

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

# NEW HORIZON INSTITUTE OF TECHNOLOGY AND MANAGEMENT, THANE

NEW HORIZON INSTITUTE OF TECHNOLOGY AND MANAGEMENT, NEW HORIZON EDUCATION SOCIETY COMPLEX, ANAND NAGAR, KAVESAR OFF GHODBUNDER ROAD, THANE WEST 400615

400615

www.nhitm.ac.in

#### **Submitted To**

# NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

**BANGALORE** 

February 2024

### 1. EXECUTIVE SUMMARY

#### 1.1 INTRODUCTION

New Horizon Institute of Technology and Management (NHITM) was established in the year 2014 by the visionary founder Dr. Subir Kumar Banerjee who envisioned a bright scope for the development of an engineering institution in the heart of Thane where young minds from all over Maharashtra and other parts of the country can gain the modern knowledge and imbibe values. The institute was established under the auspices of the New Horizon Education Society which has been a well-established citadel for imparting quality education. The aim was to cater to all the educational needs of the students and the whole system was brought together to provide knowledge from Kindergarten to Undergraduation.

NHITM was initially established as a Women's College where education for girls was the highest aim to achieve. However, taking into consideration the growing need to build the spirit of coexistence and the quality of fraternity amongst youngsters, the system was changed to that of a co-education model. NHITM is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Government of Maharashtra. The Institution now has seven branches of engineering namely Civil Engineering, Mechanical Engineering, Mechatronics Engineering, Electrical Engineering, Computer Engineering, Computer Science and Design as well as Artificial Intelligence and Data Science.

The Institution aims to build multi-faceted individuals by providing broad intellectual preparations for the challenges they will face as efficient professionals in the contemporary industry. Our success is evident through our placements as well as the success and appreciation garnered by our students and alumni. Due credit goes to the backbone of this institution i.e. the faculty and staff who have played a vital role in this academic journey of the students.

In a sprawling campus, monumental design structure greatly appealing to the Mumbai populace, green abundance, open spaces, cutting edge infrastructure NHITM was created, amid an opulent upcoming and developing area in the suburbs of Mumbai. All this had been perfectly planned to provide a congenial learning habitat to stimulate ingenious, innovative, and inventive thinking inevitably resulting in exemplary intellectual outcomes.

#### Vision

To be a value based technical institute ensuring quality academics and fostering values to create responsible citizens of the society committed towards the development of the country.

#### Mission

- To Create and maintain a quality technical education ecosystem.
- To promote an environ to foster ethical value systems for professional advancement of students
- To establish conception of students with firm civic sense and high moral values, committed for the

Page 2/80 25-04-2024 01:42:09

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

#### **Institutional Strength**

- 1. The institution adheres to the core value of providing unbiased knowledge to all students.
- 2. The institute has highly qualified faculty with strong academic backgrounds who encourage the students to excel.
- 3. The promotion of digitalization has eliminated tedious paperwork, leading to systematic digital documentation.
- 4. The institute employs a combination of traditional teaching methods and ICT-based education, including flipped-classroom methods.
- 5. NHITM provides quality infrastructure and facilities, equipped with both basic and modern amenities for faculty and students.
- 6. Students receive information in advance, reducing the likelihood of any misunderstandings between teachers and students.
- 7. The institute discusses students' academic progress with their parents or guardians to enhance their performance.
- 8. The institute's dynamic student council organizes events fostering leadership spirit from a young age.
- 9. Encouraging sports and other university-level activities has significantly contributed largely to the all-round development of the students.

#### **Institutional Weakness**

- 1. The lack of hostel facilities by the institute is seen to be one of the primary concerns of both the students as well as their guardians. Since there are several students who hail from different parts of the state, they have to search for a separate living space for themselves.
- 2. The transportation facility by the Institution may help in better commutation for faculty and students who come from farther parts of the city.
- 3. Limited number of research publications in peer-reviewed journals and Limited research grants, consultancies and patents.

#### **Institutional Opportunity**

- 1. Organizing more seminars and expert talks so that the students get first hand knowledge of how industrialists flourish.
- 2. Starting the Postgraduate courses to enhance the imparting of education at the same institution so that students may have a continuity in their academic journey.
- 3. Increase in Industry Institute Interaction through MoU with reputed institutions and premier industries.
- 4. Have better connection with other institutions by organizing and attending more expert talks and exchange of faculty programs to increase communication amongst institutions.
- 5. Conducting more on-campus Faculty Development Programs (FDP) which will help the teachers and lab assistants upgrade their skills from time to time.
- 6. Create various educational, extracurricular, scientific, and sports-related clubs for students for better participation and hands-on experience with how things work.
- 7. Tie-ups with more industries to improve the placements for the students.

#### **Institutional Challenge**

- 1. Being a University affiliated Institution, there is limited flexibility in the academic schedule to attend Industrial training and undergo internships.
- 2. As the University curriculum is revised every four years, keeping up with rapidly evolving technologies, training the faculty, and implementing the advanced concepts in the laboratory is a challenge.
- 3. Fewer library hours due to exposure and dependency on digital content during and post-pandemic.
- 4. Dealing with the students having financial and emotional health issues post-pandemic.
- 5. Establishing and maintaining strong ties with industries to ensure curriculum relevance and facilitate research partnerships.
- 6. Ensuring graduates are well-prepared for the current job market and industry needs.
- 7. Students are from diverse regional, cultural, and economic backgrounds hence, training for communication skills and other soft skills is a challenge.
- 8. It's a challenge to attract and retain qualified faculty members with diverse expertise.

Page 4/80 25-04-2024 01:42:09

#### 1.3 CRITERIA WISE SUMMARY

#### **Curricular Aspects**

The Institute is affiliated to the University of Mumbai and follows the prescribed curriculum. Faculty members participate in the curriculum design workshops conducted by the university. The University recommends the curriculum which is revised after every four years. The academic calendar is prepared at the Institute-level before the commencement of the semester as per the University's semester schedule and the same is shared with all the stakeholders. The pedagogical approach of our Teaching-Learning involves amalgamation of traditional instruments along with modern ICT tools. Our teaching techniques include lectures and laboratory sessions along with prerequisite surveys, module tests, module assignments, quizzes, flipped classrooms, interactive audio/visual content and course exit surveys. Such blended learning models are encouraged to have outcome based education and enable students to collaborate and network effectively among themselves and with the teachers. The remedial lectures for identified slow learners are conducted and their progress is regularly monitored through mentor-mentee schemes. The Faculty exhaustively uses digital platforms for sharing of teaching plan, study material, digital content, daily presentations, assignments, monthly attendance reports, time table, academic calendar and result analysis.

Emphasis is given on professional and interdisciplinary courses. Curriculum also includes mini and major projects, laboratory work, report and paper writing techniques. Institute supports internships for practical exposure of the students. In each academic session few Value Added Courses for minimum 30 hours are usually arranged for every department to bridge the gap between curriculum and industrial requirement.

Workshops and seminars are conducted for enhancing soft skills of the students. Curriculum also includes subjects like "Business Communication and Ethics (BCE)", Soft Skills and an elective subject named "Professional Ethics" for holistic development of the students.

To improve and extemporize the curriculum effectiveness, a regular feedback process is maintained during the end of each academic year. This feedback system includes 5 different stakeholders. After collecting feedback responses, analysis is done to identify the areas of improvisation.

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

The quality of students seeking admission has been constantly improving with each passing year which is reflected by the increase in the number of admissions. The institution provides academic and other support to the admitted students coming from diverse socioeconomic backgrounds as per the recommended norms. The institute follows a Mentoring system in which around twenty students are assigned to each faculty and he/she functions as their local guardian.

The teaching- learning process is carried out following a well-planned curriculum. Mediums such as prerequisite surveys, module tests, internal assessments, practical lab sessions help in understanding levels of the students. The faculty also collects a course exit feedback form from each student at the end of the course. Remedial classes are conducted for slow learners. Special classes are organized for the lateral entry students to bring them on the same levels. The advanced learners are encouraged to participate in Hackathons/Design contests etc.

The institute has a policy of recruiting well-qualified and experienced faculty as per AICTE norms and this has

Page 5/80 25-04-2024 01:42:09

contributed to improving the Teaching-Learning process. The institute maintains the requisite teacher-student ratio. The courses are assigned to the faculty based on their competencies and specializations. The faculty prepares an elaborate course plan, lesson plan, and handouts as part of the academic schedule.

Innovative processes in Teaching and Learning like ICT tools and modern pedagogical techniques are adopted by the faculty. To bridge the gap between the curriculum and the industry requirements, discipline-specific technical training programs are conducted. To further strengthen students' domain knowledge guest lectures, workshops, conferences, etc. are organized.

The examinations and evaluation system is followed systematically at par with the rules and regulations laid by the university which are revised from time to time making the system more efficient. A set of PEOs, POs, and PSOs are formulated for every program based on the 'outcome-based education' approach. Course objectives and outcomes are prepared for each course following the appropriate levels of Bloom's taxonomy. The appropriate corrective measures are implemented based on the attainment levels perceived every year.

