



SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

**HERITAGE INSTITUTE OF TECHNOLOGY
(AUTONOMOUS)**

**MADURDAHA, CHOWBAGA ROAD, ANANDAPUR, P.O. EAST KOLKATA
TOWNSHIP**

700107

www.heritageit.edu

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Inspired by the noble cause of education and philanthropic zeal, a group of 22 like-minded industrialists of Kolkata established the Kalyan Bharti Trust (KBT), a public charitable foundation, in the year 1990, primarily to promote and provide higher education in the country and in the state of West Bengal, in particular. KBT founded Heritage Institute of Technology (HITK) in 2001 to create a centre of academic excellence in Eastern India.

The Institute is currently offering 19 programmes of which 12 are of undergraduate level and 7 are of post-graduate level. Four B. Tech. programs, namely, Applied Electronics and Instrumentation Engineering (AEIE), Biotechnology (BT), Electronics and Communication Engineering (ECE) and Information Technology (IT), were accredited by the National Board of Accreditation (NBA) for the first time in 2009 for a period of 3 years. Subsequently, accreditations by NBA were obtained in the year 2013 for B. Tech. programmes in AEIE, BT, Chemical Engineering (ChE), Computer Science and Engineering (CSE), ECE and IT for a period of 2 years, in the year 2014 for B. Tech. programs in CSE for a period of 5 years, in the year 2016 for B.Tech. programmes in BT, ChE, and ECE for a period of 3 years, in the year 2017 for M.Tech. programmes in AEIE, BT, CSE and ECE for a period of 2 years and in the year 2019 for M.Tech. programmes in CSE and ECE for a period of 1 year. In the recent past, four UG programmes, namely, AEIE (score 680), BT (score 693), ChE(score 695) and ECE (Score 683) were accredited by NBA for a period of 3 years, from 2019-2020 to 2021-2022.

On the recommendation of the UGC, the Institute was accorded the Autonomous status for the first time for a period of six years with effect from the academic year 2014-2015, by the affiliating university MAKAUT (erstwhile WBUT). The UGC also granted HITK the U/s 2(f) status in the year 2010. The Institute maintained its highest level of standard as an autonomous institute and as a result, on the recommendation of the UGC, MAKAUT granted HITK the autonomy status for the second time for a period of five years with effect from the academic year 2021- 22.

The Institute was accredited with B++ by NAAC in the year 2017 for a period covering February 2022.

HITK was selected as one of the 25 self-financed institutes across the country for the grant of Technical Education Quality Improvement Programme (TEQIP) Phase – II under Sub-component 1.1 funded by the World Bank and monitored by MHRD, Govt. of India and received Rs. 5.00 crore project grants initially. Based on its outstanding performance, it received a further grant of Rs. 1.00 crore.

The NIRF rank of the institute in the last five years is within 101-150 in 2017, within 101-150 in 2018, 150 in 2019, 154 in 2020, 201-250 in 2021.

In its silent pursuit of excellence, to be recognized as a point of reference, a catalyst, a facilitator, an engine for growth and to establish itself as a leader both at national and international levels in technical education, HITK has prepared its Self-Study Report towards accreditation for the 2nd cycle by NAAC.

Vision

To prepare dynamic and caring citizens to meet the challenges of global society while retaining their traditional values.

Mission

- To prepare students with strong foundation in their disciplines and other areas of learning.
- To provide an environment for critical and innovative thinking, and to encourage life-long learning.
- To develop entrepreneurial and professional skills.
- To promote research and developmental activities and interaction with industry.
- To inculcate leadership qualities for serving the society.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- State of the art infrastructure.
- Well qualified and highly motivated faculty members.
- Comparatively good quality students.
- Holistic support from Trustees.
- Non-interference by Trustees on day-to-day functioning of the institute.
- Salaries and perks paid regularly as per norms.
- Internal Academic Auditing on a regular basis for quality assurance.
- Active participation by the members of faculty in R & D activities leading to 707 research publications in peer reviewed journals, 84 books/book chapters, 5 patents applied/obtained, 424 articles in Conference Proceedings and 42 Research Projects.
- Obtaining Research Project Grants from AICTE, DST, DRDO, BRNS, DSR-SERB, DST-SEED, MODROBS, AICTE, DST-BIRAC SRISTI, DST-Nano Mission, CSIR, ITRA, DST, Govt. of West Bengal, MEDIA Lab Asia, Dept. of Electronics and Information Technology, IMPRINT (Co-Investigator), RUSA (Co-Investigator) etc. on a regular basis.
- Thriving on Excellence in Education, Research and Development and Entrepreneurship.
- Implemented Outcome-based pedagogy.

- Active participation of students and faculty members in various Curricular, Co-curricular and Extra-curricular activities including NSS, Rotract, Sports, Technical and Cultural events and competitions.
- Participation of students in Co-curricular and Extra-curricular activities at International/National Level is adequate and the outcome is quite satisfactory.
- Compulsory credit for internship of UG students in Industry and reputed academic institutions, such as, IITs, Universities of repute, NITs and R&D institutes for a minimum period of 4 weeks.
- Active participation of internal and external members from industry and academia in framing course structure and syllabus.
- Training and Placement of eligible students in industry through the Training and Placement Cell of the Institute as a result of the excellent Industry-Institute relationship.
- The institute is using renewable energy source, i.e., Solar Power to partially meet its energy requirements.
- Green plantation within the campus and the surrounding neighborhood is regularly done by students and the staff members.
- Well-designed Value Added Courses, such as, Life Skills and Soft Skills for the holistic development of the students.
- Strong mentoring system to counsel and guide students in their academic and non-academic needs.
- Regular occurrence of Workshops, Training Programmes, Seminars and Webinars for students on various cutting-edge and trending technological topics.
- Special remedial classes for weaker students and students admitted through lateral entry.
- Zero tolerance policy to ragging resulting in a ragging-free campus.

Institutional Weakness

- Lack of good quality students in PG programs.
- Absence of complete e-governance at all levels of teaching, learning and administration.
- The teaching learning process is outcome-based but not yet competence-based, which is becoming the latest trend in developed countries.
- Poor communication skills of students coming from rural background.

Institutional Opportunity

- Located at a well-connected place in Kolkata, which is a metro-city and hence has its inherent advantages.
- Scope for vertical and horizontal expansion in education field.
- A lot of reputed research and academic institutes are in the neighborhood, hence ample opportunities to expand the collaboration activities.
- The Institute has already created a brand name of its own, hence it possible to keep on attracting better talents as faculty members.
- Exploitation of the funding and associated benefits obtained through TEQIP-II and other projects to scale greater heights in research and generation of IP.
- Training, Employment and Start-up opportunities for the students at the industries headed by the members of the Trust.
- Possibility of creating a strong Alumni network across the globe, who can take the institute to an altogether different level if they take proper interest.
- Increased involvement of the students in different awareness programmes that keep happening in the campus throughout the year, which may actively help the students to develop their character, social consciousness, commitment, discipline and empathy towards the society and thereby make them responsible citizens of India and the world at large.

Institutional Challenge

- To attract international students.
- Involving all the stake-holders in the revision of the curricula that is done quite frequently to keep pace with the fast-moving and dynamic learning needs.
- To transform traditional face-to-face teaching-learning pedagogy to a balanced hybridization of synchronous and asynchronous andragogy.
- To maintain international standards in research and innovation across all the departments.
- Ensuring financial viability of the Institute as the norms for admission and fees structure are very strictly regulated by the State Government.
- To overcome the language barrier in the teaching-learning process arising due to the demographical

diversity of the student community.

- Effectively motivating the students in conducting and being involved in interdisciplinary activities.
- To support the under-privileged / weak students more within the present financial framework.
- Creating a robust R&D eco-system that will focus on cost-effective technological solutions for the betterment of the society and human lives at large.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

After obtaining the autonomous status in 2014, the curricular structure and syllabus for B. Tech. and M. Tech. programmes for all the disciplines were reframed. All the students joining in the first year classes of B. Tech. and M. Tech. programmes of HITK in 2014 and afterwards are following that curricular structure and syllabus.

New syllabus had been framed for B.Tech. programme in 10 (ten) disciplines and M.Tech. programme in 6 (six) disciplines for the first time in the year 2014, in accordance with the Institute's Mission, Vision and the respective Programme Educational Objectives (PEOs) and Programme Outcomes (POs) for the different disciplines. Subsequently, syllabi for all the UG and PG programs are being considered for revision at regular intervals to keep pace with the global change in the field of technology. As AICTE released the model curriculum for almost all the disciplines in 2018, the structure and content of the syllabi for all the programmes of the institute were thoroughly revised again in accordance with that model curriculum and the revised syllabi were introduced in the different programs starting from the batch of 2018-19.

All major stake-holders (alumni, parents, faculty, and employees) and experts from academics and industry are consulted during the process of revision of the syllabus and curriculum in a democratic and continuous manner. Workshops are held with experts from other reputed academic institutions and industry for preparing the draft syllabi. The same is placed before the Board of Studies (BOS) for consideration which in turn is placed before the Academic Council for its approval.

To develop the skills of the students and to gain success in the current competitive world, many compulsory skill development courses, viz., Verbal Ability, Reasoning and Logic, Data Interpretation, Industry Oriented Mini-project, Advanced English Communication with Soft Skills Lab and Theory, frequent seminars and a Comprehensive Viva-Voce at the end of four years have been introduced for the students of UG programme. A compulsory subject named "Indian Culture and Heritage" has been introduced at the undergraduate level. Intensive Soft Skill and Technical & Aptitude Training is conducted prior to the beginning of the campus placement drive. Feedback is obtained from the students during each semester for every course. There is an anonymous online feedback system, which is conducted centrally by the HR Department. Feedback forms are also filled by the outgoing students of B. Tech and M. Tech. as well as alumni to improve the current practices with reference to the performance of teachers, teaching-learning process, curriculum, syllabus and infrastructure of the college in a structured format comprising of a standard questionnaire. Feedback is also obtained through personal interaction of the final-year students with Student Counsellors and Mentors. The suggestions / comments from the faculty members, alumni and industry experts and the feedback of the students are considered while framing and revising the syllabus during the departmental BOS. The course structure and syllabus are revised in every two to three years.

In order to promote the holistic growth of the students, courses on value education and environment are also taught. All programmes are embedded with courses that deal with cross cutting issues and impart transferable life skills.

Teaching-learning and Evaluation

The Institute strictly adheres to the norms laid down by different regulatory authorities regarding admission of students to different courses. The newly admitted students undergo an orientation schedule which gives them a holistic view of their respective courses and also the institute. The academic activities of the institute are conducted in a highly disciplined way and are monitored by the competent authorities. The academic calendar is circulated at the beginning of the session and is strictly adhered to, unless there arises extra-ordinary situations like pandemics and in many such cases HITK has taken extremely fast decisions so that the academic activities did not halt even for a day. Various measures are taken to ensure a student-centric learning by adopting methods like active learning, cooperative learning, flipped classrooms, project-based learning, experiential learning and problem solving besides conventional teaching methods using chalk and board. Resources from the internet like video lectures efficiently enhance the teaching – learning mechanism. Remedial classes are arranged for strengthening the knowledge and skills of weak students. The institute possesses a well-equipped library which boasts of an excellent collection of textbooks and reference books and national and international journals of repute. The departments organize national and international seminars and workshops at regular intervals which increase the exposure of the students. Since the inception of the institute, the administration has adopted mentorship system to address various needs and issues of the students through a well-established mechanism.

The Programme Outcomes (POs), Programme Specific Outcomes (PSOs) are displayed in the departmental notice boards and the Course Outcomes (COs) of different subjects are often displayed in the class rooms as well as on the notice boards of the laboratories. These are also available on the website. The class-teacher, before the beginning of a new subject, draws the attention of the students towards the corresponding COs and their explains their relations to the relevant POs, PSOs to motivate the students about the importance of that particular course. At the end of each session, the attainment calculation of the OBE elements is carried out systematically and corrective steps are initiated wherever it is required.

The office of the Controller of Examinations is partially automated. It ensures that there is a transparent examination system and maintains the sanctity of the process. The institute follows a continuous evaluation procedure along with two interim class tests followed by the end-semester examination. Moderation of the question papers for the end-semester examinations is done by external experts. The end-semester results are published on the institute website in about 30 days from the date of completion of the last examination and students can download their mark sheets from the website itself. There is a provision for re-examination of answer script in case of appeal by unsatisfied students.

Faculty members are encouraged to attend faculty development programme organized by institutes of repute. Each year the institute recognizes the contribution of deserving members of faculty by awarding cash prizes and certificates in different categories including teaching and contribution to research and development.

During the pandemic, several online workshops and training programmes have been organized by the Institute to up-skill and re-skill teachers for the new normal.

Research, Innovations and Extension

The institution has Research Ethics Committee and Research Advisory Board which constantly monitors and addresses the issues of R&D of the Institute. Researchers and eminent scientists from different universities are invited to the Institute frequently to interact with the faculty members and students about the latest trends in research and innovation.

Provision is made in the Institute budget for research and innovation activities; organizing seminars, conferences, and workshops and for purchasing new software and library books. There is a provision in the institution for providing seed money to the faculty for research. Faculties are encouraged to apply to AICTE, DST, UGC, other Government Departments, and other organizations for research funding. The Institute itself has the resources to provide seed money. TEQIP-II project also actively considered and granted seed money to faculty members for innovative projects. As a result of such proactive measures adopted by the institute, more than 554 research outputs in the form of publication in peer reviewed journals, books/book chapters and participation and contribution in International/National conference/seminar proceedings have been made in the last five years. One patent has also been obtained during this period. In order to prevent plagiarism, the institute has framed its own policy on it.

It is to be noted that 15 different research projects funded by various Government agencies (both Central and State)/European Union are being conducted or completed by the member of faculty as principal investigator or co-investigator in the last five years.

As a societal commitment, the students of the Institute, under the guidance of members of faculty, regularly conducts many activities through the Rotaract Club and NSS wing, for example, health check-up of people residing in remote villages, participating in Swachh Bharat mission, literacy campaign and running free schools for the under-privileged, distribution of clothes in winter among the street dwellers, green plantation in the neighbourhood and many other such philanthropic activities.

The Institute has many Memorandums of Understanding (MoU) with other reputed academic institutions and industries in India and abroad, primarily to develop collaborative research and development activities both for the students and faculty members. Such MOUs have actively contributed in enhancing the quality of teaching-learning as well as research and development activities of the Institute.

Infrastructure and Learning Resources

The Institute is located on 8.3 Acres of land on a lush green campus with a huge physical infrastructure to accommodate all departments properly. All the buildings are aesthetically designed and the campus contains a fully air-conditioned indoor auditorium having a seating capacity of 500 persons with all modern amenities. A vast well maintained playground is also within the campus.

The major part of the Institute consists of 73 highly equipped laboratories, 60 class rooms, 13 tutorial rooms, 4 drawing halls and 3 seminar halls along with boys and girls hostel separately. All the class rooms are well ventilated and well equipped with ICT facilities. All the laboratories contain equipments and instruments suited to the requirements of teaching and research. The library has an area of 1700 sqm. with a total seating capacity of 250. It has a rich collection of 63052 books, 150 print journals, 3000 CD/DVDs, 209 e-journals, e-books (Delnet) and also lecture-videos from NPTEL.

All the computers at the campus are connected with Gigabit LAN where every student can access a dedicated computer to do their project and laboratory assignments. Each faculty member is provided with a dedicated computer connected to the Gigabit LAN at their desk. The Institute owns many software and the entire campus is provided with a Wi-Fi facility. All the facilities are maintained regularly. The total number of 1071 computers with internet facility and LAN is in operation. The entire campus is under CC camera surveillance for 24 hours. Infrastructure augmentation is a continuous process and a considerable amount of fund is allocated in the annual budget.

Student Support and Progression

HITK was set up with a view to create a Centre of Excellence in technical education in Eastern India. Since inception, HITK has been fortunate to attract the best possible faculty and has created one of the finest infrastructures available in West Bengal. Academic performances of students at HITK have improved considerably during the last five years. During the last five years, a large number of students got selected in Campus Interviews but many of them opted for higher studies. Apart from classes according to the curricula, the support system at HITK offers various avenues, like Soft Skill Classes, Life Skill classes, Yoga Classes etc., for wholesome development of the students' professional, emotional and physical attributes. There are 23 active student clubs and cells at the Institute, namely, Geeks United (Coding and Technical Club), Entrepreneurship Development and Incubation Cell, Robotics Club, Gaming Club, Flyers (Aeronautics Club), Environmental Awareness Club, Google Developer Student Club, Pravasana (Film, Photography and Painting), DebSoc (Debating), Atmadweep (Quiz Club), NSS wing, Rotaract Club, Resonance(Music), Ghungroo (Dance), Anubhav (Drama), Anahita (Literary), Language Club, Science Club, Fashion Club, News Club, National Digital Library of India (NDLI) Club etc.. Every student enrolls in the clubs/cells of their choice and gets opportunity to improve their skills and knowledge by participating in the events, training programmes, workshops and competitions organized by the clubs/cells throughout the year. Such activities add value to their holistic development. There is a Students' Council mentored by faculty members for managing the operations of the clubs and organizing several events like Annual Techno-management Festival (named as Dakshh), Annual Cultural Festival (named as Eclectia), Freshers' Welcome Ceremony (Nascent) etc..

There is a very efficient Training and Placement cell to help students aspire for their careers. The percentage of students placed has also increased during the last 5 years.

