

# FOR 1<sup>st</sup> CYCLE OF ACCREDITATION

# HOOGHLY ENGINEERING AND TECHNOLOGY COLLEGE

VIVEKANNADA ROAD, PIPULPATI, PO. AND DIST. - HOOGHLY, PIN 712103,
WEST BENGAL
712103
www.hetc.ac.in

#### Submitted To

# NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL BANGALORE

**July 2024** 

#### 1. EXECUTIVE SUMMARY

#### 1.1 INTRODUCTION

Hooghly Engineering & Technology College (HETC) is a self-financing Under Graduate Engineering College, run by Hooghly Engineering & Technology College Society (HETCS), a non-profit making organization engaged in the promotion of Technical Education amongst the students and the dissemination of scientific knowledge in the Society. It is a registered body under the Societies Registration Act 1961. A good number of eminent Professors, Doctors, Lawyers, public representatives, eminent social workers and educationists were directly involved in the management of HETCS. HETC was established in the year 2004 and soon it became a part of the heritage that Hooghly represents. It started its journey with four departments: Civil Engineering (Intake – 60), Computer Science and Engineering (Intake – 60), Electronics and Communication Engineering (Intake – 60) and Electrical Engineering (Intake – 60). In the year 2010, another department, Mechanical Engineering (Intake – 60) was introduced. Hooghly Engineering & Technology College, since its inception has set a goal to impart quality technical education with continuous endeavor to achieve higher levels of academic excellence. It is planned in such a way that a student can avail facilities and reach her/his desired destination. HETC imparts quality technical education that enables the students to grow as successful professionals in their future life. Dr. Smitadhi Ganguly, an Alumnus of Jadavpur University and the Principalin-Charge of the college, leads a team of qualified and energetic faculty members and technical assistants as per rule given by competent bodies. The college consists of five buildings and a vast area of open land along with a water body which help the growth of young talents under healthy and natural environment. The laboratories and library had been setup not only in accordance with the university syllabus but also with the state-of-the-art equipments.

#### Vision

• To develop professionally competent and socially responsible human resources by imparting quality education in the field of engineering and technology.

#### **Mission**

- To impart learner-centric and comprehensive education that fosters holistic growth and encourages application of acquired knowledge in different areas of professional and social functioning, research and entrepreneurship.
- To create a dynamic and innovative teaching-learning process with focus on continuous up-gradation of teaching resources, tools and technologies.

## 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

#### **Institutional Strength**

- Eco-friendly, secured campus with lush green surroundings.
- Highly qualified and dedicated faculty members.

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- High faculty retention.
- Excellent teacher to student ratio.
- Well-equipped laboratories meeting curriculum standards.
- Inclusiveness and diversity in the academic environment.
- Excellent student to computer ratio.
- Focus on holistic development through soft skills training.
- Robust mentoring and counselling mechanisms for student guidance.
- Strong industry ties for trainings, internships and placements.
- Active student participation in co-curricular and extracurricular activities.
- Encouragement for students to explore beyond the prescribed curriculum.
- Exposure to seminars, workshops and technical events for broader learning.

#### **Institutional Weakness**

- Funding challenges persist due to the college's status as a self-financing institution without management quota.
- Challenges in implementing flexible courses for diverse student needs as university curriculum is followed.

#### **Institutional Opportunity**

- Growing local student enrolment due to the college's accessible location.
- Increasing employment opportunities in core sectors.
- Scope for enhanced interaction with alumni for mentorship and industry connections.
- Opportunities for student involvement in local development projects for practical learning.
- Potential for establishing MOUs with relevant industries to foster industry-academia collaboration.
- Possibilities for offering industrial consultancy services to support local businesses.

#### **Institutional Challenge**

- Lack of quality students with strong foundational knowledge in basic science subjects.
- Less interest of students in learning challenging subjects and weak motivation due to socio-economic factors.
- Global recession impacting IT placement opportunities, requiring alignment of course objectives with industry demands.
- Need for an effective curriculum and teaching methodologies to bridge the industry-institution gap.
- Difficulty in generating interest and exposing students from diverse backgrounds to new disciplines.
- Hypercompetitive environment and oversupply of engineering graduates affect job opportunities and quality of education.

#### 1.3 CRITERIA WISE SUMMARY

#### **Curricular Aspects**

The Institute follows the curriculum designed by Maulana Abul Kalam Azad University of Technology, West Bengal. Academic activities are planned according to the university's academic calendar. At the start of each session, faculty members prepare a course plan for both theory and laboratory courses. In addition to traditional teaching methods, faculty use ICT tools and e-learning resources. University examinations are held at the end of each semester, with continuous assessment tests (CA1, CA2, CA3, CA4) for theory courses and practical continuous assessment (PCA1, PCA2) for laboratory courses. Continuous evaluation includes presentations, assignments or report writing, conventional pen and paper examination and viva voce.

The institution incorporates important issues like ethics and environmental awareness. The first-year curriculum includes an Induction Program where sessions are conducted on values and ethics, focusing on integrity, empathy and social responsibility. Courses like Environmental Science and Values and Ethics emphasize ethical decision-making and environmental responsibility. We encourage students to enroll in MOOCs such as "Ethics in Engineering Practice" through Swayam-NPTEL and organize activities like tree plantation drives and public awareness campaigns on environmental issues.

The N.S.S. units promote environmental sustainability through activities like tree plantation, awareness rallies and clean campus drives. Important days like World Environment Day and Yoga Day are celebrated every year. Initiatives like Swachh Bharat Abhiyan contribute to a cleaner and greener India.

We frequently conduct guidance sessions for competitive examinations, entrepreneurship development programmes and soft skill development trainings to ensure the holistic development of students and enhance their employability skills. AICTE mandates induction programmes for first-year students, which include steps toward inculcating Universal Human Values (UHV). The institute encourages experiential learning, participative learning and problem-solving methodologies through industrial visits, internships, surveys, fieldwork, project work and participation in national level competitions like Hackathon and Tech-Fest.

The institution has a feedback system to enhance the teaching-learning process and support facilities. Feedback is collected from students, faculty, alumni, industry and parents. After collecting the feedbacks, the analysis is done and the report is submitted to the competent authority for necessary action.

#### **Teaching-learning and Evaluation**

Hooghly Engineering & Technology College (HETC) promotes Outcome-Based Education, a student-centric teaching and learning method, following Maulana Abul Kalam Azad University of Technology (MAKAUT) guidelines. HETC always try to maintain an impressive student-teacher ratio so that the learning can continue uninterruptedly. The college emphasizes experiential learning, believing it's crucial for genuine knowledge. Students develop abilities like active involvement, analytical power, efficient decision-making and accurate problem-solving through practicals, internships, field projects and industrial visits. Participative learning practices include classroom interactions, peer learning and events like workshops, conferences and webinars. ICT enabled facilities such as smart classrooms, Wi-Fi enabled class rooms, Google Classroom and well-equipped computer laboratories enhance the teaching-learning process. The institution ensures transparent and efficient assessment through internal and external evaluations. Continuous Assessments (CAs) are conducted throughout the semester and practical assessments involve experiments and viva voce. The average pass percentage of students in last 5 years is 98.37. Internal grievance redressal mechanisms are in place for examination related issues that are timely addressed by examination cell. To develop problem-solving skills, students complete assignments with real-life applications and mandatory projects. The institution uses a well-practiced technique to assess Course Outcomes (COs), Program Outcomes (POs) and Program Specific

Outcomes (PSOs) by mapping COs with POs and PSOs on a scale of 1-4. This helps to evaluate the effectiveness of the teaching-learning process and identify areas for improvement. At the end of each session the attainment levels are calculated by each course teacher and maintained in a tabular form for all courses of all departments.

#### Research, Innovations and Extension

Hooghly Engineering & Technology College encourages research, innovation and extension activities. R & D Cell in accordance with IQAC oversees the smooth and efficient coordination of research and development activities in the institute. The Cell, with the help of the departments, actively tries to inculcate the spirit and culture of research amongst faculty and students through research promotion events like conferences, seminars, workshops, invited lectures, webinars etc. Faculties are encouraged to take up research and higher studies. Many faculties have been publishing textbooks and quality research papers in reputed National and International journals. They also participate regularly in various National and International conferences.

The college is actively working with the relevant industries for mutual benefit through collaborations. MOUs have already been signed with different industries and some collaborative initiatives were undertaken with them.

The college has a NSS unit through which it renders social and community services. Through the NSS unit, the college undertakes various extension activities in the neighbourhood and the college campus such as Clean India Project ("Swachh Bharat Mission"), Covid19 Awareness Programme, SWACHHTA PAKHWADA etc. It also organizes different outreach programmes such as AIDS awareness and rallies, blood donation, Thalassemia awareness and detection camps, environmental awareness programmes in collaboration with government and non-government organizations. Beside these, relief camps were organized by offering relief materials to the cyclone affected people at Sundarbans and at Sutahata, East Midnapore. Mosquito nets were also distributed among the poor people in the slum area of Hooghly.

#### **Infrastructure and Learning Resources**

The college has an adequate number of classrooms and laboratories. The central library is fully air-conditioned with an adequate number of books, e-books and journals. Additionally, sufficient collection of books are available in the departments to meet the immeadiate needs.

There is also an air-conditioned seminar hall with a seating capacity of over one hundred, equipped with an overhead LCD projector and a podium. The institute has an auditorium with a seating capacity of 800 people, along with a separate stage for cultural, co-curricular and extracurricular activities. Campus recruitment training classes are held using the existing infrastructure, with special classes focusing on recruitment activities. The institute has 238 computing systems available for student use in laboratories. The institute's website, www.hetc.ac.in, is regularly updated. The college also hosts various recruitment examinations (Staff Selection Commission, Railway Recruitment Board, Civil Services, IBPS) and entrance exams for higher studies (Joint Entrance Examination, NEET) conducted by different government organizations. Annually, the institute organizes sports events, including cricket, football and a badminton tournament for the students. Yoga and self-defence classes are also held for students. Every year, the college holds the annual technical festival - 'TECHetc' and the annual cultural fest - 'UTKARSHA'. Additionally, students organizes events such as Freshers' Welcome, Teachers' Day celebration and Farewell for the final year students. The Annual Alumni

Meet - "Remembrance" is conducted each year. Regular maintenance is carried out for buildings, classrooms, laboratories, IT Infrastructures and other facilities. The entire campus including Girls hostel is under CCTV surveillance. The Wi-Fi facilities are not only available inside the campus but also in boys and girls hostel.

#### **Student Support and Progression**

The college has a strong student support system that includes government and institute scholarships, providing financial assistance to the economically weaker candidates. Over the past five years, more than half of the students from various categories and sections have benefited from these scholarships.

The Training and Placement Cell of the institute offers training to improve skills necessary for placement, such as aptitude, technical and soft skills training. As a result of this, in last 5 years, good number of students were placed in different reputed companies. Additionally, it provides guidance for competitive examinations and career counselling for higher studies, with many students qualifying for exams like GATE, CAT, SSC etc.

Students can submit their grievances both online and offline. The institute has established mechanisms for resolving student grievances through various committees including the Anti-Ragging Committee and the Grievance Redressal Committee, as prescribed by regulating authorities.

Every year, the college hosts the annual cultural fest 'UTKARSHA' to encourage students to engage in cultural activities and 'TECHetc' to engage students in different technical events. Students actively organize various cultural events including Freshers' Welcome, Teachers' Day celebrations, Farewell for Final Year Students and International Mother Language Day etc.

The institute also encourages students to participate in inter-college and intra-college sports events to foster the mental and physical development. The registered Alumni Association of Hooghly Engineering & Technology College is known as the "Alumni Association of Hooghly Engineering and Technology College (AAHETC)." The Registered Office of the Association is located at Hooghly Engineering & Technology College, Pipulpati, P.O. & District: Hooghly-712103, West Bengal. A well-framed Governing Body (GB) of the Association holds quarterly meetings to ensure the smooth running of AAHETC, with well-directed aims and objectives and to plan future activities for the benefit of the college stakeholders.

#### Governance, Leadership and Management

Hooghly Engineering & Technology College, established in 2004 in Hooghly, West Bengal, is a self-financed institution approved by AICTE and affiliated with Maulana Abul Kalam Azad University of Technology (MAKAUT). The college operates under the Societies of West Bengal Act XXVI of 1961 and is recognized by the UGC under Section 2(f).

The institute values transparency, participative decision-making and decentralization. The Principal, IQAC Coordinator and departmental heads oversee all academic activities. Faculty members utilize Learning Management Systems (LMS) and smart classrooms for lectures, engaging students in projects, industrial training, internships and final-year project work.