#### Research, Innovations and Extension

The Institution has demonstrated a commendable commitment to research and academic engagement which is evident by its fair amount of achievements in research, innovation and extensions. The Institute has secured grants exceeding 1.91 lakhs from governmental/ non-governmental agencies to support a range of research projects.

Our institution places a significant emphasis on the dissemination of knowledge. Faculty and students are actively encouraged to publish their research findings in top-tier academic journals and present their work at conferences, thereby contributing to the global pool of knowledge. Faculty members have significantly contributed to the academic discourse, collectively publishing 36 research papers in journals recognized on the University Grants Commission (UGC) CARE list.

In terms of academic enrichment, the institution has been proactive in organizing a total of 52 workshops, seminars, and conferences, emphasizing Research Methodology, Intellectual Property Rights (IPR), and entrepreneurship. The Institution actively encourages and supports faculty and students in the process of patenting their innovative ideas. This support extends from the initial concept development to the actual filing of patents, ensuring that intellectual property is protected. Through this initiative, many of our faculty have successfully filed patents across various disciplines.

Furthermore, the institution has displayed a strong commitment to community service through the execution of 60 extension and outreach programs, facilitated by organized forums such as the Social Club & National Service Scheme (NSS). In fostering collaborative relationships, the institution has established 19 functional Memoranda of Understanding (MoUs) and over 55 linkages with various institutions and industries, reflecting a robust network for internships, on-the-job training, project work, student, and collaborative research. These accomplishments underscore the institution's dedication to holistic education, research excellence, and community impact.

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

Effective teaching and learning are accomplished at NHITM through both traditional classroom instruction and

Page 6/80 25-04-2024 01:42:09

hands-on training in state-of-the-art laboratories. In accordance with AICTE standards, the Institute's infrastructure is sufficient. The NHITM, Thane campus extends over 2.79 acres. By keeping an eye on the campus area and installing CCTV cameras at strategic points, NHITM guarantees safety and security.

Student support facilities, such as classrooms, laboratories, tutorial rooms, Drawing Halls, Seminar Halls, Library, Boys' Common Room, and Girls' Common Room are among the well-furnished, spacious, and ventilated. Other facilities available for student support are the Administrative Office, First Aid Room, Counseling Center, storerooms, Office, Exam Cell, Training and Placement Cell, Assessment Rooms, Workshop, Photocopy Center, and Canteens.

The ample facilities offered for sports, games (indoor and outdoor), and cultural events are demonstrated by the high level of student participation and their accomplishments in earning medals and honors in various categories. The institute encourages the students to participate in Intercollegiate, Intra-collegiate, University, State, and National level sports competitions every year.

The upgrading of IT facilities has always been a top priority for the institute. All criteria are satisfied and all regulatory requirements are followed by NHITM's IT infrastructure. All of the Institute's PCs have LAN connections so they may access the internet. To make internet access convenient for everyone, more WI-FI access points have been deployed in strategic locations.

With Koha and AutoLib NG Software, the Institute library is automated. Full-featured automation of library management is available. A global collaboration of software vendors and library technology employees maintains the software. The Software is user-friendly and automates many library tasks such as branch configuration, circulation modules, user registration for membership based on branch, access rights, management of bibliographical data for books, journals, e-journals, CDs, book cataloging, data backup, legacy data conversion, online public access catalog (Web OPAC), book reservation, and book bank management, among other tasks.

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

Student Support and Progression is an important aspect of an educational institution. The institutional commitment to provide comprehensive support to students is measured by this crucial aspect, which ensures their holistic development and success.

The Institution actively supports students through scholarships and free grants provided by the institution and governments. This financial support promotes equal access to education by empowering diverse students, promoting inclusivity, and ensuring that financial constraints do not impede educational activities. The Institute continuously organizes capacity development and skills enhancement activities, through which students gain valuable practical skills, enhancing their ability to find employment. The institution's proactive approach to aptitude advancement contributes to students' all encompassing development and effective movement in their scholarly and proficient ventures. Furthermore, the institution's guidance for competitive examinations and career counseling has significantly benefited students. Students are supported and guided for preparation of various State/National/International Level exams like GATE/CAT/GRE/TOFEL/IELTS. Students have excelled in the same and have got admitted to renowned Universities across the globe.

Criterion 5 emphasizes the institution's commitment to a safe environment by ensuring prompt resolution of student complaints, including cases of sexual harassment or any grievance. There are the Grievance Redressal

Cell, Internal Complaints Committee (against Sexual Harassment) and the Anti-ragging Committee which directly take up issues concerning the students and look for a speedy resolution of the same.

The Training and Placement Cell of the institution collaborates with several companies every year which provides the right opportunity to the students to kickstart their careers.

The Institute encourages participation in sports and cultural activities, thereby promoting the overall development of students. Robust infrastructure and expert mentoring in all aspects have facilitated students to deliver top-notch performances in sports and cultural activities. This holistic approach contributed to a vibrant campus life and met NAAC's standards for promoting student engagement and diverse growth. The close ties of the college with its alumni also highlight the strong bond that the college shares with its students.

#### Governance, Leadership and Management

The governance and leadership of the Institute perfectly aligns with the Vision and Mission of the institute. The vision and mission clearly define that it works towards the overall progress of students and sustained institutional growth by enhancing the knowledge and fostering ethical value systems for professional advancement of students. The Management, Principal and faculty work together for the progress of the Institute. Decentralization of governance is evident from participation of all stakeholders in the institutional governance and in their short term and long term Institutional Perspective Plan. This is evident from the role of various committees.

The institution has positively imbibed the spirit of NEP in different ways, like moving towards multidisciplinary and holistic education, continuous professional development of teachers, integration of technology, restructuring of governance and regulatory architecture, multidisciplinary curricula and engaging in blended pedagogy towards holistic development of students,

NHITM, has taken various pedagogical integrative approaches during course delivery. It is in progress towards the implementation of the Academic bank of Credits. The institution has a unique style of imparting education in and beyond the classroom. Academic calendar is prepared and followed each semester. The Institution implements e-governance in its operations. NHITM strongly believes in effective welfare measures for the benefit of faculty and staff which can bring around better performance which is reflected in the HR Policy Manual. A well defined Performance Appraisal System of staff is followed. Faculty empowerment is promoted by inspiring faculty to participate in FDPs. The Institution is a self-financing private Institute which is run by the funds raised through collection of fees from students. It has a well-defined financial policy which ensures optimal utilization of finances for academic and administrative purposes.

IQAC at NHITM facilitates the institute's work processes and helps in achieving learning outcomes and objectives focussing on quality enhancement. IQAC has been creating parameters for reaching academic as well as non academic learning objectives ensuring a student centric teaching learning environment. The faculties are equipped with the abilities to efficiently use Ed Tech tools for innovative teaching. The feedback of students and faculties are taken regularly for best practices.

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

The institution is committed to fostering a sustainable, inclusive, and value-driven campus. The institution

Page 8/80 25-04-2024 01:42:10

places a strong emphasis on a set of core values and best practices that contribute to a holistic and responsible campus environment. These best practices aim to create a conducive environment that prioritizes the well-being of its members and contributes positively to society and the environment.

The institution prioritizes sustainable practices to minimize its ecological footprint. One such initiative is treating wastewater and using it for plantations inside campus. The Institute also encourages responsible water usage and raises awareness about the importance of water conservation. Rainwater harvesting systems are also implemented to conserve and utilize rainwater.

Another good practice that the Institute inculcates in its students is undertaking tree plantation drives to enhance green cover on the campus. This results in raising awareness about the significance of trees and in turn environmental conservation. Implementing energy-efficient technologies and practices like the use of rooftop solar power generation as well as the use of LED lighting throughout the campus prevent environmental damage.

The institute is vigilant towards Women's Safety, Security, and Hygiene. A dedicated focus on creating a safe and secure environment for women on campus is guaranteed by conducting regular awareness programs, and security measures, and providing hygiene facilities to ensure the well-being of female members.

Institute provides inclusive infrastructure such as ramps and elevators, to ensure accessibility for differently-abled individuals. To accommodate the needs of individuals with disabilities special-abled washrooms are also designed.

Students are instilled with a sense of social responsibility through initiatives such as the Swachhata Abhiyan and blood donation camps conducted in collaboration with pertinent health organizations.

The Institute produces graduates who are not only academically proficient but also socially conscious and actively engaged in creating positive change in the world.

