SELF STUDY REPORT

FOR

3rd CYCLE OF ACCREDITATION

HALDIA INSTITUTE OF TECHNOLOGY
ICARE COMPLEX, HIT CAMPUS HATIBERIA, HALDIA, DIST. PURBA MEDINIPUR
721657
www.hithaldia.in

SSR SUBMITTED DATE:  13-08-2021

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

August 2021
1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Haldia Institute of Technology (An Institute of ICARE, Haldia), Approved by AICTE, Affiliated to MAKAUT, West Bengal, began its journey in the year 1996, as the first self financing Institute in the state of West Bengal.

The Institute is situated at Haldia – an industrial hub in Eastern India. Since inception, Haldia Institute of Technology is dedicated to the objectives of creating highly trained professional manpower in various disciplines of Engineering, Technology and Social Science. The Institute is dedicated for contribution of higher scientific research in Technology and in Applied Science and Social Science.

The Institute has been conferred upon AUTONOMOUS STATUS by the UGC for the period of 10 (ten) years from 2019-2020 to 2028-2029, vide Memo No. F.22-1/2017(AC) dated 05-08-2019, and subsequently Order has been issued by the Affiliating University, Maulana Abul Kalam Azad University of Technology, West Bengal. The Undergraduate programs in AEIE, BT, CHE, CE, CSE, ECE, EE, FT, IT, PE and ME of the Institute are accredited by National Board of Accreditation (NBA) and all are valid. The Institute is accredited by NAAC for 5 years from 16.09.2016 with ‘A’ Grade [CGPA-3.31 out of 4] [2nd Cycle]. The Institute is selected as “Mentor Institute” by the NAAC. The Institute is recognized as the ‘Host Institute’ for implementation of the scheme “Support for Entrepreneurial and Managerial Development of MSMEs through Incubator“. The Institute is ISO certified for “Quality Management System” and “Environment Management System”. The Institute has ranked 163 in Engineering under NIRF (National Institute Ranking Framework) Ranking, 2020. The Institute is now conducting 13 UG courses and 5 PG courses in Engineering/Technology, in addition to MBA and MCA program.

Institute has been granted for establishment of AICTE IDEA Lab in 2021.

The Institute has signed MOU with different reputed institutions and Industries, such as, IIEST, Shibpur (Howrah), NIT, Kurukshetra, NIT, Mizoram, Lincoln University Institute, Malaysia, Ming Chi University of Technology, Taipei, Infosys Campus Connect, Kaventor Agro, Cotecna Inspection (India), Tata Steel, BCCI, National Highway Authority of India etc.

Vision

To achieve Centre of Excellence in the field of Science, Technology and Management Education for creating dynamic human resources of global standards with capabilities of accepting new challenges.

Mission

- To impart quality and value based education to raise satisfaction level of all stake-holders.
• To create competent, creative professionals, and great entrepreneurs who can work as individual or in group in multi-cultural global environments.
• To prepare citizens who would grow to be competent enough to contribute significantly with personal integrity and civic responsibility for the betterment of mankind throughout their careers and profession.

1.2 Strength, Weakness, Opportunity and Challenges (SWOC)

Institutional Strength

○ Already accredited by NAAC with “A” Grade [CGPA – 3.31] in 2016 [in 2nd Cycle.]
○ The Institute has been conferred upon Autonomous status by the UGC for the period of 10 years from 2019-20 to 2028-29
○ The undergraduate programs in AEIE, BT, CHE, CE, CSE, ECE, EE, FT, IT and ME of the Institute are accredited by the National Board of Accreditation.
○ The Institute is included under section 2(f) and 12(B)
○ The Institute possesses a good combination of young and experienced faculties having Masters and PhD degrees,
○ The Institute is proud of having lush green sprawling campus with state-of-the-art academic infrastructure,
○ The residential nature of the Institute Campus makes it one of the most attractive destinations for students all across India.
○ The Institute and all its constituent Departments contribute significantly towards improvement of students’ employability (% of recruitment is about 60 – 70% in the last 4 – 5 years) as well as their performance in competitive exams like GATE, GRE, TOEFL, CAT, MAT, etc.
○ Many of the faculties have been actively engaged in research with the research grants obtained from DST, DBT, CSIR, AICTE etc. and other Government agencies.
○ A number of the faculty members have been actively publishing in reputed national/international journals and written books, book chapters, monographs etc.
○ Students passing out from the Institute have been strengthening the alumni association, who are achieving excellent heights as professionals in academics, business and industries of national and international repute.
○ Mentoring, guidance, counselling, enhanced student-teacher communication in the Campus, and financial assistance to brilliant students from economically backward families has enhanced the reputation of the Institute.
○ The Institute has been conferred upon Autonomous Status by the UGC for the period of 10 years from the A.Y. 2019-2020 to 2028-2029.

Institutional Weakness

○ The Institute is located far away from Kolkata and the number of trains plying between Haldia and Kolkata are only a few. This limits the opportunities to collaborate with distinguished professionals and organizations of national and international repute.
○ Lack of research orientation among some of the relatively new faculty members,
○ Majority of the students are from vernacular medium and they are first generation learners with poor
Institutional Opportunity

- More employment opportunities for engineering graduates in the context of rapid modernization and emerging technologies in different sectors
- Ample opportunities for research through the existing M. Tech. programmes and Ph.D. research through collaboration with Institutes / Universities of national and international repute
- The extra-ordinary pool of the Institute alumni, and future prospects of the Institute’s collaboration and network building
- Innovative approaches towards teaching-learning process to enhance and enrich learning outcomes
- State-of-the-art infrastructure and computing facilities coupled with other academic and campus ambience and availability of highly qualified and dedicated professionals serving the Institute is conducive for further development and growth of the Institute in near future.
- Being located in the heart of Haldia industrial hub and the Haldia Port, the Institute enjoys tremendous opportunities of Industry-Academia collaboration.
- Study leave is provided for higher study.

Institutional Challenge

- Upgradation of Institute infrastructures (e.g. laboratory facilities and space, library and other academic infrastructures) to keep pace with emerging technological development.
- Upgrading skills of Faculty members to match rapid growth and technology advancements in industries
- Attracting more students with outstanding academic records towards engineering education and future prospects
- Routine upgradation and improvement on curriculum
- Training and development of English communication skills, and other aspects of professional communication and team work in students from rural / semi-urban background
- Overall stagnation / recession in global manufacturing businesses
- To uplift the consultancy services to the industries.
- To uplift the status of Entrepreneurship development

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

To keep pace with the rapid technological developments which are taking place all over the globe, it is imperative that curriculum and syllabi of different programmes should be revised and contemporary and emerging topics would be incorporated to satisfy the need of the different stakeholders. Revision of the curriculum and the syllabus is extremely important for the improvement of quality of education of any institute. The institute by virtue of its autonomy and following the norms of the UGC, have constituted various Board of Studies (BOS) for different programmes and the curricula along with the syllabi are framed. The curricula emphasizes on professional core subjects along with different types of electives in addition to basic engineering science courses. Due attention is given to the concept building, mathematical analysis, and emerging and contemporary topics. The curricula is poised to satisfy the need of the industries and also forms a backbone for
pursuing higher studies.

Teaching-learning and Evaluation

In tune with the growing need of innovations in teaching learning process, the faculty members contribute significantly and explore the different mechanism to make the process highly effective and attractive. Emphasis is given on ICT based teaching-learning to make the process attractive. Attention is given to the basic concept building, mathematical analysis, numerical problem-solving abilities, data analysis, design of experiments, etc. so that higher order capabilities (according to bloom's taxonomy) are developed. Design based problem solving using cooperative and collaborative teaching-learning approaches are followed to develop innovative thinking and independent problem solving ability. Syllabus gap, if any, are also addressed by the teachers suitably to impart knowledge in its true spirit. Regular evaluation through continuous assessment, class tests, viva, quizzes, assignments etc in addition to end semester examinations are organized to measure the effectiveness of learning. In view of Covid pandemic, faculty members are using the digital platform to reach out to the students and continue with the teaching. This makes the process highly effective and flexible. The concept of flipped classroom is being introduced to augur well for the students. Additionally, all round effort is paid to accrue the potential benefits of Outcome based Education (OBE) consistently to enhance the employability of the students.

Research, Innovations and Extension

The Institute believes in the continuous innovations and research necessary for the quality education. A good number of faculty members are pursuing doctoral work and some of them have received the degree. Few sponsored research projects have been sanctioned and on-going funded research are at different stages of execution. Faculty members have published several research papers in the international journals and conferences of repute. Few faculty members have also written books and book chapters published by reputed publisher(s). The Institute has organized several international/national conferences and seminars (including webinars), Faculty development programmes (FDPs), workshop etc. for promoting research activities in the institute.

Infrastructure and Learning Resources

The Institute has sufficient numbers of class rooms, and laboratories for conduct of different programmes. Additionally, there is a central auditorium for conducting seminars, and conferences. In each department there are smart class room(s) for ICT based teaching. Laboratories are equipped with modern facilities and these are upgraded from time to time to suit the requirements. The class rooms are spacious and well illuminated. Additionally, a large play ground, basket ball ground, and Gymnasium and Yoga center are also present in the campus for healthy living and pursuing sports and related events. The institute has a spacious library having more than 128000 titles and other learning resources like journal, Ejournal, E-books, CD Videos. Library is fully automated with LibSys Software [Version LSEase] since 2003.

Student Support and Progression

i. Training and Placement assistance through Training & Placement Cell. Departmental faculty coordinator(s) establishes a liaison between the students and T & P Cell.
ii. GATE Coaching Classes.

iii. Common Computer Centre for surfing.

iv. Study materials are uploaded in the departmental repository of institute website.

v. Hi-tech Gymnasium.

vi. Health Centre Facilities.

vii. Grievance Re-dressal Cell.

viii. Organizing seminar and workshops for students.

ix. Arrangement of industrial visit to enhance practical knowledge.

x. Tech Fest and cultural programmes are organized every year so that students can participate in these activities.

xi. Students’ counsellors have been appointed to look into the personal well being of students.

Efforts made by the Institution for tracking the progression of students:

The Institute has adopted various mechanisms to monitor the students' progression regularly:

i. Conducting Career Development programmes for students.

ii. Transparent admission procedure.

iii. Highlighting achievements of students in College Newsletter.

iv. The Institute arranges transport facilities on industrial visits.

v. Parent teachers meeting on the progression of their ward.

vi. Allocation of Class Mentors for each class in each programme for progression in academic as well as extra-curricular activities.

vii. Professional Students Counsellors have been appointed on regular basis.

**Governance, Leadership and Management**

**Nature of Governance:**

The institution follows a decentralized and participatory mode of governance with all stakeholders participating actively in its administration and academic process. The Governing Body delegates authority to the Principal and Registrar who, in turn, share it with the different levels of functionaries in the college. The Deans, HOD, the Conveners of various committees and cells/sections along with the staff representatives on higher decision-making bodies.
making bodies play an important role in determining the institutional policies and implementing the same.

**Perspective/Strategic Plan:**

The institution has a Perspective/Strategic Plan in place to help it develop in a systematic, well-thought-out and phased manner.

1. Institution aspires to get Deemed to be University status
2. Introduction of new programs at the under-graduate level and Post Graduate level.
3. Improvement of the scope and profile of the Teaching-Learning process through greater use of ICT and other innovative means.
4. Renovations to revive the ageing infrastructure including laboratory of the institution.
5. Application to various agencies for sponsored research/consultancy/patents/seminar & workshop etc.
6. Achievement of national and international recognition in the form of grants/awards.
7. Collaboration with Academic Institutes and industries.

**Participation of Teachers and Students in Decision-Making Bodies**

Faculty members play an important role in implementing the vision and mission of the institute and to that end play a proactive part in the decision-making process. Heads of Departments enjoy considerable administrative and academic autonomy in running their programs. Teachers influence the institutional policy through the representatives in the Governing Body, the Academic Council, The BOS, and other academic and administrative committees. Besides, teachers are members and conveners of the various committees that are instituted for the day-to-day functioning of the institute. These are Examination Committee, Internal Quality Assurance Cell (IQAC), Anti-Ragging Committee, Library Committee, Student Welfare Committee, Purchase Committee, Training Placement Committee, RD Monitoring Committee, Industry Institute Partnership Cell, Disciplinary Committee. Additionally, teachers also organize different cultural and socially conscious activities in the institution through varieties of programs.

**Institutional Values and Best Practices**

**Practice-I: Design based problem solving.**

Problem-based learning is becoming increasingly popular in educational institutions as an approach to mitigate the gaps of traditional teaching. In comparison to the traditional approaches, the students participate actively to respond to a real-life problem. This is why problem-based learning is envisaged as an innovative measure to encourage students to learn how to self-educate via real-life problems. In this direction, the institute emphasis on problem-based learning as a solution to produce graduates who are creative and can think critically, analytically, and solve problems. This process is introduced gradually and it is expected to grow to cover every area of engineering disciplines. Complex engineering problems solving, mini projects, data analysis etc. are undertaken to hone this ability. Small groups are formed combining bright and weak students. The faculty
members act as the facilitator. Open source resources are consulted to aid the problem solving. Collaborative and Cooperative teaching learning is adopted for this purpose. A particular problem is dealt with due considerations to the system components, constraints, operating environments, solutions required, and multiple approaches in the solution and their relative merit and demerits. The result analysis is also an important component of such problem solving. Possibility or suggestions, if any, for the improvement of the process performance or the system performance or the product are also investigated and discussed as a part of the proposed problem solving approach.