The college follows structured policies for academic and administrative activities, guided by an annual academic calendar. Various committees and cells ensure the smooth functioning of activities such as

admissions, examinations, training and placement cell etc. Various developments and various activities other than teaching-learning are conducted as per perspective planning in alignment with vision and mission statements of the institute.

The Internal Quality Assurance Cell (IQAC) focuses on improving the academic and administrative performance of the institution. It ensures continuous improvement in teaching and learning resources, encourages staff for development programmes, coordinates data collection for rankings, conducts feedback collection and certifications and promotes research activities etc.

An external audit is conducted annually to ensure financial transparency and proper fund utilization.

The college has a transparent annual appraisal system for staff, involving self-assessment, feedback from students and department heads and management evaluation. This process aims to enhance the overall quality of the institution.

The college supports its staff through professional training, financial assistance for research activities, group medical insurance and special leave provisions. The institution provides transport facilities, encourages participation in faculty development programmes and offers various welfare schemes, including maternity leave and uniforms for Group D staff.

#### **Institutional Values and Best Practices**

Hooghly Engineering & Technology College (HETC) is committed to women's empowerment through various initiatives, ensuring a safe environment by safeguarding the rights of female students and staff via the Internal Complaints Committee (ICC) for grievance redressal. The annual action plan aims to promote respect and equality for women, educate female students on health issues, identify and build leadership, empower women physically, mentally and emotionally and encourage higher education. Initiatives include self-defence, health and sports activities, gender sensitization programs, mental and emotional empowerment sessions, artistic competitions and celebrations of International Women's Day and Girl Child Day. Facilities provided include self-defence and yoga training, separate common rooms with games facilities, CCTV surveillance, security in the Girls' Hostel, annual sports activities, Kanyashree Prakalpa – K2 scholarships, grievance support through the ICC, female wardens in the Girls' Hostel and sanitary napkin vending machines.

HETC also undertakes initiatives for promoting an inclusive environment through panel discussions, workshops on human values, seminars on professional ethics, mental health awareness, constitutional duties and antisuperstition awareness and sensitization to constitutional obligations. Cultural harmony is celebrated through events like college fests, International Mother Language Day and educational tours. The college promotes language diversity in publication of college magazine 'Ethnic'.

HETC offers free yoga and self-defence sessions to enhance students' physical and mental health, conducting these sessions year-round since 2023. E-learning platforms are extensively utilized, including partnerships with Spoken Tutorial, AICTE PARAKH, IIRS-ISRO, Internshala, EduSkills, NDLI and Google Classroom, providing online courses and training to enhance technical and professional skills. Not only students, but also faculty members are encouraged to use SWAYAM-NPTEL for development programmes.

HETC stands out for its commitment to financial assistance, with no capitation fee or management quota, providing support through scholarships, grants and other aid to economically challenged students. They reserve

5% of seats for the Tuition Fees Waived-off scheme and ensure a transparent selection process for merit-cummeans scholarships. Despite financial constraints, HETC continues to support students from diverse backgrounds, maintaining affordable fees and offering financial aid to deserving candidates. Through these comprehensive efforts, HETC fosters a supportive, inclusive and empowering environment for all students.

# 2. PROFILE

## 2.1 BASIC INFORMATION

Name and Address of the College			
Name	HOOGHLY ENGINEERING AND TECHNOLOGY COLLEGE		
Address	Vivekannada Road, Pipulpati, PO. and Dist Hooghly, Pin 712103, West Bengal		
City	Hooghly		
State	West Bengal		
Pin	712103		
Website	www.hetc.ac.in		

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal(in- charge)	Smitadhi Ganguly	033-26810505	9830173510	-	principal@hetc.ac.i
IQAC / CIQA coordinator	Pratyay Debnath	033-26804121	9433307616	-	iqac@hetc.ac.in

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution		
By Gender	Co-education	
By Shift	Regular	

Recognized Minority institution	
If it is a recognized minroity institution	No

<b>Establishment Details</b>	

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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	13-05-2015	<u>View Document</u>			
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/Appr oval details Instit ution/Department programme  Recognition/Appr oval, Month and year(dd-mm-yyyy)  Remarks months					
AICTE	View Document	02-06-2023	12	Current Approval received for new academic 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 sq.mts.					
Main campus area	Vivekannada Road, Pipulpati, PO. and Dist Hooghly, Pin 712103, West Bengal	Urban	10.39	13600	

# 2.2 ACADEMIC INFORMATION

Details of Pro	Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Pro gramme/Co urse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted	
UG	BTech,Comp uter Science And Enginee ring,Comput er Science and Engineering	48	Twelve Standard	English	120	119	
UG	BTech,Electr onics And Co mmunication s Engineerin g,Electronics and Commun ications Engineering	48	Twelve Standard	English	90	55	
UG	BTech,Electr ical Engineer ing,Electrical Engineering	48	Twelve Standard	English	60	8	
UG	BTech,Mech anical Engine ering,Mecha nical Engineering	48	Twelve Standard	English	30	6	
UG	BTech,Civil Engineering, Civil Engineering	48	Twelve Standard	English	60	14	

Position Details of Faculty & Staff in the College

	Teaching Faculty											
	Profe	essor			Associate Professor			Assistant Professor				
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	UGC /University		14			41						
Recruited	4	0	0	4	5	1	0	6	29	12	0	41
Yet to Recruit	3				8			0				
Sanctioned by the Management/Soci ety or Other Authorized Bodies	4				6				41			
Recruited	4	0	0	4	5	1	0	6	29	12	0	41
Yet to Recruit	0				0	•			0			•

Non-Teaching Staff						
	Male	Female	Others	Total		
Sanctioned by the UGC /University State Government				63		
Recruited	45	18	0	63		
Yet to Recruit				0		
Sanctioned by the Management/Society or Other Authorized Bodies				63		
Recruited	45	18	0	63		
Yet to Recruit				0		

Technical Staff						
	Male	Female	Others	Total		
Sanctioned by the UGC /University State Government				17		
Recruited	12	5	0	17		
Yet to Recruit				0		
Sanctioned by the Management/Society or Other Authorized Bodies				17		
Recruited	12	5	0	17		
Yet to Recruit				0		

# Qualification Details of the Teaching Staff

	Permanent Teachers									
Highest Qualificatio n	Professor		Associate Professor			Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	4	0	0	5	1	0	5	0	0	15
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	24	12	0	36
UG	0	0	0	0	0	0	0	0	0	0

	Temporary Teachers									
Highest Qualificatio n	Professor		Associate Professor			Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

	Part Time Teachers									
Highest Qualificatio n	Professor		Associate Professor			Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	1	0	0	0	0	0	0	0	0	1
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	4	0	0	4
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties						
Number of Visiting/Guest Faculty	Male	Female	Others	Total		
engaged with the college?	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	153	3	0	0	156
	Female	53	1	0	0	54
	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	3	11	6
	Female	1	2	2	2
	Others	0	0	0	0
ST	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	9	11	17	10
	Female	2	3	3	5
	Others	0	0	0	0
General	Male	94	57	91	114
	Female	26	21	34	32
	Others	0	0	0	0
Others	Male	10	9	3	6
	Female	1	1	1	1
	Others	0	0	0	0
Total		149	107	162	176

## Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	• In adopting the National Education Policy's (NEP)
	aim of providing high-quality education to support
	the development of our human resources into global
	citizens, Hooghly Engineering & Technology

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College (HETC) is playing a significant role. • The Maulana Abul Kalam Azad University of Technology (MAKAUT), West Bengal periodically redesigns its academic curricula to offer multidisciplinary and interdisciplinary courses as electives. All programmes are created so that students have the greatest amount of freedom in selecting electives from other specializations. It is obvious that the University is actively attempting to put the recommendations made in the NEP into practice. HETC being an affiliated college of MAKAUT, adheres to the curriculum proposed by the University and offers Open Elective (OE) and Programme Elective (PE) Courses in a flexible manner as per student need/choice. • The motto of the National Educational Policy (NEP-2023) for Higher Education is to end fragmentation of the field by turning existing universities, colleges, and higher education institutions into vast, interdisciplinary knowledge hubs.

#### 2. Academic bank of credits (ABC):

• A crucial element of the NEP that academic institutions must adopt is academic bank credits. Moving forward, it is crucial and vital to integrate higher education institutions into a globalized environment. • HETC has registered for National Academic Depository (NAD), proposed by MAKAUT for Academic Bank of Credits (ABC). • Many students are pursuing online courses through national programmes like SWAYAM, NPTEL, Coursera, etc. and HETC is also taking into consideration any credit gained for elective courses.

#### 3. Skill development:

• For accelerating skill development, add-on programmes and curriculum expansion are essential. HETC has implemented skill development courses with the assistance of highly qualified professionals / resource persons. • By signing MOUs with institutions or organizations of national and international repute formed performing a variety of activities, HETC will proceed with the following specific plan: ? To offer new learning methods using ICT tools and digital platforms, such as flipped classrooms for the purpose of empowering teachers creating and putting into practice a comprehensive assessment and evaluation system. ? To evaluate pupils on a 360-degree basis and analyse their learning outcomes using an outcome-based education system.

- 4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):
- Indian arts and culture should be promoted since it benefits both the nation and the individual. To foster a sense of regional pride, the institution celebrates important dates and sponsors events in regional languages. • The noteworthy events/festivals that support national integrity and awareness of Indian National and Regional languages, as well as the culture associated with them, include, New Year's Day, Birthday of Swami Vivekananda, Birthday of Netaji, Holi, Bengali New Year's Day / Birthday of Dr. B.R. Ambedkar, Good Friday, Mother Language Day etc. • Although medium of teaching in HETC is English, regional languages such as Bengali and Hindi are used to clear the ambiguities of the students whenever needed. • All religious holidays and observances are treated equally in HETC.
- 5. Focus on Outcome based education (OBE):
- In compliance with the criteria of regulatory organizations like the All India Council of Technical Education (AICTE) and the affiliating university, Maulana Abul Kalam Azad University of Technology (MAKAUT), HETC follows an outcome-based education with explicitly stated course objectives and programme outcomes (POs). • All courses are created by MAKAUT with the outcomes of remembering, understanding, applying, analyzing, evaluating, and creating in mind. In addition to domain-specific knowledge, learning outcomes at all levels guarantee social responsibility, morality and entrepreneurial abilities so that students actively contribute to the country's economic, environmental and social well-being. The philosophy of POs is further supported by the Course Outcomes (COs). • To implement the spirit of NEP, every course syllabus has been created in accordance with the rules of regulatory bodies and by the university's own regulatory bodies while taking into account general economic and social necessities. The Outcomes Based Education (OBE) attainment model is used to evaluate students. An innovative curriculum that incorporates credit-based courses and projects emphasizes values-based education, community involvement and service, environmental education and environmental awareness. Research in the laboratory and small projects that emphasize raising community knowledge of health and promotion are included in the curriculum. • In departmental programmes, value-based education courses like

	'Values and Ethics in Profession' have been introduced by MAKAUT and are followed by HETC.  • HETC also offers a number of community outreach programmes like the National Service Scheme (NSS) that cater to community outreach activities.
6. Distance education/online education:	• HETC always, even before COVID-19, encourages student to enhance their knowledge as well as practical understandings through various online courses such as Spoken- Tutorial, conducted by IIT-Bombay, SWAYAM-NPTEL, Coursera, edX, Udemy, Simplelearn etc. • During/after the COVID-19 epidemic, educational institutions in the nation are embracing digital platforms more and more for engaging lessons, holding conferences and holding meetings and conducting webinars. • With the advent of online learning, professionals and students from different locations may now connect. The adoption of a hybrid model of education mixing online and offline resources has been made possible by the opening up of the economy, including that of educational institutions. This might be viewed as the new norm that is also anticipated in the New Education Policy. Teachers and students will no longer face restrictions on accessing internet resources as a result of the experience gained during the COVID-19 shutdown period. • During the COVID-19 pandemic, HETC successfully delivered all of its course material online using platforms like Zoom and Google Meet, the WebEx app, Google Suite etc.

### **Institutional Initiatives for Electoral Literacy**

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	Yes. Established in the year 2023.
2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	Yes, functional. Faculty Coordinator: Mr. Subham Ganguly, Assistant Professor, HETC Student Coordinator: Vidita Mishra, CSE 2nd Year
3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of	a) Voter Registration awareness for the eligible students in the campus. b) Voter awareness guest lectures conducted for newly admitted students. In addition, the DM Office, Hooghly and the district

students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.	election administration use the main academic building for training election officials. The main building also serves as a shelter for force officials.
4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.	A survey was conducted to identify eligible voters.
5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.	A voter registration drive was conducted at the institute for students above 18 years of age.