Page 9/80 25-04-2024 01:42:10

# 2. PROFILE

# 2.1 BASIC INFORMATION

Name and Address of the College						
Name	NEW HORIZON INSTITUTE OF TECHNOLOGY AND MANAGEMENT, THANE					
Address	New Horizon Institute of Technology and Management, New Horizon Education Society Complex, Anand Nagar, Kavesar Off Ghodbunder Road, Thane West 400615					
City	Thane					
State	Maharashtra					
Pin	400615					
Website	www.nhitm.ac.in					

Contacts for Communication									
Designation	Name	Telephone with STD Code	Mobile	Fax	Email				
Principal	Prashant Deshmukh	022-25971778	9920105212	-	principal@nhitm.ac .in				
IQAC / CIQA coordinator	Sanjay Sharma	022-2597071778	9819401291	-	iqac@nhitm.ac.in				

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution					
By Gender	Co-education				
By Shift	Regular				
By Shift	Regular				

Recognized Minority institution	
If it is a recognized minroity institution	No

Page 10/80 25-04-2024 01:42:10

# **Establishment Details**

State	University name	Document		
Maharashtra	University of Mumbai	View Document		

Details of UGC recognition						
<b>Under Section</b>	Date	View Document				
2f of UGC						
12B of UGC						

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)								
Statutory Regulatory Authority	Recognition/Appr oval details Instit ution/Department programme	Day,Month and year(dd-mm- yyyy)	Validity in months	Remarks				
AICTE	View Document	20-06-2023	12	Yearly 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?	No

Location and Area of Campus									
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.					
Main campus area	New Horizon Institute of Technology and Management, New Horizon Education Society Complex, Anand Nagar, Kavesar Off Ghodbunder Road, Thane West 400615	Urban	2.79	15500					

# 2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)									
Programme Level	Name of Pro gramme/Co urse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted			
UG	BE,Civil Eng ineering,Civi 1 Engineering	48	HSC, CET, JEE	English	66	4			
UG	BE,Artificial Intelligence And Data Sci ence,Artificia I Intelligence and Data Science	48	HSC, CET, JEE	English	69	67			
UG	BE,Compute r Engineering ,Computer Engineering	48	HSC, CET, JEE	English	138	102			
UG	BE,Compute r Science And Design, Computer Science And Design	48	HSC, CET, JEE	English	69	57			
UG	BE,Mechanic al Engineerin g,Mechanical Engineering	48	HSC, CET, JEE	English	33	5			
UG	BE,Mechatro nics Engineer ing,Mechatro nics Engineering	48	HSC, CET, JEE	English	33	10			

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Assoc	Associate Professor			Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0		0			0						
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0	,			0			0				
Sanctioned by the Management/Soci ety or Other Authorized Bodies	6			6				47				
Recruited	6	0	0	6	4	2	0	6	18	28	0	46
Yet to Recruit	0	1	1		0			1				

Non-Teaching Staff							
	Male	Female	Others	Total			
Sanctioned by the UGC /University State Government				0			
Recruited	0	0	0	0			
Yet to Recruit				0			
Sanctioned by the Management/Society or Other Authorized Bodies				16			
Recruited	9	7	0	16			
Yet to Recruit				0			

Page 13/80 25-04-2024 01:42:10

Technical Staff							
	Male	Female	Others	Total			
Sanctioned by the UGC /University State Government				0			
Recruited	0	0	0	0			
Yet to Recruit				0			
Sanctioned by the Management/Society or Other Authorized Bodies				14			
Recruited	13	1	0	14			
Yet to Recruit				0			

# Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualificatio n	Profes	ssor		Associate Professor		Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	6	0	0	4	2	0	0	3	0	15
M.Phil.	0	0	0	0	0	0	0	1	0	1
PG	0	0	0	0	0	0	18	24	0	42
UG	0	0	0	0	0	0	0	0	0	0

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

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

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

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	186	1	0	0	187
	Female	59	0	0	0	59
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years							
Category		Year 1	Year 2	Year 3	Year 4		
SC	Male	10	22	7	6		
	Female	5	4	2	5		
	Others	0	0	0	0		
ST	Male	0	1	0	1		
	Female	0	0	0	0		
	Others	0	0	0	0		
OBC	Male	50	28	18	15		
	Female	13	7	9	7		
	Others	0	0	0	0		
General	Male	105	85	51	47		
	Female	30	23	10	18		
	Others	0	0	0	0		
Others	Male	0	0	0	0		
	Female	0	0	0	0		
	Others	0	0	0	0		
Total	,	213	170	97	99		

# Institutional preparedness for NEP

National Education Policy, (NEP) envisions the
extensive transformation in education through our
education system by providing high-quality education
to all, thereby making India a global knowledge

Page 16/80 25-04-2024 01:42:10

superpower. The NEP 2020 was founded on the five guiding pillars of Access, Equity, Quality, Affordability, and Accountability. It tends to prepare our youth to meet the diverse national and global challenges of the present and the future. NEP provides the base for multidisciplinary/interdisciplinary courses in the various domains of STEM, to be part of the teachinglearning process. New Horizon Institution of Technology and Management was started with the aim of inculcating strong educational ethics in young minds and offering multidisciplinary engineering programmes like Mechatronics Engineering. Our Institutional practices precisely gel well with the ideas and codes of conduct prescribed in the New Education Policy that aims to take education beyond the conventional classroom-based boundaries. New Horizon Institute of Technology and Management is one of the few institutions in the city of Mumbai which offers degree courses in Mechatronics Engineering, Computer Science and Design as well as a specialized programme in Artificial Intelligence and Data Science. These emerging fields provide the extra knowledge to the students where they get to learn about the different aspects of designs using novel techniques and innovative ideas.. The faculty update themselves by attending Faculty Development Programs (FDP), upgrading their existing knowledge, and exploring the newer horizons of the subject through research. The knowledge acquired through these methods is further enhanced by taking the students to the Industrial Visits where the teachers give the students the live experience of how things work. This helps the students in developing holistic and analysis-based practical learning and application. The Institute is proactively working towards the implementation of the suggestions given in the NEP-2020.

2. Academic bank of credits (ABC):

As per National Education Policy 2020, the Academic Bank of Credits (ABC) has been envisaged to facilitate the academic mobility of students with the freedom to study across the Higher Education Institutions in the country with an appropriate "credit transfer" mechanism from one programme to another, leading to attain a Degree/ Diploma/PG-diploma, etc., NHITM, affiliated to Mumbai University is continuously in progression towards the

implementation of the Academic bank of Credits from time to time as per guidelines issued by University of Mumbai from the Academic year 22-23. The students in the institute have registered on ABC portal and the information of the same is updated to the University of Mumbai. The students are continuously guided about the process of registration and the importance of keeping the ABC account updated.

#### 3. Skill development:

NEP 2020 aims to develop employability skills among the student, the youth of the country by training them adequately for the skills that are required by the industry. Our Institute also focuses on skill development with the assistance of various external agencies who have been tied up through MOUs to upskill students, in several skills catering to the importance of soft skills, team work, problem solving, decision making, analytical thinking etc. The institute is already a nodal center for SWAYAM, NPTEL and IIRS- ISRO and Virtual Labs of IIT Bombay offering several online courses which supplement traditional education by enriching technical skills and connect with the other bright minds in the country. Several other means such as group discussions, communication sessions and sharing the ethical codes of conduct through flipped class methods like case studies and role plays also inculcate the strong spirit of teamwork, cultural awareness, leadership, empathy and efficient communication in students. Value based education courses such as universal human values, professional ethics, environmental sciences are also conducted. To ensure students develop the skills required in industry, the Institute has the legacy to conduct skills based student development programs in various domains. Their active participation through teachers encouragement is another step towards achieving the goals that are given by the NEP.

4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):

Active promotion of Languages, Arts, and Culture helps students develop their creative thinking skills. Reduce stress levels, Improved Academic performance. Problem Solving, Decision making, Team Building and a lot more. Practicing the tradition of Art & Culture is an ideal way of preserving or strengthening a strong community's sense of place, personal identity, and exhibiting creativity. There is a focus on promoting Indian

culture and traditions in the students. The annual cultural gathering of the institution Kshitijam, is an expression of the vivid facets of Indian society and culture. The students get to showcase their talents such as folkdance, music, art of different states of India and also promote different time periods to bring forth their significance on the contemporary society. The students, along with this, also have the Navratri celebrations with the beats of Garba, celebration of Marathi Rajyabhasha Diwas, and other patriotic celebrations. Also, events commemorating the national and international days of importance are organized to bring inspiration and motivation.

#### 5. Focus on Outcome based education (OBE):

The specific objective of practicing and achieving outcome-based education to ensure that the curriculum is designed to achieve the specific knowledge or skills that the student should acquire. They form the Program Outcomes (POs) that reflect the skills, knowledge and abilities of graduates regardless of the field of study. In outcome-based education, a "design down" process is employed which moves from POs to Course Outcomes (COs) and outcomes for individual learning experiences. Each course outcome must be detailed and focused on the specific performance to be expected. The faculty must be able to measure each Course Outcome by using the appropriate verb mentioned in Bloom's taxonomy. Each course outcome must be such that the students must be able to achieve those with a reasonable amount of effort and application of the knowledge gained by them. The course outcomes are mapped to program outcomes. Data is collected from different assessment tools to evaluate the Course outcome: Internal assessment, assignments, projects, lab experiments, etc. The quality of the assessment tools is checked by the course coordinator to ensure CO coverage and the difficulty level of the question paper. The targets of attaining course and program outcomes are set in advance by the course instructor based on the previous year's performance. The CO and PO attainment calculation process starts with CO attainment calculation and the CO attainment values are used for PO calculation. These attainment levels of program outcomes are analyzed to find gaps if any at the program level and the appropriate action is planned. This whole process ensures the graduate outcomes are measured and

	effectively achieved during the four years of engineering education. The POs, COs, PSOs are all tracked and even once the module is done the tests are conducted to check the development of the students. Extra focus is given to those students whose progress is slower as compared to others
6. Distance education/online education:	NHITM has been carrying out activities related to academic and curriculum delivery like various teaching strategies, assessment and examinations through online education mode during the two years of pandemic. The faculty members used online platforms and created the learning resources by recording videos. The Practical sessions were conducted using Virtual labs, simulation tools. G Suite is used for various teaching-learning activities, academic and administrative purposes. So the institute is well prepared to implement distance education/online education. Faculties are encouraged to enroll and attend online webinars, workshops, STTP, FDP etc. The subject teachers prepare their teaching and lesson plans well in advance and post it in the Google Classroom where it is open to view for everyone. The class precedes with a prerequisite test where sample questions from the subject are posed to the students who attempt the test and the teachers come to know the capability of the class. This test along with active classroom observation are the basis of carrying on the lesson plans in the semester period.