Practice-II : Coverage beyond syllabus

To educate the students following a stipulated curricula and syllabus is not adequate for comprehensive knowledge base. Frequent modification and rationalization of syllabus is also not a feasible solution considering different constraints. However, this problem can be appropriately addressed by the course teachers. It is the flexibility of the course teacher to formulate a detailed lecture plan meticulously so that advanced and emerging topics are also taught in synchronization with the fundamental topics so as to enrich the course to the maximum possible extent. Faculty members continuously update their lecture plan and implement the same for mutual benefits.
## 2. PROFILE

### 2.1 BASIC INFORMATION

<table>
<thead>
<tr>
<th>Name and Address of the College</th>
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<tbody>
<tr>
<td><strong>Name</strong></td>
<td>HALDIA INSTITUTE OF TECHNOLOGY</td>
</tr>
<tr>
<td><strong>Address</strong></td>
<td>ICARE Complex, HIT Campus Hatiberia, Haldia, Dist. Purba Medinipur</td>
</tr>
<tr>
<td><strong>City</strong></td>
<td>Haldia</td>
</tr>
<tr>
<td><strong>State</strong></td>
<td>West Bengal</td>
</tr>
<tr>
<td><strong>Pin</strong></td>
<td>721657</td>
</tr>
<tr>
<td><strong>Website</strong></td>
<td><a href="http://www.hithaldia.in">www.hithaldia.in</a></td>
</tr>
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<table>
<thead>
<tr>
<th>Contacts for Communication</th>
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<tbody>
<tr>
<td><strong>Designation</strong></td>
<td><strong>Name</strong></td>
</tr>
<tr>
<td>Principal</td>
<td>Asit Kumar Saha</td>
</tr>
<tr>
<td>IQAC / CIQA coordinator</td>
<td>Tarun Kanti Jana</td>
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<table>
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<tr>
<th>Status of the Institution</th>
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<tbody>
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<td><strong>Institution Status</strong></td>
<td>Self Financing</td>
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<table>
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<th>Type of Institution</th>
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<td><strong>By Gender</strong></td>
<td>Co-education</td>
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<tr>
<td><strong>By Shift</strong></td>
<td>Regular</td>
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</table>

<table>
<thead>
<tr>
<th>Recognized Minority institution</th>
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</thead>
<tbody>
<tr>
<td>If it is a recognized minority institution</td>
<td>No</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Establishment Details</th>
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<tr>
<td><strong>Date of Establishment, Prior to the Grant of 'Autonomy'</strong></td>
<td>27-09-1996</td>
</tr>
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</table>
**Date of grant of 'Autonomy' to the College by UGC** | 05-08-2019
---|---

**University to which the college is affiliated**

<table>
<thead>
<tr>
<th>State</th>
<th>University name</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Bengal</td>
<td>Maulana Abul Kalam Azad University of Technology</td>
<td>[View Document]</td>
</tr>
</tbody>
</table>

**Details of UGC recognition**

<table>
<thead>
<tr>
<th>Under Section</th>
<th>Date</th>
<th>Document</th>
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<tr>
<td>2f of UGC</td>
<td>14-09-2004</td>
<td>[View Document]</td>
</tr>
<tr>
<td>12B of UGC</td>
<td>27-07-2011</td>
<td>[View Document]</td>
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</table>

**Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)**

<table>
<thead>
<tr>
<th>Statutory Regulatory Authority</th>
<th>Recognition/Approval details Institution/Department programme</th>
<th>Day,Month and year(dd-mm-yyyy)</th>
<th>Validity in months</th>
<th>Remarks</th>
</tr>
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<tbody>
<tr>
<td>AICTE</td>
<td>[View Document]</td>
<td>30-06-2020</td>
<td>36</td>
<td>Extended Extension of Approval</td>
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**Recognitions**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td>Is the College recognized by UGC as a College with Potential for Excellence(CPE)?</td>
<td>No</td>
</tr>
<tr>
<td>Is the College recognized for its performance by any other governmental agency?</td>
<td>Yes</td>
</tr>
<tr>
<td>If yes, name of the agency</td>
<td>NIRF by MHRD Govt of India</td>
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<tr>
<td>Date of recognition</td>
<td>05-11-2020</td>
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</table>
### Location and Area of Campus

<table>
<thead>
<tr>
<th>Campus Type</th>
<th>Address</th>
<th>Location*</th>
<th>Campus Area in Acres</th>
<th>Built up Area in sq.mts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main campus area</td>
<td>ICARE Complex, HIT Campus Hatiberia, Haldia, Dist. Purba Medinipur</td>
<td>Urban</td>
<td>36.98</td>
<td>110097</td>
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</table>

#### 2.2 ACADEMIC INFORMATION
## Details of Programmes Offered by the College (Give Data for Current Academic year)

<table>
<thead>
<tr>
<th>Programme Level</th>
<th>Name of Programme/Course</th>
<th>Duration in Months</th>
<th>Entry Qualification</th>
<th>Medium of Instruction</th>
<th>Sanctioned Strength</th>
<th>No.of Students Admitted</th>
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</thead>
<tbody>
<tr>
<td>UG</td>
<td>BTech, Chemical Engineering</td>
<td>48</td>
<td>Twelve</td>
<td>English</td>
<td>120</td>
<td>120</td>
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<tr>
<td>UG</td>
<td>BTech, Computer Science And Engineering</td>
<td>48</td>
<td>Twelve</td>
<td>English</td>
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<td>180</td>
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<tr>
<td>UG</td>
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<tr>
<td>UG</td>
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<td>Twelve</td>
<td>English</td>
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<td>180</td>
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<tr>
<td>UG</td>
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<td>English</td>
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<td>Twelve</td>
<td>English</td>
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<tr>
<td></td>
<td>Engineering Artificial Intelligence And Machine Learning</td>
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<tr>
<td>UG BTech,Computer Science And Engineering Data Science</td>
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<tr>
<td>UG BTech,Computer Science And Engineering Cyber Security</td>
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<tr>
<td>PG Mtech,Chemical Engineering</td>
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<td>English</td>
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<tr>
<td>PG MCA,Mca</td>
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<td>Graduation</td>
<td>English</td>
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Position Details of Faculty & Staff in the College
### Teaching Faculty

<table>
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<tr>
<th></th>
<th>Professor</th>
<th>Associate Professor</th>
<th>Assistant Professor</th>
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<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Others</td>
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<tr>
<td>Sanctioned by the UGC /University State Government</td>
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<td>52</td>
<td>179</td>
</tr>
<tr>
<td>Recruited</td>
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<td>3</td>
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<tr>
<td>Yet to Recruit</td>
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<td></td>
<td>6</td>
</tr>
<tr>
<td>Sanctioned by the Management/Society or Other Authorized Bodies</td>
<td>26</td>
<td>52</td>
<td>179</td>
</tr>
<tr>
<td>Recruited</td>
<td>23</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Yet to Recruit</td>
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<td></td>
<td>6</td>
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### Non-Teaching Staff

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<th>Male</th>
<th>Female</th>
<th>Others</th>
<th>Total</th>
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<tbody>
<tr>
<td>Sanctioned by the UGC /University State Government</td>
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<td></td>
<td></td>
<td>151</td>
</tr>
<tr>
<td>Recruited</td>
<td>121</td>
<td>30</td>
<td>0</td>
<td>151</td>
</tr>
<tr>
<td>Yet to Recruit</td>
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<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Sanctioned by the Management/Society or Other Authorized Bodies</td>
<td></td>
<td></td>
<td></td>
<td>151</td>
</tr>
<tr>
<td>Recruited</td>
<td>121</td>
<td>30</td>
<td>0</td>
<td>151</td>
</tr>
<tr>
<td>Yet to Recruit</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
### Technical Staff

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanctioned by the UGC/University State Government</td>
<td></td>
<td></td>
<td></td>
<td>85</td>
</tr>
<tr>
<td>Recruited</td>
<td>57</td>
<td>28</td>
<td>0</td>
<td>85</td>
</tr>
<tr>
<td>Yet to Recruit</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Sanctioned by the Management/Society or Other Authorized Bodies</td>
<td></td>
<td></td>
<td></td>
<td>85</td>
</tr>
<tr>
<td>Recruited</td>
<td>57</td>
<td>28</td>
<td>0</td>
<td>85</td>
</tr>
<tr>
<td>Yet to Recruit</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

### Qualification Details of the Teaching Staff

#### Permanent Teachers

<table>
<thead>
<tr>
<th>Highest Qualification</th>
<th>Professor</th>
<th>Associate Professor</th>
<th>Assistant Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Others</td>
</tr>
<tr>
<td>D.sc/D.Litt.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>23</td>
<td>3</td>
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</tr>
<tr>
<td>M.Phil.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PG</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
## Temporary Teachers

<table>
<thead>
<tr>
<th>Highest Qualification</th>
<th>Professor</th>
<th>Associate Professor</th>
<th>Assistant Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Others</td>
</tr>
<tr>
<td>D.sc/D.Litt.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>M.Phil.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PG</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

## Part Time Teachers

<table>
<thead>
<tr>
<th>Highest Qualification</th>
<th>Professor</th>
<th>Associate Professor</th>
<th>Assistant Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Others</td>
</tr>
<tr>
<td>D.sc/D.Litt.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>M.Phil.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PG</td>
<td>0</td>
<td>0</td>
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</tr>
</tbody>
</table>

## Details of Visiting/Guest Faculties

<table>
<thead>
<tr>
<th>Number of Visiting/Guest Faculty engaged with the college?</th>
<th>Male</th>
<th>Female</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Provide the Following Details of Students Enrolled in the College During the Current Academic Year
<table>
<thead>
<tr>
<th>Programme</th>
<th>From the State Where College is Located</th>
<th>From Other States of India</th>
<th>NRI Students</th>
<th>Foreign Students</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG</td>
<td>Male</td>
<td>71</td>
<td>15</td>
<td>0</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>52</td>
<td>9</td>
<td>0</td>
<td>61</td>
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<tr>
<td></td>
<td>Others</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>UG</td>
<td>Male</td>
<td>498</td>
<td>634</td>
<td>0</td>
<td>1140</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>104</td>
<td>99</td>
<td>0</td>
<td>206</td>
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<tr>
<td></td>
<td>Others</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Provide the Following Details of Students admitted to the College During the last four Academic Years

<table>
<thead>
<tr>
<th>Programme</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>Male</td>
<td>54</td>
<td>140</td>
<td>116</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>12</td>
<td>34</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ST</td>
<td>Male</td>
<td>3</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>OBC</td>
<td>Male</td>
<td>205</td>
<td>216</td>
<td>163</td>
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<tr>
<td></td>
<td>Female</td>
<td>42</td>
<td>36</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>General</td>
<td>Male</td>
<td>956</td>
<td>723</td>
<td>602</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>208</td>
<td>159</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>Male</td>
<td>8</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1493</td>
<td>1344</td>
<td>1102</td>
<td>1156</td>
</tr>
</tbody>
</table>

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS
<table>
<thead>
<tr>
<th>Department Name</th>
<th>Upload Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Electronics And Instrumentation Engineering</td>
<td>View Document</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>View Document</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>View Document</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>View Document</td>
</tr>
<tr>
<td>Computer Science And Engineering</td>
<td>View Document</td>
</tr>
<tr>
<td>Computer Science And Engineering Artificial Intelligence And Machine Learning</td>
<td>View Document</td>
</tr>
<tr>
<td>Computer Science And Engineering Cyber Security</td>
<td>View Document</td>
</tr>
<tr>
<td>Computer Science And Engineering Data Science</td>
<td>View Document</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>View Document</td>
</tr>
<tr>
<td>Electronics And Communication Engineering</td>
<td>View Document</td>
</tr>
<tr>
<td>Food Technology</td>
<td>View Document</td>
</tr>
<tr>
<td>Information Technology</td>
<td>View Document</td>
</tr>
<tr>
<td>Mba</td>
<td>View Document</td>
</tr>
<tr>
<td>Mca</td>
<td>View Document</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>View Document</td>
</tr>
</tbody>
</table>
Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>20</td>
<td>18</td>
<td>19</td>
<td>19</td>
<td>19</td>
</tr>
</tbody>
</table>

1.2

Number of departments offering academic programmes

Response: 20

2 Students

2.1

Number of students year-wise during last five years

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>4787</td>
<td>4553</td>
<td>4404</td>
<td>4459</td>
<td>4366</td>
</tr>
</tbody>
</table>

2.2

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>1132</td>
<td>1081</td>
<td>1145</td>
<td>1089</td>
<td>1189</td>
</tr>
</tbody>
</table>
2.3

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-21</td>
<td>1132</td>
<td>1081</td>
<td>1145</td>
<td>1089</td>
<td>1189</td>
</tr>
</tbody>
</table>

File Description

Institutional data in prescribed format

View Document

2.4

Number of revaluation applications year-wise during last five years

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-21</td>
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<td>0</td>
<td>1174</td>
<td>1503</td>
<td>2180</td>
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</tbody>
</table>

3 Teachers

3.1

Number of courses in all programs year-wise during last five years

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-21</td>
<td>20</td>
<td>18</td>
<td>19</td>
<td>19</td>
<td>19</td>
</tr>
</tbody>
</table>

File Description

Institutional data in prescribed format

View Document

3.2

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-21</td>
<td>251</td>
<td>246</td>
<td>250</td>
<td>246</td>
<td>249</td>
</tr>
</tbody>
</table>

File Description

Institutional data in prescribed format

View Document

3.3
Number of sanctioned posts year-wise during last five years

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
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<tbody>
<tr>
<td>Posts</td>
<td>257</td>
<td>246</td>
<td>250</td>
<td>257</td>
<td>249</td>
</tr>
</tbody>
</table>

4 Institution

4.1

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications</td>
<td>1493</td>
<td>1344</td>
<td>1102</td>
<td>1156</td>
<td>1196</td>
</tr>
</tbody>
</table>

4.2

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seats</td>
<td>318</td>
<td>435</td>
<td>349</td>
<td>350</td>
<td>402</td>
</tr>
</tbody>
</table>

4.3

Total number of classrooms and seminar halls

Response: 76

4.4

Total number of computers in the campus for academic purpose

Response: 1431
4.5

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1091.19</td>
<td>1848.59</td>
<td>1680.47</td>
<td>2116.38</td>
<td>1633.73</td>
</tr>
</tbody>
</table>
4. Quality Indicator Framework (QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

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

Response:

The international academic fraternity is now undergoing dramatic changes thanks to rapid transformations in the socio-economic sector. The widespread development in computerization and IT enabled services have added extra momentum to these changes. The academic institutions have had a crucial role to play in this regard. To keep pace with the rapid technological developments which are taking place all over the globe, it is imperative that curriculum and syllabuses of different programmes should be revised and contemporary and emerging topics would be incorporated to satisfy the need of the different stakeholders. Revision of the curriculum and the syllabus is extremely important for the improvement of quality of education of any institute. The students of Higher Educational Institutes (HEI) would develop the sound knowledge and contemporary skill sets accentuated with the other human faculties in an attempt to contribute significantly in tune with requirements of the market.