# **Extended Profile**

#### 1 Students

#### 1.1

#### Number of students year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
972	923	910	1045	1103

File Description	Document
Institutional data in prescribed format	<u>View Document</u>

#### 2 Teachers

#### 2.1

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

Response: 65

5	File Description	Document
	Institutional data in prescribed format	<u>View Document</u>

#### 2.2

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

2022-23	2021-22	2020-21	2019-20	2018-19
59	46	50	51	51

### 3 Institution

#### 3.1

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

2022-23	2021-22	2020-21	2019-20	2018-19
204.1	122.3	105.4	178.8	227

File Description		Docume	nt	
Upload Supporting	Document	View Do	ocument	

## 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:**

The institute focuses on promoting student-centered learning through a well-planned and documented teaching-learning process. Here are the key components:

#### (A) Effective Communication and Awareness:

The institute regularly spreads awareness among the faculty members and technical assistants about the importance of a well-planned and documented curriculum delivery mechanism. In accordance with the organogram of the institute-

- The Principal communicates with Heads of Departments (H.O.D.s) and Departmental Instructional Coordinators (DICs) to improve curriculum delivery methods.
- The information is documented in Minutes of Meetings of the Academic Committee and Departmental Meetings.

#### (B) Adherence to Academic Calendar:

All the departments of the institute strictly adhere to the academic calendar issued by the affiliating university (MAKAUT). The academic calendar consists of the semester commencement date, dates for conduction of the continuous assessment tests and the university semester examinations.

- At the start of each semester, the faculty members of various departments conduct their internal meetings and develop academic plans such as timetables, lesson plans, and course files for the ensuing academic session.
- Teachers are encouraged to plan in advance to impart the curriculum through different teaching methods such as presentations, assignments, discussions, workshops, seminars, apart from regular lecture sessions and the same is taken for approval from their Head of Department and the Principal.

#### (C) Extensive Documentation of Course Content Delivery:

Various initiatives are taken in order to mold the academic activities and processes into outcome oriented

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ones, to improve the quality of the teaching-learning process.

- Course outcomes are identified for each subject, and faculty deliver course contents accordingly.
- Lesson plans, course diaries, lecture notes, assignments, and question papers are maintained in a course file.
- Class assignments in the form of assessment are used to evaluate students' understanding and extra attention is given if needed.
- Students are encouraged to present topics related to the curriculum, not taught in class to foster self-learning.
- Guest lectures, workshops, industry visits, and discussions with professionals are organized for a deeper understanding of the subject.

#### **(D) Continuous Evaluation:**

- University examinations are conducted at the end of each semester, with continuous assessment tests (CA1, CA2, CA3, CA4) for theory subjects and practical continuous assessment (PCA1, PCA2) for laboratory subjects.
- Assignments, presentations, and viva voce are used for continuous evaluation.
- Rubrics are maintained by faculty for qualitative assessment of students.

#### (E) Learning Beyond Curriculum:

• To excel in any discipline, mere assimilation of theoretical concepts is not sufficient. It is equally important to be able to apply that knowledge in the design and analysis of real world systems/scenarios. The institute as well as the department thus continuously motivates the students to participate in various extracurricular activities that enhance and test their real world technical knowledge.

Overall, the institute strives to create an environment of active learning, engagement and self-improvement for the holistic development of its students.

File Description	Document
Provide Link for Additional information	<u>View Document</u>

#### 1.2 Academic Flexibility

#### 1.2.1

Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

Response: 94

File Description	Document
Institutional data in the prescribed format	View Document
Evidence of course completion, like course completion certificate etc. Apart from the above:	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 1.2.2

Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

Response: 8.96

1.2.2.1 Number of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
102	38	130	19	155

File Description	Document
Upload supporting document	View 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 in transacting the Curriculum

#### **Response:**

The institution is affiliated with MAKAUT (Maulana Abul Kalam Azad University of Technology), which means we follow the curriculum prescribed by the University. While this affiliation limits us from going radically beyond the established curriculum, we have taken proactive steps to incorporate crosscutting issues, particularly Ethics and Awareness of the Environment.

#### Moral Values, Human Values and Professional Ethics

Our first-year curriculum includes an Induction Programme on values and ethics, focusing on integrity, empathy, and social responsibility. MAKAUT's courses, such as Environmental Science, Values and Ethics in Professional, Environmental Engineering, etc. emphasize ethical decision-making and environmental responsibility.

We also encourage the students for the courses like "Ethics in Engineering Practice" MOOCs through Swayam-NPTEL, allowing students to explore ethics in their engineering field. Believing that human values should be practiced, not just studied, we organize activities like tree plantation drives and public awareness campaigns on environmental issues. These initiatives help students engage with the community and promote sustainability.

#### **Gender Sensitization**

HETC firmly believes that gender equity is vital for ensuring the sustainable development of our nation. To foster this belief, we have taken proactive measures to sensitize and promote gender equity among all stakeholders through both curricular and co-curricular activities. The Internal Complaint Committee organizes programmes on Women Empowerment, Laws for Women and Women's Day.

One of our primary focuses is promoting gender equity among our students. To achieve this, we have implemented flexible seating arrangements in classrooms, ensuring equal opportunities for all students to participate and engage actively in the learning process. Additionally, we are committed to ensure equal representation of different genders in leadership positions, not only at the class level but also in college-level committees, curricular and co-curricular activities.

#### **Environment and Sustainability**

The N.S.S. units at our college actively promote environmental protection through tree plantation and sustainable development programmes. They organize various initiatives like tree plantation, awareness programmes, poster competitions, seminars and cultural activities inside and outside campus, inspiring positive action and awareness. Important days like World Environment Day, AIDS Day and Yoga Day are celebrated to raise consciousness and foster a sense of responsibility. Regular clean campus drives, self-defense sessions, and physical education programmes ensure student well-being. Our commitment to national initiatives like Swachh Bharat Abhiyan and Tree Plantation programmes contributes to a cleaner and greener India.

File Description	Document
Provide Link for Additional information	<u>View Document</u>

#### 1.3.2

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

**Response:** 60.29

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

Response: 586

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

**Response:** A. Feedback collected, analysed, action taken& communicated to the relevant bodies and feedback hosted on the institutional website

File Description	Document
Feedback analysis report submitted to appropriate bodies	View Document
At least 4 filled-in feedback form from different stake holders like Students, Teachers, Employers, Alumni etc.	View Document
Action taken report on the feedback analysis	<u>View Document</u>
Link of institution's website where comprehensive feedback, its analytics and action taken report are hosted	View Document

# **Criterion 2 - Teaching-learning and Evaluation**

#### 2.1 Student Enrollment and Profile

#### 2.1.1

#### **Enrolment percentage**

Response: 50.16

# 2.1.1.1 Number of seats filled year wise during last five years (Only first year admissions to be considered)

2022-23	2021-22	2020-21	2019-20	2018-19
176	161	107	149	192

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

2022-23	2021-22	2020-21	2019-20	2018-19
310	310	315	315	315

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Final admission list as published by the HEI and endorsed by the competent authority	View Document
Document related to sanction of intake from affiliating University/ Government/statutory body for first year's students only.	View Document

#### 2.1.2

Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

Response: 23.61

# 2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years (Exclusive of supernumerary seats)

2022-23	2021-22	2020-21	2019-20	2018-19
32	36	29	29	39

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

2022-23	2021-22	2020-21	2019-20	2018-19
149	149	149	155	97

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Final admission list indicating the category as published by the HEI and endorsed by the competent authority.	View Document
Copy of communication issued by state govt. or Central Government indicating the reserved categories(SC,ST,OBC,Divyangjan,etc.) to be considered as per the state rule (Translated copy in English to be provided as applicable)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 2.2 Student Teacher Ratio

#### 2.2.1

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

Response: 16.47

### 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 and teachers use ICT- enabled tools including online resources for effective teaching and learning process

#### **Response:**

Hooghly Engineering & Technology College (HETC) is promoting Outcome Based Education, which is a student centric teaching and learning methodology. The institute is following the guidelines of Maulana Abul Kalam Azad University of Technology (MAKAUT), West Bengal.

Institute always believes that learning through experience is the foremost important criterion to gain genuine knowledge. To gain the knowledge learners has to develop these following abilities like willingness to be actively involved, ability to reflect on the experience, analytical skills to conceptualize the experience and decision making and problem solving skills. Teaching learning process in HETC is not only developing these aforesaid abilities, but also following the Experiential Learning Model.

Various Experiential Learning practices of HETC are as follows:

- 1. Practical: HETC is strictly following the MAKAUT syllabus to ensure that students have a good time in laboratories to gain hands-on experience of their theoretical studies.
- 2. Internship: Internships in different industries and organizations are provided to the students, which help them to understand how the theories and experiments they are performing in laboratories are applied in practice.
- 3. Field Project: Students are encouraged to take up field projects in collaboration with the faculty members and industry experts.
- 4. Industrial Visit: Visiting industries is a regular practice at HETC which enables students to experience the technological aspects of an Industry and subsequently prepare them as industry ready.
- 5.To emphasize collaboration, interaction, and engagement among students HETC Applies Participative Learning practices as follows:
- 6. Classroom Interaction: Classroom interaction enriches the learning experience, promotes student engagement and achievement, and fosters a dynamic and interactive learning environment.
- 7. Peer-Learning: Project work of the students are carried out in a group where they share their knowledge and skill to make their project success.
- 8. Conferences/ Seminars/ Webinars: The Institute organizes these events regularly and encourages students to participate and interact with resource persons and peers.
- 9. MOOC Programmes: Students are encouraged to participate in different MOOC programme like NPTEL, ICT-IITK, SAP, COURSERA etc. to gain knowledge on out of the curriculum structure.

The Institute fosters problem solving abilities by

- 1. Assignments: Containing application oriented real-life problems.
- 2. Project-based Learning: Mandatory project work by all the students.

HETC has promoted the usage of ICT enabled tools in the teaching learning process.

- 1.Smart classrooms, smart boards, Wi-Fi facilities have been arranged to facilitate dynamic presentations, interactive lessons.
- 2. All the faculty members are encouraged/ motivated to use Google Classroom as a Learning Management System (LMS) so that students and teachers can always stay connected and participate in academic discussions.
- 3. All the computer laboratories are equipped with adequate number of computers.

- 4. Adequate number of computers with internet connectivity is available at the Central Library as well where students can access digital contents, e.g., Journals, NPTEL Courses, e-Books, Question Papers of previous years etc.
- 5. NDLI membership is also available.

File Description	Document
Provide Link for Additional information	View Document

#### 2.4 Teacher Profile and Quality

#### 2.4.1

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

Response: 85.38

#### 2.4.1.1 Number of sanctioned posts year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
61	60	60	60	60

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts)	View Document

#### 2.4.2

Percentage of full time teachers with NET/SET/SLET/Ph. D./D.Sc. / D.Litt./L.L.D. during the last five years (consider only highest degree for count)

Response: 19.07

# 2.4.2.1 Number of full time teachers with NET/SET/SLET/Ph. D./ D.Sc. / D.Litt./L.L.D year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
15	9	9	8	8

File Description	Document
List of faculties having Ph. D. / D.Sc. / D.Litt./ L.L.D along with particulars of degree awarding university, subject and the year of award per academic year.	View Document
Institution data in the prescribed format	View Document
Copies of Ph.D./D.Sc / D.Litt./ L.L.D awareded by UGC recognized universities	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:**

Hooghly Engineering & Technology College has developed a robust mechanism to ensure that the process of internal and external assessment is transparent and efficient. The college has an examination cell which is entrusted with not only conducting the internal and university examinations but also ensuring redressal of any exam related grievances.

Two invigilators are allotted in each examination hall during university examination. Invigilator's duty schedule and sitting arrangement of the students in the examination hall are supplied. A mobile team is formed for smooth conduction of the examination. The students are not permitted to carry mobile phones, programmable calculators, books, exercise books, writing boards which are considered as unauthorised materials in examination hall. Examinees are not allowed to enter the examination hall without proper uniform during examination. Any kind of unfair means are not allowed in the examination hall. IP based CCTV camera has been installed in each examination hall. University appoints an observer to ensure smooth and fair conduction of examination. A bio break sheet for students is provided in each examination room to prevent any potential cheating or disruptions during the exam.