The institute had signed a MOU with New Jersey Institute of Technology (NJIT) for a student exchange program. Under this program a total of 117 students of 2nd and 3rd year B. Tech. classes have been benefited during the period 2008 to 2019 and the program has shown tremendous success.

The institute offers tuition fees waiver/ free-ship scheme for financially backward meritorious students. The number of students receiving 100% scholarships has reached 15 in 2020. Moreover, many UG and PG students received financial assistance from the state government. Some financial assistance is also provided to the students who participate in various competitions/conferences in India and abroad.

The college has an active alumni association. All the outgoing students automatically become members of the association. Each BOS has a nominated alumni member. They offer their expertise in designing the course curriculum. They also provide feedback to the college for overall development. HITK has a Grievance Redressal Cell (GRC) exclusively for the students (separately for boys and girls). The college has duly constituted Anti-Ragging Committee (ARC), Anti-Ragging Squad and Internal Complaints Committee (ICC) as per the Govt. norms. Moreover, the institute has a MOU with Ruby General Hospital for emergency medical

assistance both for students and staff.

Every year the college collects feedback from the students on various issues relating to academic and infrastructural development and the authorities provide due consideration to such feedback.

Governance, Leadership and Management

The organization has a strong governing body that explicitly adheres to the vision and mission of the Institute, thereby fostering continuous growth, development and excellence amongst one and all. The institute has a strategic and perspective plan and e-governance is implemented in more than 80% of its activity and for the rest, it is being implemented. The Institute has an efficient and participative managerial body with defined functional areas and they review and assess the functions and responsibilities by conducting meetings with all its stakeholders at stipulated intervals

The Institute has various statutory committees where decision for handling several academic and administrative issues are taken like the Board of Governors, Advisory Council, Academic

Council, Boards of Studies and also other statutory and non-statutory bodies. The meetings of the Board of Governors, Academic Council, and Boards of Studies are held regularly.

The College has evolved various effective knowledge development strategies among students for national development, fostering global competencies, enhancing entrepreneurial and professional skills and promoting use of technology with a quest for excellence. The College also promotes value orientations and traditions and prepares dynamic and caring citizens to meet the challenges of global society.

The Institute has a formal policy to ensure and maintain quality through Internal Quality Assurance Cell (IQAC). The Institute gives importance to feedback obtained from employers, parents, students and the alumni.

As mentioned earlier the College has an Anti-Ragging Committee and Anti-Ragging Squad as per Supreme Court recommendations and AICTE guidelines along with Grievance Redressal Committee and Internal Complaints Committee for the Sexual Harassment of Women at Workplace. The Institute fulfils various societal requirements by conducting campaigns and programs through its Rotaract Club and National Service Scheme (NSS) wing.

The Institute ensures complete transparency in budgeting, and expenditure. As a usual practice, the BOG and the Finance Committee approve the Annual Budget. The monthly expenditure and budget utilization reviews and finalization of external audited balance sheet are done regularly.

Thus the Institute continuously enhances its quality to reach its vision and mission.

Institutional Values and Best Practices

Heritage Institute of Technology has been extremely attentive towards putting into action innovative and best practices that continue to uplift the performance, credibility, and go a long way in establishing the goodwill of the institute.

From displaying a strong environmental consciousness, evident through ecological activities pursued within campus premises like rainwater harvesting, adopting green practices and using renewable energy sources to meet partial power requirement. The college is making a very sincere effort to do justice to its autonomous status acquired in 2014. The academic departments under the guidance of the BOS and Academic Council utilized the freedom and responsibility of designing the curricula and syllabi according to the AICTE norms by incorporating and revising courses aimed at enhancing not only the domain knowledge and skills of the students but also their holistic grooming. Inclusion of Communicative English and Life Skill classes in the 1st year and Personality Development classes in the 3rd year course structures bear testimony to our efforts to groom the students in a holistic manner.

The new examination system under autonomy has been proved to be highly effective in conducting examinations and declaration of results on time. Further to this, TEQIP, opened the door for a thorough transformation of the Technical Education System with the World Bank Assistance. It has highly benefited the faculty members of the institute and motivated them in their pursuance of research activities and the students in turn got a chance to take part actively in them.

The institute has the confidence in sharing its responsibility to provide an atmosphere of positivity and growth to all its stakeholders.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	HERITAGE INSTITUTE OF TECHNOLOGY (AUTONOMOUS)
Address	Madurdaha, Chowbaga Road, Anandapur, P.O. East Kolkata Township
City	Kolkata
State	West Bengal
Pin	700107
Website	www.heritageit.edu

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Basab Chaudhuri	033-66270610	9830217296	-	principal@heritageit.edu
IQAC / CIQA coordinator	Dinabandhu Bhandari	033-66270854	9830770921	-	iqac@heritageit.edu

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
Date of Establishment, Prior to the Grant of	01-01-2001

'Autonomy'				
Date of grant of 'Autonomy' to the College by UGC		19-06-2014		
University to which the college is affiliated				
State	University name	Document		
West Bengal	Maulana Abul Kalam Azad University of Technology	View Document		
Details of UGC recognition				
Under Section	Date	View Document		
2f of UGC	21-01-2010	View Document		
12B of UGC				
Details of recognition/approval by stationary/regulatory bodies like AICTE, NCTE, MCI, DCI, PCI, RCI etc (other than UGC)				
Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day, Month and year (dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	14-07-2021	12	Extension of Approval

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence (CPE)?	No
Is the College recognized for its performance by any other governmental agency?	Yes
If yes, name of the agency	National Board of Accreditation
Date of recognition	31-01-2020

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Madurdaha, Chowbaga Road, Anandapur, P.O. East Kolkata Township	Urban	8.03	33885.03

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BTech,Biotechnology	48	Higher Secondary or equivalent	English	63	62
UG	BTech,Chemical Engineering	48	Higher Secondary or equivalent	English	63	49
UG	BTech,Civil Engineering	48	Higher Secondary or equivalent	English	63	49
UG	BTech,Computer Science And Engineering	48	Higher Secondary or equivalent	English	63	60
UG	BTech,Computer Science And Engineering	48	Higher Secondary or equivalent	English	189	183
UG	BTech,Computer Science And Engineering	48	Higher Secondary or equivalent	English	63	59
UG	BTech,Electrical Engineering	48	Higher Secondary or equivalent	English	63	54
UG	BTech,Electronics And C	48	Higher Secondary or	English	189	162

	ommunicatio n Engineering		equivalent			
UG	BTech,Infor mation Technology	48	Higher Secondary or equivalent	English	63	60
UG	BTech,Mech anical Engineering	48	Higher Secondary or equivalent	English	63	40
UG	BTech,Appli ed Electronics And Instrum entation Engineering	48	Higher Secondary or equivalent	English	63	50
UG	BTech,Comp uter Science And Business Systems	48	Higher Secondary or equivalent	English	63	61
PG	Mtech,Biote chnology	24	B.Tech.	English	18	18
PG	Mtech,Chem ical Engineering	24	B.Tech.	English	18	4
PG	Mtech,Comp uter Science And Engineering	24	B.Tech.	English	36	4
PG	Mtech,Electr onics And C ommunicatio n Engineering	24	B.Tech.	English	18	3
PG	Mtech,Electr onics And C ommunicatio n Engineering	24	B.Tech.	English	18	3
PG	MCA,Comp uter	24	BCA/ BSc/ BCom/ BA	English	60	60

	Applications		degree with Mathematics as one of the subjects at 10+2 level or at graduation			
PG	Mtech, Applied Electronics And Instrumentation Engineering	24	B.Tech.	English	18	8

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	26				52				155			
Recruited	17	5	0	22	20	9	0	29	155	0	0	155
Yet to Recruit	4				23				0			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				60			
Recruited	0	0	0	0	0	0	0	0	60	0	0	60
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				57
Recruited	39	18	0	57
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				103
Recruited	66	37	0	103
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD	1	0	0	0	0	0	0	0	0	1
Ph.D.	16	5	0	17	9	0	30	32	0	109
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	3	0	0	95	58	0	156

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

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

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male	Female	Others	Total
	1	0	0	1

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	459	224	0	0	683
	Female	165	41	0	0	206
	Others	0	0	0	0	0
PG	Male	47	4	0	0	51
	Female	44	5	0	0	49
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	23	14	11	9
	Female	14	7	7	5
	Others	0	0	0	0
ST	Male	4	5	5	4
	Female	0	1	0	1
	Others	0	0	0	0
OBC	Male	49	116	74	113
	Female	12	12	11	17
	Others	0	0	0	0
General	Male	716	620	669	675
	Female	249	216	209	190
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		1067	991	986	1014

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Applied Electronics And Instrumentation Engineering	View Document
Biotechnology	View Document
Chemical Engineering	View Document
Civil Engineering	View Document
Computer Applications	View Document
Computer Science And Business Systems	View Document
Computer Science And Engineering	View Document
Electrical Engineering	View Document
Electronics And Communication Engineering	View Document
Information Technology	View Document
Mechanical Engineering	View Document

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	<p>The institute has kept pace with the development that has taken place in the engineering/ technological education in the country and also across the globe and faculty members have encouraged students to seek out-of-the-box solutions for difficult engineering problems. A very vibrant club activity in the institute brings together students from different departments together to organize various learning activities. Thus, in writing computer programming code, a Civil Engineering student joins hands with students from Electronics and Communication Engineering, Computer Science and Engineering, etc. In this manner, seeds of multidisciplinary education are sown. Conventional practice like modification of syllabi takes place regularly. Application orientation in teaching adds multidisciplinary in the subjects. New courses are introduced, keeping an eye on the change in the marketplace and global demand. Thus in 2021-22, new courses like Computer Science and Engineering (Artificial Intelligence and Machine Learning) and Computer Science and Engineering (Data Science) have been started in the institute.</p>
2. Academic bank of credits (ABC):	The institute has started looking into this aspect

	<p>although it has not been implemented formally. Although the institute is autonomous, it is affiliated to the Maulana Abul Kalam Azad University of Technology, West Bengal (MAKAUT) and there are certain issues where the institute is bound by the rules of the University. The institute has been waiting for the University's implementation of ABC. The institute agrees in principle with the ABC.</p>
3. Skill development:	<p>The vibrant internship programmes prevalent in the institute act as catalysts for skill development. Successful start-ups are already coming up. The basic premise of NEP whereby degree-owners are turned into empowered individuals is being followed. The number of students opting for jobs is still much more as compared to the number of empowered individuals who, with their ingenuity, will go for start-ups. This is sort of a cultural shift and it will take time to produce a sizable number of students who will opt for self-employment. So far as skill required in industry is concerned, the students are ahead of many of their likes. But the process of improvement is continuous and the Institute strives to attain excellence slowly but steadily. Students and faculty members of the institute have done many AICTE-sponsored online courses and got certificates to improve their skills. The progress in this area has been spectacular.</p>
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	<p>The institute is singularly lucky as it has its moorings in the Indian culture and heritage. It teaches students: "Atmo Deepo Bhobo" (Be your own light). The Institute has introduced a compulsory course named 'Indian Culture and Heritage' at the undergraduate level. A large number of students come to the Institute from adjoining states like Bihar, Jharkhand etc. While conducting classes in English, demand from the students to explain matters in their mother language often comes. Faculty members explain subjects in Hindi and Bengali languages outside the classroom to the students who face any difficulty due to the English medium of communication in class. Under the PMSSS J&K Scholarship scheme, students from Jammu, Kashmir and Ladakh get admission in the Institute and initially they face a little cultural shock. The institute organizes various orientation activities for all the students and give impetus to the students to take part in a variety of cultural and scientific programmes. Other than creating engineers, the goal of the institute is to make good Indian</p>

	<p>Citizens and the Institute claims to have started this process at the advent of the 21st century when the idea of NEP was perhaps not conceived of. During COVID-19 times, the institute started research on medicines based on homeopathy so as to counter COVID. It is claimed that the institute has never lost sight of its Indianness while thinking globally and imparting state-of-the-art technological education to the students</p>
5. Focus on Outcome based education (OBE):	<p>Heritage Institute of Technology, since 2014, has formally adopted Outcome Based Education (OBE), which is a student centric teaching and learning methodology. All programs and courses are designed and revised by the Board of Studies and Academic Council, consisting of various stakeholders, in line with objectives and outcomes as felt necessary to prepare dynamic and caring citizens to meet the challenges of global society as stated in the Vision statement of the Institute. As stated by David Kolb in his famous article on Experiential Learning Model (ELM), in order to gain genuine knowledge from an experience, the learner must have four abilities: willingness to be actively involved, ability to reflect on the experience, analytical skills to conceptualize the experience and decision making and problem solving skills. The teaching learning process at Heritage Institute of Technology not only focuses on Experiential Learning but also focuses on developing these four abilities as mentioned above among the students. Various Experiential Learning practices of Heritage Institute of Technology include Practicals, Internships, Field Projects, Industry Visits etc. The teaching-learning process at Heritage Institute of Technology is mostly 'with' the students rather than 'for' the students where the teachers and students form a team and the outcomes are owned by the team rather than any individual. Few examples of Participative Learning practices at Heritage Institute of technology are as follows: Classroom Interaction: Classroom Interactions at Heritage Institute of Technology manifests on changing instructional role towards more support and negotiation over content and methods and focuses developing and supporting students' autonomy of critical thinking. Peer-Learning: During project work students' collaborate among themselves and share their knowledge and skill. Conferences/ Seminars/ Webinars: The Institute</p>

	<p>organizes these events regularly and encourages students to participate and interact with resource persons and peers. Use of Technology Stack: Google Classroom is being used as a LMS so that students and teachers can always stay connected and participate in academic discussions. Club Activities: Students conduct several competitions, workshops and lecture series as part of activities of 22 Student Clubs at the Institute. The Mission statements of Heritage Institute of Technology includes “To provide an environment for critical and innovative thinking, and to encourage life-long learning.” In line with that, the Institute fosters creativity, critical thinking and problem solving abilities by Assignments: Containing application oriented real-life problems. Project-based Learning: Mandatory project work by all the students. Case-based learning: Explaining concepts through proper case studies, wherever possible.</p>
6. Distance education/online education:	<p>Since inception, Heritage Institute of Technology has promoted the usage of ICT enabled tools in the teaching learning process, as suggested in NEP as well. As a result, most of the classrooms are ICT enabled with overhead projectors and wi-fi connectivity. All the computer laboratories are equipped with 1:1 student to computer ratio while working, with computers having state-of-the-art configuration and LAN connectivity. While conducting a class, faculty members switch between projections and chalk-and-talk, as and when necessary, as all the classrooms are enabled with dual facilities. An adequate number of computers with internet connectivity is available at the Central Library as well where students can access digital contents, e.g., IEEE Journals, NPTEL Courses, E-Books, Question Papers of previous years etc. During the pandemic from March, 2020, in order to minimize the academic loss of the students, faculty members adopted ‘Education in Emergency’ and started conducting online classes. Both students and faculty members have responded promptly in getting accustomed with the transition of andragogy from traditional face-to-face teaching-learning process to online teaching-learning process. Faculty members conducted thorough research to prepare instructional design suitable for online mode of teaching by reading articles and watching tutorials in various</p>

online platforms, attending webinars and discussing among peer groups. Google Meet and Google Classroom is being used by all the faculty members as LMS and to apply the flipped classroom strategy. Faculty members are uploading various learning resources such as articles, pre-recorded videos, YouTube links, assignments etc. on the respective Google Classroom on a regular basis and students are also responding to those very well. Various online tools are also being used by some of the faculty members to make online classes more engaging. Once thought impossible to conduct virtually for some cases, all the laboratory classes are also being conducted online. In many cases different open source simulation softwares are being used for conducting laboratory classes online. For laboratory classes where no such software is available, Institute has created facilities for recording videos, having proper resolution and acoustics, of the experiments that have been done by the faculty members in laboratories. Links to those videos are also provided to the students so that they can complete the laboratory assignments comfortably. The Institute has adopted Choice Based Credit System (CBCS) in all the undergraduate programs and encourages students to enroll in courses from MOOCs platforms as recommended by the AICTE. The Institute is also registered as a SWAYAM-NPTEL Local Chapter. During the last couple of years, students of the Institute have enrolled in more than 4000 various online courses, internships and training programmes offered by the leading universities, institutes and organizations of the world such as Stanford University, John Hopkins University, University of California (Irvine, San Diego), Yale University, Imperial College London, University of Michigan, Duke University, DeepLearning.AI, Google, Microsoft, NPTEL etc. through various online platforms such as NPTEL, Coursera, Udemy, Internshala, LinkedIn Learning etc.

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2020-21	2019-20	2018-19	2017-18	2016-17
17	16	16	16	16
File Description		Document		
Institutional data in prescribed format		View Document		

1.2

Number of departments offering academic programmes

Response: 11

2 Students

2.1

Number of students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
4240	4182	4322	4248	4081
File Description		Document		
Institutional data in prescribed format		View Document		

2.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
1091	1019	1064	961	897
File Description		Document		
Institutional data in prescribed format		View Document		

2.3

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

2020-21	2019-20	2018-19	2017-18	2016-17
4141	4158	4262	4215	3218
File Description		Document		
Institutional data in prescribed format		View Document		

2.4

Number of revaluation applications year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
3	694	741	786	494

3 Teachers**3.1**

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

2020-21	2019-20	2018-19	2017-18	2016-17
866	843	822	767	531
File Description		Document		
Institutional data in prescribed format		View Document		

3.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
266	266	221	218	245
File Description		Document		
Institutional data in prescribed format		View Document		

3.3

Number of sanctioned posts year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
266	266	221	218	245
File Description		Document		
Institutional data in prescribed format		View Document		

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

2020-21	2019-20	2018-19	2017-18	2016-17
1550	1410	1380	1350	1270
File Description		Document		
Institutional data in prescribed format		View Document		

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

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

4.3**Total number of classrooms and seminar halls****Response: 65****4.4****Total number of computers in the campus for academic purpose****Response: 410**

4.5

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

2020-21	2019-20	2018-19	2017-18	2016-17
327.91	602.00	769.81	799.83	1090.42

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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:

Heritage Institute of Technology (HITK), after receiving the autonomous status, has taken cognizance of major developments in the global scenario of scientific and technological advancements and is continuously striving to instill the skills required by the industry and society at large, in its students. The Institute believes that the curriculum should be designed in such a way that the rising needs of the present dynamic society get fulfilled.