An academic program exists to satisfy the varying interests of different stakeholders and therefore it should try to fulfill their expectations as far as practicable. The curricula for different programmes have been developed by the respective Board of Studies (BOS) to satisfy the needs of the different stakeholders e.g. students, teachers, parents, employers, alumni. The Course outcomes of various programmes are developed so as to derive maximum potential benefits out of it. The course outcomes also ensure the attainment of different Program Outcomes (POs) and Program Specific Outcomes (PSOs). Attainment of these attributes eventually help realizing Program Educational Objectives (PEOs). One sample, PEO and PSO for the department of Mechanical Engineering is appended below.

Programme Educational Objectives

PEO 1: To educate and groom the students with strong understanding and knowledge of mathematics, basic science and engineering coupled with contemporary skills in the areas of Mechanical Engineering.

PEO 2: To equip the students for successful professional careers in Mechanical Engineering domain of private and government enterprises, to prepare for PG studies in engineering, management and allied areas, and to prepare for entrepreneurship.

PEO 3: To make the students aware of the societal aspects of engineering profession, ethical practices in profession, and the importance of team work to function coherently and effectively in multidisciplinary context.

Programme Specific Objectives

PSO1: Should be able to clearly understand, analyze and comprehend the different courses of Mechanical
Engineering and other interdisciplinary courses and develop a holistic approach for implementation.

PSO2: Should be able to apply the knowledge, techniques and skills acquired to provide solutions to the real world problems related to Mechanical Engineering

PSO3: Should have the capability to comprehend the advancements in the usage of modern tools and latest techniques to analyze and design subsystems/processes for a variety of applications.

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

**Response:** 85

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

**Response:** 20

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

**Response:** 17

<table>
<thead>
<tr>
<th>File Description</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minutes of relevant Academic Council/BOS meeting</td>
<td><a href="#">View Document</a></td>
</tr>
<tr>
<td>Details of program syllabus revision in last 5 years(Data Template)</td>
<td><a href="#">View Document</a></td>
</tr>
</tbody>
</table>

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

**Response:** 100

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-21</td>
<td>20</td>
<td>18</td>
<td>19</td>
<td>19</td>
<td>19</td>
</tr>
</tbody>
</table>
### 1.2 Academic Flexibility

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

**Response:** 15

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

**Response:** 3

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

**Response:** 20

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

**Response:** 100

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

**Response:** 20

### 1.3 Curriculum Enrichment

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

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

1. Gender Sensitivity:

Gender related courses are an integral component of various programmes. Students are sensitized and encouraged to work towards gender equity from a cross-cultural perspective.

Free counseling services are provided through a Counseling Cell. During counseling session include, women’s rights, human rights, gender justice and gender equality.

Anti sexual harassment committee of the Institute ensures the gender justice effectively.

1. Environment and Sustainability: HIT has strong community orientated work culture that involves integration of water quality, air quality, education and healthcare, innovation and human values. HIT has skill development education by introducing UG/PG programmes in Water, Waste Management, Renewable Energy, Environmental Technology. A compulsory core course on Environment studies is included in all UG programmes.

HIT accords great importance to research in inter-disciplinary areas focused on renewable energy, environmental pollution, and education.

3. Human Values and Professional Ethics

The curriculum has the following compulsory core courses in all UG programmes specially focused on the development of human values and professional ethics:

1. Values and ethics in engineering profession.
2. Scientific Methodology, General Knowledge and Current Affairs.
3. Co-curricular Activities (for all-round development of personality)
4. Extra Curricular Activities

<table>
<thead>
<tr>
<th>File Description</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upload the list and description of the courses which</td>
<td>View Document</td>
</tr>
<tr>
<td>address the Gender, Environment and Sustainability,</td>
<td></td>
</tr>
<tr>
<td>Human Values and Professional Ethics into the</td>
<td></td>
</tr>
<tr>
<td>Curriculum</td>
<td></td>
</tr>
</tbody>
</table>

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

**Response:** 50

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-21</td>
<td>13</td>
<td>9</td>
<td>11</td>
<td>12</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>File Description</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of value added courses (Data Template)</td>
<td>View Document</td>
</tr>
</tbody>
</table>

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

**Response:** 89.61

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-21</td>
<td>4787</td>
<td>4553</td>
<td>4404</td>
<td>3357</td>
<td>3177</td>
</tr>
</tbody>
</table>
1.3.4 Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)

Response: 100

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

Response: 4787

1.4 Feedback System

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

Response: A. All 4 of the above

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

Response: B. Feedback collected, analysed and action taken

URL for stakeholder feedback report

View Document
## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Average Enrolment percentage (Average of last five years)

**Response:** 94.13

<table>
<thead>
<tr>
<th>Year</th>
<th>2016-17</th>
<th>2017-18</th>
<th>2018-19</th>
<th>2019-20</th>
<th>2020-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seats</td>
<td>1196</td>
<td>1156</td>
<td>1102</td>
<td>1344</td>
<td>1493</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2016-17</th>
<th>2017-18</th>
<th>2018-19</th>
<th>2019-20</th>
<th>2020-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admitted Students</td>
<td>1196</td>
<td>1156</td>
<td>1102</td>
<td>1344</td>
<td>1493</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2016-17</th>
<th>2017-18</th>
<th>2018-19</th>
<th>2019-20</th>
<th>2020-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seats</td>
<td>1266</td>
<td>1266</td>
<td>1230</td>
<td>1392</td>
<td>1512</td>
</tr>
</tbody>
</table>

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

**Response:** 100

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2016-17</th>
<th>2017-18</th>
<th>2018-19</th>
<th>2019-20</th>
<th>2020-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserved Categories Students</td>
<td>402</td>
<td>350</td>
<td>349</td>
<td>435</td>
<td>318</td>
</tr>
</tbody>
</table>

### File Description

<table>
<thead>
<tr>
<th>Institutional data in prescribed format (Data Template)</th>
<th>View Document</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Institutional data in prescribed format</th>
<th>View Document</th>
</tr>
</thead>
</table>
2.2 Catering to Student Diversity

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

Response:

The institution assesses the learning levels of the students in two ways at the time of the commencement of the programme. Students enrolled in various disciplines are identified as slow and advanced learners based on their +2 marks and with initial interaction during orientation classes. This helps to identify the slow learners and to design special remedial sessions or tutorial sessions to bridge the gap between the slow learners and the advanced learners. The faculty members of the respective classes of UG and PG extend valid support in classifying the students with reports based on observation and class tests.

- The institution organizes Orientation programmes/Induction programmes for freshers both at the college level and at the department level. The facilities in the college and the scope of the subjects being learnt are introduced in these sessions. Apart from this, sessions are also included to inculcate positive attitude and competitive spirit. This process helps as a base for monitoring the future progress of the students.
- Bridge Courses are conducted at the departmental level to lift the students to the level of higher education.

Strategies adopted for slow learners

- Remedial Classes are conducted with an aim to improve the academic performance of the slow learners, absentees and students who participate in sports and other activities. This practice helps the struggling learners to improve subject knowledge and helps them to catch up into their peers.
- Group Study System is also encouraged with the help of the advanced learners.
- Academic and personal counseling are given to the slow learners by the faculty member, mentor and the counseling cell.
- Provision of simple and standard lecture notes/course materials

- Special classes are also conducted in Skill Development Programme like Communicative English, Aptitude and Placement.
- Learners are encouraged to enroll in MOOC Courses – Swayam, NPTEL etc
- Provision of additional learning and reference material
- Assignment and Student Seminars on contemporary topics to enable them for placement
- Advanced Learners are provided coaching classes for competitive exams.
- Students are encouraged to participate and present papers in various Seminars/ Conferences/ Workshops/ Inter-Collegiate Competitions organized by other colleges. Students representing the college in various inter-collegiate meets are provided with the benefit of retest.
- Participation by the students in the in-house competitions such as Debate, Group Discussion, Problem Solving – Decision Making Exercises and Quiz Programmes are also encouraged.
- Talented students are motivated to participate in extra-curricular activities, exhibitions and cultural competitions.
- The academic achievements of the students are extremely motivated and highly praised by the College every year. Students, who secured Ranks in the Examination, are honored.
2.2.2 Student - Full time teacher ratio (Data for the latest completed academic year)

Response: 19:1

2.3 Teaching- Learning Process

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

Response:

The Institution practices a teaching methodology which focuses on imparting education through a student centric approach. This methodology helps to transform students the role of passive recipients to active and involved stake holders, apart from boosting their confidence and encouraging independence. Since students vary in their ability to comprehend and absorb, it is not possible to address the needs and expectations of individual students and expect a uniform learning outcome from them all in a teacher centric class. The teacher facilitates learning by allowing each individual student to comprehend at their personal level by ensuring their involvement in class activities so that they can absorb and grasp information at their own pace.

Courses of the institution are defined highlighting learning objectives and outcomes as well as program objective and outcome. This provides a comprehensive understanding to the student right at the beginning of the course as to what should be the primary focus. It also helps them in self-evaluating their performance at the conclusion of the course. Feedback of the Course and teachers, given by students at the end of each semester provides an opportunity to identify any lacunae which can then be addressed.

Teachers make classes as interactive as possible and encourage innovative thought and interpretations. Audio- Visual methodology, Language Lab, Google Classroom, Industrial Visits, Internship and Projects are some of the means used by departments to boost student participation. Students are encouraged to reflect and analyse by eliciting responses to the subject under discussion. Discussions and debates on contemporary issues are encouraged and students get an opportunity to express and their views apart from learning to respect perspectives of the ‘other’.

Guest lectures are organized regularly to give best domain exposure. Courses like Generic and Skill Enhancement, Moocs Program, sports, extracurricular activities like participation in NSS have been introduced to encourage students to participate and learn. Different events such as group discussion, seminars, debate etc are conducted to exhibit and hone their talents.

Internal assessments are so planned so as to encourage students to work independently. Written Assignments are required to be submitted by students and these need to be done individually by researching on the given topic so as to enhance confidence, develop writing skills, apart from inculcating an interest in research activities. Seminars, which form the second component of internal assessment, help students to present their assignments before the entire class helping them to overcome stage fear and develop oratory powers.
2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

Response:

The Institute follows ICT enabled teaching in addition to the traditional classroom education. Subsequent efforts are taken by the institute to provide e-learning atmosphere in the classroom:

1. In addition to chalk and talk method of teaching, the faculty members are using IT enabled tools such as PPT, Video clippings, Audio system, online resources to expose the students for advanced knowledge and practical learning.
2. Classrooms are facilitated by LCD Projectors and Computers.
3. Faculty members use interactive methods for teaching. Sometimes, emphasis is on classroom interaction in terms of paper presentation, seminars, group discussions, assignments, quiz, tests, viva-voce, laboratory and project work.
4. During COVID-19 pandemic outbreak, all the academic activities are being conducted online mostly using google meet, google classroom and google forms.

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

Response: 21:1

2.3.3.1 Number of mentors

Response: 231

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

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

The affiliating University (MAKAUT) provides almanac (calendar of events) for each semester in the beginning of the academic year to which the institute complies. The calendar reflects the commencement of classes and its duration, slots for midterm examination/continuous assessment, and dates of end semester examinations, result publication, in addition to the slots for vocational training (during summer recess).

In HIT, the teaching and learning process begins with an interactive orientation program. The essential topics of this program orient the students towards professional education and promote the capabilities to learn the subjects. A few topics that are usually discussed in the orientation are: ‘tips to learn better’, ‘how to benefit from theory classes’, ‘how to benefit from practical classes’, ‘how to face examinations etc.’ Additionally, the importance and merits of Outcome base education (OBE) and its various attributes are also explained to the students so that they can pursue different courses in its true spirit. Such approach immensely prepares the students towards self learning and helps to achieve high scores.

The teaching-learning is essentially a closed-loop control process. The teaching loads of the faculty members are decided in each department which is apprised to the subject teachers well before hand. The faculty members prepare the lecture plan which includes topic wise delivery schedule with respect to a time frame. Coverage beyond the syllabus is also taken into considerations depending on the merits of the topic(s). A centralized routine framing committee is constituted in every semester that is responsible for preparation of the time table for theory, laboratory and sessional papers.

HIT has taken several vital steps to characterize and channelize the energy and time for fruitful way in the teaching – learning process. The instructional methods are lecture mode, practical mode (including demonstration and simulation) and tutorial mode. In the lecture mode, modern audiovisual tools are used along with traditional chalk and talk mode. However, during Covid pandemic, the faculty members rely completely on digital platform. Due emphasis is given on fundamental concept building, numerical problem solving, data analysis, real-life applications etc.