Mechanism of internal and external assessment is time bound. All the assessments are conducted by following the university academic calendar. Internal assessments are performed on a continuous basis in the form of Continuous Assessments (CA). Total four CAs are carried out in each semester. Two out of four CAs are conducted by taking powerpoint presentations and report writing on the given topics. Rest two of the Continuous Assessments are conducted by written examination and another is online MCQ mode of examination. All the teachers of the concerned departments submit a set of question papers through the Head of the Department to the examination cell well in advance of the commencement of the exam. Results of all continuous assessments are uploaded in the university portal and students can see the results from their university portal. Model answers to the semester questions are provided by the university during evaluation.

For Practical papers continuous assessment PCA-I and PCA-2 of the laboratory classes for the entire

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semester are smoothly conducted by subject teacher and technical assistant. The evaluation of semester practical examination is done based on conduction of the experiment assigned and a comprehensive Viva-Voce.

Grievance redressal systems for internal and external examinations are time bound and efficient. Students are free to report in writing in the university portal about their difficulties with out of syllabus, misprint in question paper etc. A candidate can apply for post publication review (PPR) within stipulated time from (but excluding) the date of publication of result, for one or more subject items of the just concluded end semester examination on payment of a prescribed fee to the Institute as per details indicated from time to time through notification. After the result of PPR is declared, a fresh grade sheet is issued to the candidate incorporating changes.

File Description	Document
Upload Additional information	<u>View Document</u>

#### 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

#### **Response:**

Course Outcomes (CO) describes what the students taking that course are expected to know upon successful completion of the course. It is necessary to quantify the extent to which a student is able to meet this expectation in order to understand the effectiveness of the existing Teaching Learning process and introduce improvements to it. A mapping of the Course Outcomes with the Program Outcomes (PO) and Program Specific Outcomes (PSO) assist in evaluating the level of attainment of POs as well.

When a student gets enrolled for a particular subject during his/her tenure of undergraduate programme, a list of outputs (outcomes) is expected from him/her upon completion of that particular subject. This list is defined as the course outcomes (CO). It is often described by the affiliating university in the given syllabus. However, in some cases if not provided it is prepared with consultation with the concerned faculty. These outcomes are defined on a rational basis depending upon the course content as well as its suitability with the real-life technical problems. It is pertinent to have a suitable scale to measure the expectation achieved, as it directly reflects the prevailing teaching learning process and scope for further improvement. Hence, for this purpose, COs are mapped with the Program Outcomes (POs) and Program Specific Outcomes (PSOs). COs obviously get varied from one subject to the other, while POs are kept fixed. For e.g., a student studying in 1st semester of 3rd year (5th semester) taking a subject named "Soil Mechanics II" is expected to learn certain things which has been grouped into 6 COs. These include achieving a thorough knowledge regarding compaction and consolidation process, calculation of earth pressure in active and passive cases, designing of retaining structures etc. However, these COs get abruptly changed for another subject such as Engineering Hydrology which is also enlisted in the same semester. Unlike variable COs, there are predetermined twelve POs which are displayed on website and

it includes engineering knowledge, problem analysis, design/development of solutions, conduct investigations of complex problems, modern tool usage, correlation of the engineering works with the society, environment and sustainability, ethics, importance of both individual as well as team work, communication skill, involvement in project management and finance and finally life-long learning. These are some general qualities which society expects from a qualified graduate engineer. On the other hand, PSOs are mostly defined by the department and the number of PSOs varies from 3-4. Each of the COs are correlated with a particular PO or PSO on a scale of 1-4 and '-'for no correlation.

The institute follows a typical well-practiced technique for regular assessment of the levels of COs, POs, PSOs attained. It takes into account the marks secured by that particular student in all of the continuous assessments (CAs) as well the marks obtained in the final semester examination.

File Description	Document	
Upload Additional information	<u>View Document</u>	
Provide Link for Additional information	View Document	

#### 2.6.2

Attainment of POs and COs are evaluated.

#### Explain with evidence in a maximum of 500 words

#### **Response:**

The institute has a well-defined process of regularly assessing the levels of attainment of COs and POs. After the publication of complete results from the university, POs and COs are evaluated for all departments.

There are 4 attainment levels 1 to 4, with 4 being the maximum value. The results of the end semester examinations conducted by the affiliating university are used to determine the attainment of Course Outcomes for each course. The weighted average marks from the semester result (weightage being determined in terms of the credit assigned to the course) is taken as the benchmark for the course.

- Attainment Level 1: If 4? Weighted average marks? 5.5
- Attainment Level 2: If 5.5 < Weighted average marks ? 7
- Attainment Level 3: If 7 < Weighted average marks? 8.5
- Attainment Level 4: If 8.5 < Weighted average marks? 10

This is the mechanism of determining the attainment level of COs of a course.

Determining the Attainment level of POs and PSOs

A correlation table is at first formed (with the correlated values 1-4 and '-'for no correlation) with COs vs. POs and COs vs. PSOs for every individual course. Then the attainment value of POs and PSOs for a

course is calculated in reference with obtained attainment value of course outcome in proportion with the correlation table.

The attainment values for all courses are then consolidated to obtain the final attainment value for each PO and PSO.

Correlation levels 1, 2, 3 and 4 as defined below:

• Level 1: Low

• Level 2: Medium

• Level 3: High

• Level 4: Very High

Weighted average marks are calculated and course attainment level is determined.

Then the attainment calculation of all courses with COs and POs are calculated.

File Description	Document
Provide Link for Additional information	View Document

#### 2.6.3

Pass percentage of Students during last five years (excluding backlog students)

Response: 98.37

# 2.6.3.1 Number of final year students who passed the university examination year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
241	251	316	320	261

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

2022-23	2021-22	2020-21	2019-20	2018-19
247	251	317	331	266

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Provide Links for any other relevant document to support the claim (if any)	View Document

# 2.7 Student Satisfaction Survey

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Online student satisfaction survey regarding teaching learning process

**Response:** 3.76

File Description	Document
Upload database of all students on roll as per data template	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

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

2022-23	2021-22	2020-21	2019-20	2018-19
0	0	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, Indian Knowledge System (IKS),including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident

#### **Response:**

Hooghly Engineering & Technology College strongly promotes research work and innovation. The college has a Research Advisory committee to oversee the smooth and efficient coordination of research and development activities in the institute, thus fostering overall growth. The committee actively tries to inculcate the spirit and culture of research amongst faculty and students. It strives to enhance the interaction and cooperation between researchers for interdisciplinary and multidisciplinary work. The committee, with the help of the departments, organizes research promotion events like conferences, seminars, workshops, invited lectures; webinars etc. and motivates faculty members for doctoral and postdoctoral research. A good number of research papers published by faculty members in national and international journals and conferences are a testimony to the thriving ecosystem of research and innovation in the college. To create an environment conducive to innovation, students are encouraged to make unique and innovative projects and showcase them during the college Tech fest. The event is competitive as well and there is prize money for the best innovative idea.

The college has organized various programs both in offline and online mode on Intellectual Property

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Rights (IPR) to create awareness amongst the teachers and students. External speakers have been invited to enlighten the audience. Some of the programs were held in association with the Office of the Controller General of Patent, Design and Trademarks as part of the National IP Awareness Mission (NIPAM).

The college tries to advocate the traditional knowledge systems embedded in our heritage and their relevance in our daily life. Several yoga training sessions were held for faculty members and students by the 'Art of Living Foundation' to help them achieve mental peace and to relieve the stresses of life. The college has also introduced free of cost yoga training classes for all students which are held regularly. During various cultural programs held in the college campus initiatives are taken to promote our cultural heritage through the performance of students. Presentations of traditional and classical dance forms, recitations, classical vocal and folk songs are always encouraged. Through these activities the students can practice, uphold and become conscious of our rich heritage and thereby can carry it into the future.

File Description	Document
Provide Link for Additional information	View Document

#### 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: 21

# 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

2022-23	2021-22	2020-21	2019-20	2018-19
6	2	1	5	7

File Description	Document
Upload supporting document	<u>View Document</u>
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 notified on UGC care list during

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#### the last five years

Response: 0.49

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

2022-23	2021-22	2020-21	2019-20	2018-19
05	05	06	03	13

File Description	Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	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: 0.25

# 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

2022-23	2021-22	2020-21	2019-20	2018-19
4	2	4	4	2

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 3.4 Extension Activities

#### 3.4.1

Outcomes of Extension activities in the neighborhood community in terms of impact and sensitizing the students to social issues for their holistic development during the last five years.

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#### **Response:**

The college is very much interested in shaping up the students not just as good professionals but as good human beings. Extension activities are pivotal, fostering awareness of societal issues and contributing to holistic development of the students. In the last 5 years, college arranged 22 number of extension activities and outreach programme.

The college is deeply committed to engaging in various extension activities that have a positive impact on the local community, feeling their specific needs. A variety of social and technical events and programs are organized, reflecting the dedication to operate responsibly in both technological and social domains. The main goal of the college is to pursue these endeavors with a sense of unity, maintaining harmony with the environment and society. Involving students in a range of social and technical activities is a deliberate effort to encourage finer human qualities, molding them into reliable citizens. Notable initiatives include Blood Donation Camps, Thalassemia Awareness and Detection Camps, Green Campus Initiatives, Tree Plantation, AIDS Awareness Rallies, visits to local orphanages etc.

The college actively collaborates with local NGOs like Paschim Banga Bigyan Mancha, Sanjivani Welfare Trust, State Blood Transfusion Council, West Bengal, Kothari Medical Centre Blood Bank, Ranaghat Thalassaemia Detection Centre run by National Health Care Charitable Trust and helps the NSS Unit of HETC to organize these activities. Additionally, the institution hosts Technical Festivals and Competition, attracting participants from both technical and non-technical colleges. The college also actively includes children from local schools in specially designed competitions to increase awareness of technical and scientific progress.

Various activities undertaken to engage faculty, students and staff in the neighbor-hood community are:

#### Cleanliness:

Students and staff members voluntarily conducted Swachh Bharat cleanliness drives within and around the college campus, aligning with national initiatives.

#### **Environment:**

The Institute actively fosters environmental consciousness among students, faculty, and staff. Over the past years, NSS Unit of HETC has conducted tree plantation drives multiple times. World Environment Day, Earth Day, etc., are celebrated by planting trees both within and outside the college premises.

#### Disaster Management:

NSS unit of HETC in collaboration with Paschim Banga Bigyan Mancha conducted Relief Camps in cyclone affected areas.

#### Health:

The institute conducted Voluntary Blood Donation Drives in collaboration with different agencies, with over 300 students and faculty contributing. Thalassemia Awareness detection camps, in collaboration with the Ranaghat Thalassemia Detection Centre, involved over 350 participants. World AIDS Day and COVID-19 awareness and antibody testing camps were also organized and distributed masks and

sanitizers among the local people.

Learning of the students from above Extension Activities:

Inspire students to help with social and community problems and nurture a positive attitude towards making a difference in their community. Inculcate a sense of responsibility towards society and increase interest in environmental issues and sustainability. That will help to develop in academics, skills, and confidence and also enhance critical thinking, problem-solving, communication, and teamwork skills.

File Description	Document
Provide Link for Additional information	View Document

#### 3.4.2

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

#### **Response:**

These details of awards and recognitions received for extension activities from government / government recognised bodies represents the remarkable endeavors and recognition gathered by Hooghly Engineering & Technology College (HETC) through its extension activities. The college's obligation to community service has resulted in several prestigious awards and letters of appreciation.

#### 1. Blood Donation Camps:

NSS unit of HETC organized an admirable Blood Donation Camp in collaboration with different organizations. The event was recognized with the Certificate of Appreciation by the **State Blood Transfusion Council, West Bengal** for Excellence in Community Health Initiatives.

#### 2. Thalassemia Detection and Awareness Camps:

HETC received the Certificate of appreciation from the **Ranaghat Thalassemia Detection Centre** (An Auxiliary unit of State Thalassemia control Program) run by **National Health Care Charitable Trust** for Outstanding Contribution to Thalassemia Awareness and Detection in the year 2018 and 2019 respectively.

#### 3. Appreciation Letter from Sanjivani Welfare Trust:

NSS unit of Hooghly Engineering & Technology College organized a Mosquito Net distribution camp among the underprivileged people with the collaboration of **Sanjivani Welfare Trust**. HETC received an appreciation letter from the **Sanjivani Welfare Trust**.

#### 4. Appreciation for Flood Monitoring System:

Mr. Ayan Bag, a student in the 4th Year from the Department of Electronics and Communications Engineering, done a Flood Monitoring System with the help faculty members of HETC with realizing this real time IoT based project.