In this endeavour, the curriculum design, development and implementation process at Heritage Institute of Technology are done keeping in mind the local, regional, national and global needs. The curriculum is designed and implemented according to the guidelines of AICTE and UGC adopting Outcome Based Education (OBE). Each curriculum contains properly defined OBE components, viz., Program Educational Objectives (PEOs), Program Outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes (COs).

Development of curriculum is a continuous process at HITK. All the basic elements of curriculum development, viz., relating the units of the course content to learning resources, choosing the appropriate strategies for curricular transaction, suggesting the suitable media, exploring relevant learning experiences and progressive testing of the achievement of objectives through these experiences are meticulously considered during the curriculum development exercise.

The methodology followed at HITK for design of curriculum follows a bottom-up approach. A preliminary draft of the programme curriculum along with the individual syllabus of each course is prepared by the members of the faculty. The curriculum and the syllabi of different courses are prepared to fulfil the basic objectives of Outcome Based Education (OBE). The COs of each course are defined in accordance with the twelve POs adopted by National Board of Accreditation (NBA). During the time of framing the curriculum due inputs are taken from the curriculum/syllabi of reputed IITs, Universities, NITs and other similar engineering Institutes. Feedback from alumni and relevant industry experts are also considered. The draft curriculum is placed before the Board of Studies (BOS) which includes, apart from all the faculty members of the concerned department, representatives from other departments, alumni members of the concerned department and external experts from industry as well as academia having domain knowledge in the respective field. After having the approval of BOS, the curriculum and syllabi are placed before the Academic Council of the Institute for the final approval. Periodic reviews are made as and when felt necessary for any modification in the curriculum following the guidelines of AICTE, UGC and the affiliating University, namely, Maulana Abul Kalam Azad University of Technology(MAKAUT).

The advantage of autonomy is thus fully utilized by offering courses with the transactional paradigm focus on whether or not the current needs of different stakeholders, especially students, have been met and

whether the negotiated learning events have met the participants' satisfaction.

Courses that are relevant to the national, regional and global developmental needs and having linkage with Govt. of India's initiatives are uploaded in additional information with detailed justification.

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

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

Response: 94.12

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

Response: 17

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

Response: 16

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

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

Response: 86.3

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

2020-21	2019-20	2018-19	2017-18	2016-17
764	735	703	654	453

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

1.2 Academic Flexibility

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years. Response: 68.86	
1.2.1.1 How many new courses are introduced within the last five years Response: 984	
1.2.1.2 Number of courses offered by the institution across all programmes during the last five years. Response: 1429	
File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document
1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year). Response: 100	
1.2.2.1 Number of Programmes in which CBCS / Elective course system implemented. Response: 17	

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

1.3 Curriculum Enrichment

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

Response:

Heritage Institute of Technology (HITK) has explicitly mentioned in its vision that its main objective is to prepare dynamic and caring citizens to meet the challenges of global society while retaining their traditional values. It strongly believes that holistic development of the students is only possible in reality if successful integration of cross cutting issues relevant to professional ethics, gender, environment and sustainability, human values and most importantly professional ethics could be done.

In order to meet this challenge, the Institute has designed different courses to cater to the needs of the students. It is believed that such student-centric curriculum development will empower them to become professionally successful through logical reasoning and decisions in times of crisis as well as to be a leader in the technological development in the domain area.

In this endeavour, curricula have been designed taking advice of expert members of Board of Studies and Academic Council to meet the learning needs of all elements of Outcome Based Education. The curriculum emphasizes on enhancing domain knowledge, experimental skill and self-confidence. Compulsory courses like Human Values and Professional Ethics and Environmental Science have been introduced to prepare the students to be socially responsible citizens. The institute has judiciously applied its academic flexibility to introduce in its curricula the Choice Based Credit System. Students thus have the freedom to choose subjects of their choice for moulding their career. The curricula are tailor-made to suit the need of professional expertise of students in their future activities. Based on andragogic feedback received from industry, alumni and similar stakeholders, students are offered a broad range of professional elective and free elective papers to meet the new and emerging challenges which prepare them to accept professional leadership in their future life.

The advantage of autonomy in academic activities is fully utilized through periodic revision of the entire course curriculum. Based on the emerging need at national level in particular and global requirement in general new courses including core and elective papers are offered from time to time following the guidelines of AICTE, UGC and the affiliating university.

Thus the autonomy of the Institute has enabled it to offer unique need based course curricula which cater its students not only an excellent chance of good employability but at the same time make them an

individual with human values honouring professional ethics.

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

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

Response: 414

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

2020-21	2019-20	2018-19	2017-18	2016-17
256	119	26	9	4

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

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

Response: 40.47

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

2020-21	2019-20	2018-19	2017-18	2016-17
1960	1120	1900	1732	1821

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

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

Response: 22.5

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

Response: 954

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

1.4 Feedback System

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

Response: A. All 4 of the above

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

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

Response: B. Feedback collected, analysed and action taken

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

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Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Response: 88.63

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

2020-21	2019-20	2018-19	2017-18	2016-17
1056	991	984	1014	1023

2.1.1.2 Number of sanctioned seats year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
1194	1131	1131	1131	1131

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

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

Response: 52.67

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

2020-21	2019-20	2018-19	2017-18	2016-17
6	7	8	13	14

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

2.2 Catering to Student Diversity

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

Response:

In order to uplift the slow learners, all the departments conduct bridge courses, remedial classes and several other remedial measures. The advanced learners are offered add-on courses and encouraged to complete courses, Short Term Training Programmes (STTP), internships etc. beyond the curricula.

Bridge course:

- Bridge courses are essential for most of the students to acquire additional skills.
- Skill Development Programmes, Personality Development Programmes, Mock evaluations and online tests on Technical, Aptitude and Soft Skills are some of the common bridge courses.
- These are mostly conducted by Training & Placement Cell and the faculty members of the Humanities Department. External experts are also involved as and when necessary.

Remedial Class

- Remedial classes, or special classes, are conducted for slow learners.
- As the lateral entry students join late with the regular students, such courses are also conducted for lateral entry students.

Add - on Courses for all:

- Intensive soft skill and technical / aptitude training is conducted prior to start of campus recruitment season.
- Students in the first and second year are given grooming sessions and group discussion training.
- The Humanities Department conducts soft skill and communication class room programmes in line with course curriculum.

- In addition corporate companies like TCS are invited and they conduct seminars on relevant topics for the benefit of the senior students.
- Students are also connected to the Infosys Campus Connect, TCS Campus Commune through which they continue to get guidance and training inputs from these organizations.
- The Institute has a Microsoft Innovation Centre which is utilized by the students for various grades of training and certification programmers of Microsoft.

Value added Curricular and Extra Curricular Courses/Training;

Summer training for the students of pre-final year in line with curriculum requirement is also specially arranged through reputed organizations on specified technical and skill development programmes to improve their employability prospects.

Students are encouraged to participate in Value Added Courses offered by NPTEL-SWAYAM. The Institute is a local chapter of NPTEL-SWAYAM as well. Programmes are also organized for employability enhancement of students in technical and soft skill areas, especially tailored to the employer demands from time to time.

Special training is arranged for unplaced students to aid their selection by recruiters.

The Institute conducts employability evaluation tests by organizations like CMC, Aspiring Minds etc. to identify the areas of weakness of each individual student and address them suitably while conducting training programmes as above.

The advanced learners are encouraged to take part in Hackathons and other technical events and competitions at Inter-University/ State/ National/ International level. Special training is arranged by the concerned departments and student clubs for this purpose.

Students are encouraged to take part in the activities of different student chapters, namely,

1. Institute of Electrical and Electronics Engineers (IEEE) – Electron Devices Society (EDS) Student Branch Chapter (SBC)
2. Association for Computing Machinery (ACM)
3. Instrument Society of India (ISOI)
4. Indian Institute of Chemical Engineers (IICChE)
5. Indian Plumbing Association (IPA)
6. Society of Mechanical Engineers, HIT-K

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

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

Response: 16:1

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

2.3 Teaching- Learning Process

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

Response:

Heritage Institute of Technology(HIT-K), since 2014, has formally adopted Outcome Based Education (OBE), which is a student centric teaching and learning methodology. All programs and courses are designed and revised by the Board of Studies and Academic Council, consisting of various stakeholders, in line with objectives and outcomes as felt necessary to prepare dynamic and caring citizens to meet the challenges of global society as stated in the Vision statement of the Institute.

As stated by David Kolb in his famous article on Experiential Learning Model (ELM), in order to gain genuine knowledge from an experience, the learner must have four abilities: willingness to be actively involved, ability to reflect on the experience, analytical skills to conceptualize the experience and decision making and problem solving skills. The teaching learning process at HIT-K not only focuses on Experiential Learning but also focuses on developing these four abilities as mentioned above among the students.

Various Experiential Learning practices of HIT-K are as follows:

1. Practicals: The curriculum of HIT-K is designed to ensure that students spend at least 50% of their time in laboratories gaining hands-on experience of their theoretical studies.
2. Internships: Every year 100% students are sent to mandatory Internships in various reputed industries and organizations to harness their skill and knowledge. This also helps them to experience how the theories and experiments they are performing in laboratories are applied in practice.
3. Field Projects: Students are encouraged to take up field projects under the joint supervision of faculty members and industry experts.
4. Industry Visits: This is a regular practice at HIT-K which enables students to experience the

functioning of various technological aspects of an Industry and subsequently add components to their industry readiness,

The teaching-learning process at HIT-K is mostly ‘with’ the students rather than ‘for’ the students where the teachers and students form a team and the outcomes are owned by the team rather than any individual. Few examples of Participative Learning practices at HIT-K are as follows:

1. Classroom Interaction: Classroom Interactions at HIT-K manifests on changing instructional role towards more support and negotiation over content and methods and focuses developing and supporting students’ autonomy of critical thinking.
2. Peer-Learning: During project work students’ collaborate among themselves and share their knowledge and skill.
3. Conferences/ Seminars/ Webinars: The Institute organizes these events regularly and encourages students to participate and interact with resource persons and peers.
4. Use of Technology Stack: Google Classroom is being used as a LMS so that students and teachers can always stay connected and participate in academic discussions.
5. Club Activities: Students conduct several competitions, workshops and lecture series as part of activities of 22 Student Clubs at the Institute.

The Mission statements of HIT-K includes “To provide an environment for critical and innovative thinking, and to encourage life-long learning.” In line with that, the Institute fosters creativity, critical Thinking and problem solving abilities by

1. Assignments: Containing application oriented real-life problems.
2. Project-based Learning: Mandatory project work by all the students.
3. Case-based learning: Explaining concepts through proper case studies, wherever possible.

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

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

Response:

Since inception, Heritage Institute of Technology (HITK) has promoted the usage of ICT enabled tools in the teaching learning process. As a result, most of the classrooms are ICT enabled with

- overhead projectors and

- wi-fi connectivity

All the computer laboratories are equipped with

- 1:1 student to computer ratio during classes, with computers having state-of-the-art configuration and
- LAN connectivity

Adequate number of computers with internet connectivity is available at the Central Library as well where students can access digital contents, e.g., IEEE Journals, NPTEL Courses, E-Books, Question Papers of previous years etc. Wi-fi connectivity is available in the entire campus.

During the pandemic, in order to minimize the academic loss of the students, faculty members adopted 'Education in Emergency' and started conducting online classes from 23rd March 2020. Both students and faculty members have responded promptly in getting accustomed with the transition of andragogy from traditional face-to-face teaching-learning process to online teaching-learning process. Faculty members conducted thorough research to prepare instructional design suitable for online mode of teaching by reading articles and watching tutorials in various online platforms, attending webinars and discussing among peer groups. Google Meet has been used for conducting online classes and Google Classroom is being used as LMS by all the faculty members to apply the flipped classroom strategy. Faculty members are uploading various learning resources such as articles, pre-recorded videos, YouTube links, assignments etc. on the respective Google Classroom on a regular basis and students are also responding to those very well. Various online tools are also being used by some of the faculty members to make online classes more engaging. Once thought impossible to conduct virtually for some cases, all the laboratory classes are also being conducted online. In many cases different open source simulation softwares are being used for conducting laboratory classes online. For laboratory classes where such softwares is not available, Institute has created facilities for recording videos, having proper resolution and acoustics, of the experiments that have been done by the faculty members in laboratories. Links of such videos are shared with the concerned students.

HITK went into a partnership with Coursera, a premier organization offering online courses on emerging topics, under the 'Coursera for Campus' program. Many students have successfully completed a large number of courses among the available ones and earned certificates which will be valuable for their career. In fact, during this pandemic students of the Institute have enrolled themselves in more than 4000 various online courses, internships and training programmes offered by the leading universities, institutes and organizations of the world such as Stanford University, John Hopkins University, University of California (Irvine, San Diego), Yale University, Imperial College London, University of Michigan, Duke University, DeepLearning.AI, Google, Microsoft, NPTEL etc. through various online platforms such as NPTEL, Coursera, Udemy, Internshala, LinkedIn Learning etc.

There is no denying to the fact that due to the advancement of technology, there was already high growth and adaptation in education technology and online education. COVID-19 has just accelerated that growth and adaptation. It is believed that the teaching-learning process in future has to be a proper combination of face-to-face, synchronous and asynchronous learning. Keeping that in mind, all the stakeholders of HITK are continuously engaged in exploring the best practices for the best interest of the students.

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

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

Response: 16:1

2.3.3.1 Number of mentors

Response: 266

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

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

Response:

Academic Calendar:

The Principal of the Institute, in consultation with the Deans, Registrar, Controller of Examinations and Heads of the Departments prepares Academic Calendar for every academic session, in accordance with the guidelines notified by UGC, AICTE and the affiliating university, namely, MAKAUT. Academic Calendar consists of information regarding duration of classes and examinations, inter-semester breaks, registration dates, holidays etc. so that students can plan their activities accordingly.

Such an Academic Calendar is strictly adhered in all respects unless any change becomes necessary due to any circular by the UGC, AICTE or MAKAUT under any unforeseen emergency situation like outbreak of COVID-19. The Academic calendar is published on the website of the Institute and in the College Diary at the beginning of the academic session.

Timetable:

The time table is planned and prepared well in advance for each semester. A Routine Committee is formed with nominated members from each department for this purpose. The Convener of the Routine Committee ensures that the schedule of academic activities as per the Academic Calendar is carried out without any inconsistencies.

In addition to the courses as per the curriculum, slots are kept open for Remedial Classes, Value Added Courses like Soft Skills, Life Skills etc., Interactive Sessions with HoDs and Library Accession.

Teaching Plan:

The Teaching Plan, in accordance with the syllabus, is prepared by each one of the faculty members and is circulated among the students.

File Description	Document
Upload Academic Calendar and Teaching plans for five years	View Document
Link for Additional Information	View Document

2.4 Teacher Profile and Quality

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

Response: 100

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years(Data Template)	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document

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: 42.96

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

2020-21	2019-20	2018-19	2017-18	2016-17
110	110	101	102	97

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

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

Response: 8.06

2.4.3.1 Total experience of full-time teachers

Response: 2143

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

2.5 Evaluation Process and Reforms

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

Response: 41.8

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

2020-21	2019-20	2018-19	2017-18	2016-17
18	23	56	53	59

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

2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years**Response:** 13.63**2.5.2.1 Number of complaints/grievances about evaluation year wise during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
3	694	741	786	494

File Description	Document
Number of complaints and total number of students appeared year wise	View Document
Any additional information	View Document
Link for Additional Information	View Document

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

The objective of the examination system at HITK is to expose students to continuous evaluation rather than focus only at term end exams. This system ensures that the students develop the ability to study regularly and do not need to put any extraordinary work towards the end of the semester. This system also puts the onus on students to perform consistently and not study in a sporadic manner.

Each discipline of the B.Tech / MCA / M.Tech. programme consists of the following three components:

(a) Theory papers (b) Practical papers (c) Sessionals

a) Theory Papers:

Under this classification each theory paper is evaluated on the basis of 100 percentage points, sub-divided into the two categories:

(1) End-semester examination: 70 points (2) Internal Assessment: 30 points.

b) Practical Papers:

Every paper in this category shall be evaluated out of 100 percentage points, divided into two categories.