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

1. Whether Electoral Literacy Club (ELC) has been	The Electoral literacy club has been formed at New
set up in the College?	Horizon Institute of Technology and Management.
	The Electoral Literacy Club was established in the
	year 2023 with an objective to engage the students
	with the national electoral system. The club functions
	by creating awareness among students to contribute
	to the concept of nation building by exercising their
	voting rights and electoral participation.
2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	Yes, student's co-ordinator and co-ordinating faculty members are appointed by the College and the ELC is functional and the awareness sessions are conducted periodically on the admission of new batches. The student coordinator for the academic

year are: Yash Phadatare Second Year (CSD) Jagruti Gade Second Year (Civil) Coordinating Faculty Mr. Siddhartha Ray, Assistant Professor, Civil Engineering Ms. Swara Bhambade, Assistant Professor, Civil Engineering Awareness programs are conducted for the newly 3. What innovative programmes and initiatives undertaken by the ELCs? These may include admitted students. Social workers and youtube voluntary contribution by the students in electoral influencers are invited to create awareness about the processes-participation in voter registration of voting rights and a need to exercise vote, Voter students and communities where they come from, Registration camps for the eligible students are conducted in association with the Thane Municipal assisting district election administration in conduct of poll, voter awareness campaigns, promotion of Corporation. Voter Awareness Camp for the electoral ethical voting, enhancing participation of the under registration of the public including senior citizens & privileged sections of society especially transgender, disabled persons is proposed for the future. ELC commercial sex workers, disabled persons, senior plans to undertake a drive with the NGOs to enhance participation of the underprivileged sections of citizens, etc. society especially transgender, commercial sex workers, disabled persons, senior citizens, etc in the electoral process. ELC-NHITM has conducted an awareness drive in 4. Any socially relevant projects/initiatives taken by the slum areas along with an NGO Little Angel College in electoral related issues especially research projects, surveys, awareness drives, creating content, Foundation, Airoli in the slums of DMart Airoli in publications highlighting their contribution to the month of November 2023 and educated advancing democratic values and participation in underprivileged class of society about the voting electoral processes, etc. rights. On the Republic day, Jan 26, 2024, a group of NSS students organized a play to emphasize the role and participation of youth in shaping the country 5. Extent of students above 18 years who are yet to be In a large democracy like ours, the strength lies in an enrolled as voters in the electoral roll and efforts by informed citizenship and active participation in the electoral process. With this idea in mind, ELC has ELCs as well as efforts by the College to institutionalize mechanisms to register eligible initiated a comprehensive Voter Registration drive in students as voters. association with Thane Municipal Corporation aimed at ensuring that everyone's voice is heard. Each vote can make a difference, influencing policies from local matters to national importance. Voter registration drive is proposed to be conducted at Institute for above 18 yrs of age students every year.

# **Extended Profile**

#### 1 Students

#### 1.1

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

2022-23	2021-22	2020-21	2019-20	2018-19
1074	1056	999	825	762

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

# 2 Teachers

# 2.1

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

# Response: 83

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

#### 2.2

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

2022-23	2021-22	2020-21	2019-20	2018-19
56	43	50	50	49

# 3 Institution

#### 3.1

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

2022-23	2021-22	2020-21	2019-20	2018-19
393.71	271.30	80.87	156.79	294.61

File Description	Document
Upload Supporting Document	<u>View Document</u>

# 4. Quality Indicator Framework(QIF)

# **Criterion 1 - Curricular Aspects**

#### 1.1 Curricular Planning and Implementation

#### 1.1.1

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

#### **Response:**

The Institute is approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. Being affiliated with the University of Mumbai, the Institute follows the University's prescribed curriculum. The Institution meticulously develops action plans for the effective implementation of the curriculum and the highest priority is given to academics.

Before the commencement of the new semester, a meeting is conducted by the Principal to plan for the smooth conduction of the teaching/learning process in the upcoming semester. As per the academic schedule published by the University, an academic calendar for the Institute is prepared and shared with the faculties and students before the commencement of the semester. The academic calendar reflects curricular and co-curricular activities planned for the semester. The academic calendar provides the date of commencement of the academic session, the schedule of internal assessments, parent-teacher meetings, term work submissions, practical/oral exams, college events, holidays, end-semester examination schedule, etc.

The Institute follows the syllabus prescribed by the UoM. At the department level, the elective subject choice is taken from the students. This activity is carried out one month before the commencement of the semester. Based on the syllabus and the student strength, the department heads calculate the workload of the semester. Depending on the expertise, experience, opted choices, and the actual requirement in the department the subject allocation is done. The timetable committee prepares the timetables (class, laboratory, and individual faculty) for all programs every semester. The approved timetables are published on the Departmental notice board and on the website.

The faculty prepares a teaching plan for efficient content delivery of the allotted subject and prepares teaching material, laboratory manual, assignments, etc. The subject syllabus and teaching plan along with COs & POs are shared with the students on Google Classroom. Faculty conducts an online prerequisite survey at the beginning of the semester to gauge the level of understanding of the students.

The subject-related study material, module test assignments, quizzes, etc. are shared in Google Classrooms. In addition to traditional classroom teaching, faculty members also use various ICT tools and active learning strategies. The process is also supplemented with an online learning management system to make it more effective.

The faculty prepares and maintains a course file of their respective subjects which consists of a teaching plan, course outcomes, mapping of course outcomes with program outcomes, course contents, laboratory manual, university question paper, list of text & reference books, continuous evaluation of students' term

Page 24/80 25-04-2024 01:42:10

work etc. The effectiveness of course delivery is ascertained through the performance of students in internal assessment examinations, and module tests.

All notifications are issued to the students through their official email ID. Online faculty feedback is taken from the students at the end of every course. Regular meetings with parents/guardians and, class-coordinator in the presence of the HoD are carried out once a semester to discuss their ward's performance.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

#### 1.2 Academic Flexibility

#### 1.2.1

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

**Response:** 53

File Description	Document	
List of students and the attendance sheet for the above mentioned programs	View Document	
Institutional programme brochure/notice for Certificate/Value added programs with course modules and outcomes	View Document	
Institutional data in the prescribed format	View Document	
Evidence of course completion, like course completion certificate etc. Apart from the above:	View Document	
Provide Links for any other relevant document to support the claim (if any)	View Document	

Other Upload Files	
1	View Document

#### 1.2.2

Percentage of students enrolled in Certificate/ Value added courses and also completed online courses

Page 25/80 25-04-2024 01:42:10

#### of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

#### Response: 74.72

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

2022-23	2021-22	2020-21	2019-20	2018-19
782	809	663	605	665

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	<u>View Document</u>

#### 1.3 Curriculum Enrichment

#### 1.3.1

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

#### **Response:**

The Institution has taken up many initiatives over the years which have provided a platform to integrate cross-cutting issues relevant to Gender sensitization, Environment and Sustainability, and Professional Ethics into the Curriculum. Workshops/seminars are conducted to enhance the soft skills of the students. The university curriculum includes a mandatory subject titled "Business Communication and Ethics (BCE)", and Soft Skills and an elective subject named "Professional Ethics".

Several courses pertaining to Renewable sources of energy are covered in various programs. In addition to the above, all the programs have topics included in some of the courses, handling professional ethics and human value aspects. Final year students are encouraged to take social, relevant projects that address issues such as green energy, biogas, waste management, water management, etc. As a co-educational institute, measures towards gender sensitization in terms of equality are taken for both genders in all aspects. The institution has a strong contingent of women as faculty and students.

The institute has established a 'Women's Grievance Cell' to handle the sensitive issues regarding Women's rights and security. Women's Day is celebrated with enlightening lectures and activities. Lectures on women's health, safety, and related issues are arranged. The institution is also working towards building a strong inclusive society.

The Institute encourages the faculty and students to participate in and implement programs that

Page 26/80 25-04-2024 01:42:10

contribute to societal awareness of various issues. The NSS unit and Rotaract club of the institute regularly conduct camps in the nearby villages in order to create an insight into the societal needs in the minds of the students. Students visit old age homes, homes for destitute children, etc. quite frequently. Under the NSS club of the institution, Blood donation camps, health camps, village adaptation, Yoga, and other activities are organized.