- 5. On World Environment Day, June 5, 2021, Ms. Somi Koley from the Civil Engineering Department of HETC received a Certificate of Appreciation for her outstanding performance in the Inter-college Research Paper Presentation Contest organized by **MAKAUT**.
- 6. Certificate of appreciation awarded to Dr. Ankan Bhattacharya in honor of his excellent work as **Technical Committee Member** of the **12th International Conference on Communications, Circuits, and Systems (ICCCAS), Singapore** during May 5-7, 2023.
- 7. Certificate of **Reviewing awarded** to Dr. Tanumoy Ghosh in recognition of the **review contributed** to the **Journal ELSEVIER** (**Transportation Research Interdisciplinary Perspectives**).
- 8. Certificate of **appreciation awarded** to Dr. Ankan Bhattacharya as a **Guest Editor** of the **Journal Springer (SN Applied Sceinces)**.
- 9. Certificate of **Review awarded** to Dr. Rajesh Patra in recognition of the **review contributed** to the journal of **Mechanics of Material, Elsevier.**
- 10. Certificate of Excellence in reviewing to Dr. Ankan Bhattacharya by Defence Science Journal (DRDO).
- 11. **School connect programs** are conducted by Hooghly Engineering & Technology College, is a widespread outreach initiative aimed at engaging students from local schools. This program targets students from the 5th to 12th standard, providing them with an opportunity to connect with higher education institutions and gain exposure to advanced educational resources, environments and motivation needed for their future educational and career endeavors. The **event was covered by Bengali newspaper** "**Bartaman**".
- 12. Letter of Recognition from **Bandel Vidyamandir Girls' High School** for Laboratory visit on 4th May. 2023 at HETC.

File Description	Document
Provide Link for Additional information	View Document

#### 3.4.3

Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community during the last five years.

Response: 24

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

2022-23	2021-22	2020-21	2019-20	2018-19
4	8	3	7	2

File Description	Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 3.5 Collaboration

#### 3.5.1

Number of functional MoUs/linkages with institutions/industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.

Response: 22

File Description	Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

# **Criterion 4 - Infrastructure and Learning Resources**

### 4.1 Physical Facilities

#### 4.1.1

The Institution has adequate infrastructure and other facilities for,

- teaching learning, viz., classrooms, laboratories, computing equipment etc
- ICT enabled facilities such as smart class, LMS etc.

Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc (Describe the adequacy of facilities in maximum of 500 words.)

#### **Response:**

The college was established in the year 2004 after receiving approval from AICTE and affiliation from WBUT (Currently known as MAKAUT). The college has received approval and affiliation from the respective body and university in each year by maintaining all essential and desirable requirements.

### Teaching - Learning and ICT - enabled facilities

- The college ensures adequate availability and optimal utilization of physical infrastructure. The
  college aims to create an environment of excellence in education through technologically
  advanced methods.
- Well-equipped 20 classrooms with green or white boards, LCD projectors (in a few classrooms) are there. Total 5 tutorial rooms are there. The College has 02 well equipped smart classrooms. The number of smart classrooms increased to 05 in the academic year 2023-2024.
- There are 30 well-equipped laboratory rooms, including 9 computer laboratories. These laboratories have adequate instruments, equipment, machinery and computers. Over 55 different laboratories from all departments are functioning, including a language laboratory, a mechanical workshop, a graphics laboratory, a CAD laboratory, computing laboratories etc.
- An English Communication Laboratory is available with projector, headphone, speaker and other modern teaching learning facilities.
- A fully air-conditioned seminar hall with more than hundred seating capacities, overhead LCD projection system and podium is present in the college.

# Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc.

- The institute has an auditorium which has a seating capacity of approximately 800 persons at a time along with a separate stage to perform cultural activities like drama/ song/ dance/ recital and/or to deliver a lecture/ seminar to maximum students/ faculty members/ staffs at a time with the help of LCD projector. Various programmes like teacher's day celebration, women's day celebration etc. are performed in the auditorium.
- The college has a fully equipped anechoic seminar room.
- Every year the college arranges Annual Sports, Badminton tournaments, Football tournaments and Cricket tournaments for students in college ground.

- Hooghly Engineering & Technology College has both boys and girls common room for students where indoor games facilities are available.
- The college arranges training classes for campus recruitment drives. Special classes regarding campus recruitment activity are arranged by the college.
- The institute hosts different entrance examinations relating to employment (Staff Selection Commission, Railway Recruitment Board, Civil Services, IBPS etc.), selection for higher studies (Joint Entrance Examination, JELET etc.) conducted by different government organizations.
- A fully air-conditioned board room with seating capacity of 30 persons (used for meeting purposes) and having a smart board is in the college.

File Description	Document
Upload Additional information	View Document

#### 4.1.2

Percentage of expenditure for infrastructure development and augmentation excluding salary during the last five years

Response: 8.17

# 4.1.2.1 Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
35.80121	5.07020	1.58875	12.82541	13.12831

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Provide Links for any other relevant document to support the claim (if any)	View Document

# 4.2 Library as a Learning Resource

#### 4.2.1

Library is automated with digital facilities using Integrated Library Management System (ILMS), adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students

#### **Response:**

Hooghly Engineering & Technology College Library is well equipped with adequate digital facilities to meet the academic needs of students and faculty members.

The HETC library operation has been partly automated and managed by a leading Integrated Library Management System - LIBSYS (LSEase, Version: Rel 6.2.8) since 2007. Libsys has five basic modules – Acquisition System, Cataloguing System, Circulation System, Serial Control and Online Public Access Catalog (OPAC). This Integrated Library Management System (ILMS) provides various benefits to users such as Online Public Access Catalog (OPAC) for searching of library documents, issue and return of books. Similarly it also helps library staff for smooth functioning of the library activities such as cataloging, generation of barcodes, searching of library documents through OPAC, creation of library memberships of users, circulation (check-in or check-out, renewal etc.) and reports generation on library transactions. Fully air-conditioned library has adequate space for storage of books, journals, display of periodicals, display of new arrivals etc. and to provide facilities in different sections like circulation, technical processing, reading room, digital library etc. The reading room has 120 sitting capacity for students and all staff members.

HETC library is offering and promoting e-resource to the users through DELNET. DELNET has Discovery Portal, Knowledge Gainer Portal and Vision Portal (Video Lectures). The portals have sophisticated features for advanced knowledge discovery. It is a simple, single window discovery layer which encourages the users to explore the networked library/knowledge resources offered through DELNET in a feature-rich environment. As a member of DELNET, users can access 1,59,51,791 e-resources including e-books, e-journals, articles etc. The library of HETC has 30 numbers of national and international printed journals. The HETC library also is a member of National Digital Library of India (NDLI) and as a member all the benefits can be accessed. To access all e-resources high speed internet and Wi-Fi connectivity are avilable, thus allowing users to use their devices to access the e-resources.

The college has an adequate number of books (Number of titles: 2845 and number of volumes 31019), journals, magazines etc. and well-equipped digital library with high-speed internet access and power backup. Students can get a maximum of 6 books for 1 month. After that they can renew or return the same. Beside this, the students have the book bank facility where each student can get 4 books for 1 semester. Faculty members and all other staff members have the facility to keep 10 books in each semester and after this period they return the same to the library.

File Description	Document
Provide Link for Additional information	View Document

#### 4.3 IT Infrastructure

#### 4.3.1

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

Describe IT facilities including Wi-Fi with date and nature of updation, available internet bandwidth within a maximum of 500 words

#### **Response:**

#### **Infrastructure Overview:**

#### 1. Computing Facilities:

• In the institute, 238 computers are allocated for the students.

#### 2. Meeting Facilities:

 Air-conditioned Boardroom with smart board, seating capacity of 30 persons utilized for meetings.

### 3. Printing Facilities:

- Central printing facility in the examination cell
- Separate printers for each department, admission cell, Principal's office, Deputy Registrar's office, front office, library and IQAC office
- Central reprographic facility is available in the campus

#### 4. Internet Facilities:

- Adequate internet facilities for students and staff members
- Internet access available in all buildings using dedicated lease line and Broadband connection throughout the campus

#### 5. Laboratory Facilities:

- Adequate number of computers with internet connections in required departmental laboratories
- Well-equipped language laboratories with computer, proper audio systems and projector facilities

#### 6. Reading Room:

- Well-furnished fully air-conditioned reading room with Wi-Fi facilities
- Accommodates 110 students and 10 faculty members for study sessions

#### 7. CCTV Surveillance:

 Campus, including library, reading room, classrooms and some of the laboratories under CCTV surveillance

#### 8. Internet Connectivity:

• Dedicated Lease line of 50 mbps from Ishan Nestol Private Limited and 140 mbps Alliance broadband line wifi connected - 2022-23

- Dedicated Lease line of 50 mbps from Ishan Nestol Private Limited 2021-22
- Dedicated Lease line of 32 mbps from Ishan Nestol Private Limited 2020-21
- Dedicated Lease line of 32 mbps from Vodafone and Bharti Airtel 2019-20
- Dedicated Lease line of 32 mbps from Vodafone and Bharti Airtel 2018-19

#### 9. Wi-Fi Facility:

• The entire campus is Wi-Fi enabled.

File Description	Document
Provide Link for Additional information	<u>View Document</u>

#### 4.3.2

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

Response: 4.08

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

Response: 238

File Description	Document
Provide Links for any other relevant document to support the claim (if any)	View Document

# 4.4 Maintenance of Campus Infrastructure

#### 4.4.1

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

**Response:** 4.85

# 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)

2022-23	2021-22	2020-21	2019-20	2018-19
8.6630	6.05353	9.32598	9.16219	7.42285

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for maintenance of infrastructure should be clearly highlighted)	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 institution, government and non-government bodies, industries, individuals, philanthropists during the last five years

**Response:** 57.4

# 5.1.1.1 Number of students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
891	717	525	418	292

File Description	Document
Year-wise list of beneficiary students in each scheme duly signed by the competent authority.	View Document
Upload Sanction letter of scholarship and free ships (along with English translated version if it is in regional language).	View Document
Upload policy document of the HEI for award of scholarship and freeships.	View Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 5.1.2

Following capacity development and skills enhancement activities are organised for improving students' capability

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

**Response:** A. All of the above

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File Description	Document
Report with photographs on Programmes /activities conducted to enhance soft skills, Language and communication skills, and Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)	View Document
Report with photographs on ICT/computing skills enhancement programs	View Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	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: 41.65

# 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

2022-23	2021-22	2020-21	2019-20	2018-19
274	499	158	731	401

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

#### 5.1.4

The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases

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

**Response:** A. All of the above

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File Description	Document
Proof w.r.t Organisation wide awareness and undertakings on policies with zero tolerance	View Document
Proof related to Mechanisms for submission of online/offline students' grievances	View Document
Proof for Implementation of guidelines of statutory/regulatory bodies	View Document
Details of statutory/regulatory Committees (to be notified in institutional website also)	View Document
Annual report of the committee motioning the activities and number of grievances redressed to prove timely redressal of the grievances	View Document
Provide Links for any other relevant document to support the claim (if any)	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: 54.57

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

2022-23	2021-22	2020-21	2019-20	2018-19
125	153	180	190	110

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

2022-23	2021-22	2020-21	2019-20	2018-19
241	251	316	320	261

File Description	Document
List of students progressing for Higher Education, with details of program and institution that they are/have enrolled along with links to proof of continuation in higher education.(the above list should be available on institutional website)	View Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 5.2.2

Percentage of students qualifying in state/national/international level examinations during the last five years

Response: 6.34

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

2022-23	2021-22	2020-21	2019-20	2018-19
10	8	15	5	2

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Provide Links for any other relevant document to support the claim (if any)	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:** 10

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

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#### last five years

2022-23	2021-22	2020-21	2019-20	2018-19
7	2	0	0	1

File Description	Document
Upload supporting document	View 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: 11.4

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

2022-23	2021-22	2020-21	2019-20	2018-19
23	16	1	6	11

File Description	Document
Upload supporting document	<u>View Document</u>
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:**

The name of the registered Alumni Association of the Hooghly Engineering & Technology College is "Alumni Association of Hooghly Engineering and Technology College (AAHETC)", registered under the West Bengal Societies Registration Act, 1961 on 6.4.23 with registration number: S0035250 of

2023-2024. The Registered Office of the Association is Hooghly Engineering & Technology College, Pipulpati, P.O. & District:-Hooghly-712103, West Bengal.