(1) End-semester examination: 60 percentage points (2) Laboratory Sessional: 40 percentages points

c) Sessional Papers: 100 points

End Semester Examination System

- A comprehensive examination rule and academic regulations are prepared, publicized and available on the website. (<https://www.heritageit.edu/PDF/StatutesRegulationsRules2.pdf>)
- Question banks are prepared for all the courses and is available in the Institute Library.
- The examination schedule is published on the institute website and communicated to the students. (<https://www.heritageit.edu/ExamCell.aspx>)
- At least two tests are conducted at near-identical intervals. The best performance is considered for the final reckoning (15 points out of 30 points of Internal).
- The course teachers conduct at least 2 unannounced quizzes during the lecture/tutorial class and suitable number of home assignments are cleared by the student within stipulated time (10 points out of 30 of internal assessment)
- Attendance regularity and participation in the class carries 5 points of internal 30 points
- Based on the recommendations of the respective HOD's and approved by the Principal, the COE appoints two paper setters for independently framing two sets of question paper and also at least one moderator, who is an external subject expert, for each course code. The final question paper is prepared from amongst the two above sets by the moderator in presence of COE.
- The COE appoints Head Examiners/Examiners/Scrutineers, as per the Exam rule of HITK, with the approval of the Principal & HOD.
- All the theory papers are evaluated simultaneously at the COE office.
- For Practical papers continuous assessment of the laboratory classes for the entire semester carries 40 points.
- There is an End Semester Examination in each laboratory item . The evaluation is done based on: • Organization of the experiment • Actual data generated and the actual conduct of the experiment assigned. • Data analysis/Synthesis and Conclusions etc. (40 points)
- A comprehensive Viva-Voce seeking general awareness of the lab subject.(20 points).
- Sessional which is conducted outside the institution viz., Industrial training, Co-curricular / Extra-curricular participation etc. – assessment is made on the basis of Supervisor's assessment, report submitted by the student, if any, participation & attendance, and Viva-Voce conducted by a Departmental Committee, constituted by the Departmental Head and duly ratified by the Principal. In some cases, external subject experts are also appointed to oversee the evaluation process.

Disciplinary Measures:

- A Board of Discipline comprises of (i) Principal – Chairman, Ex-Officio, (ii) Dean (UG), Ex-Officio, Member, (iii) Dean (PG & Research), Ex-Officio, Member, (iv) Registrar, Ex-Officio, Member, (v) Controller of Examinations, Ex-Officio, Member Secretary look up all cases of breach of discipline in connection with examinations and is reported with relevant documents and details.

Re-examination:

- A candidate can apply for post publication review (PPR) within stipulated time from (but excluding) the date of publication of result, for one or more subject items of the just concluded end-semester examination on payment of a prescribed fee to the Institute as per details indicated from time to time through notification.
- After the result of PPR is declared, a fresh grade sheet is issued to the candidate incorporating changes.

Grade Improvement:

- A candidate can apply to reappear in a regular examination of an already passed paper to improve the grade by depositing the requisite fees. Maximum number of such attempts is in two (2) theory papers in the entire degree program for a regular student.
- A student who has already completed all curricular requirements but not awarded the degree due to securing a DGPA below 6 can reappear in a maximum of four (4) theory papers in a semester till he/she attains a DGPA of 6. In order to receive the degree, a student must complete all curricular requirements and secure a DGPA of 6 or more within the maximum period stipulated by the affiliating University, MAKAUT, WB.

Graduation Ceremony:

- In January of every year Institute organise graduation ceremony to distribute the medals (Gold, Silver and Bronze) and degree certificates to the graduands.
- Renowned academicians, motivators are invited in the said ceremony.
- Vice Chancellor of our parent university used to give away the medals.

Online Examination System (for Pandemic Situation):

- HITK has developed methodology to conduct online examination and subsequent digital evaluation system

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

2.6 Student Performance and Learning Outcomes

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

Response:

- One of the major intentions of the Institute is to prepare its students to be competent and eligible engineers at both national and global level. In order to fulfil this goal, the Institute has adopted Outcome-Based Education (OBE) system in the curriculum from the year 2014. OBE ensures attainment of Program Educational Objectives (PEOs), Program Outcomes(POs), Program Specific Outcomes(PSOs) and Course Outcomes(COs). All these elements equip learners with the knowledge, competence and orientations needed for success after they leave the institution. Hence its guiding vision is that of a competent future global citizen.
- The statements of Course Outcomes have been prepared by the subject expert describing significance and essential learning that learners have achieved at the end of a course. Attainment of COs in each subject is evaluated based on the performance of students in all midterm and end semester examinations.
- Program Outcomes and Program Specific Outcomes have been prepared by senior members of faculty of each Program in consultation with other members and stakeholders, viz., alumni and employers.
- All these outcomes are aimed to prepare students both technically and mentally suitable to serve the needs of industry in particular and society in general by imparting cutting edge technology, interdisciplinary expertise, human values and self confidence.
- The course and program outcomes for each syllabus so prepared are placed in the BOS of the respective department and its recommendation is sent to the Academic Council for final approval.
- While setting question papers either for internal or semester, the concerned paper setter pays utmost importance to ensure that allied Course Objective is clearly reflected in each question.
- Students are provided with the course plan at the outset of the academic session and lecture materials are also given to the students during the progress of the session. Both of these contain clearly defined Course Outcome so that students can understand what they would achieve through this course.
- Course Outcomes are revised with the revision in the syllabus of individual subjects.
- All the departments of the Institute pay utmost importance and care to communicate its students and other stakeholders their Program Outcomes (POs) and Program Educational Objectives (PEOs) and Program Specific Outcomes (PSOs) through a wide range of platforms. These include and not

necessarily limited to:

- Website of individual department
- All prominent places of the department, viz.,
 - Notice Board
 - Classroom
 - Office of the Head of the Department
 - Laboratories

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

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

Response:

The Institute follows a rigorous procedure for evaluating the attainment of Program Outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes (COs).

Course Outcomes: These are the abilities and skills the students are expected to possess after completion of a particular course in the curriculum. These attributes are expressed in terms of clearly measurable and/or observable performance metrics. 4-6 COs are prepared for each course by the faculty members of the Institute teaching that particular course. The outcomes are prepared in accordance with the procedures specified by Bloom's taxonomy.

Program Outcomes: These are attributes which are expected to be possessed by students at the time of their graduation. These attributes for an engineering graduate include problem identifying and solving skills, communication skills, knowledge of societal, environmental and ethical issues related to engineering profession, teamwork skills etc. All the programs in the Institute have framed POs in accordance with the guidelines of NBA.

Program Specific Outcomes: These refer to skill sets and knowledge gained by the graduating students which are specific to the program of study. Each program in the Institute has its own specific outcomes developed by the faculty members of that program after consultation with external experts from industry and academia.

Attainment of COs: The data for evaluation of direct attainment of course outcomes are gathered from internal and semester examinations. The questions set in the examinations are mapped with the course outcomes for that course. Attainment levels for all Course Outcomes for the courses are calculated as average of the attainment level obtained from internal examination and that from the semester examination.

Attainment of POs and PSOs: Attainment of POs and PSOs are assessed by mainly two methods:

1. Direct assessment
2. Indirect assessment

Direct assessment is based on data collected for the assessment of CO attainment from internal and semester examinations.

Indirect assessment is based on surveys conducted among employers, research guides, alumni and parents who are the major stakeholders of the program. These surveys mainly record the perception of the stakeholders about the graduating students of the program in terms of the defined POs and PSOs. The assessment is carried out at the end of every academic year. Exit interviews are also conducted among the graduating students to record their feedback about the level of graduate attributes they have attained on completion of the program.

For direct assessment, the COs are mapped with the POs and PSOs, where weightages are assigned to each CO depending on how much it contributes to the attainment of a particular PO/PSO. The attainment levels of all the COs of a particular course, calculated from the internal and end-semester assessments, are then mapped with each PO/PSO corresponding to the weight factor. The average of these is recorded as the contribution of the overall course to the attainment of each PO/PSO. The results are recorded in a Program articulation Matrix and the average attainment level of each PO/PSO from all the COs is calculated.

POs/PSOs are also mapped with the Program Educational Objectives (PEOs) which are long term attributes expected to be possessed by a graduate of the program. The CO, PO and PEO attainment levels are analyzed every year for identifying curricular /pedagogical gaps and taking corrective actions.

File Description	Document
Any additional information	View Document

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

Response: 97.67

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

Response: 1091

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

Response: 1117

File Description		Document
Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)		View Document
Any additional information		View Document
Link for the annual report	View Document	
Link for additional information	View Document	

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process		
Response: 3.23		
File Description		Document
Upload database of all currently enrolled students		View Document
Link for any additional information	View Document	

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

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

Response:

The institute was started with the primary objective of producing competent graduate engineers who will be the work-force in various industries like IT, and core sectors. State-of-the-art laboratories were set up so as to train the students in engineering applications. Gradually Masters programmes were initiated and a need was felt to upgrade the laboratories. The laboratories of Biotechnology, Applied Electronics and Instrumentation Engineering, Electronics and Communication Engineering, etc., got gradual face-lift with continuous addition of set-ups and facilities. The idea was to give the students the flavor of research and also to give impetus to the members of the faculty to undertake research work.

Every quarterly meeting of the Board of Governors makes an assessment of the R & D activities of the institute and publications made in the quarter are placed before the BOG.

When the members of the faculty complete Ph.D., their salaries are enhanced through increments in accordance with the University Grants Commission regulations. Also, on the Foundation Day of the institute, members of the faculty making substantial contributions in research are identified and rewarded through Certificates and Cash Prizes. This has been going on for years, from the time when the accreditation by the NAAC was not mandatory. Thus, right from the inception, the institute, having had its aim of producing competent graduate engineers, set its target to build research slowly but steadily. In meetings after meetings, the members of the faculty were told to publish research papers in reputed journals. But the publication guidelines were not made mandatory as there was no restriction on autonomy in teaching and research. The institute has believed strongly in autonomy of the faculties and firmly believes that good research cannot be done through regulations. The desire to make solid research contributions stems from an urge from within and our vision statement clearly states “*Atmodeepo Bhobo*”. Enlightenment talked about in the Mantra itself is the crux of the institute’s research policy and members of the faculty are encouraged to make substantial contributions in research, not in terms of numbers, but in terms of quality of research. During the Covid Pandemic, the institute had taken up an ambitious project of developing oral vaccines against the virus and steps to do clinical trials have been completed.

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

3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)**Response:** 0**3.1.2.1 The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).**

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

File Description**Document**

List of teachers receiving grant and details of grant received

[View Document](#)**3.1.3 Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years****Response:** 0.16**3.1.3.1 The number of teachers awarded national / international fellowship for advanced studies / research year wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	1	1

File Description**Document**

List of teachers and their international fellowship details

[View Document](#)

e-copies of the award letters of the teachers

[View Document](#)**3.2 Resource Mobilization for Research****3.2.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)****Response:** 107.36**3.2.1.1 Total Grants from Government and non-governmental agencies for research projects ,**

endowments, Chairs in the institution during the last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
6.9422	46.46516	26.428	16.364	11.161

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

3.2.2 Percentage of teachers having research projects during the last five years**Response:** 1.81**3.2.2.1 Number of teachers having research projects during the last five years**

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

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

3.2.3 Percentage of teachers recognised as research guides**Response:** 10.53**3.2.3.1 Number of teachers recognized as research guides****Response:** 28

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

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

Response: 29.45

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

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

3.2.4.2 Number of departments offering academic programmes

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

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

3.3 Innovation Ecosystem

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

Response:

The establishment of the institution itself is an innovation: building structure after structure on the wastelands of Eastern Kolkata was a success story by itself. Faculty members who joined the institute in its nascent stage are still with the institute because they saw the commitment and the innovations in building the institute. There is no compromise in the academic quality of the courses and the delivery mechanism and that is why through the last twenty years the institute could entice students to the extent that 95% of the undergraduate seats have been filled every year. Socio-economic reasons compel the students to take up jobs right after graduation. So, Masters Programmes have to run with a small number of students. This is interesting to ponder over the matter: the better the quality of the undergraduate engineering programmes in a private institute, the better is the placement and naturally lesser number of students comes to the Masters programmes. There are some dedicated centres of research under the Department of Biotechnology, and Electronics and Communication Engineering.

In recent years, students passing out of the institute have shown remarkable entrepreneurship skills. For example,

Collegeshala

Founded by Mr. Upamanyu Chatterjee (EE, Batch:2018-2022) and Mr. Fazal Mustafa (IT, Batch:2018-2022) is a community driven edtech platform aiming to cater to the 20 million non-technical undergraduate students of the country. Collegeshala brings curated content from experienced professors of local universities. Collegeshala also partnered in building and implementing one of India's only digital classroom software, named Lecture Rooms. Currently, the company is operational in West Bengal & Jharkhand. Recently, Collegeshala has raised a seed round of 1.83 crores from Indian edtech startup Lecturenotes.in and Singapore based HNI investors.

Paving+ (RAU Industries LLP)

RAU Industries LLP is a startup cofounded by Ranjan Kumar Gupta (Civil Engineering, Batch:2017-2021), Anushka Nayak (EE, Batch:2016-2020) and Upamanyu Chatterjee (EE, Batch:2018-2022). The objective is to manufacture bricks and paver blocks from plastic-waste based material patented by Mr Ranjan Kumar Gupta. The start-up mentored by the Entrepreneurship Development and Incubation Cell, HITK came first at NIT Durgapur and was invited to the National Festival of Innovation and Entrepreneurship, organized by National Innovation Foundation. It was selected as one of India's top 20 startups at Global Entrepreneurship Summit organized by IIT KGP. Paving+ had been selected for incubation by the Bengal Chamber of Commerce at its new incubation facility in WEBEL Bhavan. The cofounders had positive talks with foreign delegations, notably from Japan and Bangladesh, in their efforts to sell their product in foreign markets. Recently the company received a seed funding of around 2Cr. and is having 3 production units in and around Kolkata.

The alumni entrepreneurs are also being featured in reputed national and international forums. For example,

- Ms. Joyeeta Das (ECE:2002-2006), currently Head of Artificial Intelligence at EVANA AG and a serial entrepreneur, has been awarded as FT 100 BAME leader, 21 Asian stars in UK Tech, 2021, Top 100 Asian in UK Tech., 2018, 2019, 2020.
- Mr. Sarbajit Das (AEIE:2003-2007), founder of Sundew Solutions got featured in The High and Mighty Power List 2021 by India Today.

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

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

Response: 70

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

2020-21	2019-20	2018-19	2017-18	2016-17
13	14	16	7	20

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

3.4 Research Publications and Awards

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

Response: C. 2 of the above

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

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

Response: 0.68

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

Response: 19

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

Response: 28

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

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

Response: 1.11

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

2020-21	2019-20	2018-19	2017-18	2016-17
64	54	63	47	43

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

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

Response: 1.18

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

2020-21	2019-20	2018-19	2017-18	2016-17
58	68	49	56	55

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

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

Response: 4.06

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

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

Response: 18.5

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

3.5 Consultancy

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

Response: 0

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

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

File Description	Document
List of consultants and revenue generated by them	View Document
Any additional information	View Document

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

Response: 0

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

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

File Description	Document
List of facilities and staff available for undertaking consultancy	View Document

3.6 Extension Activities

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

Response:

Since inception, the mission statements of Heritage Institute of Technology include “*To inculcate leadership qualities for serving the society.*” The students, staff and faculty members of the Institute remain involved in several extension activities throughout the year. Although there is no credit associated with such activities but according to the guidelines for Mandatory Additional Requirements (MAR), participating in such activities are mandatory for the students for getting the degree.

Such requirements have been made mandatory in order to create opportunities for the students to inculcate attributes, which are not restricted only to engineering knowledge and acumen. Industry needs professionals who can work successfully in teams, who have leadership qualities, who are alive to social and community needs and who can bring innovation and creativity to their work and who are also digitally proficient. Hence, in order to prepare its students to match these multiple requirements, the Institute, in accordance with the directive of the affiliating university, MAKAUT has created a mechanism of awarding 100 Activity Points over and above the academic grades. It is expected that the students will be involved in these activities at their own pace and comfort and such involvement will help them to *serve, reflect and learn*. It is expected that by the time students reach their Final Year, they would have developed themselves so well both through their studies in the respective technological field and through their active

participation in the co-curricular and extra-curricular activities as also through SWAYAM based learning activities that they would be well-prepared for contributing to every sphere of society and life.

The following activities of NSS wing and Rotaract Club at the Institute are few examples of such activities:

- Drops of Hope - Blood Donation Camp
- Wishes of Warmth - Blanket Distribution drive
- PAHEL – Covid essentials distribution drive
- SAVE THE DROP - discussion session on water crisis
- Sayannya - Ration Donation Initiative
- Let's be Aware - webinar on necessities and precautions of blood donation crisis of Covid-19 pandemic
- WAR - Wildlife Awareness Rally
- YAAR Session - Young Autistic Adults Recreation

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

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

Response: 16

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

2020-21	2019-20	2018-19	2017-18	2016-17
0	15	1	0	0

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

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

Response: 173**3.6.3.1 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
41	39	41	31	21

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

3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years**Response: 36.52****3.6.4.1 Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.**

2020-21	2019-20	2018-19	2017-18	2016-17
1905	949	2175	1545	1155

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

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

Response: 14.2**3.7.1.1 Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work**

2020-21	2019-20	2018-19	2017-18	2016-17
19	16	17	9	10

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

3.7.2 Number of functional MoUs with institutions of national, international importance, other institutions, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)**Response: 12****3.7.2.1 Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
3	4	1	2	2

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

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

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

Response:

The Institute is located on 8.03 Acres of land on a lush green campus with huge physical infrastructure to accommodate all departments properly. All the buildings are aesthetically designed and the campus contains a fully air conditioned indoor auditorium having 500 seating capacity with all modern facilities. A beautiful playground also constitutes a part of the campus'

The major part of the Institute consists of required numbers of highly equipped laboratories, 59 classrooms, 13 tutorial rooms, 4 drawing halls and 6 seminar halls along with boys and girls hostel separately. All the classrooms are well ventilated and well equipped with ICT facilities. All the laboratories contain equipment and instruments suiting the requirements of teaching and research, The Institute owns a huge library on 1858 sqm. area with total seating capacity 250. The library has a rich collection of 62664 books, 137 print journals, 3000 CD/DVDs, 216 e-journals, e-books (Delnet) and also lectures videos from NPTEL.