National festivals and international commemorative days like Independence Day, Marathi Divas, etc. are celebrated to bring unity and harmony among the students. Teacher's Day, Engineers' Day, World Environmental Day, and Foundation Day are also celebrated. The institution encourages a practice of celebrating religious festivals like Ganesh Chaturthi, Garba, Dussehra, etc. to emphasize our culture and heritage.

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

#### 1.3.2

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

Response: 71.69

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

Response: 770

File Description	Document
Upload supporting document	<u>View Document</u>
Institutional data in the prescribed format	<u>View Document</u>

#### 1.4 Feedback System

#### 1.4.1

Institution obtains feedback on the academic performance and ambience of the institution from various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website

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

File Description	Document
Feedback analysis report submitted to appropriate bodies	View Document
At least 4 filled-in feedback form from different stake holders like Students, Teachers, Employers, Alumni etc.	View Document
Action taken report on the feedback analysis	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document
Link of institution's website where comprehensive feedback, its analytics and action taken report are hosted	View Document

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

#### 2.1 Student Enrollment and Profile

#### 2.1.1

#### **Enrolment percentage**

Response: 45.57

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

2022-23	2021-22	2020-21	2019-20	2018-19
213	170	97	99	147

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

2022-23	2021-22	2020-21	2019-20	2018-19
326	323	316	315	313

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

#### 2.1.2

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

**Response:** 39.67

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

Page 29/80 25-04-2024 01:42:10

2022-23	2021-22	2020-21	2019-20	2018-19
62	56	33	33	54

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

2022-23	2021-22	2020-21	2019-20	2018-19
120	120	120	120	120

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

#### 2.2 Student Teacher Ratio

#### 2.2.1

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

Response: 19.18

#### 2.3 Teaching- Learning Process

#### 2.3.1

Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences and teachers use ICT- enabled tools including online resources for effective teaching and learning process

Page 30/80 25-04-2024 01:42:10

#### **Response:**

Classroom Learning: ICT tools used in modern classrooms enhance engagement and understanding of students. Faculties use multimedia presentations and online animated videos to make lessons more dynamic. Students are encouraged to subscribe to online courses made available on platforms like NPTEL, MOOC, Udemy, Coursera etc for learning beyond syllabus. Additionally, the availability of online platforms has enabled faculties to deliver lessons remotely, whenever necessary, offering flexibility and expanding educational access especially during Pandemic. Faculties were using Google Meet for online remote conduction of classes.

**E-Learning:** All the students are assigned e-mail Ids by the institution during the admission process, through which they can sign up for Google workspace. Students can access module wise e-learning course materials uploaded by faculties for self-paced learning. Faculties upload assignments and module class tests, which are based on University's question paper pattern and difficulty level, on Google Classroom upon the completion of a module in the class which helps students to revise and revisit important concepts.

**Practical/ Lab Learning**- Practical learning is augmented using projectors to demonstrate the experiments in software-based labs. The experiments prescribed in lab manuals are uploaded on Google Classroom from time to time. Various online coding and programming platforms, compilation software, open-source and licensed modeling and simulation software enable the effective dissemination of practical knowledge. The institute has also taken several steps to enable students to engage in virtual learning through skill labs and virtual labs.

**Expert Lectures:** Guest lectures by experts from the industry and value added courses are organized by the respective departments, to cover content beyond the syllabus that is delivered using tailor-made presentations.

**Assessment and Feedback:** The use of digital platforms like Google forms facilitate automated assessments and provide instant feedback, helping students track their progress and make necessary improvements. Institute conducts subject specific course exit survey at the end of every semester to receive feedback from students that help enhance and upgrade the teaching learning experience.

**Group Discussions:** They are conducted regularly on various technical topics where students can engage in collective problem solving and express diverse viewpoints.

**Activity Based Learning:** Institute undertakes industrial visits, technical, sports and cultural events and competitions for fostering curiosity, creativity, team building and a deeper understanding of various subjects and life.

**Digital Library:** The Digital Library at NHITM, employing ICT tools, offers students access to an extensive online repository of academic resources, including e-books, journals, and research materials. This empowers efficient learning, research, and information retrieval, facilitating comprehensive educational experiences for students at NHITM.

Course Projects/ Mini/ Major Projects: At NHITM, ICT tools are integrated into course projects and mini/major projects to enhance research, data analysis, and collaboration. These tools enable students to conduct thorough research, create multimedia presentations, and collaborate seamlessly with peers,

enhancing the quality and efficiency of their project work and preparing them for real-world challanges.

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

# 2.4 Teacher Profile and Quality

#### 2.4.1

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

Response: 100

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

2022-23	2021-22	2020-21	2019-20	2018-19
56	43	50	50	49

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 2.4.2

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

Response: 26.61

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

2022-23	2021-22	2020-21	2019-20	2018-19
16	14	13	11	12

Page 32/80 25-04-2024 01:42:10

File Description	Document
List of faculties having Ph. D. / D.Sc. / D.Litt./ L.L.D along with particulars of degree awarding university, subject and the year of award per academic year.	View Document
Institution data in the prescribed format	View Document
Copies of Ph.D./D.Sc / D.Litt./ L.L.D awareded by UGC recognized universities	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 2.5 Evaluation Process and Reforms

#### 2.5.1

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

#### **Response:**

#### 1. Conduction:

For conducting the internal assessment test, a department level coordinator/committee is constituted. Two internal assessment tests are conducted each semester at department level. Time table for the test is prepared well in advance and communicated to the students.

The end semester examination is conducted by the University. The college strictly follows the guidelines and rules issued by the affiliating university while conducting end semester examinations. An examination committee is constituted, consisting of a Principal as the Chief Conductor and a senior Faculty member as a Senior Supervisor and other teaching faculty and non teaching staff as Understudy, Junior supervisors, support staff for smooth conduction of end semester examination.

To keep a check on the unfair means, an internal squad and unfairness means committee are constituted and necessary action is recommended, The University also apppoints an external squad for regular visits during the examination.

#### 2. Evaluation

The process of Internal assessment evaluation is completed within 7 working days, the marks are shared with the students and also displayed on the notice board. Students who are absent for an internal assessment test (IA) due to genuine reasons can apply for retest. The attendance record of each student is maintained and due weightage is given for attendance in theory class and practical sessions, performance in tests/tutorials and timely submission for termwork performance.

The evaluation of all the University (End Semester) Exam is done through a centralized assessment process monitored by the University.

#### 3. Grievance Redressal

After evaluation of internal assessment answer scripts, the scripts are shown to the students to check any discrepancy or doubt in checking. If any discrepancy is noticed, the student reports and the concerned faculty resolves it. By adopting the criteria as per the direction of affiliating university, complete transparency is maintained in internal assessment tests.

Students can express grievances to the University by applying for the Re-evaluation process. Students can apply for re-evaluation of their answer script within two weeks from the declaration of results. The entire re-evaluation process is carried out as per the university norms.

File Description	Document	
Upload Additional information	View Document	
Provide Link for Additional information	View Document	

#### 2.6 Student Performance and Learning Outcomes

#### 2.6.1

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

#### **Response:**

The Institute follows the curriculum which is designed by the Board of Studies(BOS) of the University of Mumbai where the course outcomes are also defined for every course. The BOS along with subject-matter experts from the industry and academia participate and discuss the expected course specific outcomes and verify their alignment with the Program Outcomes. After the syllabus has been finalized, an orientation program is organized by the University where the syllabus and Course Outcomes (COs) are discussed and subsequently conveyed to all the affiliated Institutes.

The Internal Quality Assurance Cell (IQAC) discusses with various stakeholders and adopts the methodologies to frame, finalize and publish Program specific outcomes (PSOs) and Program Educational Objectives (PEOs). The objectives and outcomes for all the programs offered by the institution are stated and displayed on the college website https://nhitm.ac.in/. They are also clearly displayed in the department.

Before the onset of a new semester, every faculty devises a detailed teaching plan which is made with keeping the students' needs and changing trends in mind. Respective subject faculty incorporates these course outcomes in their subject course file and the same is also uploaded in their Google Classroom account. Students are explained about the course outcomes (COs) of each subject at the beginning of the

Page 34/80 25-04-2024 01:42:10

semester, enlightening them about the subject and its practical aspects. Faculty keep conveying the Course Outcomes (COs) during the progression of the semester through an interactive session enhancing students' involvement in learning the specified topics. The questions that are posed during the module tests, assignments and Internal Assessments are mapped with the COs and POs. After completion of the course, a course exit feedback is taken from the students to obtain their level of understanding of the course outcomes. Practicals are conducted on a regular basis to monitor the progress of each student and to check whether they are able to reach the outcomes that are planned for them.

Certain Course Outcomes (COs) are achieved via project work and value added courses, designed and conducted by the department time to time0. In order to achieve the complete essence of course outcomes, the institute organizes lectures by experts of various fields who use interactive methods to ignite the potentials that the students might not realize by themselves. Along with expert guidance, the students are also exposed to the practical working of the industry by organizing Industrial Visits to various industries where students get to experience live working of technology.