There is a well framed Association that holds meetings quarterly to ensure smooth running of AAHETC with well-directed aims and objectives and also to frame future activities for the benefit of the stakeholders of the college at large. There is an Alumni Committee of the college that acts as the working committee with the objective to uplift the image and reputation of the College and to foster continuing professional as well as academic development by drawing support from distinguished Alumni in their respective fields. Besides, AAHETC maintains a record of the alumni of the College with their qualification and addresses and holds annual reunion of the alumni preferably in the month of January every year unless otherwise decided.

The Association takes initiative to organize seminars/workshops/lectures by alumni as well as eminent personalities from industry on selected topics of science, technology and humanities to enhance the knowledge base of the students and to improve industry interactions. AAHETC used to contribute towards placement of college students and also provide sponsorship for an event open for all departments in the Technical Fest of HETC named TECHetc. AAHETC also organizes a prize distribution ceremony on the day of Annual Alumni Meet of the college for the toppers of all streams from 1st to 4th year to inspire them to sustain their study with the same level of sincerity and determination. Distinguished alumni members used to provide training and employment opportunities for the students as and when suitable along with academic support for financially weak students.

File Description	Document
Provide Link for Additional information	<u>View Document</u>

# Criterion 6 - Governance, Leadership and Management

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

#### 6.1.1

The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.

#### **Response:**

The Hooghly Engineering & Technology College, established in 2004, is a self-financed engineering degree college in Hooghly, West Bengal, registered under the Societies of West Bengal Act XXVI of 1961, approved by AICTE and affiliated with Maulana Abul Kalam Azad University of Technology (MAKAUT), formerly known as West Bengal University of Technology (WBUT) and recognized by UGC- Section 2(f).

The institute's governance aligns with its vision and mission statements. The institute values transparency, encourages participative decision-making and decentralization of responsibilities at various levels by promoting efficiency, accountability and leadership.

#### Vision:

To develop professionally competent and socially responsible human resources by imparting quality education in the field of engineering and technology.

#### Mission:

- To impart learner-centric and comprehensive education that fosters holistic growth and encourages the application of acquired knowledge in different areas of professional and social functioning, research, and entrepreneurship.
- To create a dynamic and innovative teaching-learning process focusing on continuous upgradation of teaching resources, tools, and technologies.

The Principal (Secretary of the Governing Body) along with IQAC Coordinator and the departmental heads steer all academic activities of the college. The institute runs academic and administrative activities following various policies. Based on the perspective plan of the college, an Academic and Administrative Audit (AAA) is conducted and measures are taken accordingly. Faculty members use the Learning Management System (LMS) and smart classrooms to deliver lectures in addition to the conventional classroom. Students are engaged in participative learning through mini-projects, collaborative industrial training, internships and final-year project work to enhance their skills.

All staff members play an important role in accomplishing the college's vision and mission by taking a

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proactive role in their assigned duties. All activities are decentralized by the head of the institute through different committees and cells. Faculties, technical assistants and administrative staff are members and conveners of different committees for the smooth function of the institute and run different sections such as student admission, timetable preparation, mentoring, purchase, examination, publishing magazines, training and placement. Both staff members and students organize blood donation camps, different extension activities, technical fests, cultural fests, sports and games and many other programmes.

To run all the activities, the head of the institution prepares the annual academic calendar with the consultation of departmental heads of different programmes, convenors or coordinators of various committees or cells that include academic classes, continuous assessments, semester examinations, NSS programmes, workshops, seminars, skill enhancement through MOOCs, internship programmes, soft skill and industrial training, tech fests, cultural fests, sports, STTPs and FDPs for faculty members and training programmes for non-teaching staff. The head of the institute holds regular meetings with HODs to address departmental issues, preparing notices and minutes for regular academic and other activities in coherence with the academic calendar.

File Description	Document
Provide Link for Additional information	<u>View Document</u>

#### **6.2 Strategy Development and Deployment**

#### 6.2.1

The institutional perspective plan is effectively deployed and functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc

#### **Response:**

For the smooth running of the institution in all aspects as well as the implementation of the perspective plans and different activities, the college has an organogram. The Governing Body (GB) is the highest authority of the institution. Principal who is also Secretary of GB mainly looks after four segments of the institute: Academics, Administration, Library and Training and Placement Cell. The Principal, along with all Heads of Departments, teaching, non-teaching members and all other stakeholders such as students, parents etc., works together to fulfill the vision and mission of the institute in all spheres of excellence. The Officer in Charge (OIC) and Supervisor of the examination cell lead and conduct various assessments with the help of others effectively. Under the guidance of the Principal, all the administrative affairs are executed and finance-related matters are taken care of by the Finance Officer (FO). The Assistant Librarian is involved in supporting library operations and maintaining resources with the other library staff. The Training and Placement Officer (TPO) and Assistant TPO are assigned to the Training and Placement Cell.

The institute follows the guidelines of AICTE which is the approving body, for recruitment. The institute has also well-established service rules where the eligibility for appointments, responsibilities of staff, leave rules etc. are available. Besides these, there are several Statutory and Non-Statutory Committees

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formed each year to look after the different activities of the institute.

The institute has an annual appraisal system for all staff members. The annual increment is given based on mentioned performance appraisal.

The perspective plan which was formed in July 2022, in accordance with the Vision and Mission of the institute, broadly focuses on the following features:

- 1. NAAC accreditation and participation in NIRF ranking.
- 2. Enhance teaching, learning environment and infrastructure facilities.
- 3. Enhance engagement with industry and society for all-round growth.
- 4. Organizing faculty development programmes and conferences and enhancing quality research publication.

Under the guidance of the Principal, immediate initiatives were taken to fulfill some of the directives of the perspective plan.

Activities successfully implemented based on the perspective plan:

- 1. The Internal Quality Assurance Cell of the Hooghly Engineering & Technology College (HETC) organized a 1-week Faculty Development Programme (FDP) in ICT mode on "Institutional Quality Enhancement through NAAC," spanning 17th to 24th November 2022.
- 2. Participated in the NIRF ranking framework for the year 2023.
- 3. Completed industrial training at Alteryx and AWS. Established industry partnerships with Alteryx, Blue Prism, Palo Alto, and Celonis through EduSkills at Hooghly Engineering & Technology College to enhance engagement with industry.
- 4. Mosquito net distribution on 24.3.23.
- 5. Students of Hooghly Engineering & Technology College secured a special prize in "Eastern India Science and Engineering Fair, 2023".

File Description	Document
Institutional perspective Plan and deployment documents on the website	View Document
Provide Link for Additional information	View Document

#### 6.2.2

Institution implements e-governance in its operations

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

<b>Response:</b> A. All of the above		
File Description	Document	
Screen shots of user interfaces of each module reflecting the name of the HEI	View Document	
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	View Document	
Annual e-governance report approved by the Governing Council/ Board of Management/ Syndicate Policy document on e-governance	View Document	
Provide Links for any other relevant document to support the claim (if any)	View Document	

### **6.3 Faculty Empowerment Strategies**

#### 6.3.1

The institution has performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression

#### **Response:**

#### **Performance Appraisal System of the Institute:**

The Hooghly Engineering & Technology College (HETC) believes that the performance of the institute is directly linked to the performance of individual employees. The performance appraisal of all employees is essential for the quality enhancement of the institution.

The assessment of performance appraisal systems for all faculties and technical assistants is done in the following manner:

- a) By the Students' Feedback
- b) By Self-Assessment
- c) By the Feedback from HoD/DIC/Coordinator of the Department
- d) By the Feedback from Chairman, IQAC
- e) By the Feedback from Secretary, Management

The assessment of the performance appraisal system for all the administrative staff is done based in the following manner:

- a) By Self-Assessment
- b) By the Feedback from Chairman, IQAC
- c) By the Feedback from Secretary, Management

The appraisal system is fair and transparent and focuses on the overall improvement of the organization and its staff.

#### **Effective welfare measures for teaching and non-teaching staff:**

The institution supports the teaching and non-teaching staff through several welfare schemes.

- **1. Academics:** Faculty and technical staff have access to an air-conditioned reading room and can keep up to ten books for a semester.
- **2. Professional Training and Academic Development:** The institute encourages all staff attending faculty development programs, short-term training, workshops, seminars and conferences.
- **3. Wi-Fi Facility in the campus:** Wi-Fi facilities are provided to the staff for effective learning and access to e-journals in the library is available for research purposes.
- **4. Transport facility:** Free pick-up and drop-off facilities from the nearest railway station for all staff.
- **5. Financial Assistance:** Financial assistance is provided to faculty members for the following:
  - Attending faculty development programs
  - Presenting research papers at National and International Conferences.
  - Publishing research papers in National and International Journals (SCI / Scopus indexed or IEEE Journals).
  - Authoring technical books.
- **6. Employee Provident Fund (EPF):** Most of the employees are members of the Employees' Provident Fund (EPF).
- **7. Leave & Other Professional Benefits:** Besides all leave facilities, HETC grants on-duty leave for attending conferences, faculty development programs, short-term training, workshops and seminars.
- **8. Group Medical Insurance Facility:** Group medical insurance facilities for all staff members including family are provided.
- **9. First-Aid Facility:** The college provides appropriate first-aid facilities for all staff members.

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- **10. Special Leave for Staff:** HETC grants maternity leave to female staff members. Special leaves are also provided in extraordinary situations.
- **11. Uniform dress for support staff:** The incentives for dress materials for some of the supporting staff and contingency staff are provided.
- 12. Staff Day Out A Day of Relaxation: Staff get together is organized each year.
- **13. Staff Quarter:** Accommodation is provided for employees.
- 14. Sports facility for Staff: The staff members enjoy participating in the sports event together.
- **15. Other Facilities:** Campus Security, Water purifiers, Vehicle Parking facilities, Subsidized canteen etc.

#### Avenues for career development or progression:

- Faculty members are always encouraged to pursue higher education, particularly PhDs.
- Staff promotions are conducted based on performance appraisals.

File Description	Document
Provide Link for Additional information	<u>View Document</u>

#### 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: 0

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

2022-23	2021-22	2020-21	2019-20	2018-19
0	0	0	0	0

File Description	Document
Policy document on providing financial support to teachers	View Document
Institutional data in the prescribed format	View Document
Copy of letter/s indicating financial assistance to teachers and list of teachers receiving financial support year-wise under each head.	View Document
Audited statement of account highlighting the financial support to teachers to attend conferences / workshop s and towards membership fee for professional bodies	View Document

#### 6.3.3

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

Response: 32.34

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

2022-23	2021-22	2020-21	2019-20	2018-19
52	55	44	19	14

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

2022-23	2021-22	2020-21	2019-20	2018-19
63	62	62	62	63

File Description	Document	
Institutional data in the prescribed format	<u>View Document</u>	
Annual reports highlighting the programmes undertaken by the teachers	View Document	
Provide Links for any other relevant document to support the claim (if any)	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:**

#### **Source of Funds:**

Students are admitted in this institution through the West Bengal Joint Entrance Examination (WBJEE), Joint Entrance Examination (Main) and Joint Entrance for Lateral Entry. Being a self-financing institution the main resource of funds comes from the students' tuition fees. The fee structure for admission is as per the regulation of the affiliated university. Aside from this, funds also come from hostel fees and fixed deposit interest.

#### **Mobilization of Funds:**

Staff Salary and Staff Welfare: The main part of the funds is utilized for the salaries of the teaching and non-teaching staff members of the institution. In addition to this, group medi-claim, transport services, EPF, etc. are provided to all staff as part of welfare measures.

#### **Infrastructure Development and Maintenance:**

This institution has five buildings, boys and girls hostels, laboratories, etc., which requires proper fund allocation for infrastructure development and maintenance throughout the year.

#### Purchase of Laboratory Set-ups, Softwares, and Library Books:

Every year, a portion of the fund is required for the procurement of laboratory set-ups, softwares, library books and journals to run the academic activities smoothly.

#### **Student Welfare, Curricular and Cocurricular Activities:**

To organize orientation and freshers welcome, games and sports events, tech-fest, cultural fest, NSS activities, etc., funds are required throughout the year. Apart from this, some amount of the fund is

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required for the group personal accident policy for the students.

Remuneration of the resource person to organize training, workshop, seminar, conference, extension activities, and placement activities:

Training, workshops, seminars, conferences, extension activities, placement activities, etc. are organized throughout the year. This requires lots of skilled people from different industries as well as from technical and non-technical institutions. A part of the resources is used for the remuneration of those persons.

#### Approval, Affiliation and Accreditation Fee:

To get approval from AICTE, affiliation from MAKAUT and different accreditation matters, funds are used each year.