During execution, a team comprising the Director/Principal, Dean and respective HOD monitor the academic progress. In view of any deviation, necessary corrective and remedial measures such as extra classes, tutorials, GATE question solving session, etc. are undertaken so that students can learn better and can participate proactively.
2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

Response: 98.68

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

Response: 30.74

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>101</td>
<td>79</td>
<td>68</td>
<td>69</td>
<td>65</td>
</tr>
</tbody>
</table>

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

Response: 8.03

2.4.3.1 Total experience of full-time teachers

Response: 2015
2.5 Evaluation Process and Reforms

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

Response: 189.8

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
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<tbody>
<tr>
<td>Number of days</td>
<td>191</td>
<td>188</td>
<td>196</td>
<td>189</td>
<td>185</td>
</tr>
</tbody>
</table>

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

Response: 0

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of complaints/grievances</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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

Response:

- The Institution has been continuously carrying out of reforms in its examination procedure through integration of IT in all the procedures and processes of the examination system. The reforms have
also been implemented in the continuous internal assessments modes and components. Examination procedure has been completely automated using In house IT software

- Positive impact of reforms on the examination procedures and processes including IT integration and continuous internal assessment on the examination management system

### Examination Procedures and IT Integration

- Adopting semester patterns of examination with continuous evaluation system for all the departments.
- Digital evaluation system has been successfully implemented for UG, PG examinations.
- Online marks submission
- Online question paper preparation
- Online examination system for End semester examination as well as for continuous assessment.
- Inclusion of , assignment, seminar presentation etc. as components of evaluation.

The positive impact of the examination management system in the institution as follows:

- E-governance has been successfully implemented in the Institution. Online entry of Students Resumes, attendance and internal assessment a mark.
- Online filling of examination /revaluation forms helps the students and university in saving time and in generating admission tickets.
- The institution executes online examination with utmost sincerity and integrity.
- End semester question papers are moderated by the experts.
- Examiners are appointed only from the panel of examiners. Panel of examiners for every subject is compiled prior to the examination.
- Examiners are provided with login and password for the digital evaluation.
- The answers scripts are coded to prevent disclosure of identity of students; thereby bias/malpractice of any kind is prevented.
- Scheme of evaluation along with solutions are made available to the examiners prior to the commencement of evaluation. Thus uniformity is maintained.

### 2.6 Student Performance and Learning Outcomes

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

**Response:**

The faculty members have had the onus of grooming the students with the philosophy of OBE, since the students are perhaps the most important stake holders of an institution. In a class, be it theory or practical, the importance/objective of any topic, its content, modeling of the system or process to be followed, result analysis, relevance or mapping of the topic to the real-life situations are properly addressed along with the expected outcome (COs) after undergoing a particular course. Additionally, the Program Outcomes (POs) are also explained to the students which the incumbents would exhibit at the end of their respective
programs. This is done continuously so that students can inculcate this approach and study accordingly. In this regard, attempts are made to display POs, COs, PSOs etc. in the institute website, brochures, departments, classrooms, laboratories and other prominent locations so that it can be noted down by the students and teachers and other stake holders. Different flow-charts are developed and displayed at different locations to understand the attainment process pictorially.

Further, the faculty members (subject teachers) also prepare the lecture plan and the study materials, where the COs is correlated with different topics and these are uploaded in the institute website. The students according to his/her convenience can access it round the clock and study different topics of a subject as an individual or in a small group. This also helps the students to understand the importance of different topics and the outcomes that are expected from them. The assignment questions and Class test questions also reflects the COs. So an all out effort is paid to make the COs visible to the students.

Frequent departmental meetings are also organized to review the relevance of these attributes in its true perspective. Eventually, the students develop better understanding about the need and objectives of OBE and how this approach is going to improve their careers in the years to come.

<table>
<thead>
<tr>
<th>File Description</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upload COs for all courses (exemplars from Glossary)</td>
<td>View Document</td>
</tr>
</tbody>
</table>

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

**Response:**

**CALCULATION OF CO’S & ATTAINMENT OF PO AND PSO**

- According to Bloom’s Taxonomy CO’s are formulated for each students
- All CO’s are graded in a scale of 1-3, of which ‘3’ is given for students scored above 60%, ‘2’ is given for the score of 40%-60% and ‘1’ is given for the score of below 40%.
- Then, the average grade of CO’s is computed for each student which provides the indirect attainment.
- Finally, the overall attainment has been computed for PO’s and PSO’s, given in the following flow charts.

The procedure of getting attainment is enclosed as additional information.
### 2.6.3 Pass Percentage of students (Data for the latest completed academic year)

**Response:** 100

<table>
<thead>
<tr>
<th>2.6.3.1 Total number of final year students who passed the examination conducted by Institution.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response: 1132</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.6.3.2 Total number of final year students who appeared for the examination conducted by the Institution.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-08-2021 08:32:56</td>
</tr>
</tbody>
</table>
Response: 1132

<table>
<thead>
<tr>
<th>File Description</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)</td>
<td>View Document</td>
</tr>
<tr>
<td>Link for the annual report</td>
<td>View Document</td>
</tr>
</tbody>
</table>

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response:

<table>
<thead>
<tr>
<th>File Description</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upload database of all currently enrolled students</td>
<td>View Document</td>
</tr>
</tbody>
</table>
Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

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

Response:

RESEARCH POLICY

Haldia Institute of Technology is promoting Research Culture by complementing it with teaching – learning in which freedom of inquiry, thought, expression and publication are given the fullest protection.

Research Policy of the Institution

Haldia Institute of Technology is promoting Research Culture by complementing it with teaching – learning in which freedom of inquiry, thought, expression and publication are given the fullest protection.

The research policy aims to create and support a research culture among its facultymembers and students and leverage it for enriching and enhancing the professional competence by:

1. Realising the vision and mission of the college and facilitating their participation in research and related activities
2. Providing the required resources and appropriate facilities for smooth conduct of Research
3. Fostering socially relevant research and promote multidisciplinary research
4. Promoting interdisciplinary research and establish modalities for preparing and undertaking joint research projects covering more than one knowledge domain as well as policies for involving external agencies/experts in such projects.
5. Identifying, collaborating and establishing linkages including MOUs with National/International/Govt/ Non-Govt/ Industry/ Research organizations and Local agencies to benefit from the activities and programmes conducted by those organisations for widening the scope of the research opportunities, obtaining sponsorships and funding options available.
6. Encouraging and facilitating the publication of the research work/projects in reputed academic journals

R & D Monitoring Committee

The R&D Cell is responsible for promotion of excellence in the Institute’s research and development, and academic and research training activities; This includes the development, review and monitoring of achievements under the Research & Development. Motivate all Faculties to pursue research in their respective areas of expertise; The protection and commercialization of the Institute’s intellectual property; The provision of research and development opportunities for academic staff to maintain enthusiasm, awareness of current scholarship and relevance in teaching and other Institutional activities; Promote emerging areas of research and development; Development of mechanisms conducive to the best possible ways of engaging and motivating research staff; To monitor and enhance the quality of research programmes, projects and the research infrastructure within Institute, including the training of research
• An academic department or its faculty members may undertake a research scheme sponsored by an external agency with the approval of the Director subject to the conditions that all the activities, like, recruitment of JRF/SRF, procurement of equipment/instrument/consumable, proper utilization fund, will have to be duly approved by the Project Monitoring Committee or higher authority.

<table>
<thead>
<tr>
<th>File Description</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption</td>
<td>View Document</td>
</tr>
<tr>
<td>URL of Policy document on promotion of research uploaded on website</td>
<td>View Document</td>
</tr>
</tbody>
</table>

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

**Response:** 0.95

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

<table>
<thead>
<tr>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.36</td>
<td>.252</td>
<td>.791</td>
<td>.519</td>
<td>.852</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>File Description</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minutes of the relevant bodies of the Institution</td>
<td>View Document</td>
</tr>
<tr>
<td>List of teachers receiving grant and details of grant received</td>
<td>View Document</td>
</tr>
<tr>
<td>Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized</td>
<td>View Document</td>
</tr>
</tbody>
</table>

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

**Response:** 0.72

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
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<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

3.2 Resource Mobilization for Research

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

Response: 358.66

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>177.4</td>
<td>87.4</td>
<td>44.66</td>
<td>35.6</td>
<td>13.6</td>
</tr>
</tbody>
</table>

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

Response: 2.17

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>
### 3.2.3 Percentage of teachers recognised as research guides

**Response:** 13.94

#### 3.2.3.1 Number of teachers recognized as research guides

Response: 35

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

**Response:** 16.81

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

#### 3.2.4.2 Number of departments offering academic programs

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>20</td>
<td>18</td>
<td>19</td>
<td>19</td>
<td>19</td>
</tr>
</tbody>
</table>
3.3 Innovation Ecosystem

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

Response:

Haldia Institute of Technology has an excellent research environment owing to its well-planned vision since the foundation of the Institute. With a view to create proper eco-system the Institute has created a system that is based ‘planning’, ‘execution’, ‘monitoring’, ‘encouragement’ and ‘knowledge and technology transfer’.

Planning: Institute has a very clear idea about its vision and mission and what it wants to achieve in the field of science, technology and education. For the fulfilment of the prospects of the young students in the field of science and technology, it is important to provide them out of the box learning facility through research atmosphere. From the very beginning the Institute has developed a dedicated R&D centre by providing dedicated research laboratory, purchasing and installing research facilities, hiring young and senior faculties with PhD and research background.

Execution: The Institute has several research laboratories with a wide range of research fields. We have individual, interdisciplinary and multi-disciplinary research facilities. Our faculties have received 47 research projects from central funding agencies [DST, DST-SERB, DBT, UGC, CSIR, AICTE etc] and industries. Our faculties are doing research in various fields starting from mechanical properties of material, nanoscience and nanotechnology, polymer, alternate energy, theoretical chemistry, remote sensing, anti-cancer drugs and many more. Institute is strengthening its research facility by hiring suitable manpower for research and innovation.

Monitoring: In order to achieve excellency in any field proper monitoring and guidance is very important. The Institute has a dedicated R&D monitoring committees with experienced people that provides necessary guidance to the new researchers. The committee also monitors scientific progress, financial aspects and searches for any possibility for knowledge or technology transfer.

Encouragement: The Institute has always encouraged its faculties and students to excel in research innovations and development of new technology by announcing financial rewards. The Institute encourage its students and faculties to go for advances research and provide help for it. Student and faculties are provided with financial assistance to attend seminar and conferences. Institute provide leave to its faculties for postdoctoral research. Institute regularly organizes Tech-competitions and scientific seminars to encourage its students to participate and express their talent and knowledge.

Knowledge and Technology Transfer: Institute always encourage its students and faculties to develop new knowledge or technology and utilize them in proper place. For this purpose Institute has created two dedicated cells: (i) The Industry-Institute Partnership Cell (IIPC) and (ii) Entrepreneurship Development Cell. These two cells bridge the gap between the Institute and industry by organising thought sharing sessions sharing the needs of the industry to our students and faculties. It also provides a platform where
our students and faculties can share their knowledge, technologies and ideas to the industry. These kinds of mutual sharing of interest and knowledge opens up the horizon of new opportunity. In the last few years our faculties have received several consultancy projects from industries.

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

Response: 54

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>08</td>
<td>12</td>
<td>10</td>
<td>09</td>
</tr>
</tbody>
</table>

3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work  2. Presence of Ethics committee  3. Plagiarism check through software 4. Research Advisory Committee

Response: C. 2 of the above

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

Response: 2.06

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

Response: 72

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

Response: 35
### 3.4.3 Number of research papers per teachers in the Journals notified on UGC website during the last five years

**Response:** 2.62

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of</strong></td>
<td>196</td>
<td>128</td>
<td>100</td>
<td>111</td>
<td>115</td>
</tr>
</tbody>
</table>

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

**Response:** 1.53

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of</strong></td>
<td>126</td>
<td>88</td>
<td>50</td>
<td>75</td>
<td>42</td>
</tr>
</tbody>
</table>

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

**Response:**
### File Description

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bibliometrics of the publications during the last five years</td>
</tr>
</tbody>
</table>

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

**Response:**

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution</td>
</tr>
</tbody>
</table>

### 3.5 Consultancy

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

**Response:** 138

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25.5</td>
<td>40.7</td>
<td>18.1</td>
<td>23.6</td>
<td>30.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of consultants and revenue generated by them</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audited statements of accounts indicating the revenue generated through consultancy and corporate training</td>
</tr>
</tbody>
</table>

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

**Response:** 380

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

3.6.1 Extension activities are carried out in the neighbourhood community, sensitising students to social issues, for their holistic development, and impact thereof during the last five years

Response:

The institute has entrusted the responsibility for enhancing the extension activities to community by our students with the direct involvements through NSS. Sensitizing students to social issues, for their holistic development and impact the institute has introduced 21 days SIP (Students induction Program) just at the beginning of the course during the course our mentors interact with students in below mentioned aspects.

The activities performed for holistic development of students are Individual Interaction (students, parents and respective mentors), Group interaction, Professional Interaction, Academic Group Interaction, Familiarization of the students with the e-learning process and Orientation Programme

The Objectives of eSIP

1. To get an exposure to a holistic vision of life, develop awareness, sensitivity and understanding of the Self---family---Society---Nation---International---Entire Nature
2. To become familiar with the ethos and culture of the institution.
3. To set a healthy daily routine; create bonding in batch as well as between faculty members and students
4. To facilitate students in creating new bonds who accompany them through their college life and beyond
5. To overcome weaknesses in some essential professional skills (e.g. Mathematics, Language proficiency modules)

The 9 Module of eSIP
The **college has** initiated a mission for creating educational awareness among community by our students and a schedule based collection of data regarding life style, education of child and women in the community, slum area and their status. **With active participation of students** to promote institute-neighborhood community to sensitize the students towards community needs. **NSS organizes** a residential seven day camp in nearby adopted ward under haldia municipality and several activities were carried out by NSS volunteers addressing social issues which include **cleanliness, tree plantation ,water conservation.**

It aims at developing **qualities of leadership, patriotism, maintaining discipline**, character building, spirit of adventure and the ideal of self service. The NCC unit of the college organizes various extension activities as tree plantation, Road safety awareness, Save fuel save country programme, **Swachhta Abhiyan ,National equality awareness.**

The **students are encouraged for community teaching**( the kids of nearby community), helping orphanage through **NEEDs and SAMARPAN** under the guidance of HOD SAS and Student welfare.