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

#### 2.6.2

Attainment of POs and COs are evaluated.

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

#### **Response:**

In the Outcome Based Education (OBE), assessment is done through one or more than one processes, carried out by the department, that identify, collect, and prepare data to evaluate the achievement of course outcomes (CO's). The process for finding the attainment of Course outcomes uses various tools/methods. These methods are classified into two types: Direct methods and indirect methods.

**Direct methods** display the student's knowledge and skills from their performance in the class/assignment test, internal assessment tests, assignments, semester examinations, seminars, laboratory assignments/practicals, mini projects etc. These methods provide a sampling of what students know and/or can do and provide strong evidence of student learning.

**Indirect methods** such as course exit survey and examiner feedback to reflect on student's learning. They are used to assess opinions or thoughts about the graduate's knowledge or skills. Rubrics are used for both formative and summative assessment of students. Same rubric is used for assessing an outcome so that the faculty is able to assess student progress and maintain the record of the same for each student.

The attainment of various outcomes like COs, POs, PSOs and PEOs is carried out in four stages: Planning, Implementation, Evaluation and Action Taken.

**Planning:** Various outcomes are defined and a correlation is established between COs and POs, on the scale of 1 to 3, 1 being low, 2 being moderate and 3 being high. A mapping matrix is prepared in this regard for every Course CO and PO in the program including the elective subjects. The teaching plan, module tests, assignments, internal assessments are designed to meet the course outcomes for every subject.

**Implementation:** A faculty member uses different instruments like Internal Assessments, module tests, assignments, practicals, and Project for finding out attainment level of the course outcomes. The faculty also evaluates attainment of POs , PSOs. PEOs by using indirect tools like surveys that are sent to various stakeholders. These surveys are then analyzed to improve the methods of imparting education and tracking the progress of the students.

**Evaluation:** Attainment of all outcomes are evaluated and analyzed to identify the strengths and weaknesses in delivering the course. The students and their attainments are evaluated individually and the areas where improvements are necessary, essential steps are taken.

**Action Taken:** In case of deviation from the expected attainment of outcome then necessary corrective actions are initiated and to improve the outcome. This includes engaging slow learners for remedial lectures which are conducted as and when needed, giving them personal attention during both theory as well as practical class and constantly noting their progress until they reach the expected outcome.

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

#### 2.6.3

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

Response: 93.96

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

2022-23	2021-22	2020-21	2019-20	2018-19
241	315	287	148	144

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

2022-23	2021-22	2020-21	2019-20	2018-19
289	322	287	148	162

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Certified report from Controller Examination of the affiliating university indicating pass percentage of students of the final year (final semester) eligible for the degree programwise / year-wise.	View Document
Annual report of controller of Examinations(COE) highlighting the pass percentage of final year students	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

## 2.7 Student Satisfaction Survey

2.7.1

Online student satisfaction survey regarding teaching learning process

**Response:** 3.85

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

## **Criterion 3 - Research, Innovations and Extension**

#### 3.1 Resource Mobilization for Research

#### 3.1.1

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

**Response:** 1.91

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

2022-23	2021-22	2020-21	2019-20	2018-19
0	0	0	1.91	0

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	<u>View Document</u>

#### 3.2 Innovation Ecosystem

#### 3.2.1

Institution has created an ecosystem for innovations, Indian Knowledge System (IKS),including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident

#### **Response:**

Our institution nurtures and promotes an ecosystem for research, innovation and extensions. The students are actively encouraged to publish their research findings in top-tier academic journals and present their work at conferences and poster competitions, thereby contributing to the global pool of knowledge. The institution provides extensive support for this, including grants, access to research facilities, and mentorship programs. As a result, there has been a substantial increase in the number of publications from the institution in recent years, spanning a wide array of fields. The students present their project work through stage-wise presentations and posters. The regular presentations scheduled as per the project calendar help them in building confidence and enhancing their attitude and communication skills.

The institution supports faculty in the process of patenting their innovative ideas. This support extends from the initial concept development to the actual filing of patents, ensuring that intellectual property is

Page 38/80 25-04-2024 01:42:11

protected. Through this initiative, many of our faculty have filed patents across various disciplines.

There is a constant encouragement to students to participate in Club Activities. The students of NHITM are encouraged to organize and actively participate in the program such as Smart India Hackathon, University level project competitions, and International conferences. The Institute is a member of ISTE (Indian Society of Technical Education) and is a nodal center for Virtual lab IIT Bombay, IIRS- ISRO and also has SWAYAM/NPTEL local chapter. Each department has its own technical association such as MXESA, MESA, ACES, CESA, & ADSA and professional chapters (CSI, ISHRAE).

The institution has formed various committees to impact the environmental education of the students through extension activities carried out by the National Service Scheme (NSS). NSS conducted various programs like a Blood donation camp, Tree Plantation, Swachhata hi Seva, Meri Maati Mera Desh, De-Addiction Drive, etc. NSS actively participated in various cleaning activities like cleanliness drives.

Institute Innovation Council (IIC) strives to inspire and support students and faculty in generating creative ideas, exploring practical applications, and fostering collaboration across disciplines. The Institute Innovation Council (IIC) is established to drive innovation, entrepreneurship, and a culture of continuous improvement within the institution. Its primary purpose is to create an ecosystem that encourages students, faculty, and staff to think innovatively, develop new ideas, and translate these ideas into real-world applications and solutions. Under this we have conducted various seminars so that the students get a sense of business and entrepreneurship.

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

#### 3.2.2

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

Response: 52

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

2022-23	2021-22	2020-21	2019-20	2018-19
17	13	9	3	10

Page 39/80 25-04-2024 01:42:11

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

#### 3.3 Research Publications and Awards

#### 3.3.1

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

Response: 0.42

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

2022-23	2021-22	2020-21	2019-20	2018-19
10	17	2	5	1

File Description	Document
Link to the uploaded papers, the first page/full paper(with author and affiliation details)on the institutional website	View Document
Link to re-directing to journal source-cite website in case of digital journals	View Document
Links to the papers published in journals listed in UGC CARE list or	View Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 3.3.2

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

Response: 0.12

3.3.2.1 Total number of books and chapters in edited volumes/books published and papers in

Page 40/80 25-04-2024 01:42:11

#### national/international conference proceedings year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
4	0	0	3	3

File Description	Document
List of chapter/book along with the links redirecting to the source website	View Document
Institutional data in the prescribed format	<u>View Document</u>
Copy of the Cover page, content page and first page of the publication indicating ISBN number and year of publication for books/chapters	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 3.4 Extension Activities

#### 3.4.1

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

#### **Response:**

#### Introduction:

Education transcends the boundaries of classrooms, textbooks, and examinations. It's about nurturing individuals who are not only academically adept but also socially responsible. New Horizon Institute of Technology and Management recognizes this essence of holistic development and has actively engaged its students in extension activities aimed at fostering community welfare. Over the past five years, the institute has embarked on a journey to create a meaningful impact in the neighborhood community through various initiatives.

#### **Blood Donation Drive:**

One of the flagship initiatives undertaken by the institute was organizing regular blood donation drives. By sensitizing students to the critical importance of blood donation, not only did the institute contribute to saving lives, but it also instilled a sense of altruism and empathy among its students.

#### **Awareness Campaigns:**

New Horizon Institute took proactive steps to raise awareness on pressing social issues such as mental

Page 41/80 25-04-2024 01:42:11

illness, girl safety, heart health, and the ongoing COVID-19 pandemic. Through workshops, seminars, and awareness campaigns, students were equipped with knowledge and skills to address these issues sensitively and effectively within the community.

#### **Health Initiatives:**

In addition to awareness campaigns, the institute actively promoted public health initiatives. Dengue prevention drives, emphasizing the importance of cleanliness and sanitation, played a crucial role in mitigating the spread of diseases. Moreover, the institute organized tree plantation drives, recognizing the pivotal role of green cover in maintaining a healthy environment.

#### **Community Assistance:**

Recognizing the needs of the elderly and marginalized sections of society, New Horizon Institute extended its support through initiatives such as assisting old age homes and offering aid to the elderly in the neighborhood. The institute also participated in Swach Bharat Abhiyan, contributing to the cleanliness and hygiene of the surrounding areas.

#### **Environmental Sustainability:**

The institute's commitment to environmental sustainability was exemplified through initiatives like pit construction for vermicomposting. By promoting eco-friendly practices, students were encouraged to think critically about their ecological footprint and actively contribute to sustainable development.

#### **Council Team:**

The institute council played a pivotal role in orchestrating these extension activities. Their dedication and leadership not only facilitated the smooth execution of initiatives but also inspired fellow students to actively participate and contribute to the community.

The impact of these extension activities extends far beyond the immediate beneficiaries. By actively engaging students in community welfare initiatives, New Horizon Institute has nurtured a generation of socially conscious individuals. These experiences have not only enriched their academic journey but have also equipped them with essential life skills such as empathy, teamwork, and leadership.

In conclusion, New Horizon Institute of Technology and Management's extension activities have been instrumental in fostering community welfare and promoting holistic development among its students. By instilling a sense of social responsibility and empathy, the institute has not only contributed to the betterment of the neighborhood community but has also sown the seeds for a brighter and more compassionate future.