#### **Miscellaneous:**

Some portion of the funds are also used for promotional purposes, such as to pay electric and telephone bills, renew internet broadband connections, pay university examination fees, purchase office equipment, stationary items, procure items for green initiatives, etc.

A registered chartered accountant conducts an external audit at the conclusion of the fiscal year. An annual return is filed and delivered to the income tax office annually.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

## **6.5 Internal Quality Assurance System**

#### 6.5.1

Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes. 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 Internal Quality Assurance Cell (IQAC) of Hooghly Engineering & Technology College was established in 2016. Since inception, the main focus of the cell has been to audit and improve the academic and administrative performance of the institution, guided by the vision and mission of the institution.

#### **IQAC Objectives:**

- The main objective of IQAC is to analyse the scopes to improve academic and administrative environment, proper planning and execution.
- To form quality assurance strategies and quality improvement strategies to improve quality of the institution through continuous upgradation.

### **IQAC Responsibilities:**

- Improvement and proper functioning of teaching and learning environment
- Proposal for preparation of perspective plan
- Participation in NIRF ranking, certification for quality management and AISHE survey
- Preparation for accreditation
- Collecting feedback from stakeholders, analysing and taking necessary measures
- Promoting research activities
- Conduction and encouragement to participate in FDP, Workshop, Seminars
- Quality improvement through appraisal collection and analysis
- Skill enhancement for the students to increase employability
- Optimization and integration of modern methods with existing teaching and learning
- Collecting information of different activities and achievements of HETC

#### **IQAC Functions:**

- IQAC ensures continuous improvement in teaching and learning resources.
- Coordinates data collection for submission of NIRF ranking and AISHE survey and facilitates certification processes related to quality management.
- Prepares documents and self-study reports for accreditation.
- Designs feedback for students, faculty and other stakeholders, analyses feedback to identify areas for improvement and implements corrective actions.
- Encourages faculty and students to engage in research.

- Organizes faculty development programs (FDPs) and workshops.
- Designs performance appraisal and implements strategies for professional development based on appraisal outcomes.
- Collaborates with industries for skill development programs and organizes training sessions to enhance student skill and employability.
- Evaluates the effectiveness of modern teaching methods and forwards it to the management for necessary action.
- Publication of HETC Chronicle (e-News letter of the college) containing different activities and achievements of HETC.

#### **Benefits of IQAC:**

IQAC's proactive approach ensures that these functions are executed systematically, contributing to overall institutional excellence and continuous improvement in quality assurance.

File Description	Document
Provide Link for Additional information	<u>View Document</u>

#### 6.5.2

#### Quality assurance initiatives of the institution include:

- 1. Regular meeting of Internal Quality Assurance Cell (IQAC); quality improvement initiatives identified and implemented
- 2. Academic and Administrative Audit (AAA) and follow-up action taken
- **3.** Collaborative quality initiatives with other institution(s)
- 4. Participation in NIRF and other recognized rankings
- 5. Any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA etc.

**Response:** A. Any 4 or more of the above

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File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period.	View Document
NIRF report, AAA report and details on follow up actions	View Document
Link to Minute of IQAC meetings, hosted on HEI website	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

### **Criterion 7 - Institutional Values and Best Practices**

## 7.1 Institutional Values and Social Responsibilities

#### 7.1.1

Institution has initiated the Gender Audit and measures for the promotion of gender equity during the last five years.

Describe the gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words

#### **Response:**

The principle of gender equality is enshrined in the Indian Constitution in its Preamble, Fundamental Rights, Fundamental Duties and Directive Principles. The Constitution not only grants equality to women but also empowers the State to adopt measures of positive discrimination in favour of women in Articles 14, 15, 19 and 21.

#### **ABOUT:**

Hooghly Engineering & Technology College (HETC) facilitates women's empowerment through awareness programmes, seminars and other welfare activities. The college strives to make the campus a safe haven by safeguarding the rights of female students and staff members by addressing the practical issues and needs related to their welfare. In this regard, the college has established an Internal Complaints Committee (ICC) for any grievance redressal raised by female students and staff members.

#### **ANNUAL ACTION PLAN: -**

#### **OBJECTIVES:**

- To promote a culture of respect and equality for the female gender.
- To educate girl students on women-specific health issues and measures to be taken.
- To identify strong leadership among women and girls and build their capacity.
- To help them become physically, mentally and emotionally empowered to safeguard their dignity.
- To facilitate and inspire women and girls to attain higher education and maximise their future scope.

#### **INITIATIVES:**

- Organising different activities to make women aware of self-defence, health and sports
- Organising awareness programmes to educate the teaching and non-teaching staff and students on

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#### gender sensitisation

- Organising programmes for making the girls students and women staff members mentally and emotionally empowered
- Conducting various competitions to encourage their artistic talents for creative thinking
- Celebration of International Women's Day on 8th March
- Celebration of Girl Child Day

#### **FACILITIES:**

- 1. Self defence / Yoga training sessions for students are held on campus.
- 2. Separate Girls' and Boys' common rooms with facilities like Carrom, Chess and Table Tennis are available on campus.
- 3. Entire college and Girls' Hostel (within the campus) remain under CCTV surveillance for better safety and security. Two security guards are always available at the Girls' hostel.
- 4. Different sports and games activities for girls and boys are hosted annually.
- 5. Kanyashree Prakalpa K2 is provided to eligible female students through college.
- 6. The college has an Internal Complaints Committee (ICC) for redressing grievances raised by female students and staff members.
- 7. Three regular female wardens are available at the Girls Hostel.
- 8. A Sanitary Napkin Vending Machine is available in the Girls' washroom.

File Description	Document
Provide Link for Additional information	View Document

#### 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:** A. 4 or All of the above

File Description	Document
Policy document on the green campus/plastic free campus.	View Document
Bills for the purchase of equipment's for the facilities created under this metric	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 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:** A. All of the above

File Description	Document
Report on Environmental Promotional activities conducted beyond the campus with geo tagged photographs with caption and date	View Document
Green audit/environmental audit report from recognized bodies	View Document
Certificates of the awards received from recognized agency (if any).	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 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:**

Completion and proper human exposure as a civilized individual cannot be achieved with bookish knowledge alone. Therefore, it requires multi-dimensional practical exposure and exchange of knowledge derived from personal experiences. This practice of developing oneself as a holistic human cannot be done suddenly; instead, it requires a well-developed habit which must be practiced on multiple occasions of diverse genera. Therefore, Hooghly Engineering & Technology College has embarked on the same journey of motivating and developing socially sensible and responsible citizens through various activities.

It is the constitutional duty of every individual to uphold the ethos and fabric of the nation as a responsible citizen. Before indulging our minds into hardcore individualistic and political ideologies, we as citizens should first understand what our Constitution provides us. The Constitution is a social and legal concept that guards and provides every citizen legality by reminding its fundamental rights and duties. Therefore, it can be said that the thoughts and actions of every individual should be guarded under the name of the Constitution.

Initiatives or efforts taken by Hooghly Engineering & Technology College in providing an Inclusive Environment and Sensitization of Students and Employees to the Constitutional Obligations:

- **1. Panel Discussion:** The college organizes panel discussions on tolerance and harmony towards cultural, regional, linguistic, communal, and socioeconomic diversity.
- **2. Workshop** on Universal Human Values.
- **3. Seminar** on Professional Ethics, Mental health awareness program and program on mental health issues in present situation.
- **4. Seminar** on Constitutional Obligations, Fundamental Duties and Nationalism, Fundamental Duties and Rights of Indian Citizens, Understanding Values & Happiness in the Smart Era
- **5. Workshops** on Awareness against Superstitions
- **6. Seminar** on Nature awareness, Saving Wild Lives, Climate Crisis
- **7. Ethnic The College Magazine:** Amidst the increasing value of English as the universal mode of communication, the college authority encourages every member within the premises to practice their vernacular languages. Therefore, in every edition of the college magazine, separate section is dedicated to every vernacular language.
- **8.** UTKARSHA The College Cultural Fest: In our annual cultural fest, UTKARSHA, we emphasize cultural, regional, and linguistic harmony in our scheduled programs.
- **9. TECHetc The Annual Technical Fest:** This event of Hooghly Engineering & Technology College buzzes with innovation, competition, and camaraderie. It showcases cutting-edge projects, workshops by industry experts, and spirited competitions like robotics and coding challenges. It fosters a vibrant atmosphere where students can exchange ideas and push the boundaries of their technical knowledge.
- 10. HETC Chronicle e Newsletter: The online chronicles of institutes provide a digital footprint of

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our evolution and milestones. HETC serve as dynamic archives, capturing the narrative of growth, challenges, and achievements in real-time.

- 11. Tour to Bandel Church, Hansheswari Temple: The college believes that the co-existence of different communities can only be possible by practically experiencing our rich history of harmony amidst conflicting ideologies. Hence, visits to different religious institutions are organized frequently by the college.
- **12.** Webinar on the topic "The Great Indian Food Heritage: An Evolution through Ages" under 'Ek Bharat Srestha Bharat-Azadi ki Amrit Mahatsov Programme'. The concept of Unity in the Diversity of India was presented to the students.

File Description	Document
Provide Link for Additional information	View Document

#### 7.2 Best Practices

#### 7.2.1

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

#### **Response:**

#### **Best Practice 1:**

Title of the Practice: E-Learning Platforms used in HETC

#### **Objectives:**

E-learning aims to provide accessible, flexible and effective education using digital technologies, promoting collaboration and continuous skill development. It offers convenient, personalized and cost-effective learning experiences, leveraging technology to enhance engagement and accessibility globally.

#### **Context:**

E-learning in engineering emphasizes technical skills through virtual labs, simulations and industry-focused materials. Students engage with real-world examples, projects and teamwork. Assessments use online quizzes, assignments and remote proctoring, supported by faculty for effective e-learning pedagogies.

#### The Practice:

E-learning is the practice of using digital technologies to deliver educational content and facilitate learning outside the traditional classroom. It involves online platforms, interactive resources and virtual

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collaboration allowing the learners to access and engage with educational materials anytime and anywhere.

HETC has tied up with the various online learning platforms like Spoken Tutorial, AICTE Parakh, IIRS-ISRO, Internshala, EduSkills, NPTEL, Google classroom, NDLI and DELNET.

#### **E-Learning Platforms:**

- 1.FOSS: The "Spoken Tutorial Project" by IIT Mumbai aims to train individuals in Free and Open-Source Software (FOSS) through easy-to-follow videos covering languages like Linux-Utopian, C+, C++, Java, Scilab, PHP, MySQL, Python and LaTeX to enhance digital literacy and technical skills. Since 2013, HETC has facilitated this initiative by purchasing and renewing the necessary licenses annually. As a result, 1030 students have benefited from this training program since 2018.
- 2. Platforms for MOOCs: The institution offers access to e-learning platforms like SWAYAM-NPTEL, Coursera and edX. Coursera and edX provide diverse courses from global universities, enhancing B. Tech students' knowledge and skills with flexibility and accessibility. HETC encourages faculty to use SWAYAM-NPTEL for FDPs and was recognized as the Best New Local Chapter by SWAYAM-NPTEL, Minister of HRD, Govt. of India.
- 3. AICTE Parakh: The AICTE Parakh initiative at HETC bridges academia and industry, fostering innovation, entrepreneurship and technical education quality. It facilitates collaboration and knowledge exchange, benefiting 880 students. HETC holds an All India Rank of 925 in SLA-PARAKH to ensure global competitiveness.
- 4.IIRS -ISRO: IIRS conducts outreach programs, online courses, webinars and workshops on remote sensing, GIS and geospatial data management. HETC serves as an IIRS-ISRO nodal centre, offering hands-on training and exposure to the latest tools and techniques.
- 5. Internshala: Internshala connects B. Tech students with internships for skill development and career exploration. As a partner, HETC provides top-quality training and year-round internships. HETC secured AIR 148 among 500+ colleges in Internshala's 2022 Annual Rankings.
- 6.EduSkills: EduSkills provides customized corporate agreements, boosts accreditation and offers "Industry Center of Excellence" logos. Students gain virtual internships, flexible learning, certifications and job opportunities while Faculties receive Master Trainer IDs and development program access. HETC partnered with EduSkills from August 2022 for three years.
- 7. Google Classroom: Google Classroom, a free online LMS, supports virtual classrooms, assignments, discussions, feedback and resource sharing. Each HETC faculty maintains course-specific Google Classrooms, ensuring students can access class notes if they miss a session and submit assignments online.
- 8. NDLI: HETC is a member of NDLI and DELNET which enables users to access e-resources like e-books, e-journals, e-articles and video lectures etc.

