Answer After DVV Verification: C. Any 2 of the above Remark : DVV has select C. Any 2 of the above as per shared report by HEI.
6.5.2	**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)/ membership of international networks** 3. **Participation in NIRF** 4. **any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA, ISO Certification etc** Answer before DVV Verification : B. Any 3 of the above Answer After DVV Verification: C. Any 2 of the above Remark : DVV has made the changes as per shared report by HEI.

2.Extended Profile Deviations

Extended Profile Deviations
No Deviations