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

#### 3.4.2

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

#### **Response:**

New Horizon Institute of Technology and Management stands as a beacon of social responsibility and community engagement, committed to making meaningful contributions across various spheres of society. Through its unwavering dedication and innovative approach, the institute has garnered significant recognition and accolades from both government and government-recognized bodies for its exemplary extension activities. In an era marked by numerous social challenges, New Horizon Institute has emerged as a catalyst for positive change, addressing critical issues ranging from education and employment to healthcare, environmental conservation, assistance for the underprivileged, and support for senior citizens.

#### 1) Education:

New Horizon Institute has been instrumental in democratizing access to quality education through a series of impactful initiatives. Collaborating with esteemed organizations such as Umar Foundation, Little Angel Foundation, and Khushiyaan Foundation, the institute has conducted Robotics Workshops for Slum Students, Career Guidance Programs for underprivileged students, and Aerospace Workshops inspired by the legacy of Kalpana Chawla. Furthermore, initiatives like Drawing Workshops at TMC Schools and Science Project Workshops for the underprivileged have empowered countless individuals with knowledge and skills, paving the way for a brighter future.

#### 2) Employment:

Recognizing the importance of economic empowerment, New Horizon Institute has embarked on initiatives aimed at enhancing employment opportunities, particularly for marginalized groups. Partnering with the Khushiyaan Foundation, the institute organized Work-from-Home Workshops tailored to the needs of women, enabling them to overcome barriers and achieve financial independence.

#### 3) Healthcare:

In collaboration with various healthcare stakeholders, New Horizon Institute has been at the forefront of promoting health and well-being among community members. Through Health Camps conducted in partnership with Unicare Health Center and initiatives supporting national health programs like the Nation Tuberculosis Elimination Program, the institute has played a pivotal role in enhancing access to healthcare services. Additionally, initiatives such as Blood Donation drives in collaboration with K.E.M Blood Bank and Saksham Online Yoga Classes have promoted preventive healthcare practices, ensuring a healthier community.

#### 4) Assistance for the Underprivileged:

New Horizon Institute remains steadfast in its commitment to uplifting the underprivileged sections of society through targeted assistance programs. Collaborating with organizations like Little Angel Foundation, the institute has organized Clothes Distribution Campaigns, Food Distribution drives such as

Page 43/80 25-04-2024 01:42:11

Bharat Bhuka Na Soye, and Toy Distribution initiatives. These endeavors aim to address immediate needs while also fostering a sense of dignity and belonging among the underprivileged.

#### 5) Environmental Conservation:

Understanding the pressing need for environmental stewardship, New Horizon Institute has launched initiatives aimed at promoting sustainability and environmental conservation. Through campaigns like "Swachhata hi Meri Pehchan" in collaboration with Khushiyaan Foundation, the institute has raised awareness about waste management and environmental hygiene.

#### 6) Support for Senior Citizens:

In recognition of the contributions and challenges faced by senior citizens, New Horizon Institute has pioneered initiatives to enhance their quality of life and well-being. Collaborating with Nidan The Mukti (Old Age Home), the institute organized Old Age Indoor Game Workshops and "Laughing: The Medicine to Get Young" sessions, fostering social connections and promoting mental well-being among senior citizens.

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

#### 3.4.3

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

#### Response: 60

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

2022-23	2021-22	2020-21	2019-20	2018-19
12	12	7	14	15

Page 44/80 25-04-2024 01:42:11

File Description	Document
Photographs and any other supporting document of relevance should have proper captions and dates.	View Document
Institutional data in the prescribed format	View Document
Detailed report for each extension and outreach program to be made available, with specific mention of number of students participated and the details of the collaborating agency	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 3.5 Collaboration

#### 3.5.1

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

**Response:** 12

File Description	Document	
Summary of the functional MoUs/linkage/collaboration indicating start date, end date, nature of collaboration etc.	View Document	
List of year wise activities and exchange should be provided	View Document	
List and Copies of documents indicating the functional MoUs/linkage/collaborations activitywise and year-wise	View Document	
Institutional data in the prescribed format	View Document	
Provide Links for any other relevant document to support the claim (if any)	View Document	

Page 45/80 25-04-2024 01:42:11

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

#### 4.1 Physical Facilities

#### 4.1.1

The Institution has adequate infrastructure and other facilities for,

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

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

#### **Response:**

The Institute follows the guidelines and specifications laid down by the All India Council for Technical Education (AICTE) for creating infrastructure that facilitates effective teaching and learning practices. All classrooms, laboratories, tutorial rooms, and seminar halls are equipped with the necessary infrastructure for efficient teaching, and learning practices. The campus of NHITM, Thane is spread over 2.79 acres with a built-up area of 13348 Sq. M. NHITM ensures safety and security by monitoring the campus locality, covered under CCTV surveillance at key locations.

The infrastructural facilities include well-furnished, spacious, ventilated, and illuminated classrooms, laboratories, tutorial rooms, Drawing Halls, Seminar Halls, a Library, Training and Placement Cell, a First Aid Room, a Counseling Centre, an Administrative Office, an Exam Cell, Assessment Rooms, a Workshop, Reprography facility, Canteen and other facilities including HOD Rooms, Boys Common Room and Girls Common Room and Storerooms. And other student support facilities as per AICTE requirements. In NHITM, each department has well-equipped laboratories with software.

#### Key features of the Institute:

- Well-furnished, spacious, ventilated, and illuminated classrooms, laboratories, tutorial rooms, and other student support facilities as per AICTE requirements.
- The institute has sufficient ICT enabled classrooms for an efficient teaching-learning process
- The laboratories are equipped with major equipment and computing aids satisfying the prescribed curriculum requirements.
- Central Seminar hall with ICT facility is available to conduct training programs, guest lectures, conferences, STTPs and other related activities.
- Training & Placement Cell is well equipped to conduct placement drives, mock interviews, training programs, and group discussions.
- The workshop includes a basic workshop and machine shop to provide exposure to the students for various engineering practices and machining processes.

Page 46/80 25-04-2024 01:42:11

- High end computers with internet facility and centralized LAN connection. Separate computer center facility is provided for students to carry out project work, online exams and to fill examination forms online.
- The language lab is developed with sufficient computers having requisite software installed to improve communication skills.
- Well-developed library, automated with Auto Liib NG Software, with a collection of books, journals, magazines, CDs, E-books, etc. as per AICTE norms.
- The library also includes a separate reading, reference, and digital section for accessing E-books, E journals, NPTEL videos, and online open source books. The library has computers with the latest configurations.
- A canteen facility with maintaining proper hygienic conditions is in place for students, faculty and staff.
- Support and safety facilities like continuous power backup, diesel generators, fire extinguishers, water coolers with water purifiers, and CCTVs at key locations are available.
- The institute has green landscaping with a lawn, garden, etc.
- In-house housekeeping staff is appointed to maintain cleanliness in the campus.
- Separate girls and boys' common rooms are available on the campus.
- A reprography center is made available on campus.

File Description	Document	
Upload Additional information	View Document	
Provide Link for Additional information	View Document	

#### 4.1.2

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

**Response:** 19.6

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

> Page 47/80 25-04-2024 01:42:11

2022-23	2021-22	2020-21	2019-20	2018-19
56.78	7.89	2.12	11.00	156.84

File Description	Document
Institutional data in the prescribed format	View Document
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for infrastructure augmentation should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

### 4.2 Library as a Learning Resource

#### 4.2.1

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

#### **Response:**

The Institute library is automated with Koha and AutoLiib NG Software. Koha has most of the features that would be expected in an ILMS, including tagging, commenting, social sharing

- Union catalog facility
- Customizable search
- Online circulation
- Bar code printing
- Patron card creation
- Report generation
- Patron self-registration form through OPAC

The software is very useful in automating the various functions of the library including the configuration of branches, circulation modules, branch-wise membership registration of users, access rights, management of bibliographical data of various items such as books/journals/e- journals/CDs, the cataloging of books, facility to convert legacy data, data backup, online public access catalog (Web OPAC), book reservation, book bank management, etc. The unique feature of the software is the provision to generate various kinds of library reports such as author and title-wise details of books, list of e-books, bound volume of journals, flexible and customization in the generation of reports, downloading accession register, digital library, barcode generation of books, overall statistics of various items, stock

verification, etc. Besides this software is compatible with library standards and software is being used by several libraries across the country. Library has also been set up for NPTEL video lectures which can be accessed within the campus.

In addition to that, the library provides photocopy and internet with a wi-fi facility to access e-resources throughout the campus. The Central Library is also a member of NDL which has a collection of more than 6 lakh e-books that the students and staff are utilizing. The journals that are being subscribed are stored as back volumes. The library also maintains Project reports submitted by the students as part of their course curriculum. The Institute conducts a Library Orientation Program every year to first-year students to familiarize library facilities, resources, and services.