All the computers at the campus are connected with Gigabit LAN where every student can access a dedicated computer to do their project and laboratory assignments. In the Institute, every faculty is provided with a dedicated computer. Institute owns many softwares and the entire campus is embedded with a WiFi facility. All the facilities are maintained regularly. The total number of 1071 computers with internet facility and LAN is in operation. The entire campus is under CC camera surveillance for 24 hours. Infrastructure augmentation is a continuous process and a considerable amount of funds is allocated in the annual budget.

Addition of new laboratories at different departments is a continuous process of the Institute. A list of new laboratories set up at different departments in the last five years is given below.

New Laboratory Setup during the last five years:

Serial No	Name of Department	Name of laboratory	Room No
1	Department of Applied Electronics and Instrumentation Engineering	<p><i>UG Program:</i></p> <p>1. Internet of Things Lab</p> <p>2. Mini Project/Electronic Design Workshop</p> <p><i>PG Program:</i></p> <p>Programming Language</p>	<p>ICT102</p> <p>ICT101</p> <p>ICT101</p>

		LAB	
2	Department of Chemical Engineering	Alternative Energy Laboratory	CB 208
3.	Department of Chemistry and Environment	1. Renewable Energy Research Laboratory 2. Chemistry Instrument Laboratory	
4	Department of Computer Science and Engineering	AI and ML lab (Artificial Intelligence and Machine Learning Lab)	ICT201
5	Department of Electronics and Communication Engineering	IEEE Electron Devices Society(EDS), USA, sponsored LAB	
6	Department of Humanities	Language Lab	CB 514
7	Department of Mechanical Engineering	1. Refrigeration & Air Conditioning Lab : 2. Mechatronics Lab : 3. Finite Element Method Lab	CME 116 CME 617 CME 105

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

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

Response:

The Institute has following facilities for the students

Auditorium:

There is an Auditorium (Swami Vivekananda Auditorium) with 500 seating capacity which is centrally air-conditioned.

Health Care:

A medical unit is available in the campus. In addition, the Institute make arrangements with nearby hospitals for emergency medical treatment.

Transportation:

Transportation is available from prominent locations in Kolkata at scheduled hours based on students' demand. Transport facilities for members of faculty and staff, as also for visitors, are available from Ruby Island.

Hostel:

Board and lodging facilities are available separately for outstation boys and girls. Seats are limited and allotted on distance basis.

Banking:

A branch of Punjab National Bank is located within the campus with ATM facility for the benefit of students and members of faculty & staff. It also extends various soft loans.

Postal facilities:

All postal facilities are available at East Kolkata Township P.O. located nearby. Besides there is an arrangement with DTDC so that members of faculty, staff and students can also avail themselves of courier services.

Cafeteria:

The Institute has an excellent cafeteria. Multi-cuisine lunch and snacks are served in the cafeteria. Beside, a fast food restaurant-cum-convenience store is also there.

Students' Corner:

Essential books, stationery etc., as well as reprographic facilities are available in the corner.

Common Room:

The Institute has separate Common Rooms for boys and girls, equipped with indoor games facilities like table tennis, carom, chess etc.

Games & Sports:

There are excellent facilities for outdoor games and sports like cricket, football, volleyball and basketball managed by a Sports Officer.

File Description	Document
Geotagged pictures	View Document
Paste link for additional information	View Document

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

Response: 69.23

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 45

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

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

Response: 22.27

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

2020-21	2019-20	2018-19	2017-18	2016-17
36.63	51.59	171.37	196.79	487.81

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

4.2 Library as a Learning Resource

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

Response:

- Name of ILMS software : Libsys
- Nature of automation : Full
- Version : LSEase (1.0) /2016
- Year of Automation : 2002 to till date

Features of LIBSYS

LSEase library management software flexible to run on any operating system & support for multimedia files. Interactive, screen oriented and menu driven user interface. It is a package bundled with basic library management modules . The various LSEase modules are: Acquisition, Cataloguing, Circulation, Serial. LSEase supports MARC 21 with full support for RDA. It supports AACR-2 and ISBD formats. Circulation can be handled using Biometrics, Smart Card, RFID based cards or standard barcode based cards. It supports various electronic resources like the Image and multimedia files. Bar-code ID cards can be printed along with an option of attaching members' photographs.

Central Library of Heritage Institute of Technology, Kolkata (HITK)

HITK library comprises the Central library and Departmental libraries. Central Library of the Heritage Institute of Technology, Kolkata (HITK) is situated in the Central Building, spreading over approximately 20,000 Sq. feet. The Central library is centrally air-conditioned and equipped with computers and communication network and has a seating capacity of 250 readers. This is equipped with CCTV, Anti Theft Solution system and also with Wi-Fi connectivity. The library is fully automated with LIBSYS library management software (LSEase1.0) used for Acquisition, Cataloguing, Circulation, Procurement of books, Serial control modules and Web-OPAC, with barcode technology. Web-OPAC facilities are available from anywhere locally and remotely (<http://136.232.2.202:8380/opac/>) and also through Institute's Library webpage (<https://www.heritageit.edu/Library.aspx>) The barcode ID and scanner are used for charging and discharging the books.

The HITK library has a generous collection of Engineering & Management books, Reference, Humanities, Social Sciences and Career Guidance books (approx. 62664 as on 19/07/2021) , Scientific Journals etc. Separate stacking racks are maintained for books, journals, magazines and Newspapers. For cataloguing AACR2R and for classification DDC (23ed.) are followed.

“Semester Issue” facility: It is an additional facility provided to B. Tech and MCA students. They can retain books (normally one text book for each subject) for the entire semester.

Digital Library

The Central library of the Institute has a digital library section with 20 systems. It is run through D –Space software. It has a collection of e-journals from IEEE-ASPP, Delnet and Journal of the Indian Chemical Society, PCQuest, Voice & Data and Dataquest etc. The services provided by digital library (D–Space software) are available, at present, within the campus through the URL 172.16.0.4:8085/heritage . IP based access to DELNET is provided within the campus and also outside the campus through delnet.in (with User Id and Password) NPTEL lessons are accessible through LAN. Some of the current facilities

include:

Institutional Repository

- Question papers of all departments (all semesters) under autonomous HITK.
- Bibliographical data of the publications of the Academics and others of HITK have been uploaded.
- All online journals/ databases subscribed by Heritage are listed with its respective URLs
- Course materials (National /International)
- Career Guidance
- List of CD/DVD
- NDLI services
- Alerting of new arrival of books
- Current content of journals

Digital Repository: URL : 172.16.0.4:8085/heritage

IEEE (ASPP): <http://www.ieeeexplore.ieee.org>

Delnet: delnet.in (with User Id and Password)

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

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

Response: A. Any 4 or more of the above

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

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

Response: 18.22

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

2020-21	2019-20	2018-19	2017-18	2016-17
11.49	13.00	13.55	17.52	35.55

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

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

Response: 0.95

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

Response: 43

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

4.3 IT Infrastructure

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

Response:

IT Equipment Installation Policy:-

An individual in whose room the computer is installed and is primarily used by his/her is considered to be "primary" user. If a computer has multiple users, none of whom are considered the "primary" user, the department Head should make an arrangement and make a person responsible for compliance.

Computers purchased by the Institute should preferably be with 3-year on- site comprehensive warranty. After the expiry of warranty, computers would be maintained by System Department on call basis. Such maintenance should include OS re-installation hardware support and checking virus related problems also.

All the computers and peripherals should be connected to the electrical point strictly through Central UPS. Power supply to the UPS should never be switched off, as continuous power supply to UPS is required for battery recharging. Further, these UPS systems should be connected to the electrical points that are

provided with proper earthing and have properly laid electrical wiring.

Prohibitions:-

The users of the Institute shall make effective usage of campus collaboration systems, internet, wireless resources, official websites (including institute website, online admission systems, and course website), and Management Information Systems (MIS) and ERP solutions, Learning Management System, Remote Login based facilities of the Institute and e-Library resources.

The Institute shall stress upon the users to comply with Institute policies and legal obligations (including licenses and contracts).

The Institute shall strive to arrange for an awareness programme to acquaint the users with the effective usage of IT resources.

Prohibited Use - The users shall not send, view or download fraudulent, harassing, obscene, threatening, or other messages or material that are a violation of applicable law or University policy. In particular, contributing to the creation of a hostile academic or work environment is prohibited.

Social Media Usage- Users must abide by the rules of the Institute towards the usage of social networking sites, mailing lists, news rooms, chat rooms and blogs.

Commercial Usage - The Institute IT resources shall not be used for any commercial and promotional purposes, through advertisements, solicitations or any other message passing medium, except as permitted under Institute rules.

Software Installation and Licensing Policy:-

Any computer purchases made by the individual departments/projects should make sure that such computer systems have all licensed software (operating system, antivirus software and necessary application software) installed.

Respecting the anti-piracy laws of the country, Institute IT policy does not allow any pirated/unauthorized software installation on the institute owned computers. In case of any such instances, the Institute will hold the department/individual personally responsible for any pirated software installed on the computers located in their department/individuals' rooms.

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

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

Response: 10.34

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

4.3.3 Bandwidth of internet connection in the Institution.**Response:** 750 MBPS

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

4.3.4 Institution has the following Facilities for e-content development

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

Response: E. None of the above

File Description	Document
Institutional data in prescribed format	View Document

4.4 Maintenance of Campus Infrastructure**4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years****Response:** 75.94**4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year wise during the last five years (INR in lakhs)**

2020-21	2019-20	2018-19	2017-18	2016-17
289.59	525.36	593.30	595.37	573.47

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

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

Response:

Details of the Policy:

The Institute established an effective mechanism for maintaining and utilizing Physical, Academic and support facilities. The Institute have separate departments for maintenance works headed by qualified Maintenance Manager. Maintenance is carried out on daily basis based on the complaints received through ERP in order to ensure effective functioning of the Institute. The instruments are calibrated by calibration agencies. Computers, CCTVs and few other electrical/electronic equipment have been put under AMC.

Systems for Maintenance and Utilization:

The Institute ensures optimal allocation and utilization of the available financial resources for maintenance and upkeep of different facilities by holding regular meetings of various committees constituted for this purpose and using the grants received as per the requirements.

Laboratory:

(a) Record of maintenance account is maintained by lab technicians, Lab In charge and supervised by HODs of the concerned departments.

(b) The calibration, repairing and maintenance of sophisticated lab equipments are done by the technicians of related owner enterprises.

(c) Laboratory rules and regulations are prepared and displayed in every lab.

Library:

(a) The requirement of books is taken from the concerned departments and HODs are involved in the process. The finalized list of required books is duly approved and signed by the Principal.

(b) Suggestion box is installed inside the reading room. Continuous feedback helps in introducing new ideas regarding library enrichment.

(c) To ensure return of books, 'no dues' from the library is mandatory for students before appearing in exam.

(d) Other issues such as weeding out of old titles, schedule of issue/ return of books etc. are chalked out / resolved by the library committee.

(e) LIBSYS software with kiosk using RFID are used in Library.

Sports:

(a) The institute is having two big playgrounds of 77756.50 sq ft and 210000 sqft for outdoor games activities and separate common rooms of 1635.26 sq ft each for boys and girls for the purpose indoor games.

(b) Games and sports Facilities like Cricket, Football, Volleyball, Kabaddi, Kho-Kho, Badminton, table tennis, carom etc. are available.

(c) Institutional sports in charge is devotedly deputed for conduct of sports activities and maintenance of sports grounds/common rooms and sports equipment.

Computers:

(a) Separate as well as centralized computer laboratory facilities are available to facilitate student-computer ratio 1:1.

(b) ERP software is used for maintaining faculty attendance, purchase/procurement management, store management, maintenance module and almost all affairs of student management.

(c) The whole campus including hostels are covered with a centralized WIFI system.

(d) Open access journals facilities are available.

(e) All servers, storage boxes and computers are kept under AMC coverage.

Classrooms:

(a) The college has various committees for maintenance and upkeep of infrastructure. At the departmental level, HODs submit their requirements to the Principal regarding classroom furniture and other.

(b) Campus Administrator looks after all day-to-day requirements to include facilities services, daily maintenance, sanitization etc.

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

Criterion 5 - Student Support and Progression

5.1 Student Support

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

Response: 1.66

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

2020-21	2019-20	2018-19	2017-18	2016-17
38	57	103	80	73

File Description

Document

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, freeships, etc. provided by the institution and non-government agencies during the last five years

Response: 8.5

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

2020-21	2019-20	2018-19	2017-18	2016-17
369	368	358	357	340

File Description

Document

Number of students benefited by scholarships and freeships besides government schemes in last 5 years

[View Document](#)

Institutional data in prescribed format

[View Document](#)

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

Response: A. All of the above

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

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

Response: 20.53

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

2020-21	2019-20	2018-19	2017-18	2016-17
920	718	944	867	878

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

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

Response: A. All of the above

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

5.2 Student Progression

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

Response: 56.77

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

2020-21	2019-20	2018-19	2017-18	2016-17
607	514	608	497	618

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

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

Response: 6.23

5.2.2.1 Number of outgoing student progressing to higher education.

Response: 68

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

5.2.3 Average percentage of students qualifying in state/national/ international level examinations

during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 37.74

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

2020-21	2019-20	2018-19	2017-18	2016-17
118	82	88	75	47

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

2020-21	2019-20	2018-19	2017-18	2016-17
232	240	265	206	138

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

5.3 Student Participation and Activities

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

Response: 110

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

2020-21	2019-20	2018-19	2017-18	2016-17
29	28	29	19	5

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

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

Response:

The basic objective of the Students' Council at Heritage Institute of Technology is to create a forum for involvement of students in the matters of student interest. The Students' Council not only organizes games, sports, technical and cultural festivals and publishes magazines, but also discusses academic and placement issues with the faculty and management. Students' Council creates an environment, which will be conducive for improved teaching-learning process and overall development of the students. The Students' Council has representation in various academic and administrative bodies of the Institute, e.g., Anti-Ragging Committee, Library Committee, Placement Committee etc.

The students, under the mentorship of faculty members manages the activities of 23 active student clubs or cells at the Institute, namely,

- Robotics Club
- Atmadweep (Quiz)
- Gaming (Computer Games)
- Geeks United (Coding and Technology)
- Science Club
- DebSoc (Debate)
- HEGA (Environment)
- Flyers (Aeronautics Club)
- Sports Club
- Anubhav (Drama)
- Rotaract Club
- Google Developer Students Club (DSC)
- Language Club
- Resonance (Music)
- Anahita (Literary)
- Entrepreneurship Development and Incubation Cell (EDIC)
- Yoga Club

- Ghungroo (Dance)
- National Service Scheme, HIT-K
- Pravasana (Photography, Film and Painting)
- Fashion Club
- TEDx HIT Kolkata
- HULT Prize at HIT-K
- National Digital Library of India Club (NDLI Club)

Apart from the above-mentioned club activities, the students also manage the activities of the following student chapters under the guidance of faculty mentors:

1. Institute of Electrical and Electronics Engineers (IEEE) – Electron Devices Society (EDS) Student Branch Chapter (SBC)
2. Association for Computing Machinery (ACM)
3. Instrument Society of India (ISOI)
4. Indian Institute of Chemical Engineers (IChE)
5. Indian Plumbing Association (IPA)
6. Society of Mechanical Engineers, HIT-K
7. ASME Student Section Enterprise

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

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

Response: 40

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

2020-21	2019-20	2018-19	2017-18	2016-17
43	48	75	18	16

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

5.4 Alumni Engagement

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

Response:

The Alumni Association of Heritage Institute of Technology, registered in the year 2007, is closely associated with various activities of the Institute. All the outgoing students automatically become member of the association. Members of the association contributes significantly in various aspects as stated below:

- Provides feedback in the development of the academic aspects of the institute as Active members of various academic and administrative bodies of the Institute such as Board of studies, IQAC etc..
- Organizes technical lectures on cutting edge technologies that are being practiced by the members.
- Motivates the new entrants by sharing the journey of successful alumni members.
- Participates in Cultural and Technical Programmes as judges.
- Organizes alumni reunion, named as "Homecoming", in the month of January every year.
- Provides leads to the Training and placement Cell of the Institute regarding internships, training and placement opportunities.

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

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

Response: E. <2 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 prepare dynamic and caring citizens to meet the challenges of global society while retaining their traditional values.

Mission:

1. To prepare students with strong foundation in their disciplines and other areas of learning.
2. To provide an environment for critical and innovative thinking, and to encourage life-long learning.
3. To develop entrepreneurial and professional skills.
4. To promote research and developmental activities and interaction with industry.
5. To inculcate leadership qualities for serving the society

Core Values:

1. Honesty or Uprightness
2. Exceed
3. Equality of All
4. Diversity
5. Concern for Stakeholders

Strategies:

To develop, strengthen, and implement academic programs that are responsive to the mission of the Institute and to set a road map for pro-growth and pro-active development of HIT, the institute aims to achieve the following targets:

1. Expansion of the Institute in respect of Academic Programmes
2. To impart outstanding teaching and learning experience for all students at par with international standard
3. Enhanced R&D Activities
4. Industry-Institute Partnership
5. Collaboration with Educational Institution

Effective governance of the institution towards fulfilment of its Vision and Mission:

The organization has a strong governing body constituted as per the statutory provisions that explicitly adheres to the vision and mission of the Institute, thereby fostering continuous growth, development and excellence amongst one and all. The institute has a strategic and perspective plan and. e-governance is

implemented in more than 80% of its activity. The rest are being implemented'

The Institute has an efficient and participative managerial body with defined functional areas and they review and assess the functions and responsibilities by conducting meetings with all its stakeholders at stipulated intervals

The Institute has various statutory committees where decision for handling several academic and administrative issues are taken by the Board of Governors, Advisory Council, Academic

Council, Boards of Studies and other statutory and non-statutory bodies. The meetings of the Board of Governors, Academic Council, and Boards of Studies are held regularly.