**Other than NSS ,the various departments** of the college is conscious about its responsibilities for shaping students into responsible citizens of the country by making students aware of social issues through various programmers like Environmental Awareness, Personal Health and Hygiene, Diet awareness, Road Safety, Tree Plantation etc.

**Several webinar and seminars were organized every year by different departments and NSS.**

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

**Response: 3**

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

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

**File Description**

<table>
<thead>
<tr>
<th>Description</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of awards for extension activities in last 5 year</td>
<td>View Document</td>
</tr>
<tr>
<td>e-copy of the award letters</td>
<td>View Document</td>
</tr>
</tbody>
</table>
3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., during the last five years (including Government initiated programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community and NGOs)

Response: 18

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

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

Response: 20.68

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>137</td>
<td>1854</td>
<td>614</td>
<td>244</td>
<td>1764</td>
</tr>
</tbody>
</table>

3.7 Collaboration

3.7.1 Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on-the-job training/ project work
### Response: 13.2

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>05</td>
<td>18</td>
<td>24</td>
<td>15</td>
<td>4</td>
</tr>
</tbody>
</table>

#### File Description

- Number of Collaborative activities for research, faculty etc. | [View Document](#)
- Copies of collaboration | [View Document](#)

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

#### Response: 15

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

#### File Description

- e-copies of the MoUs with institution/ industry/ corporate house | [View Document](#)
- Details of functional MoUs with institutions of national, international importance, other Institutions etc during the last five years | [View Document](#)
Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

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

Response:

The institution has adequate infrastructure and physical facilities for teaching-learning. Viz., classrooms, laboratories, computing equipment etc.

The Institute has a lush-green sprawling campus spanning over 36.98 acres. It is equipped with modern facilities and learning resources to achieve academic excellence according to its vision and strategic objectives. The infrastructure facilities are categorized as under: (a) Basic Resources, which include resources and infrastructure required for class rooms (including smart classrooms), laboratories, library, central workshop, language laboratory, computer centre, examination cell, T&PO cell, seminar and conference rooms, auditorium etc. (b) Support facilities include hostels, playground, gymnasium, Yoga center, Basketball ground, Bank with ATM, Post office, departmental stores, cafeteria, medical facilities, etc. Additionally, there is provision of 24 hours purified drinking water supply and uninterrupted power supply (with generator). 2Gbps continuous leased line is available for internet connectivity. Classes are scheduled for optimal utilization of the available physical infrastructure. Sophisticated equipment available in the laboratories is optimally utilized without duplication by time-sharing. Sharing of laboratory facilities is also encouraged between faculties. Apart from the central facilities, such as, Computer Center, Central Library, Central workshop, there are many laboratories that cater to students from other faculties. The Institute continuously attempts to create and enhance infrastructure to ensure a good teaching-learning environment. Further, additional infrastructure and state-of-the-art laboratories are created under sponsored research [from DST, DBT, CSIR etc.] and MODROBS (AICTE) scheme.

Following table shows the highlights of salient infrastructure along with the numbers and corresponding total area.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Numbers</th>
<th>Area (Sq meter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>72</td>
<td>5995.69</td>
</tr>
<tr>
<td>Tutorial room</td>
<td>19</td>
<td>739.8</td>
</tr>
<tr>
<td>Laboratories</td>
<td>106</td>
<td>10895</td>
</tr>
<tr>
<td>Workshop</td>
<td>6</td>
<td>1432</td>
</tr>
<tr>
<td>Seminar Hall</td>
<td>4</td>
<td>2034</td>
</tr>
<tr>
<td>Central Computing facility</td>
<td>2</td>
<td>792</td>
</tr>
<tr>
<td>Library reading room</td>
<td>1</td>
<td>2935</td>
</tr>
<tr>
<td>Drawing Hall</td>
<td>4</td>
<td>1695</td>
</tr>
<tr>
<td>Gymnasium &amp; Yoga Center</td>
<td>1</td>
<td>452</td>
</tr>
<tr>
<td>Language Lab</td>
<td>1</td>
<td>162</td>
</tr>
<tr>
<td>Common room</td>
<td>2</td>
<td>1180</td>
</tr>
</tbody>
</table>
4.1.2 The institution has adequate facilities for cultural activities, yoga, games (indoor, outdoor) and sports. (gymnasium, yoga centre, auditorium, etc.)

Response:

The institute has got adequate facilities to conduct different co curricular and extracurricular events. The institutes conducted the sports events, tournaments including annual sports meet as a part of regular activities pertinent to sports. The different facilities available for sports activities are as follows:

1. Two grounds for football and cricket tournaments. (outdoor)
2. Four outdoor volleyball courts (outdoor)
3. One basketball courtyard (outdoor)
4. Four Badminton courtyards (outdoor)
5. One yoga centre (indoor)
6. Two Table tennis centres (indoor)
7. Carom boards for common room at each and every hostel.
8. One gymnasium for men. (indoor)
9. One gymnasium for women(indoor)

To conduct different cultural competitions the Institute has an auditorium named as S. N. Bose Auditorium which is fully air conditioned and has a capacity to entail five hundred persons at a time. Besides during cultural fest a gigantic stage is decorated with sound and light amenities to facilitate over three thousand students and faculty members.

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

Response: 27.63

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 21
4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during the last five years (INR in Lakhs)

Response: 99.98

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>1090.19</td>
<td>1848.59</td>
<td>1680.47</td>
<td>2116.38</td>
<td>1633.73</td>
</tr>
</tbody>
</table>

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS)

Response:

- The Institute has central library and departmental libraries. Aryabhatta Central Library occupies a unique place in the academic and research activities of Haldia Institute of Technology. It is one of the most unique central facilities of the campus. It is housed in a separate three-storied building with a floor space of 4402 sq.m.

- Exclusive reference section is available in the library. A visitor’s book is maintained for students and staff.

- New arrivals of books and journals are displayed on separate stands and racks.
• It has a total collection of **114259 books** comprising general books, Semester books, and books from TEQIP of the World Bank Fund.

It subscribes **168 print journals.** It procures **10 magazines** and **10 newspapers.**

**Electronic Resource Management**

The library subscribes to **5 databases** of e-journals of Springer and The Institution of Engineers (India) covering about **464 e-journals** to support studies and research activities of the institute.

In addition, databases of PROQUEST which facilitates access to **33650 e-books** on wide variety of disciplines are also available.

Full video course lectures of NPTEL (an initiation of IIT and IISc) and NDL (National Digital Library) are also added in the library to help students and faculty members download such materials for study and learning. Online resources of DELNET is also available for learning.

A well-equipped Digital Library with 30 nodes having Internet connectivity is housed in the Central Library for access to e-resources, i.e., e-journals, e-books, online resources (LR), video lectures, Question papers, GATE papers, language learning materials, etc. As the access facility to e-journals is multi-user and IP address-based, students can access the e-resources (24x7) from anywhere in the campus.

**Library Automation**

The Institute installed Integrated Library Management System (ILMS) namely “LIBSYS” in the year 2003. The library is fully automated. All the active collection is updated in the LIBSYS Library Management Software database and the web based Online Public Access Catalogue (Web-OPAC) facility is made available through LIBSYS to know the bibliographical details (Title, Author, Subject, etc.) about the collection. The issue and return of books has been activated with the LIBSYS (6.3 windows version) Library Management Software.
Two separate nodes are made available in the Central Library for OPAC facility for students and faculty members. And as it is a Web-OPAC, user from anywhere can search the library collection. Search by giving Title, Author, and Subject can be carried out. Student can check his/her library account at any point of time.

Facilities available

No of printers: 02
Bar Code Printer: 01
Book Spine Label Printer: 01
Bar Code Scanner: 04
Photocopy Machine: 01
Wi-Fi Connectivity

E-Resources

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>E-Resources</th>
<th>Publisher</th>
<th>Web Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Springer E-Journals: Engineering</td>
<td>Springer</td>
<td><a href="http://link.springer.com">http://link.springer.com</a></td>
</tr>
</tbody>
</table>
### 4.2.2 Institution has access to the following:
1. e-journals
2. e-ShodhSindhu
3. Shodhganga Membership
4. e-books
5. Databases
6. Remote access to e-resources

**Response:** B. Any 3 of the above

<table>
<thead>
<tr>
<th>File Description</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional data in prescribed format</td>
<td>View Document</td>
</tr>
</tbody>
</table>

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

**Response:** 22.47

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditure</td>
<td>5.4</td>
<td>9.10</td>
<td>29.1</td>
<td>28.96</td>
<td>39.8</td>
</tr>
<tr>
<td>File Description</td>
<td>Document</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>----------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Details of annual expenditure for purchase of and subscription to journals/e-journals during the last five years</td>
<td>View Document</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audited statements of accounts</td>
<td>View Document</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Response:** 2.22

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

**Response:** 112

### 4.3 IT Infrastructure

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

**Response:**

- **PC:** 1431
- **Printer:** 125
- **Servers:** 5
- **PC consists of Intel dual core, core2duo, I3 and AMD AMD Rizen 3 Processor.**
- **Inside college single network through proxy server AND in hostels different network through cyberoam.**
- **Network is protected by cyberroam as well as cisco asa firewall.**
- **Inside college network is connected through LAN AND WiFi and in hostels entirely wifi.**

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

**Response:** 3:1

#### 4.3.3 Bandwidth of internet connection in the Institution.

**Response:** ?50 MBPS

#### 4.3.4 Institution has the following Facilities for e-content development

1. Media centre
2. Audio visual centre
3. Lecture Capturing System(LCS)
4. Mixing equipments and softwares for editing
Response: A. All of the above

<table>
<thead>
<tr>
<th>File Description</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional data in prescribed format</td>
<td>View Document</td>
</tr>
</tbody>
</table>

### 4.4 Maintenance of Campus Infrastructure

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

Response: 88.88

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance of Library Facilities:</td>
<td>1058.21</td>
<td>1527.21</td>
<td>1597.78</td>
<td>1765.13</td>
<td>1410.41</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>File Description</th>
<th>Document</th>
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</thead>
<tbody>
<tr>
<td>Details about assigned budget and expenditure on physical facilities and academic facilities</td>
<td>View Document</td>
</tr>
<tr>
<td>Audited statements of accounts</td>
<td>View Document</td>
</tr>
</tbody>
</table>

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

Response:

**Maintenance of Library Facilities:**

The books and journals are maintained. Book binding is carried out on regular basis for damaged books to avoid further damage. Stock verification is done as a part of regular monitoring and control.

Library Committee has been constituted for co-ordination in respect of learning resources.
• Procurement of new books & renew of journals and recommendation for additional books

• Updating and maintaining of all library records
• Addressing issues and grievances of users
• Update and upgrade the library contents, periodically as per updates in curriculum

Computers: The institute has an adequate number of computers with internet connections and utility softwares. Computer systems, UPS, Softwares and Servers are maintained by engineers, technicians of system section.

Classrooms, Conference Hall: Classrooms and International Conference hall are provided with enough seating capacity and LCD projectors. Cleanliness of class rooms and International Conference hall is maintained on regular basis. Working condition of audio system, LCD projectors etc. is done on regular basis.

Laboratory:

Laboratories are regularly maintained by the Laboratory Instructor, demonstrator. Records of equipments are maintained in stock Register as per the process. Equipments are maintained properly, calibrated and serviced periodically. Major breakdown maintenance if required, is carried out by external agencies.

Maintenance of other support systems:

• Housekeeping for regular cleanliness of corridors, washrooms, classrooms, laboratories and premises is done by estate department. Sanitizing of washrooms is done on regular basis.
• Greenery is maintained by the gardeners of external agencies.
• Power backup facilities like Generators are maintained by Internal Electrical maintenance department.
• Clean and hygienic drinking water is available in the Institute. Water coolers are maintained and cleaned on regular basis. Overhead water tanks and water coolers are cleaned periodically.

○ Sports facilities are maintained by the sports committee and the staff.
The below mentioned points are inspected before start of every semester.

1. Classroom facilities such as lights and fans, LCD projector and sound system, availability of internet connections are inspected before start of every semester.
2. Working condition of computers, devices, and equipments is ensured.
3. Working condition of machines in the workshop is ensured.
4. Stock checking activity is done prior to start of new semester.
5. Estate department of the institute inspects the facilities like toilets, classrooms, corridors.
6. Library committee collects specific needs of the students and staff.
7. Sports committee ensures the availability of sports equipments and monitors the usage of the ground, courts and indoor games facilities.
Criterion 5 - Student Support and Progression

5.1 Student Support

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

Response: 15.66

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>819</td>
<td>544</td>
<td>310</td>
<td>882</td>
<td>978</td>
</tr>
</tbody>
</table>

File Description

- upload self attested letter with the list of students sanctioned scholarships [View Document]
- Institutional data in prescribed format [View Document]

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

Response: 10.46

5.1.2.1 Total number of students benefited by scholarships, freehips, etc. provided by the institution / non-government agencies year-wise during last five years

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>476</td>
<td>526</td>
<td>485</td>
<td>474</td>
<td>400</td>
</tr>
</tbody>
</table>

File Description

- Institutional data in prescribed format [View Document]

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

Response: A. All of the above
5.1.4 Average percentage of students benefited by career counseling and guidance for competitive examinations offered by the Institution during the last five years.