#### **Evidence of Success:**

The institution's e-learning practices have led to positive outcomes, providing students with high-quality resources, industry-relevant skills and a deeper understanding of engineering concepts. Enhanced engagement and collaboration through these platforms have improved the learning experience and prepare students for successful careers.

#### **Problems Encountered & Resources Required:**

The institution has encountered several challenges in implementing e-learning practices.

- Although digital learning is enriching, students do not find a virtual classroom as engaging as a traditional one. There is an initial reluctance of students to use new technologies.
- Students in rural areas face limited internet connectivity, lack of smart devices and inadequate technology infrastructure. HETC addresses these issues by providing necessary resources and ensuring uninterrupted services with a dedicated generator during load-shedding.
- To ensure reliable evaluation and prevent cheating, we conduct in-house assessments under CCTV surveillance.
- To address concerns about excessive screen time affecting student well-being, HETC organizes frequent mental and physical awareness programs.

#### **Best Practice 2:**

Title: Free Yoga and Self-Defence Sessions for all students

#### **Objectives:**

HETC aims to offer students yoga for flexibility, strength and balance, alongside self-defence training for safety. Our goal is to foster a supportive environment promoting empowerment, confidence and overall well-being.

#### **Context:**

In today's competitive environment, students often neglect extracurricular activities, impacting their physical and mental health. Yoga and self-defence training promote physical strength, mental focus, stress reduction and overall well-being, acknowledging the adage that a sound mind resides in a sound body.

#### The Practice:

HETC offers free year-round Yoga and Self Defence sessions to all students, collaborating with the Academy of Self-Defence and Martial Arts Research India. Since 2018, these sessions were initially for first-year students. The college also hosts annual sports tournaments, ensuring inclusive participation across socio-economic backgrounds and gender identities.

#### **Are the Initiatives Worthy Enough?**

These sessions improve physical and mental health while teaching self-defence skills to participants of diverse backgrounds and gender identities. Offering free access makes them accessible to a wider community, promoting health and safety inclusively.

#### **Problems Encountered & Resources Required:**

The main challenges faced during the conduction of these sessions were as follows:

- 1. Even though these sessions are provided for free, retaining participants has become a challenge due to the academic pressure.
- 2. Scheduling these sessions on a regular basis is also a challenge due to a number of examinations conducted throughout the year.

File Description	Document
Best practices as hosted on the Institutional website	View Document

#### 7.3 Institutional Distinctiveness

#### 7.3.1

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

#### **Response:**

No Capitation Fee, No Management Quota, but Financial Assistance for Economically Challenged Students

#### **Objective:**

Hooghly Engineering & Technology College (HETC) is a highly regarded institution that prioritizes accessibility and equal opportunities for all students. HETC follows a student-centric approach to ensure deserving candidates have the opportunity to pursue higher education without being burdened by financial constraints.

One of HETC's distinctive aspects is the absence of a capitation fee during admission. Students are only required to pay the prescribed tuition fees and legitimate charges. Eliminating capitation fees ensures that financial considerations do not hinder students from accessing quality education.

Furthermore, HETC does not employ a management quota for admissions, guaranteeing equal treatment for all students. Admission decisions are based solely on merit and academic performance, ensuring a transparent and fair selection process free from external influences.

HETC is committed to support economically challenged students by providing financial assistance such as scholarships, grants and other forms of aid. This support enables talented students facing financial difficulties to pursue their education and fulfill their potential.

#### **Purpose:**

The purpose of offering financial assistance is to provide opportunities for economically challenged students to pursue engineering studies at a leading institute. Despite having challenges, HETC remains dedicated to this mission. Students from various districts of West Bengal, Bihar, Jharkhand and other parts of the country join HETC each year. Many of these students come from financially weak families, often with parents working in the unorganized sector and uncertain livelihoods. HETC considers it a social duty to support these students by extending financial aid.

During the pandemic, keeping in mind the socio –economic condition of most of the students, the admission fees were curtailed by 20,000 rupees or more for the needy ones. Even the fee structure was not increased for the last 5 years.

#### **Moment of Happiness:**

HETC, as a society-run college with no capitation fee and management quota, reserves 5% of seats for the Tuition Fees Waived-off scheme, benefiting economically challenged students. Additionally, other financially challenged students receive financial assistance from the Hooghly Engineering & Technology College. It brings great joy when students establish themselves in their professional life. The happiness multiplies when a meritorious but economically deprived student, aided by the college's financial support, secures a position in a reputed organization with a good salary.

#### **Scheme Process:**

At the beginning of each semester, numerous students apply for merit-cum-means scholarships. The applications and supporting documents are scrutinized by the committee responsible for selecting the most deserving candidates. The selection is based on academic scores, social assessment, regular class attendance, conduct and performance in extracurricular activities of the applicants.

#### **Challenges Encountered:**

The College's income mainly relies on semester fees which have not been changed over the last five years, while expenditures have significantly increased during this period. This poses a significant constraint on waiving or partially waiving tuition fees for a larger number of students. Providing financial assistance to economically challenged students can strain the college's financial resources. If the demand for financial assistance exceeds the available funds, it becomes challenging for HETC to accommodate all deserving students. Sustaining the financial assistance programs in the long term is also challenging, requiring consistent funding and ongoing support.

Required Resources: Increasing the college's intake capacity by introducing new courses or expanding existing ones, considering placement opportunities and student interest, is necessary. Additionally, collaborations and partnerships with government schemes, NGOs, and corporate organizations can secure additional funding for financial assistance programs. Regular assessments and reviews of financial assistance programs are essential to ensure their sustainability and effectiveness. Establishing a strong alumni network can create opportunities for economically challenged students in the form of special scholarship funds as well as provide mentorship, internship opportunities and career guidance to students, enhancing their overall development and employability.

#### **Future Plans:**

Despite the constraints, HETC will continue the practice of waiving full or partial tuition fees for meritorious but economically challenged students. The college will not entertain any form of capitation fee or management quota in the near or distant future. Starting from 2023-2024 session, the seat of our Computer Science and Engineering and Electronics and Communications Engineering has been increased (120 from 90 for CSE and 90 from 60 for ECE), which will help us to continue our endeavor. Even though all the students are continuously motivated and taught to excel in examination, HETC continues to improve this endeavour further making more students eligible for various scholarships provided by different government as well as private agencies which in turn reduces the total financial burden.

File Description	Document	
Appropriate web in the Institutional website	View Document	

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## 5. CONCLUSION

#### **Additional Information:**

HETC's location in Hooghly district offers a peaceful and conducive environment for learning, away from the hustle and bustle of major cities. The campus is easily accessible and provides a serene atmosphere that enhances focus and academic concentration.

The vibrant campus of HETC is spread over an area of 10 acres. The charismatic cleanliness and lush green campus provides an environment suitable for studies. The water body amidst the campus adds a special charm to the overall beauty. The college is indeed proud of this green and pollution-free ambience which has been conducive to a good educational ambience.

HETC organizes a diverse range of cultural events, festivals and outreach programs that celebrate cultural diversity and promote community engagement. These activities enrich the college experience and foster a sense of belonging among students. Due to Covid-19, cultural, sports, other activities and development of the institute were disrupted almost for two years, but they resumed once conditions returned to normal.

# **Concluding Remarks:**

Hooghly Engineering & Technology College (HETC) has ascended a rapid growth in terms of quality and quantity since its inception in 2004 with the support of all concerned stakeholders. Proper nurturing and grooming of students have been realized because of the state-of-the-art infrastructure, amenities and other support services provided in the campus. Besides infrastructure, the intimate learning process helps the students in acquiring in-depth knowledge. The institution with its defined vision leading to the objectives has played an important role in the holistic growth of students. The research initiatives, industry-academia interface, extension and outreach programmes by the institution have promoted research culture and establishment of good rapport with the community and industries. In pursuit of excellence, HETC looks forward to scale more heights in the days to come.

The thrust in academic excellence and holistic growth of the students remain the prime focus of the institution. The faculty members and other staff members join hands and work collectively to enhance the standard of quality education for the attainment of Vision, Mission and Values. The institution's societal commitment provides opportunity for the employees and students alike to render services to the society. The Institution promises to itself to do every possible thing to quench its thirst to reach the zenith of academic excellence.

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#### 6.ANNEXURE

#### 1.Metrics Level Deviations

#### Metric ID Sub Questions and Answers before and after DVV Verification

1.2.1 Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

Answer before DVV Verification : Answer After DVV Verification :94

Remark: DVV has made necessary changes as per prescribed format shared by HEI and value have been downgraded as we have excluded courses under regular curriculum and courses less than 30 hours

- 1.2.2 Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years
  - 1.2.2.1. Number of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
797	539	312	276	229

#### Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
102	38	130	19	155

Remark: DVV has made necessary changes as per prescribed format shared by HEI and value have been downgraded as we have excluded courses under regular curriculum and have excluded courses less than 30 hours

- Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)
  - 1.3.2.1. Number of students undertaking project work/field work / internships

Answer before DVV Verification: 394 Answer after DVV Verification: 586

Remark: DVV has made the changes as per 1.2.1

- 2.1.1 **Enrolment percentage** 
  - 2.1.1.1. Number of seats filled year wise during last five years (Only first year admissions to

#### be considered)

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
176	162	107	149	192

#### Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
176	161	107	149	192

### 2.1.1.2. Number of sanctioned seats year wise during last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
310	311	311	315	315

#### Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
310	310	315	315	315

Remark: DVV has made changes as per the data shared by the HEI and the value is downgraded.

# 2.1.2 Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

# 2.1.2.1. Number of actual students admitted from the reserved categories year wise during last five years (Exclusive of supernumerary seats)

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
36	20	11	32	38

#### Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
32	36	29	29	39

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

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
117	117	117	117	82

#### Answer After DVV Verification:

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2022-23	2021-22	2020-21	2019-20	2018-19
149	149	149	155	97

Remark: DVV has verified the data shared by HEI, considered excess number of reserve category filled over sectioned as general category.

- Number of research papers published per teacher in the Journals notified on UGC care list during the last five years
  - 3.3.1.1. Number of research papers in the Journals notified on UGC CARE list year wise during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
8	7	10	4	22

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
05	05	06	03	13

Remark: DVV has made the changes as per shared research papers in the Journals notified on UGC CARE list.

- 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:

2022-23	2021-22	2020-21	2019-20	2018-19
8	4	3	7	8

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
4	2	4	4	2

Remark: DVV has verified data shared by HEI and considered book published in 2022 as 2022-23, 2021 as 2021-22 and so on and value change accordingly.

- 4.4.1 Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years (INR in Lakhs)
  - $4.4.1.1. \ \textbf{Expenditure incurred on maintenance of infrastructure (physical facilities and a substitution of the expension of the expension$

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academic support facilities) excluding salary component year wise during the last five years (INR in lakhs)

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
9.15472	6.05353	9.32598	9.16219	7.42285

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
8.6630	6.05353	9.32598	9.16219	7.42285

Remark : DVV has verified the data shared by HEI and considered CA verified documents value change accordingly.

- 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:

2022-23	2021-22	2020-21	2019-20	2018-19
9	2	0	0	1

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
7	2	0	0	1

Remark: DVV has made the changes as group event to be counted one.

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

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
41	0	0	0	0

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
0	0	0	0	0

Remark : DVV has verified data share by HEI and not found teacher name on document hence value is downgraded.

#### 2.Extended Profile Deviations

	ended Profil									
D	Extended (	Questions								
1.1	Number o	f students y	ear wise du	ring the last	five years					
	Answer be	fore DVV V	erification:			_				
	2022-23	2021-22	2020-21	2019-20	2018-19					
	999	957	931	1071	1126					
	Answer Af	ter DVV Ve	rification:			_				
	2022-23	2021-22	2020-21	2019-20	2018-19					
						_				
	972	923	910	1045	1103					
2.2	Number o	f teaching s	taff / full tir		year wise du	uring t	he last	t five yo	ears	
2.2	Number o		taff / full tir			uring t	he last	five yo	ears	
2.2	Number of Answer be	f teaching st	taff / full tir	ne teachers	year wise du	uring t	he last	t five yo	ears	
2.2	Number of Answer be 2022-23	f teaching store DVV V	taff / full tire erification: 2020-21 50	ne teachers	year wise du	uring t	he last	t five yo	ears	
2.2	Number of Answer be 2022-23	f teaching st fore DVV V 2021-22 47	taff / full tire erification: 2020-21 50	ne teachers	year wise du	uring t	he last	t five yo	ears	