The College has evolved various effective knowledge development strategies among students for national development, fostering global competencies, enhancing entrepreneurial and professional skills and promoting use of technology with a quest for excellence. The College also promotes value orientations and traditions and prepares dynamic and caring citizens to meet the challenges of global society.

The Institute has a formal policy to ensure and maintain quality through Internal Quality Assurance Cell. The Institute gives importance to feedback obtained from employers, parents, students and alumni.

The College has an Anti-Ragging Committee and Anti-Ragging Squad as per Supreme Court recommendations and AICTE guidelines along with a Grievance Redressal Committee and Internal Complaints Committee for the Sexual Harassment of Women at Workplace.

The Institute fulfils various societal requirements by conducting campaigns and programs through its Rotaract Club, Social Awareness & Community Service Club.

The Institute ensures complete transparency in budgeting, and expenditure. As a customary BOG and Finance Committee approve the Annual Budget. The monthly expenditure and budget utilization reviews and finalization of external audited balance sheet are done regularly.

Thus the Institute continuously enhances its quality to reach its vision and mission.

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

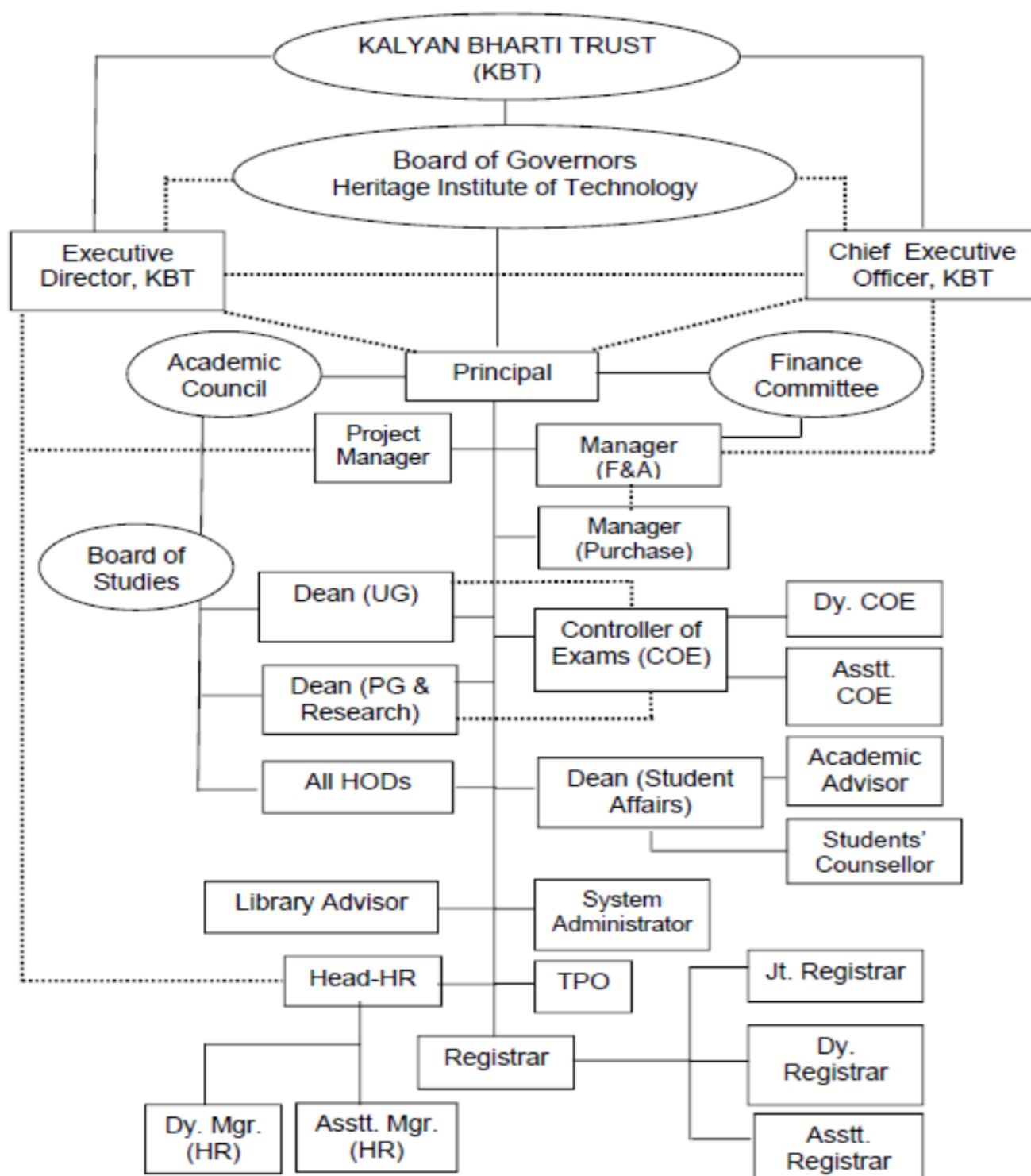
6.1.2 The effective leadership is reflected in various institutional practices such as decentralization and participative management.

Response:

Since its inception, the Institute has adopted a highly transparent mechanism in its management policies by successful adaptation of decentralization and participative governance in all its activities. The Leadership

hierarchy in our Institute is as follows

NAAC



i: Levels do not indicate positional status and hierarchy. Individual designations may change from time to time, with the approval of the competent authority, without disturbing the basic structure.

The Board of Governors (BOG) is the apex body responsible for proper management of the affairs of the Institute and exercises all such powers and discharges all such functions as may be necessary for the purpose of the Institute. The Board of Governors ordinarily meet once every three months. The minutes of the BOG meeting are published on the Institute website.

The Principal is the academic and administrative executive authority for implementation of the policies set by the BOG. He is responsible for implementing the statutory regulations of AICTE and the affiliating University. By virtue of his position the Principal is the Chairman of the Academic Council, a statutory body having power to scrutinise and approve the proposals of the Board of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications thereof, instructional and evaluation arrangements, methods, procedures relevant thereto, panel of examiners, publication of semester results, etc. It also takes decisions on several administrative activities as laid down in the statute. The minutes of the academic Council meeting are published on the Institute website.

The Head of the Department provides leadership for the academic administration of the program and is the Chairman of the Board of studies which is a statutory body having power to prepare syllabi for various courses keeping in view the objectives of the Institute, interest of the stakeholders and national requirement for consideration and approval of the Academic Council. The BoS also suggests methodologies for innovative teaching and evaluation techniques, recommends a panel of names to the Controller of Examinations for appointment of examiners, coordinates research, teaching, extension and other academic activities in the department.

The Finance Committee is an Advisory Body to the Board of Governors and is responsible for preparing budget estimates before the commencement of the financial year, maintaining a watch over the progress of income and expenditure provided for in the Budget, preparing revised estimate after the 2nd quarter of a financial year and making necessary arrangement for auditing the accounts at the close of a financial year..

The decentralized and participative management policies of the Institute are also delegated through various other Non-Statutory Authorities which include but not necessarily limited to :

- (i) Planning and Evaluation Committee
- (ii) Grievance Redressal Committee (other than sexual harassment)
- (iii) Examination Committee
- (iv) Library Committee
- (v) Student Welfare Committee
- (vi) Internal Complaints Committee (against sexual harassment).

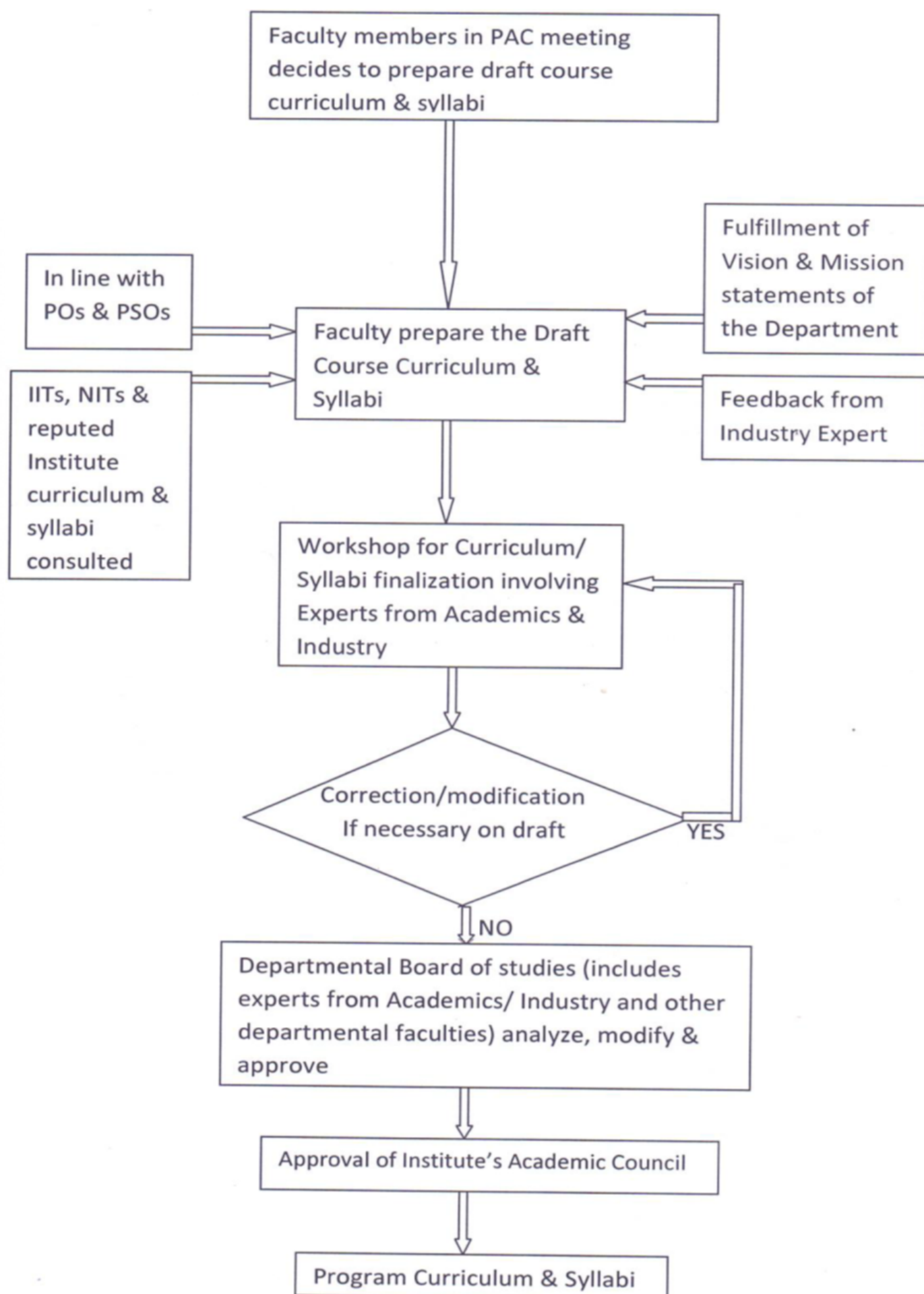
All these salutatory and non-statutory bodies contain representation of major stakeholders, viz., representatives of government, administrators, teacher, staff, employer, alumni, parents and students. Senior and competent faculties having administrative capabilities are nominated as Dean, Coordinator of IQAC, Controller of Examination etc.

Case Studies: Design and Implementation of Programme Curriculum:

The strategies followed by the Institute for implementation of Programme Curriculum are a classical example of decentralization and participative management.

Following is the process flow chart which is followed for the design of the program curriculum and individual syllabi:

NAAC



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

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

Deployment of Strategic / Perspective plan during the last five years:

1. One of the major thrusts of the Institute was to bring in its fold Departments having commonality in courses and objectives. This could improve resource sharing and create interdependent bridges between/among departments. A natural collaboration could thus result in. The Department of MCA was outside the ambit of the Heritage Institute of Technology (HITK). Right after getting the autonomous status, the institute thought of bringing the Department of MCA under the fold of the HITK. This stratagem of bringing MCA into the HITK was translated into reality during the period under review. The syllabi were modernized and new subjects were introduced. The teaching and learning process thus improved a great deal and students' enrollment saw impressive growth. Students' placements were encouraging too. It can be claimed that the strategy worked out well in favor of the institute more than expected.

2. Right from inception HITK had an edge over other colleges in the area of Computer Science. The introduction of subjects like Artificial Intelligence and Machine Learning, and Data Science was a natural follow-up under the tutelage of the Department of Computer Science. Thus, from the Academic Session 2021 – 2022, these subjects have been introduced in the HITK and the seats were filled in no time. The HITK claims that its foresight bore fruits.

3. The focus of HITK is to train students who can work in industry right after getting their degrees. Brilliant students are keen to join industry. If they could be retained for research, it would have been given dividends in the long run. HITK faculties are now trying to engage in research themselves and trying to involve students in research. Although the pandemic has brought in its wake roadblocks hitherto not

envisaged, members of the faculty have developed quickly sanitization solutions. An automated mask with an appropriate filter for filtering exhaled gases and pumping in fresh ambient air has been designed by making use of 3D printer. There has been research on vaccine also and a state-of-the-art laboratory is being set up for the purpose. A good number of MOUs have been signed and members of the faculty are trying their best to do quality research work and publish them in reputed journals. It must be pointed out, however, that research is a long and engaging activity and it will take still some more time to make a dent on the research front.

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

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

Response:

By virtue of the autonomous status granted on recommendation of the University Grants Commission to Heritage Institute of Technology, Kolkata HITK under the affiliating university, i.e., MAKAUT, and in exercise of the powers conferred by Kalyan Bharti Trust, the Board of Governors of Heritage Institute of Technology has made the statutes relating to Constitution, Powers and Functions of the authorities of HITK. The administrative authorities are as follows;

Following are the Statutory Authorities and Committees of the Institute:

1. Board of Governors
2. Academic Council
3. Board of Studies
4. Finance Committee
5. Internal Complaints Committee (against sexual harassment)

The following are the Non-Statutory Committees of the Institute :

1. Planning and Evaluation Committee
2. Grievance Redressal Committee (other than sexual harassment)
3. Examination Committee
4. Admissions Committee
5. Library Committee
6. Student Welfare Committee
7. Sports and Extra Curricular Activities Committee
8. Academic Audit Committee

There is option for constituting other committees as and when required.

The Basic Organizational Structure (Organogram) is available on the website of the Institute at the following link:

<https://heritageit.edu/PDF/OrganizationalChart.pdf>

Various Statutory and Non-Statutory committees are also available at the website of the Institute, the links of which are given below:

Statutory Committees: <https://heritageit.edu/PDF/StatutoryCommitteesHIT2021-2022.pdf>

Non-Statutory Committees: <https://heritageit.edu/PDF/Non-StatutoryCommittees2021-2022.pdf>

The Composition, Powers and Functions of various institutional bodies are clearly defined and uploaded on the website of the Institute, the link of which is as follows:

<https://heritageit.edu/PDF/StatutesRegulationsRules2.pdf>

The executive Head of the Institute is the Principal who is supported by the Registrar, Joint Registrar, Deans, Associate Deans, Controller of Examinations, Chief Finance Officer and Training and Placement Head. Each of the academic departments are headed by a senior member of the faculty having experience in teaching, academic administration and research. The academic departments take appropriate decisions in respect of various academic programmes and courses offered by them and in respect of research. Departmental Academic Committees and Board of Studies take such decisions and forward to the Academic Council for necessary Approval.

The Institute has an IQAC that works towards quality sustenance and enhancement of teaching, research and administration.

There are well defined service rules and procedures of the Institute which is available on the website at the following link:

<https://heritageit.edu/PDF/ServiceRule.pdf>

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

6.2.3 Implementation of e-governance in areas of operation

1. Administration

2. Finance and Accounts

3.Student Admission and Support**4.Examination****Response:** A. All of the above

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

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:**

Since inception, Heritage Institute of Technology has adopted various welfare measures for teaching and non-teaching staffs. The Institute has also provided the employees with various avenues for their career development. Following are some of the welfare measures, career development avenues and incentives available at the Institute:

- 1.Implementing QIP scheme of Govt. of India
- 2.Encouraging faculty members to complete their Ph.D. by granting special leave after registration for Ph.D.
- 3.Three additional increments in salary of the faculty members after completion of their Ph.D.
- 4.Promotion through Career Advancement Scheme
- 5.Award of Excellence to the members of faculty and staff every year in different categories
- 6.Employees' Provident Fund
- 7.Gratuity
- 8.Group Accidental Insurance Policy
- 9.Transport facility from nearby bus stop
- 10.Psychological Counselling for the members of faculty and staff members
- 11.COVID 19 vaccination camp for teaching and non-teaching staffs

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

6.3.2 Average percentage of teachers provided with financial support to attend conferences /

workshops and towards membership fee of professional bodies during the last five years.