Response: 99.94

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4787</td>
<td>4553</td>
<td>4404</td>
<td>4446</td>
<td>4366</td>
</tr>
</tbody>
</table>

5.1.5 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases
1. Implementation of guidelines of statutory/regulatory bodies
2. Organisation wide awareness and undertakings on policies with zero tolerance
3. Mechanisms for submission of online/offline students’ grievances
4. Timely redressal of the grievances through appropriate committees

Response: A. All of the above

5.2 Student Progression

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

Response: 61.97

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>761</td>
<td>761</td>
<td>772</td>
<td>654</td>
<td>532</td>
</tr>
</tbody>
</table>
### 5.2.2 Percentage of student progression to higher education (previous graduating batch).

**Response:** 35.87

#### 5.2.2.1 Number of outgoing student progressing to higher education.

Response: 406

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

**Response:** 9.86

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>36</td>
<td>50</td>
<td>87</td>
<td>70</td>
<td>63</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
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<tr>
<td></td>
<td>640</td>
<td>630</td>
<td>610</td>
<td>620</td>
<td>620</td>
</tr>
</tbody>
</table>
5.3 Student Participation and Activities

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

Response: 6

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-21</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

File Description

Number of awards/medals for outstanding performance in sports/ cultural activities at inter-university / state / national / international level during the last five years

View Document

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

Response:

Students have active representation on academic and administrative bodies and committees of the Institute.

Class Committees

All programmes have class committees for each course that comprise of student members representing, along with faculty members (acts as mentors) nominated by the Head of the Department, other than the course teacher. The Class Committees provide feedback on all aspects of the programme and respective course.

Cultural and Sports Committees
Students have strong representations in all cultural and sports and games committees and help in organization and management of events under students welfare committee.

**Ant-ragging committee and Anti-ragging squad**

Students have strong representations and active participation in the anti-ragging committee and anti-ragging squad.

**Hostel Administration**

Students provide strong support in the administration and management of hostel affairs.

**Organization of Special Events**

Students organize, and celebrate the National Teachers Day, on Sept. 5, every year by honoring retired teachers and presenting cultural programme, and other National celebrations that include, Independence Day, Republic Day, Engineers Day, Science Day and various NSS and social service activities.

**TEDx and Sampravah**

Students organized Techfest and cultural festival REVIERA on Excellence with Relevance.

The above activities enhance their communication skills, management skills, leadership skills, team-work, time-management, resource management skills and builds confidence in each student.
5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

Response: 10.2

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>13</td>
<td>14</td>
<td>20</td>
</tr>
</tbody>
</table>

File Description

| Number of sports and cultural events / competitions organised per year | View Document |

5.4 Alumni Engagement

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

Response:

Alumni-Association is a platform that offers an opportunity for the current students to get acquainted with this crisis, and enrich themselves with unique perspectives to convert the crisis into an opportunity for growth as individuals and as professionals. It is an important avenue to prepare network with the corporate world, and shape a better future.

The mission of Alumni Relations is to inform, engage and inspire alumni to stay connected to their alma mater, support its vision and contribute to its success. The prima facie objective of the alumni association therefore is to create an effective platform of interaction with and contribution to the alumni, teachers, students, and of course the Institute as a whole.

The objective are

- To maintain an up-to-date and comprehensive database of HIT alumni
- To identify and promote alumni success and achievements to advance the credibility and reputation of the Institute.
- To maintain, deepen and strengthen an enduring lifelong relationship between alumni and their alma mater through opportunities that promote interaction and engagement with all its stakeholders.
- To maintain an alumni liaison programme that will encourage alumni to identify themselves with the Institute; to generate and sustain interest and participation in the Institute; to inspire alumni to contribute to the development of the Institute and the promotion of its good name and reputation, locally and internationally.
• To keep alumni informed and connected through a comprehensive communication and social media programme that inspires commitment to and confidence in the institute.
• To support an effective advancement programme through collaboration and cooperation with all entities in the advancement of the broader community.
• On the occasion of the reunion, “RETRACE” a huge number of alumni returned to their beloved campus for reunion. The momentous event included introduction of two awards to encourage our current students towards greater heights of success.

a) Academic Excellence Award b) Best Sports’ Personality Award

Our official webpage is https://hithaldia.co.in/phiredekha/ and Facebook page is https://www.facebook.com/Phiredekhahit

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

Response: C. 5 Lakhs - 10 Lakhs
Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

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

Response:

Vision

To achieve Centre of Excellence in the field of Science, Technology and Management Education for creating dynamic human resources of global standards with capabilities of accepting new challenges.

Mission

- To impart quality and value based education to raise satisfaction level of all stake-holders.
- To create competent, creative professionals, and great entrepreneurs who can work as individual or in group in multi-cultural global environments.
- To prepare citizens who would grow to be competent enough to contribute significantly with personal integrity and civic responsibility for the betterment of mankind throughout their careers and profession.

Nature of Governance:

The institution follows a decentralized and participatory mode of governance with all stakeholders participating actively in its administration and academic process. The Governing Body delegates authority to the Director/Principal and Registrar who, in turn share it with the different levels of functionaries in the college. The Deans, Heads of Departments, the Conveners of various committees and cells/sections along with the staff representatives on higher decision-making bodies play an important role in determining the institutional policies and implementing the same.

Perspective/Strategic Plan:

The institution has a Perspective/Strategic Plan in place to help it develop in a systematic, well-thought-out and phased manner.

1. Institution aspires to get Deemed to be University status

2. Introduction of new programs at the under-graduate level and Post Graduate level.

3. Improvement of the scope and profile of the Teaching-Learning process through greater use of ICT and other innovative means.

4. Renovations to revive the ageing infrastructure including laboratory of the institution.
5. Application to various agencies for sponsored research / consultancy/patents/seminar & workshop etc.

6. Achievement of national and international recognition in the form of grants and awards.

7. Collaboration with Academic Institutes and industries.

8. Formation of the various Board of Studies (BOS) under autonomy for reforming the curricula and the syllabi and subsequent syllabus formation/modification process is undergoing.

**Participation of Teachers and Students in Decision-Making Bodies**

Faculty members play an important role in implementing the vision and mission of the institute and to that end play a proactive part in the decision-making process. Heads of Departments enjoy considerable administrative and academic autonomy in running their programs. Teachers influence the institutional polity through the representatives in the Governing Body, the Academic Council, The BOS, and other academic and administrative committees. Besides, teachers are members and conveners of the various committees that are instituted for the day-to-day functioning of the institute. These are Examination Committee, Internal Quality Assurance Cell (IQAC), Grievance Redressal Committee (other than sexual harassment), Anti-Ragging Committee, Students Admission Committee, Library Committee, Student Welfare Committee, Academic Audit Committee, Sexual Harassment Redressal Committee, Purchase Committee, Training Placement Committee, R & D Monitoring Committee, Industry Institute Partnership Cell, Disciplinary Committee. Additionally, teachers also discharge an energetically pervasive role as motivators and spearhead the cultural and socially conscious activities in the institution through varieties of programs.

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

**Response:**

Decentralization and Participative Management is an approach to offer flexibility in decision-making process in wide spectrum of activities. Hierarchical and orthodox management hinders progress and often resulted in a deadlock situation. The success of an institution is the outcome of unified effort put together by all concern to materialize the vision of the institution into a reality. Decentralized and participative management aims at participation of the employees as an individual and as a team so that their endeavor and contribution helps in realizing growth, excellence, and competitive edge of the institution. The participative management is applicable in all three levels of management: Strategic level, Functional level, and Operational level. The Board of Governors (BOG) is at the top and envisaged as the highest decision-making authority. The members of the BOG of the Institute are responsible for the general superintendence, direction and control of the affairs of the Institute and exercise all such powers and discharge all such functions as may be necessary for the purpose. To implement and practice decentralized and participative management various academic and administrative committees are framed by BOG and their responsibilities are assigned. In line with the UGC, three other statutory committees are constituted. These are Academic Council, Board of Studies, and Finance Committee. The Academic Council is the main Academic Authority of the Institute. It manages the academic affairs of the Institute and functions under the direct control and supervision of the Board of Governors. The Board of Studies (BOS) is an
academic wing of the Institute and functions under the direct control and supervision of the Academic Council of the Institute. The members in the BOS are in congruence of the UGC guidelines. The Finance Committee, as constituted by the BOG of the Institute, examines the accounts and scrutinizes proposals for expenditure, prepares budgets, allocate funds etc. Additionally, the following Non-Statutory Committees have been formed with the approval of the Board of Governors for day to day institutional development, nurturing the academic ambience, improving the overall Teaching-Learning process, foster research work and to maintain discipline in the Institute. These are Planning and Evaluation Committee, Examination Committee, Internal Quality Assurance Cell (IQAC), Grievance Redressal Committee (other than sexual harassment), Anti-Ragging Committee, Students Admission Committee, Library Committee, Student Welfare Committee, Academic Audit Committee, Sexual Harassment Redressal Committee, Purchase Committee, Training Placement Committee, R&D Monitoring Committee, Industry Institute Partnership Cell, Disciplinary Committee. Director/Principal is the overall Head of the Institute and is assisted by the Registrar, various Officers, Deans and the Heads of the Departments.

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<thead>
<tr>
<th>File Description</th>
<th>Document</th>
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</thead>
<tbody>
<tr>
<td>Link for strategic plan and deployment documents on the website</td>
<td>View Document</td>
</tr>
</tbody>
</table>

### 6.2 Strategy Development and Deployment

#### 6.2.1 The institutional Strategic / Perspective plan is effectively deployed

**Response:**

**Core Values of our Institution**

- Excellence in Teaching and Learning
- Involvement of all Stakeholders of the Institution in Decision-making
- Community Engagement
- Holistic Development of Students

**Objectives of Perspective Plan**

While preparing the present perspective plan, the IQAC has considered following main objectives: NAAC

- To ensure top quality standards in higher education

  - Contributing to National Development
  - Developing requisite competencies amongst students of the college
  - Inculcating a Value System among the Students
  - ICT-based teaching and learning.

**Perspective Plan:**
To maintain continuously good academic performance

To develop and execute effective teaching-learning process To encourage research culture in faculty and students

To develop a comprehensive system of student mentoring and student support and ensure transparency in evaluation process of students

To empower faculty about emerging trends in their profession for academic advancement

To facilitate a friendly, efficient administrative set up ensuring a smooth day to day functioning

Focus of Strategic Plan

To make students more employable

- Providing various courses which will help in increasing their practical knowledge
- Conducting GATE courses free of Cost
- Periodic interaction with the distinguished guests from the academics and industry.
- Industrial visits

Apart from these, we also plan to conduct the following in future:

- Conducting soft skills
- To maintain continuously good academic performance
- Increasing students’ engagement in learning
- Increasing students’ responsibility towards learning
- Motivating students by periodic interaction with distinguished guests
- To develop and execute effective teaching-learning process
- ICT-based teaching
- Provide state of art library facilities
- Encourage teachers to participate in Seminars and Conferences

- Encouraging the teachers to participate in Orientation Programme, Refresher Courses, Short Term Courses, etc.
- Encourage students to participate in Seminars, Conferences and workshops. To encourage research culture among faculty and students
- Encourage teachers to present research papers in seminars and research conferences.
- Promoting faculties to undertake minor and major research project.
- Organize Seminars and Conferences to promote research culture.

To develop a comprehensive system of student mentoring and student support and ensure transparency in evaluation process of students’
Provide mentor Teacher for every 20 or 30 students
Provide Remedial Coaching to Slow Learners
Identification of Fast Learners and help them to achieve their potential
Continuous tracking of Attendance of the students
Establishment of Centralized Assessment System

To empower faculty about emerging trend in their profession for academic advancement

- Encouraging the teachers to participate in Orientation Programme, Refresher Courses, Short Term Courses, etc.
- Encourage teachers to participate in Seminars and Conferences
- Provide Internet Facility
- Upgrade Books in Library every year by making provision in Departmental Budget

To facilitate a friendly, efficient and flawless administrative set up ensuring a smooth day to day functioning

- Delegate authorities and responsibilities to Principal, Vice-Principal, Faculty Members and Administrative Staff
- Conduct periodic and need-based meetings
- Promote team-spirit and healthy relations amongst staff members of the institution

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<th>File Description</th>
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<tbody>
<tr>
<td>Link for Strategic Plan and deployment documents on the website</td>
<td>View Document</td>
</tr>
</tbody>
</table>

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

Response:

By virtue of the autonomous statue granted by the University Grants Commission to Haldia Institute of Technology (HIT), Haldia under Maulana Abul Kalam Azad University of Technology (MAKAUT), West Bengal and in exercise of the powers conferred by Indian Centre for Advancement of Research and Education (ICARE), Haldia, the Board of Governors of Haldia Institute of Technology makes the following statues relating to constitution, powers and functions of the authorities of HIT, Haldia, referred to as the Statue.

The following shall be Statutory Authorities of the Institute:

1. Board of Governors
2. Academic Council (iii) Board of Studies (iv) Finance Committee

The following shall be Non-Statutory Authorities of the Institute:

1. Planning and Evaluation Committee
2. Examination Committee
3. Internal Quality Assurance Cell (IQAC)
4. Grievance Redressal Committee (other than sexual harassment)
5. Admission Committee
6. Library Committee

(vii) Free Studentship Committee (viii) Student Welfare Committee

1. Internal Complaints Committee (against sexual harassment).
2. Purchase Committee
3. Training & Placement Committee
4. R&D Monitoring Committee (xiii) Industry Institute Partnership Cell
5. Disciplinary Committee
6. Publication Committee

Other various committees constituted earlier will act as per norms of the Institute.

Functions are also specified for each and every committee, as an example...

Functions of the Academic Council

The Academic Council shall have powers to:

1. Scrutinize and approve the proposals with or without modification of the Boards of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications thereof, instructional and evaluation arrangements, methods, procedures relevant thereto etc., provided that where the Academic Council differs on any proposal, it shall have the right to return the matter for reconsideration to the Board of Studies concerned or reject it, after giving reasons to do so.

1. 2. Make regulations regarding the admission of students to different programmes of study in the college keeping in view the policy of the Government.