Response: 2.87

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

2020-21	2019-20	2018-19	2017-18	2016-17
1	12	13	6	2

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

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

Response: 0

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

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

File Description	Document
Institutional data in prescribed format	View Document

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

Response: 21.56

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

2020-21	2019-20	2018-19	2017-18	2016-17
94	52	32	26	65

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

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

The activities and operations of the Heritage Institute of Technology are reviewed, monitored and evaluated by internal committee of the Institute, independent Internal Auditor & Statutory Auditor. The purpose is to conduct an objective examination of evidence and provide an independent assessment on the Activities and Operations (risk management, control and governance processes) of the college & contribute to the improvement of activities and operations of the college using a systematic and disciplined approach.

For the above purpose Independent Internal Auditors have been appointed and they conduct audit of various function periodically to ensure Internal control system regarding authorization procedures, record maintenance, safeguarding of assets, etc. The Auditors submit their observations to the Institute for review and corrective actions if any.

The Annual Accounts of the institute are audited by the Independent Statutory Auditor appointed for the purpose. Annual Accounts are placed before the Finance Committee for consideration. Suggestions arising out of the meeting of the committee are duly considered in the Annual Accounts and the Statutory Auditors conduct the audit thereafter. The Accounts so approved by the Auditors are placed before the Board of Governors for 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)

Response: 0

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

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

File Description	Document
Institutional data in prescribed format	View Document

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

Response:

Broadly major internal resource mobilization by the Institute is through collection of Tuition Fee from students. It also generates resources from Examination Fee, Library Fee & Students' Welfare Games & Sports Fee. Fund is also mobilized from Research Consultancy works and Sponsored Research Projects.

To ensure proper and optimum use of the resources a strict budgetary control on expenditure is exercised. The internal and external audit are also carried out regularly and audit objection, if any, are taken care of.

Budget is prepared keeping in mind developmental criteria of the College. Funds collected are spent on payment of salary of teaching and non-teaching staff of the Institute and other activities. Accordingly provisions are made in the budget, which is prepared by a team of experts under supervision of the Principal and then approved by Finance Committee. It is then deployed on different Heads of Expenditures in accordance with approval. The Institute utilizes its funds in a transparent manner.

Adequate funds are allocated for effective teaching-learning practices that include Induction and Orientation Programs, workshops, Inter-disciplinary activities, Training programs, Faculty Development Programs, Conferences, Industry Academia interactions that ensure quality education.

Adequate funds are utilized for development and maintenance of infrastructure of the College. The requirements of the laboratory equipments of various departments are duly considered and procurements are made accordingly. Budget is utilized to meet day to day administrative and maintenance expenses.

For enhancement of library resources requisite funds are utilized every year. State-of-the-Art improvement through up-gradation of lab facilities in various departments is being setup. Renovation of classrooms, Labs and faculty rooms etc. are duly taken care off.

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:

The primary responsibility of the Internal Quality Assurance Cell (IQAC) is to work towards the continuous improvement of quality and achieving academic excellence. Setting up processes to impart high-quality teaching requires commitment from the top management to the departmental level. It helps to identify and promote good practices to achieve the desired goal. This involves regular reviews of the existing processes, analysis of feedback received from the students, and recent developments of the technology and teaching process. Finally, smooth implementation across departments and planning an effective support mechanism that meets the needs of teachers and students.

Heritage Institute of Technology (HIT) is on a mission of achieving excellence in teaching and research, empowering learners in achieving their professional goals, building the society and the nation, and relating learning with the highest human values. Institute offers a Master's degree and Research programs in 5 Departments and Undergraduate programs in 10 departments. The vision and mission of the institute are publicized in each department as well as it is emphasized well in its website, calendar, and prospectus. The curriculum each course is periodically evaluated and improved by institute level (AC: Academic Council) and department level (BOS: Board of Studies) competent committees. All departments plan and execute orientation programs, guest lectures, study tours, internships, industrial training, and many more activities to mark the goal.

A quality assurance system helps HIT to monitor and track core processes. IQAC helps to launch and monitor numerous initiatives grouped under the following headings:

1. Policy Framing and Monitoring: Setting the milestones, and then preparing a plan to reach there is most important. IQAC plays an important role in developing a quality culture at the institutional level, like policy framing, designing an action plan, and monitoring its execution to achieve the desired result. HIT adopts quality management strategies in all academic and administrative aspects. It has also implemented an academic audit mechanism at the institute level as well as department level.

2. Curriculum Designing and revision: Departments design a curriculum of individual courses keeping in mind the academic and industrial needs, and state of the art of each subject. The same is discussed in the departmental board of study (BOS) meeting. The BOS comprises of all faculties of the department, Academic and Industry experts. The BOS approved curriculum is then being presented before the academic council members for their concurrence. The co-ordinator of IQAC actively participates in all steps to finalize the curriculum.

3. Support the core process: Teaching-learning and research are the core processes in any HEI. The IQAC remains cautious to achieve goals set according to the vision and mission of the university. The IQAC also promotes research activities through financing conference attendance, research awards, felicitation of achievers and setting up research and development Laboratories.

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:

Academic Administrative Audit (AAA) and follow up action taken: Institute has taken initiative to perform periodic audit by the external peer review team consisting of 3 experts from recognized universities and institutes of national interest. The team visited the institute, audited the academic activities and talked to the management, academic staffs and IQAC coordinator. The team has quantitatively judged the institute's academic activities based on several parameters and provided a few suggestions to improve further.

Orientation programme on quality issues for teachers and students: Institute organizes awareness programmes for improving internal quality in academic activities such as teaching and learning, research and development. Moreover, most of the faculties and academic staffs actively participate and contribute in AQAR, and several other audits and accreditation process.

Update of Course structure and syllabus: Institute has a strict guidelines to update the course structures and syllabus. Each department works on the structure considering the state of the art of the subjects and suggestions received from the members of departmental board of studies (BOS) and academic council (AC). The syllabus is then discussed in BOS meetings and finally approved by the AC.

Attaining the Outcomes: A process has been started where each department is tracking the attainment of the COs mentioned in the syllabus.

File Description	Document
Link for additional information	View Document

6.5.3 Quality assurance initiatives of the institution include:

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

Response: 2 of the above

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

NAAC

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

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

Response:

Since its inception, Heritage Institute of Technology has adopted following measures to promote gender equity and to maintain gender balance among the members of faculty, staff and students.

- Ensuring that educational materials are free from gender stereotypes.
- Avoiding segregating boys and girls into separate lines, separating sports activities and mixing seating up in the classroom.
- Ensuring any educational materials used show genders in equal measure.
- Mixing boys and girls to work on projects together.
- Exploring gender concepts and roles from different communities.
- Helping students identify instances of gender bias, through awareness activities or historical events, laws and cultural changes.
- Internal Complaints Committee (ICC) for addressing any grievance related to gender issues and also conducting events to promote gender equity.
- Celebration of International Women's Day.
- Many of the academic departments are being headed by women members of the faculty.
- Many of the student activity clubs are led by the girl students.

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

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

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

Response: A. 4 or All of the above

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

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

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

Response:

The Institute abides by the Municipal Solid Wastes Management Rule and developed the solid waste management and disposal scheme. Storage and segregation of biodegradable and non-biodegradable waste have been duly ensured. 2.83T waste are being disposed off per day. Different coloured bins have been provided for different categories of waste. From different collection basis finally transfer at central location. Further segregation are being done at central station to collect recyclables such as plastic, polythene, glass, rubber, paper etc. and separate compartments had been provided for each type of recyclables.

Hazardous waste is collected and stored during various activities and proper disposal of the same is being done as per hazardous waste rules. Spent oil from DG sets are stored in HDPE drums in isolated covered facility and disposed of properly. E-waste are collected separately for transportation to the authorized recycling units.

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

7.1.4 Water conservation facilities available in the Institution:

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

Response: A. Any 4 or all of the above

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

7.1.5 Green campus initiatives include:

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

Response: A. Any 4 or All of the above

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

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

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

Response: A. Any 4 or all of the above

File Description	Document
Any other relevant information	View Document

7.1.7 The Institution has disabled-friendly, barrier free environment

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

Response: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document

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

Response:

"Unity in Diversity" is the primary essence of Indian society. As stated in the Vision statement: "To prepare dynamic and caring citizens to meet the challenges of global society while retaining their traditional values", the institution believes in equality of all cultures and traditions as is evident from the fact that students belonging to different caste, religion, regions are studying without any discrimination. Though the institution has diverse socio-cultural background and different linguistic, there is no intolerance towards cultural, regional, linguistic, communal socio-economic and other diversities. Various national and international commemorative events, birth anniversaries and other important events are organized at the Institute with great enthusiasm. The Institution organizes various cultural and extension activities on a regular basis to celebrate the diversity that exists in the country, e.g., PROTHOMA to celebrate the festivals of different states of the country. NSS and Rotaract Units of the Institute participate in various programmes related to social issues, e.g., Blood Donation Camp, Education Camp for the under-privileged children of nearby slums, Winter Cloth Distribution among street dwellers, Celebrating Raksha Bandhan with Army personnels etc. During the pandemic period, students of the Institute formed a group named as COVID Relief Force and helped people in distress. Every year the Language Club of the Institute organizes various events to celebrate International Mother Language Day on the 21st day of the month of February where students from different demographic locations perform acts in their mother language.

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

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

Response:

The Institute sensitizes the students and employees to the constitutional obligations about values, rights, duties and responsibilities and constantly works upon to nurture them as better citizens of the country through various curricular, co-curricular and extra-curricular activities. The Institute offers courses like Indian Constitution and Civil Society (INCO3016) and Human Values and Professional Ethics (HMTS2001) as compulsory course for all the students. Code of conduct is prepared for students and staff

and everyone obeys the conduct rules. The Institute encourages participation of students in Cultural, Technical, Sports and Games, NCC and NSS activities at National and International level to strengthen nationwide bond and relation. The institution takes pride of raising up successful leaders among the students by making them Coordinator and Leaders of 29 active clubs and student chapters of the Institute. Debate, Drama and Extempore are organized by the students regularly highlighting topics on Ethical Values, Rights, Duties and Responsibilities of Citizens. Students are encouraged to participate in various social activities like Blood Donation Camp, Education Camp for the under-privileged children of nearby slums, Winter Cloth Distribution among street dwellers, Celebrating Raksha Bandhan with Army personnels etc. During the pandemic period, students of the Institute formed a group named as COVID Relief Force and helped people in distress.

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

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

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

Response: A. All of the above

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

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

Response:

Celebrating events and festivals is an integral part of learning and building a strong cultural belief. The institute celebrates several national and international events throughout the year where students and staff members actively participate with enthusiasm. In year 2020-21, we celebrated Teachers' Day, World

Environment Day, International Yoga Day, Independence Day, Republic Day and many more.

The Institute's Foundation Day, which falls on Teachers' Day (5th September), is celebrated with enthusiasm and reverence to the teaching fraternity. Students also organize Freshers' Welcome to induct the new-comers to the Heritage family and Farewell ceremony for the outgoing students. This year on the institute's foundation day we organised a whole programme where several eminent persons of the society were present and delivered lectures. Moreover a cultural event was also organised by the faculties and students. On the International Yoga Day a live session was organised and many students and staffs participated. To commemorate the World Environment Day, activities like cleaning and plantation are being arranged. To celebrate the Science Day, Mathematics Day, different departments organise several events like workshops, special lectures and competitions (Hackathon, Coding, Poster, Quiz etc.).

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

7.2 Best Practices

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

Response:

Best Practice I:

Title: Award of Excellence to the Members of faculty of the Institute

Objective:

Heritage Institute of Technology Kolkata (HITK) recognizes that its ability to achieve its vision and mission will be greatly dependent upon the performance of the members of its faculty and staff, and the extent to which their individual contributions impact on the services provided by the Institute to the community. The objective has been achieved through:

- Creating an environment of encouragement, motivation and recognition.
- Boosting satisfaction level of teachers that directly impacts the improved academic environment of the Institute.

Judicious guidelines have been framed to establish the parameters for a system, which will recognize and reward outstanding performance of its faculty. The value of the awards will be INR 10,000 each and a certificate.

Context:

Heritage Institute of Technology Kolkata (HITK) has developed a practice through which it can encourage, acknowledge and appreciate the efforts of those persons who are steadily contributing and are quintessential to its growth. Such practices lead to a better academic environment in the institute.

The scheme is entitled 'HERITAGE INSTITUTE OF TECHNOLOGY AWARD FOR EXCELLENCE'. A total of five (5) awards are given in recognition of accomplishment and/or as an incentive for continued excellent performance.

Practice:

Since its inception The Institute celebrates its Foundation Day on September 5, each year. It is on this auspicious day the Annual Awards of Excellence are presented to the selected members of faculty in the following award categories:

- 1.outstanding teaching;
- 2.outstanding research accomplishments;
- 3.outstanding service to the HITK Community;
- 4.outstanding contribution to public service, to include the private sector and the non-government community;
- 5.all-round excellent performance in a combination of two or more of the above areas.

The entire practice follows a rigorous selection procedure as stated below:

1.ELIGIBILITY

All current members of the Academic staff and Administrative staff (excluding Executive Management, Registrar and Head HR), who have been in the continuous service of the institute for at least 5 years prior to the application or nomination and not more than 60 years of age at the time of application are eligible for an award. Award categories (i) and (ii) are specifically for Members of Faculty.

1.CRITERIA

Awards will be based on excellent performance, assessed primarily on the candidate's achievements during the 5-year period immediately preceding nomination for the award.

Criteria to be used in the evaluation of applications for awards in the four Core Areas are:

- i. Outstanding Teaching, as demonstrated, for example, by: excellent student ratings, testimonials and peer recognition; development of innovative course delivery methods; development of effective instructional materials; evidence of reflective and scholarly teaching and learning; outstanding students advisory activities; outstanding students supervisory activities.
- ii. Outstanding Research Accomplishments, as demonstrated, for example, by: an outstanding publication record in refereed journals, books or chapters in books; evidence of the scholarly or professional impact of

the work; evidence of the international, regional or national recognition of the work; evidence of effectiveness at generating research funds; evidence of excellence in supervision of graduate research.

iii. Outstanding Service to the HITK Community, as demonstrated, for example, by: excellent administrative / managerial / professional leadership; exceptional service; the development of effective and innovative administrative, managerial and professional systems; excellence in the servicing of institutional meetings.

iv. Outstanding Contribution to Public Service, as demonstrated, for example, by: effective chairmanship or membership of boards/commissions/committees/task forces at national or international levels, whether these be in the public sector, the private sector, or other non-governmental sectors that brings distinction to the Institute; transformative advisory services; significant service to professional and scholarly associations, particularly at national or international levels.

v. Outstanding Contribution in a combination of two or more of the above areas.

III. PROCEDURAL GUIDELINES

A. The Application

A written application can be submitted by eligible faculty/staff members. Faculty/staff members can nominate other staff members based on college recognition.

The application for an award will include:

(1) In case of self-nomination, a first person narrative of no more than 1000 words summarizing excellent performance over the last 5 years in one or more of the core areas. Alternatively, in the case of nominations by peers, person(s) knowledgeable about the candidate's achievements may write the narrative.

(2) An updated curriculum vitae. An appendix may be attached containing information as the applicant chooses which sustains and/or supports a claim to excellent performance or professional promise.

(3) In case of a nomination for excellence in teaching, the application should be accompanied by comments from colleagues and reports of student assessment of teaching, where available. Alternatively, the assessment committee will obtain the same from the HR department.

The application must be submitted prior to the established deadline.

B. Repeat Applications

(i) Repeat applications from persons whose first applications have not been successful, are encouraged.

(ii) Repeat applications from persons whose first applications were successful, where the new application is for a different category from the previous award, will be reviewed on merit – without prejudice – as new applications, provided at least 3 years have passed since the earlier award.

(iii) Repeat applications from persons whose first applications were successful will not be considered if the new application is for the same category.

C. Initiation

An eligible member of faculty/staff who wishes to be considered for an award or faculty/staff members who wish to nominate colleagues, will submit an application to the Registrar, by the established deadline. If not a self-nomination, the Registrar will refer the nominations to the nominees for their input.

D. Selection Process

Step#1: The Registrar will be the first conduit for the processing of applications. The Registrar will be responsible for receiving the applications and submitting the applications for further screening and evaluation.

Step#2: The Registrar will submit the application, together with supporting materials, to a Faculty/Administrative Sub-Committee appointed for the purpose. In addition, the Registrar may submit accompanying comments on the applications but will not be required to rank the applicants in any way.

Step#3: The Faculty/Administrative Sub-Committee will screen the applications to ensure that all application procedures (including submission of the required documentation) have been fulfilled. If necessary the candidate or person making the nomination should be asked to clarify information presented or provide additional information. This would be in addition to the 1,000-word narrative, which the nominee or the person making the nomination is required to write. It makes a short-list of nominees/applicants and submits this to the Principal.

Step#4: The Principal's Advisory Committee will meet to review the recommendations and applications and select the recipients of the award.

Step#5: The Office of the Principal will announce the award recipients after ratification by BOG and/or BOT, as appropriate.

E. Announcement of Awards

Awards will be announced publicly in the form of a notification.

F. Awards Ceremony

Awards will be presented at an Award Ceremony organized for this purpose, preferably on the Institute's Foundation day.

Evidence of Success:

Success of this Best Practice has been reflected on the overall activity of the teaching community of the institute in terms of enhanced publication of research papers, quality of teaching as well as participation in the community programme.

Problems Encountered and Resource Required.

Award for Excellence programme was first implemented in the year 2012. Since then this highly acclaimed programme did not encounter any problem. Increased number of participation of the members of the

faculty in this programme evidently shows its great success.

Regarding requirement of resources, a committee is formed to look into the details such as budget approvals, inviting nominations, setting up jury, etc.

Best Practice II:

Title: Reform in Institutional Examination System through Full Proof

Moderation of Question Papers by External Academics

Objectives

Reform in Institutional Examination system deserves a holistic evaluation of its necessity to transform the existing structure with the aim of raising the quality of education. Heritage Institute of Technology Kolkata (HITK) recognizes that its ability to achieve its vision and mission will be highly dependent upon the standard of examination system as well as the performance of its students in their future professional life. In this respect the Institute strongly feels that besides the adaptation of a holistic teaching learning process, a full proof evaluation of the merits of students should be made through a rigorous examination system.

Context

As per UGC and AICTE guidelines evaluation, grading and certification rest on examinations which play an important role in the progression of a learner on the learning path. The examinations not only indicate whether the desired learning outcomes have been achieved but also assess the level of achievements against benchmarks. Thus, examinations serve as checkpoints for both the learner and the external world, allowing appropriate certification to be issued reflecting the proficiency of an individual operating in socio-economic spheres.

In order to fulfil the laid down guidelines by the statutory bodies, the Heritage Institute of Technology recognizes the importance of moderation of examination papers by external experts at the Semester Examinations as an important quality standard. The moderation will help to maintain a high standard at the semester examinations as well as ensure transparency in the process.

Practice:

Theory Papers:

Under this classification each theory paper is evaluated on the basis of 100 percentage points, sub-divided into the two categories: (1) End-semester examination: 70 points and (2) Internal Assessment: 30 points.

In the end semester examination based on the recommendations of the respective Head of the Department and approved by the Principal, the Controller of Examinations appoints two paper setters for independently framing two sets of question papers in each subject. He also appoints (at least) one senior academician as a

moderator from an educational institute of repute whose field of expertise falls in the subject area of the examination paper. The appointed Academics from Institutes of National/International repute conduct the process of scrutiny of examination papers to ensure the consistency of question papers within the framework of the syllabus, thereby ensuring consistency of assessment for all students. Sometimes, a senior person from the industry may also come as a moderator for an applied subject; however, such cases are rare. It also ensures that the weightage within a module is appropriate and conforms to the blueprint and other guidelines issued by the statutory bodies to ensure fairness, accuracy and consistency in marking. The final question paper is prepared from amongst the two above sets by the moderator in presence of the Controller of Examinations.

Functions of the Moderator

- The moderator has the right to change / modify / add questions.
- The moderator shall go through the entire syllabus and ensure that the questions are set from within the syllabus and that there is no ambiguity in the question, the wording of each question is precise, definite and easily understandable.
- The moderator shall ensure that the questions have been set from all the modules of the syllabus.
- The moderator should ensure that the distribution of marks has been done properly keeping in mind the standard of students of high merit as well as that of the students of average merit.
- The moderator shall ensure that after moderation, the question papers are handed over to the controller of examinations in person.
- The moderator must take all necessary measures to ensure the security and confidentiality of the examination papers and other material.
- Since the appointment of the moderators comes under the official secret act, it is mandatory that the moderators would not disclose their appointment to any person.

Evidence of Success:

The following changes have been observed over time ever since the system of external moderation has been introduced. It may not be possible to associate a provable causal relationship between the system and the following effects, but we have nevertheless observed these facts over the last few years.

- Success rate of students in examination has been increased after introduction of external moderation system.
- Zero complaint regarding the quality of question papers after introduction of external moderation system.
- Remarkably less number of re-examination request received from students.
- Alertness of members of faculty to cover the entire syllabus of the subject.

Problems Encountered and Resource Required

The programme relating to Reform in Institutional Examination System through Full Proof Moderation of Question Papers by External Academicians adopted by the Heritage Institute of Technology through its office of the Controller of Examinations has not encountered any problem so far. The Institute has its locational advantage. It is surrounded by a number of Educational Institutes and National laboratories like The University of Calcutta, Jadavpur University, Indian Statistical Institute, Indian Institute of Engineering Science and Technology (Shibpur) Indian Institute of Chemical Biology, Central Glass and Ceramic Research Institute to name a few. Indian Institute of Technology, Kharagpur, National Institute of

Technology, Durgapur, Central Mechanical Engineering Research Institute, IISER and Moulana Abul Kalam Azad University of Technology, the affiliating university of this Institute are also not far off. Thus appointment of moderators of extremely high eminence has not been a problem so far.

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

7.3 Institutional Distinctiveness

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

Response:

HITK has attracted the best possible faculty since its inception and has created one of the finest infrastructures available in the state of West Bengal. On the face of cut-throat competition in every field of academics, students all across the nation are now searching for courses which are more industry and job oriented. to get an edge over their peers. The visionary founder members of the Institute have apprehended it long before and thus created distinctive facilities at par to its vision, priority and thrust to be the leader in this field.

In order to orient teaching learning activities towards more industry and job, the Institute under the guidance and advice of its Advisory Council comprising of top level executives from industry and academics has augmented laboratories and workshops with advanced facilities following the guidelines of UGC, AICTE and the affiliating University MAKAUT. In theory papers, a large number of industry oriented professional, free electives and emerging topics have been introduced giving freedom to the students to opt according to their own choice.

Incubation Centre is another avenue provided by the authority where talented students can nurture their innovative brain child and sometimes come up with widely acclaimed outputs.

Few Milestones Achieved:

- **2011-2017: Grant under TEQIP- II**

It is heartening to note that the Institute is one of the 25 Private Unaided Institutions finally selected across the country by the National Evaluation Committee of TEQIP-II to receive grant under Technical Education Quality Improvement Program Phase II. Initially an amount of Rs. 4.0 crore had been granted and being a better performing Institute, an additional grant of Rs. 2.0 crore has also been received.

- **Accreditation by NBA**

Sl. No.	Name	of First	Second	Third	Fourth	Fifth
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	programme	Accreditation	Accreditation	Accreditation	Accreditation	Accreditation
1	B.Tech. in AEIE	2009-2012	2013-2015	2016-2019	2019-2022	Compliance Report submitted
2	B.Tech. in BT	2009-2012	2013-2015	2016-2019	2019-2022	Compliance Report submitted
3	B.Tech. in ECE	2009-2012	2013-2015	2016-2019	2019-2022	Compliance Report submitted
4	B.Tech. in IT	2009-2012	2013-2015	--	--	--
5	B.Tech. in CSE	2014-2019	--	--	--	--
6	B.Tech. in ChE	2013-2015	2016-2019	--	2019-2022	Compliance Report submitted
7	M.Tech. in AEIE	2017-2018	--	--	--	--
8	M.Tech. in BT	2017-2018	--	--	--	--
9	M.Tech. in ECE	2017-2018	2018-2019	--	--	--
10	M.Tech. in IT	--	--	--	--	--
11	M.Tech. in CSE	2017-2018	2018-2019			
12	M.Tech. in ChE	--	--	--	--	--

• **2014 : Autonomous Status by UGC and Affiliating University**

On recommendation of UGC, the affiliating University conferred autonomous status to the Institute w.e.f. 2014-2015 Academic Session for a period of 6 (six) years.

In 2021 the autonomous status of the institute has been further extended for 5(five) years. It is also recognized under Section 2(f) of the UGC Act. The Institute has been accredited by NAAC with B++ grade for a period of 5 years w.e.f 22.02.2017.

• **2017 : Accreditation by NAAC in Cycle 1**

The Institute has been accredited by NAAC with B++ grade w.e.f. 22.02.2017 for a period of 5 (five) years.

- In **National Institutional Ranking Framework (NIRF-2020)** by Ministry of Human Resource and Development, Government of India, Heritage Institute of Technology ranked 154 in the year 2020, 154 in the year 2019 and within the band 101-150 in the years 2017 and 2018, respectively.
- **Institute is recognized u/s 2(f) of the UGC Act, 1956.**
- **In Dataquest Tech School Survey 2018, the Institute is ranked 47 among Top 50 T-schools (Government and Private combined) in India.**
- **The Institute received "Most Preferred Engineering Institute of the Year-2020 (East)" Award in February 2020 from ASSOCHAM, India.**
- **The Institute received "Best Engineering College of the Year" consecutively for the years 2017, 2018 and 2019 from ASSOCHAM, India.**
- **The Institute received "Best Engineering Institute in India-East" in February 2018 from ASSOCHAM, India.**
- **Education World ranked HIT-K as No. 1 Engineering College in West Bengal (in the Private Self-financed engineering college ranking) for the year 2017, 2018, 2019, 2020 & 2021.**
- **As per Career 360 Outlook Group Tech College Ranking in West Bengal, 2018 the Institute graded AAAA.**
- **As per Careers 360, Outlook Group Tech Colleges Ranking in West Bengal, April 2015, the Institute is graded AAA+ and its Biotechnology program is graded as No. 1 in West Bengal out of 6 such institutes offering Biotechnology courses.**
- **The Institute had been rated as "Gold" in the AICTE-CII Survey of Industry Linked Technical Institutes 2017.**
- **HITK is listed in The Indian Science Technology and Engineering Facilities Map (I-STEM) for 2018. I-STEM is a national web portal and an initiative of Centre for Nano Science Engineering, IISc, Bengaluru, developed with the concept "One nation One Portal" for the scientific community, aimed at "Linking Researchers and Resources".**
- **The Institute received the Best Engineering College of the Year-2019 award from Higher Education Review.**
- **The Institute is recognized among the Top 3 Engineering Colleges in the State for 2020 by THREE BEST RATED.**

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

5. CONCLUSION

Additional Information :

Heritage Institute of Technology is a professionally managed educational institute since its inception and is adjudged as one of the best technical institutes in the eastern part of India. This has been possible due to the able governance by the Board of Governors assisted by all the Statutory and Non-Statutory bodies and adopting a bottom-up approach so that every stakeholder is part of the feedback and input process. The main asset of the Institute is its members of faculty who with their consistent effort towards learning the best teaching methodologies are imparting Outcome Based Education (OBE) to the students. The Institute has adopted a high quality of education policy following the guidelines of AICTE, UGC and the affiliating University. The overall standard of the Institute is closely monitored by the Internal Quality Assurance Cell (IQAC).

The policy makers strongly believe that an Institute cannot sustain its highest quality of education standard unless the teaching communities keep abreast themselves with the cutting-edge technologies evolving globally. In this endeavour the Institute emphasizes and inspires its academic staffs to focus more on R&D activities in the frontier area of technology. The Institute has set up modern laboratories with state of the art facilities for this purpose. As an outcome of such visionary approach, teachers of this Institute have been able to receive research grants not only from various research funding agencies of the country but also from European Union. Increased number of research publications in UGC approved journals can be considered as one of the quantitative indicators of the improving R&D ecosystem at the Institute. Advanced research centres set up by the Institute are utilized to carry out innovative works of great potential.

The primary concern of the Institute is to impart not only the highest quality of education to its students but also to expose the deserving students to the global education scenario. It has signed MOU with several Universities of repute, both in India and abroad, with the objective of student and faculty training and exchange programmes. A considerable number of MOUs has also been signed with industry for industrial training of teachers and students. As an outcome of such quality education policy, the alumni of the Institute are holding prestigious positions in various globally acclaimed research institutes like ISRO, CGCRI, BARC, NASA etc. Apart from such research organizations, there is presence of alumni members in almost all the research facilities of the highly ranked universities and industries across the globe. One of the alumni has also been a member of the research group at Oxford University that worked for the development of COVID 19 vaccine. Participative and decentralized governance adopted by the Institute are the main reason for such success.

Apart from the teaching learning activities the Institute is also highly concerned about the environment. Its judicious professional measures have considerably reduced carbon foot prints in the campus. Its various extension centres are actively engaged in sharing social responsibilities like literacy campaign, green plantation, blood donation, health check up, entertainment of orphans and many more.

Concluding Remarks :

An institution like the Heritage Institute of Technology has been thriving on the aspirations of students coming mostly from middle-class families for more than twenty years now. The social brand value of the institution has been built upon the reputation that pass-outs from the institute get accepted in Indian job market readily and can keep their jobs once employed. Thus, the pass-outs become contributors to the industrial

development of the country. The entire transformation from an aspiring youngster to a young adult contributing to the industry happens at the HIT and the members of the faculty are largely responsible for causing this transformation in students. When HIT will be evaluated for its performance in the academic sector, this point needs to be considered seriously. This has been the strength of the institute.

The flipside of middle-class aspirations is that there are not too many takers for the post-graduate courses. This reduces the intake at the post-graduate level and it shows up in the waning interest of the students to do Ph. D. at the institute. Therefore, the institute has still not been able to develop a vibrant research culture. In recent times, an attempt to change the culture has been made. But the attempt will take time to bear fruit.

The institute still conducts the teaching and learning process on fees collected from the students that are not comparable with institutes outside the state. To be more precise, the fees are low and that acts as deterrent to improvement of standard overnight. The management has been trying a lot to maintain the standard and in the last two years, when Sars-Cov-2 disrupted the whole world, the institute could run, taking advantage of the online arrangement, and there has been no job-cut. In fact, full salaries have been paid to all sections of the employees and this bears testimony to the social commitment of the management and trustees running the institute.

While presenting the institutional data onto the NAAC portal, the institute would like to highlight that it has produced not only engineers, but also true Indians whose moorings are in the culture and heritage of India, in keeping with the mandate of the new National Education Policy.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
1.3.2	<p>Number of value-added courses for imparting transferable and life skills offered during last five years.</p> <p>1.3.2.1. How many new value-added courses are added within the last five years</p> <p>Answer before DVV Verification:</p> <table><tr><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td><td>2016-17</td></tr><tr><td>318</td><td>168</td><td>58</td><td>19</td><td>6</td></tr></table> <p>Answer After DVV Verification :</p> <table><tr><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td><td>2016-17</td></tr><tr><td>256</td><td>119</td><td>26</td><td>9</td><td>4</td></tr></table> <p>Remark : DVV excluded those value-added courses are less than 30 hours and value-added courses are added within the institutions only.</p>	2020-21	2019-20	2018-19	2017-18	2016-17	318	168	58	19	6	2020-21	2019-20	2018-19	2017-18	2016-17	256	119	26	9	4
2020-21	2019-20	2018-19	2017-18	2016-17																	
318	168	58	19	6																	
2020-21	2019-20	2018-19	2017-18	2016-17																	
256	119	26	9	4																	
1.3.3	<p>Average Percentage of students enrolled in the courses under 1.3.2 above.</p> <p>1.3.3.1. Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years</p> <p>Answer before DVV Verification:</p> <table><tr><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td><td>2016-17</td></tr><tr><td>2989</td><td>2270</td><td>2106</td><td>2132</td><td>2131</td></tr></table> <p>Answer After DVV Verification :</p> <table><tr><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td><td>2016-17</td></tr><tr><td>1960</td><td>1120</td><td>1900</td><td>1732</td><td>1821</td></tr></table> <p>Remark : DVV excluded those students enrolled in value-added courses are less than 30 hours and observation accepted</p>	2020-21	2019-20	2018-19	2017-18	2016-17	2989	2270	2106	2132	2131	2020-21	2019-20	2018-19	2017-18	2016-17	1960	1120	1900	1732	1821
2020-21	2019-20	2018-19	2017-18	2016-17																	
2989	2270	2106	2132	2131																	
2020-21	2019-20	2018-19	2017-18	2016-17																	
1960	1120	1900	1732	1821																	
3.2.4	<p>Average percentage of departments having Research projects funded by government and non-government agencies during the last five years</p> <p>3.2.4.1. Number of departments having Research projects funded by government and non-government agencies during the last five years</p> <p>Answer before DVV Verification:</p> <table><tr><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td><td>2016-17</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	2020-21	2019-20	2018-19	2017-18	2016-17															
2020-21	2019-20	2018-19	2017-18	2016-17																	

4	4	3	4	4
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Answer After DVV Verification :

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

3.2.4.2. Number of departments offering academic programmes

Answer before DVV Verification:

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

Answer After DVV Verification :

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

Remark : DVV has made the changes as per shared departments report by HEI.

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

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
22.76	11.92	9.40	9.62	1.40

Answer After DVV Verification :

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

Remark : HEI has not shared any supporting document.

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

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
56	55	50	44	31

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
41	39	41	31	21

Remark : DVV has not consider days activities.

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

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

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
2105	1049	3075	2745	1655

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
1905	949	2175	1545	1155

Remark : DVV has not consider those students participated in days activities.

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

4.1.3.1. Number of classrooms and seminar halls with ICT facilities

Answer before DVV Verification : 50

Answer after DVV Verification: 45

Remark : DVV has made the changes as per classrooms and seminar halls with ICT facilities by HEI.

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

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

Answer before DVV Verification : 216

Answer after DVV Verification: 43

Remark : DVV has made the changes as per average of teacher and students using library per day on (dates) as per SOP.

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.

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.

Answer before DVV Verification:

2020-21	2019-20	2018-19	2017-18	2016-17
43	34	49	20	7

Answer After DVV Verification :

2020-21	2019-20	2018-19	2017-18	2016-17
29	28	29	19	5

Remark : DVV has not consider shared certificate of appreciation by HEI.

2.Extended Profile Deviations

ID	Extended Questions
1.4	Total number of computers in the campus for academic purpose Answer before DVV Verification : 1071 Answer after DVV Verification : 410