1. Make regulations for examination, evaluation, result performance, sports, extra-curricular activities, and proper maintenance and functioning of the playgrounds and hostels.
2. Recommend to the Governing Body for establishment of new departments / programmes proposals and R&D activities.
3. Recommend to the Governing Body institutional scholarships, studentships, fellowships, prizes and medals, and to frame regulations for the award of the same.
4. Submit suggestions(s) pertaining to academic affairs made by it.
5. Perform such other functions as may be assigned by the Governing Body.
These rules may be called Service Rules for the employees of Haldia Institute of Technology.

To whom the Rules apply

These rules shall apply to all the employees of Haldia Institute of Technology and may be amended as and when needed with the approval of the Board of Governors.

6.2.3 Implementation of e-governance in areas of operation

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

Response: A. All of the above

6.3 Faculty Empowerment Strategies

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

Response:

Guidelines for career upgradation for teaching employees under Career Advancement Scheme (CAS) would be followed by the rules prescribed by the Institute from time to time.
Career Advancement Scheme (Non Teaching Employee)

Guidelines for career upgradation for non teaching and technical employees under Career Advancement Scheme (CAS), would be followed by the norms of the Institute.

Supports towards Career upgradation

1. The Annual Performance Based Appraisal Indicators of Faculty members and Feedback Systems (Student Feedback for Teaching Assessment, Student Satisfaction, etc.) are strictly executed by the Deans/HODs/TICs, and subsequently monitored by the Director / Principal / Deans and Registrar, as the case may be.

2. For improvement of Research Capability of Senior Faculty Members, Conditional Research Assistance in terms of basic needs (i.e., chemicals, consumables, repair / maintenance of research equipments, etc.) is provided/purchased by the Institute on specific requirements, amounting to a maximum of Rs. 10,000/- per annum.

3. Faculty member is granted maximum of Rs. 10,000/- only for presenting research paper (first author only) in International level Seminar/Conference in India, OR, maximum of Rs. 5,000/- is granted only for presenting research paper (first author only) in national level seminar/conference in India, once in every academic year.

4. In such case, maximum of 05 days On Duty Leave including two days for to- and-fro journey is granted as per existing norms. Maximum two faculty members from a department is permitted to attend such programme, at a time.

5. Institute recognizes properly for securing Research Project Grants / Invited Speaker in Seminars / Book Publication / Research Paper publication / Journal or Book Reviewer / Patents, etc. The expenditure (e.g., travel / accommodation / transportation, etc.) regarding defending Research Project Presentation to Funding Authority and any other matters related to MOU/ emergency meeting / liason with UGC/ AICTE/NBA, etc. by faculty members / other Officers is borne by the Institute.

6. Faculty members is granted only Outstation Duty (with pay) of maximum 05 days per year for attending the Faculty Development Programme / MOOCS Course/ Workshop/ Summer School/ Winter School etc. recognized by AICTE/ UGC/ University/ DTE/ Govt. etc, once in each academic year. Maximum two faculty members from a department would be permitted to attend such programme, at a time.

7. Performance appraisal of teaching & non-teaching employees is implemented & evaluated by the Director / Principal and Registrar, as the case may be.

8.

Study Leave For Ph.D.

1. Faculty members completed minimum three years of continuous services at HIT, is considered for availing study leave for only Ph.D. course-work, for a maximum period of six months (only for one time, if required.

Incentives For Higher Qualification
Employees is given additional increments for acquiring higher degree as per norms of the Institute, after submission of related documents to the Registrar and after due approval.

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

**Response:** 4.11

#### 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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
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<tr>
<td>2016-17</td>
<td></td>
<td></td>
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<td>05</td>
<td></td>
</tr>
</tbody>
</table>

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

**Response:** 5

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

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-21</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019-20</td>
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<td></td>
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</tr>
<tr>
<td>2018-19</td>
<td></td>
<td>8</td>
<td></td>
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<tr>
<td>2017-18</td>
<td></td>
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<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016-17</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP) during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).

Response: 266.74

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>1596</td>
<td>40</td>
<td>668</td>
<td>555</td>
<td>470</td>
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</tbody>
</table>

File Description

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)</td>
<td>View Document</td>
</tr>
<tr>
<td>IQAC report summary</td>
<td>View Document</td>
</tr>
<tr>
<td>Institutional data in prescribed format</td>
<td>View Document</td>
</tr>
</tbody>
</table>

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

Presently both the internal Audit and statutory (internal) auditing system are prevailing in the institute for the purpose of internal control and as per the requirement of Income Tax Act respectively.

1. The Gargari and Associates performing internal audit bimonthly following the standards norms of Audit and submit the internal audit report to the management of the institute for controlling the financial activities and proper decision making.

2. The stability Auditor of the institute K.R. Sriram & Co (Chartered Accountants) perform the stability audit at the end of each financial year & finalise the annual accounts of the institute as per the norm of the Income Tax Act.

Signed Audit report submitted by the stability auditor is presented in the subsequent meeting of the B.O.G. for their consideration of final approval.

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

<table>
<thead>
<tr>
<th>Year</th>
<th>2020-21</th>
<th>2019-20</th>
<th>2018-19</th>
<th>2017-18</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>8</td>
<td>16.55</td>
<td>8</td>
<td>8</td>
<td>0.95</td>
</tr>
</tbody>
</table>

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

Response:

The availability and mobilization of fund and its proper utilisation is very much essential for any organisation.

Being a privately managed institute our major source of income is fees collected from the students. Various engineering departments of our institute also mobilise fund through various service provided to the local industries like consultancy, testing, calibration etc.

Different short term courses are also conducted regularly by our faculty members on various modern topics to the employees of various company and local people for their up liftmen and self sufficiency,

Optional utilisation of sores resources is essential for the growth of any institute,

So for smooth functioning of our institute various committees have been constituted they study their own fields and analyse the requirements and forwards the same to IQAC, who intern judge these requirements and finally placed to the finance committee, Finance committee then complete annual Budget and placed in the BOG meeting for final approval. The financial resources mobilised from different sources during the year are utilised according to the Budget for infrastructure development disbursement of salary statutory liabilities and other recurring overheads for the development and smooth running of the college.

6.5 Internal Quality Assurance System

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

Significant contributions by IQAC in 2020-21

1. IQAC Coordinating the renewal process of accreditation by NBA for three UG programmes namely B. Tech in AEIE, EE, & ECE
2. Submission of IIQA
3. Significant numbers of webinars, FDP etc. are organized
4. Realization of flipped classroom
5. Arranging extra classes (online mode) for 3rd year Mechanical Engineering students covering topics such as C++, Java, RDBMS etc. for enhancing the employability in IT sector

Significant contributions by IQAC in 2019-20

1. IQAC Coordinating the renewal process of accreditation by NBA for four UG programmes namely B. Tech in CSE, ChE, BT, and ME
2. Coordinating the first-time accreditation by NBA of three UG programs namely B. Tech in IT, FT, CE.
3. Introducing long distance digital classroom using various platforms
4. Arranging a number of webinars
5. Reform of curriculum and syllabus of various UG programmes under autonomy through various Board of studies (BOSs).

Significant contributions by IQAC in 2018-19

1. Up gradation of faculty and staff members in different departments under CAS and Up gradation of laboratory, equipment, and Class rooms etc.
2. Improvement in teaching-learning process by adopting ICT based teaching, preparing study materials and uploading in the institute website
4. Organizing different seminars, conferences, workshop, etc. to promote quality education.
5. Academic progress monitoring and organizing student feedback collection process
6. Coordinating SAR preparation for NBA of three departments (IT, FT, CE) and the different activities for getting autonomous status from UGC

Significant contributions by IQAC in 2017-18

1. Establishing man-power requirements (teaching and non-teaching staff) and facilitating recruitment process.
2. Up gradation of faculty and staff members in different departments under CAS
3. Up gradation of laboratory, equipment, and Class rooms etc.
4. Formation of routine committee.
5. Improvement in teaching-learning process by adopting ICT based teaching.
6. Preparing study materials and uploading in the institute website
8. Preparatory work for introduction of new Syllabus and Curricula from July 2018 session
9. Organizing different seminars, conferences, workshop, FDP etc. to promote quality education.
10. Academic progress monitoring.
11. End semester result analysis and taking corrective measure for improvement.

**Significant contributions by IQAC in 2016-17**

1. Establishing man-power requirements (teaching and non-teaching staff) and facilitating recruitment process.
2. Up gradation of faculty and staff members in different departments under CAS.
3. Up gradation of laboratory, equipment, and Class rooms etc.
4. Formation of routine committee.
5. Improvement in teaching-learning process by adopting ICT based teaching.
6. Preparing study materials and uploading in the institute website.
8. Syllabus and Curricula reforms.
9. Organizing different seminars, conferences, workshop, FDP etc. to promote quality education.
10. Academic progress monitoring.

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

Response:

In tune with the growing need of innovations in teaching learning process, the faculty members contribute significantly and explore the different mechanism to make the process highly effective (value-additive) and attractive.

As a part of post accreditation quality initiatives, the various departments emphasizes on the following approaches in the teaching-learning process.

1. **Self-learning:** Self-learning is rather a new approach towards teaching-learning and in the present context the concept is intertwined with e-learning. The faculty members (subject teachers) prepare the study materials and upload in the institute website. The students according to his/her convenience can access it round the clock and study different topics of a subject as an individual or in a small group. In view of any clarification/ambiguity/illustration, the students can post their comment, which subsequently is addressed by the respective faculty members. This helps the students to enhance their knowledge and inculcate a sense of independent and innovative thinking. The study materials are also updated and augmented from time to time, thereby making the LR’s highly comprehensive and enriched. Additionally, assignments consisting with varieties of
questions and problems are also made available to the students for answering and solve numerical problems to bolster their knowledge gain and problem solving ability.

2. **Classroom Lectures and laboratory work:** The faculty members and the students adhere to classroom lectures and laboratory classes as per the routine. The faculty members explain the importance and relevance of various topics of the courses to real-life situations and their linkage with other subjects. While teaching a particular course, due emphasis is given on basic concept building, mathematical and quantitative analysis, numerical problem solving (by more than one technique, if applicable) result/data analysis, data interpretation, comparison with the real-life data, limitations, if any. The faculty members rely on ICT based approaches and make use of presentations through PPTs, handouts, design data tables/handbooks, models, catalogues, animation videos etc. to make the session attractive as well as fruitful. Continuous evaluations in the form of class tests, quiz, viva etc. are organized to evaluate the learning outcomes. The HOD, the Dean, and the Principal monitor frequently the execution and progress of the process.

3. **Reforms of Syllabus and Curricula:** This is one of the key attributes of present day’s teaching-learning process. To keep pace with the latest developments, it is imperative that academic fraternity would update themselves continuously with the latest developments that are taking place all over the globe for their sustenance and to have a competitive edge over others. After receiving the Autonomous status, the institute has already framed curricula and syllabus of different programmes through individual Board of Studies (BOS). Academicians from premier institutes, University nominees, industry representative(s), alumni and departmental faculty members and respective Head of the Department constitute the BOS.

The institute therefore has already adopted the outcome based education (OBE) in tune with the present day’s requirements, where teaching-learning revolves around pre-defined outcomes so that tangible benefits can be attained and the entire process undergoes close monitoring for further improvement to take place continuously.

6.5.3 Quality assurance initiatives of the institution include:

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

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<tr>
<td>Upload e-copies of the accreditations and certifications</td>
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<td>Institutional data in prescribed format</td>
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<tr>
<td>Paste web link of Annual reports of Institution</td>
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</table>
7.1 Institutional Values and Social Responsibilities

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

Response:

Haldia Institute of Technology (HIT) Shows gender sensitivity through various initiatives and actions for creating safe, Secure and healthy atmosphere in the campus. Specific initiatives with respect to key areas are as follows:

*Safety and security

*Hi-Tech Surveillance system:

E- Surveillance with high resolution cameras through day and night facility of distributed recording in control room has been set up in the campus; entry of unwanted element is monitored through these cameras. This system ensures that all Female staff, students can move freely in the campus and feel assure that they are secure at all the time in the campus.

*Hostels:

Separate hostels for boys and girl students exist on the campus. Behavior of students is monitored under set of well defined rule under the guidance of wardens.

All student and staff compulsory were their ID cards at all times on the campus thus ensuring non entry of any outsiders also unauthorized persons.

*Security personnel:

The Institution has strong security personnel deployed all around the campus to create secure enrolment

*Medical Facilities:

Health centre with qualified doctors are available in the campus to provide medical care to the students. In exigency, students are employees are taken for free health check up to Dr. B.C.Roy Medical college and hospital which is owned by the Parent Society of the Institute, i.e, Indian Centre for Advancement of Research and Education, Haldia.

*Counseling:

HIT has a system of mentoring in each department for inculcating social, Moral and ethical values. All Senior officials are available both for boys and girls for solving their problem any time without any appointment.
• **Common Rest Room:**

In each block of the Institution separate washroom are available for girls and boys. 24 hour’s water is available with proper ventilation in the washroom. Separate girl’s common room is created with facilities like indoor games, first aid box and newspapers.

• **Ladies Gymnasium facility:**

Seperate gymnasium and Yoga centre is available for boys and girls inside the campus.

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

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

Response: D. 1 of the above

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

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

Response:

HIT Haldia develops technology for solid/ liquid waste management

*The new technology reaches the zero waste scale with this process. It can effectively manage both Solid Waste and liquid effluent management*

1. **Liquid waste management:** Liquid effluents liberated from different laboratories mainly contain different kinds of acid and bases used in titration methods. It does not contain any heavy metals. The liberated liquid effluents is collected in a long isolated drain and the following process are followed for treatment

   1. **pH maintain:** i) If the liberated liquid effluent shows pH < 7, means it is acidic in nature low concentration of lime water is added to maintain pH 7 with manual stirring per week.
1. If the liberated liquid effluent shows pH > 7, means it is basic in nature, low concentration of CO₂ or acetic acid solution is added to maintain pH 7 with manual stirring per week.

1. **Primary treatment:** i) After pH maintain (pH=7) **pre-treatment** of water is done by passing the water through a column containing sand sandwiched by different layers and sizes of stones to remove larger suspended particle.

ii) Alum or ferrous sulphate is added with pre-treated water to remove organic and inorganic solid as sediment. Finally that water is storage in large rain water harvesting reservoir and used in garden.

1. **Solid waste Management:** A research team at HIT, Haldia has adapted mainly two technologies for solid waste management. In this Institute two types of solid waste comes out a) biodegradable agro-based solid waste b) non-biodegradable plastics material.

HIT, Haldia has adapted two indigenous technologies.

1. **Particle board preparation(Runmning at HIT):** In this method agro-based solid waste material are dried and then pass through beater or grinder to make it into particle form and then it is mixed with different kinds of aqua based polymer and finally hot pressed to make particle board.

ii) **Carbonisation(Under project):** There are Hydro Thermal Carbonization (HTC) to manage solid waste with high moisture content to convert solid waste into biofuel, fertilizers. Another novelty of this technology is the zero waste scale is reached through this process. HIT develops an instrument for gaseous effluents capturing. Thus according to the invention, a modified chimney is provided to arrest carbon dioxide gas and carbon soot liberated from combustion chamber.

**Non-biodegradable plastics material Management :** plastics and non-biodegradable materials are collected and dumped in a vat. Haldia Munipality are collected those plastics and non-biodegradable materials and finally send to RAMKY, Haldia West Bengal waste management limited for recycling.

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<th>File Description</th>
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<tr>
<td>Relevant documents like agreements/MoUs with Government and other approved agencies</td>
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**7.1.4 Water conservation facilities available in the Institution:**

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

Response: A. Any 4 or all of the above

7.1.5 Green campus initiatives include:

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

Response: Any 4 or All of the above

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<th>File Description</th>
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<tbody>
<tr>
<td>Various policy documents / decisions circulated for implementation</td>
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7.1.6 Quality audits on environment and energy regularly undertaken by the Institution and any awards received for such green campus initiatives:

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

Response: A. Any 4 or all of the above

7.1.7 The Institution has disabled-friendly, barrier free environment

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

Response: A. Any 4 or all of the above

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

As every year, "Communal Harmony Campaign Week" coincides with the "Qaumi Ekta Week" observed by the Ministry of Home Affairs and the last day is observed as the "Flag Day". This week highlights the inherent strength and resilience to withstand actual and potential threats to the spirit of communal harmony. The objective is to promote communal harmony and national integration through 'volunteers for peace and harmony'.

Our Institution, Haldia Institute of Technology, has observed this Quami Ekta Week, to foster and reinforce the strength of public harmony and national integration. The whole week celebrations offered a new opportunity to all the students, to reaffirm the old traditions, culture and faiths in the worth of tolerance and brotherhood in such a multi-religious and multi-cultural societies of India.

In response to the guidelines set by AICTE, as per the aims and objectives of NFCH, programmes were organized by our college NGO, during the Weak to promote the ethos of Communal Harmony and National Integration. Informative and educative programs were organized by the college enlightening students about the importance and need for Communal Harmony. An essay writing competition and drawing competition was organized on the theme of Communal Harmony. The Week’s last working day was observed as the Flag Day throughout the country. This day was also utilized to generate financial support for destitute children affected by communal, caste, ethnic or terrorist violence. Stickers and pamphlets were distributed among the people who had made their generous contribution. Stickers were also pasted on every vehicle within the college campus. Thus, the programme was not limited to celebrations only. The students, teachers and staff of the college donated a generous amount to the National Foundation of Communal Harmony, New Delhi, to take care of children who were orphaned during communal violence and riots.

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

Response:

India, as a country, consist of individuals with different milieu viz., cultural, social, economic, linguistic, and ethnic multiplicity governed and guided by the Constitution irrespective of caste, religion and sex.

Haldia Institute of Technology sensitizes the students and the employees of the institution to the constitutional obligations about values, rights, duties, and responsibilities of citizens which enables them to conduct as a responsible citizen.
To equip students with the knowledge, skill, and values that are necessary for sustaining one’s balance between a livelihood and life by providing an effective, supportive, safe, accessible, and affordable learning environment. These elements are inculcated in the value system of the college community.

The students are inspired by participating in various programs on culture, traditions, values, duties, and responsibilities by inviting prominent people. The institute conducted awareness programs on the ban on plastics, cleanliness, Swachh Bharat, etc. involving students.

The college establishes policies that reflect core values. Code of conduct is prepared for students (academic rule and hostel rule) and for staff service rule has been furnished and implemented.

The institute has introduced a compulsory non credit papers on the Constitution of India at Degree level mostly all engineering disciplines to create awareness and sensitizing the students to constitution obligation.

As per AICTE directive the Institute is organizing SIP (Students Induction Program) for 2018 and 2019 and which was conducted through eSIP in view of pandemic situations. This induction program includes legal and professional ethics, mindfulness in classroom, know your rights, cyber security, mental health, women empowerment, gender equality etc

The Objectives of eSIP

1. To get an exposure to a holistic vision of life, develop awareness, sensitivity and understanding of the Self---family---Society---Nation---International---Entire Nature
2. To become familiar with the ethos and culture of the institution.
3. To set a healthy daily routine; create bonding in batch as well as between faculty members and students
4. To facilitate students in creating new bonds who accompany them through their college life and beyond

The various issues like Child Abuse, Child Trafficking, and Menstrual Hygiene Management for Girls were addressed by the NSS unit in through address by senior lady faculty in ladies hostels.

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

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

4. Annual awareness programmes on Code of Conduct are organized

Response: A. All of the above

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<th>File Description</th>
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<tr>
<td>Code of ethics policy document</td>
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7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

Response:

To maintain harmony and healthy work atmosphere and to make the learners aware of the national pride and rich cultural heritage, the National/International commemorative days are regularly being celebrated and observed in Haldia Institute of Technology.

- Every year the University celebrates National Festivals i.e. Independence Day on 15th August and Republic Day on 26th January with pomp and gaiety by hoisting the national tricolour in the Campus. After unfurling the flag, students sing the National Anthem and other patriotic songs. On these occasions, the Chairman also delivers Independence/Republic day messages.
- Haldia Institute of Technology organizes the Teachers’ Day every year on September 5 in memory of Dr. S. Radha Krishnan, former President of India. Eminent educationists and teachers are invited to deliver talk on Teachers’ Day.
- The Institution organized essay writing and elocution competitions on the occasion of 150th Birth Anniversary celebrations of Mahatma Gandhi. "Swachh Bharath – Swasth Bharat” a “Clean India Campaign” was organized in the campus as part of national drive on Gandhi Jayanti.
- National Unity Day/Week are observed to commemorate the birth anniversary of Sardar Vallabhbhai Patel.
- Each and every year international Yoga is celebrated on 21st June at the Yoga centre of the institution. Yoga Workshops are conducted for the students and faculty members.
- Haldia Institute of Technology celebrates Engineers Day on 15th September consistently as an exceptional tribute to the best Indian Engineer Bharat Ratna Mokshagundam Visvesvaraya.
- World Water Day is celebrated on 22nd March that highlights the importance of fresh water. The day is used to advocate for the sustainable management of freshwater resources.
- On 5th June each year Environment day is celebrated to spread awareness about the threat to the environment due to rising pollution levels and climate change. Students are asked to share, how they had contributed to the well-being of the environment through their writings, photographs, videos, paintings, and other creative means on the given topic. We asked them to ponder on new innovative ways to preserve the environment and to mail them in the form of snaps or videos of planting trees, recycling plastic products, or using paper bags. The main idea behind celebrating the World Environment Day was to highlight the importance of the environment and to remind people that nature should not be taken for granted. The aim of this event was to broaden the basis for an enlightened opinion and responsible conduct amidst individuals in preserving the environment.
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:

• Practice 1: Emphasis on Design based problem solving.

Objectives of the Practice:

1. To inculcate innovative thinking and problem solving ability
2. To undertake challenges of providing solution to real-life problems

The Context:

1. Professional core courses are considered for implementation
2. Design based problem solving and use of modern tools

The Practice

In congruence with the present industry requirements of highly efficient and productive manpower, it is the need of the hour that the fresh graduates would be able to contribute significantly in solutions to the ever increasing industrial problems. Problem-based learning is becoming increasingly popular in educational institutions as an approach to mitigate the gaps of traditional teaching. In comparison to the traditional approaches, the students participate actively to respond to a real-life problem. This is why problem-based learning is envisaged as an innovative measure to encourage students to learn how to self-educate via real-life problems. In this direction, the institute emphasis on problem-based learning as a solution to produce graduates who are creative and can think critically, analytically, and solve problems. This process is introduced gradually and it is expected to grow to cover every area of engineering disciplines. Complex engineering problems solving, mini projects, data analysis etc. are undertaken to hone this ability. Small groups are formed combining bright and weak students. The faculty members act as the facilitator. Open source resources are consulted to aid the problem solving. Collaborative and Cooperative teaching learning is adopted for this purpose. A particular problem is dealt with due considerations to the system components, constraints, operating environments, solutions required, and multiple approaches in the solution and their relative merit and demerits. The result analysis is also an important component of
such problem solving. Possibility or suggestions, if any, for the improvement of the process performance or the system performance or the product are also investigated and discussed as a part of the proposed problem solving approach.

**Evidence of Success**

1. Improved grade points in End semester examination
2. Higher placement

**Problems encountered, if any:**

Access to of real-life industrial data for analysis

**Practice -2**

**Coverage beyond syllabus**

**Objectives of the Practice:**

1. To educate the students with sound knowledge base fortified with advanced and emerging topics

**The Context:**

Coverage of extra topics which are not covered in the syllabus

**The Practice**

To educate the students following a stipulated curricula and syllabus is not adequate for comprehensive knowledge base. Frequent modification and rationalization of syllabus is also not a feasible solution considering different constraints. However, this problem can be appropriately addressed by the course teachers. It is the flexibility of the course teacher to formulate a detailed lecture plan meticulously so that advanced and emerging topics are also taught in synchronization with the fundamental topics so as to
enrich the course to the maximum possible extent. Faculty members continuously update their lecture plan and implement the same for mutual benefits.

**Evidence:**

Higher placement records

Progression to higher studies

**Problems encountered, if any:**

It is difficult to access industry people and experts from other institution regularly.

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### 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:**

Outcome-based education is extremely important for the overall interface between the students and the faculty of an institute. Outcome-Based Education (OBE) is a student-centric teaching and learning methodology in which the course delivery, assessment are planned to achieve stated objectives and outcomes. It focuses on measuring student performance i.e. outcomes at different levels. Outcome based education as defined by Spady means “clearly focusing and organizing everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experience.” This necessitates clearly identifying distinct sets of actions and procedures which an institution would follow to ensure the proper institution-wide implementation of OBE. This includes restructuring of curriculum, emphasis on learner centric teaching learning, goal oriented assessment, and continuous improvement in education. The key characteristics of OBE focus on student’s demonstration of learning outcomes rather than accumulation of course credits. In this regard, the institute’s endeavor needs to align all aspects of educational processes and systems to the expected outcomes so that all students should be able to proficiently exhibit at the end of the curriculum. However, it is misnomer to consider that healthy grade points are the yardstick of outcomes rather true manifestations of expected competencies would be regarded as the result of significant learning experiences. In tune with these objectives vis-à-vis actions, the institute had already implemented and continued the same in different phases for different UG programmes.

The faculty members have had the onus of grooming the students with the philosophy of OBE, since the students are perhaps the most important stake holders of an institution. In a class, be it theory or practical,
the importance/objective of any topic, its content, modeling of the system or process to be followed, result analysis, relevance or mapping of the topic to the real-life situations are properly addressed along with the expected outcome after undergoing a particular course. This is done continuously so that students can inculcate this approach and study accordingly. Eventually, students have developed better understanding about the need and objectives of OBE and how this approach is going to improve their careers in the years to come.

Four programmes namely B.Tech in CSE, ChE, ME and BT which were previously accredited by NBA, were renewed during the period 2019-20 for an additional three years. Additionally, three other UG programmes: B. Tech in IT, FT, CE were also accredited by NBA for three years during this period. Further, B. Tech in AEIE, EE, and ECE are also renewed for one more year at the first instance, based on the satisfaction of the submitted data regarding NBA renewal process under Covid pandemic situation. The physical verification of the data shall be communicated by NBA in due course. The quality accreditation by NBA has been given utmost priority and it also complies with the vision of the institution.

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5. CONCLUSION

Additional Information:

Haldia Institute of Technology (An Institute of ICARE, Haldia, Approved by AICTE, Affiliated to WBUT) began its journey in the year 1996.

It is the first private and accredited academic institution catering technical education in West Bengal. The Institute is situated at Haldia – an industrial hub in Eastern India. Since inception, Haldia Institute of Technology is dedicated to the objectives of creating highly trained professional manpower in various disciplines of Engineering, Technology and Social Science. The Institute is also dedicated to the contribution of higher scientific research in Technology as well as in Applied Science and Social Science.

Concluding Remarks:

The NAAC SSR is submitted to reflect the all round activities of an Academic Institution as a part of quality education. This SSR would form the basis of bench mark quality accreditation by NAAC. Teaching learning process in the recent times have undergone revolutionery changes and it is essential that the academic institutions will resort to innovative measures to sustain in the highly competitive global market. The present SSR attempts to undertake an critical deeper insight by the Institution. The entire academic process revolves around IQAC and rely on decentralized and participative system. It is expected that this SSR comprehensively captures the potential of the Institute which will lead to the accreditation by the NAAC.