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

#### 4.3 IT Infrastructure

#### 4.3.1

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

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

#### **Response:**

The Institute has always given priority to the up-gradation of IT facilities. The IT infrastructure of NHITM meets all requirements and complies with all regulatory stipulations. All PCs in the institute are connected to LAN for internet access. In addition, WI-FI access points are installed at prominent locations, facilitating a Wi-Fi-enabled campus. Servers and PCs are maintained, updated, and upgraded at regular intervals. Regular updates are done in facilities at the institute level as well as the department level. The details of the IT facilities are provided below:

**Internet Connection:** The Institute regularly updates the internet connection. Currently, the available internet bandwidth is 300 Mbps. The Internet Service provided by Super Sonic has been renewed in 2022.

Computer Systems and their Configuration: NHITM has a total of 240 PCs which are for students' use. The systems are well connected to the internet via LAN and have configurations as per the requirements of academics.

Biometric Attendance: The Institute provides biometric attendance for faculties.

**Networking Peripherals:** NHITM has a networking switch provided by DLINK of speed 1 GBPS. The Institute follows star topology for internal connections.

**Licensed software:** The Institute has various software needed for academic purposes which includes ETNL, ANSYS, PTC CREO, apart from basic software like Office, Tally, etc.

**Licensed version of OS:** The institute has 128 Microsoft Windows licenses.

**I/O Devices:** The institute purchases printers as per the requirements given by the departments. The institute has 26 laser and inkjet printers.

**Media Lab/Video Lecture-making Facility:** The institute has a well-equipped media lab where faculty members can prepare their video lectures. This has been very useful during the initial phases of the pandemic.

**LCD Projectors:** Upgrading of IT is seen in the teaching-learning process as OHPs in the institute have been intermittently replaced by LCD. The institute has an overall 09 projectors.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

#### 4.3.2

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

Response: 4.48

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

Response: 240

File Description	Document
Purchased Bills/Copies highlighting the number of computers purchased	View Document
Extracts stock register/ highlighting the computers issued to respective departments for student's usage.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

### 4.4 Maintenance of Campus Infrastructure

#### 4.4.1

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

Response: 63.99

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

2022-23	2021-22	2020-21	2019-20	2018-19
273.73	218.67	69.33	107.42	96.93

File Description	Document
Institutional data in the prescribed format	View Document
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for maintenance of infrastructure should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

Page 51/80 25-04-2024 01:42:11

## **Criterion 5 - Student Support and Progression**

### **5.1 Student Support**

#### 5.1.1

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

Response: 78.5

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

2022-23	2021-22	2020-21	2019-20	2018-19
798	803	800	709	592

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

#### 5.1.2

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

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

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

Page 52/80 25-04-2024 01:42:11

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

#### 5.1.3

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

**Response:** 76.82

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

2022-23	2021-22	2020-21	2019-20	2018-19
795	794	785	665	584

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

#### 5.1.4

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

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

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

Page 53/80 25-04-2024 01:42:11

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

### **5.2 Student Progression**

#### 5.2.1

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

Response: 74.63

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

2022-23	2021-22	2020-21	2019-20	2018-19
195	213	214	119	106

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

2022-23	2021-22	2020-21	2019-20	2018-19
241	315	287	148	144

Page 54/80 25-04-2024 01:42:11

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

#### 5.2.2

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

**Response:** 12.5

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

2022-23	2021-22	2020-21	2019-20	2018-19
14	9	8	2	3

File Description	Document
List of students qualified year wise under each category and links to Qualifying Certificates of the students taking the examination	View Document
Institutional data in the prescribed format	<u>View Document</u>
Provide Links for any other relevant document to support the claim (if any)	View Document

## 5.3 Student Participation and Activities

Page 55/80 25-04-2024 01:42:11

#### 5.3.1

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

Response: 34

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

2022-23	2021-22	2020-21	2019-20	2018-19
11	0	0	8	15

File Description	Document	
Upload supporting document	View Document	
list and links to e-copies of award letters and certificates	View Document	
Institutional data in the prescribed format	View Document	
Provide Links for any other relevant document to support the claim (if any)	View Document	

#### 5.3.2

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

Response: 6.2

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

2022-23	2021-22	2020-21	2019-20	2018-19
9	4	2	6	10

File Description	Document	
Upload supporting document	<u>View Document</u>	
Institutional data in the prescribed format	View Document	

### 5.4 Alumni Engagement

#### 5.4.1

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

#### **Response:**

The Alumni Association has a vital role to play in contributing to all aspects of the growth of the institute and stakeholders. Alumni with their experience in the professional world are the torchbearers for the existing students of the institute. The Institution has a registered Alumni Association and active governing body on the panel. Our institute registered its alumni association "NEW HORIZON INSTITUTE OF TECHNOLOGY AND MANAGEMENT ALUMNI ASSOCIATION" as per the Societies Registration Act,1860 on 18th October 2023. Even before registration, the institute has always been in close contact with its alumni students through various social media platforms like LinkedIn, etc. Due to this, the students who graduated from the institute have always supported the institute in various ways both academically and non-academically. The association has been arranging their seminars, and guest lectures in various departments regularly or inviting the prominent alumni students to various events in the college like student council investiture ceremonies, sports and cultural events, etc. Various Alumni students also contribute by donating books to the institute library.

With the formation of the alumni association former students who are now well-established in the professional world can benefit the current students. Also, the current students can access valuable career guidance from alumni.

The primary objectives of this Alumni association are -

- 1) To enable interaction between the institution and alumni which promotes mutual understanding and mutual information sharing.
- 2) To Maintain the updated and current information of all Alumni.
- 3) To Seek regular feedback from alumni students, that will be instrumental to contribute to the improvement of the institute.
- 4) To organize seminars, guest lectures, and workshops in association with the alumni network to help current students learn state-of-the-art technologies and give valuable inputs to NHITM students.
- 5) To help current students to understand and pursue research in upcoming areas.

Page 57/80 25-04-2024 01:42:11

- 6) To utilize referral programs in alumni's current organization to drive placement for students with appropriate skills as per the requirement.
- 7) To get financial aid /funding from willing alumni students, enabling them to contribute to the needy and deserving students.
- 8) To organize mentorship programs to create awareness among the students regarding competitive examinations and other recruitment exams conducted by the state and central government.
- 9) To facilitate Internship opportunities for the students of NHITM in various companies through its alumni.
- 10) To promote multidisciplinary learning by organizing extracurricular activities such as sports events which provide life skills to our students.
- 11) To foster a spirit of loyalty with the institute.

File Description	Document	
Upload Additional information	View Document	
Provide Link for Additional information	View Document	

## Criterion 6 - Governance, Leadership and Management

#### 6.1 Institutional Vision and Leadership

#### 6.1.1

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

#### **Response:**

#### Vision

To be a value based technical institute ensuring quality academics and fostering values to create responsible citizens of the society committed towards the development of the country.

#### **Mission**

- To create and maintain a quality technical education ecosystem.
- To promote an environ that will enable to foster ethical value systems for professional advancement of students
- To establish conception of students with firm civic sense and high moral values, committed for the development of the nation

The governance and leadership of the institute perfectly aligns with the Vision and Mission of the institute as New Horizon Institute of technology and Management is, the brain child of the Visionary founder who envisioned to lay the foundation of an acme of educational distinction; an institution to foster quality technical education for young minds ready to spread their wings. With an idea of education under an unified educational assemblage, the foundation was laid under the patronage of New Horizon Education Society, which was an already established and reputed academic institute conglomerate in various parts of Mumbai and suburbs.

**Sustained institutional growth:** The Institute's vision and mission clearly defines that it works towards the overall progress of students and sustained institutional growth of the college by enhancing the knowledge and fostering ethical value systems for professional advancement of students. The governing council of the institute has ultimate authority and guides in the process of achieving the vision and mission of the institute. The governance of the institution is participative by all stakeholders and depicts decentralization in the institutional governance. Meetings are conducted periodically headed by the Principal along with Vice Principal, Deans and Departmental Heads, wherein faculty input on academics, administration and research is discussed and decisions are taken.

**National Education Policy, (NEP):** At NHITM, following the NEP guidelines, multidisciplinary programs like mechatronics have been introduced since inception. Even programs of recent technologies

Page 59/80 25-04-2024 01:42:11

have been introduced. There is a focus on promoting Indian culture and traditions in the students. The annual cultural gathering of the institution Kshitijam, Garba, celebration of Marathi Rajyabhasha Diwas, and other patriotic celebrations are an expression of the vivid facets of Indian society and culture. Also, events commemorating the national and international days of importance are organized to bring inspiration and motivation.

**Decentralization and Participatory involvement:** The various committees ensure the effective implementation of all initiatives and have participation of Principal, Vice Principal, Deans and Departmental Heads, Faculty members, Non Teaching staff, students and even parents. Various committees at the college and departmental level assure decentralization of governance and depicted by delegation of roles and responsibilities to various coordinators appointed at institute/department level

**Perspective plan aligned with vision and mission**: Building a strong base by curriculum enrichment. To construct and implement digitization of academic and administrative processes for improvement in the teaching-learning process. To cultivate a sense of community in students for firm civic sense and to hold moral value systems for serving the nation. To initiate new courses are some of the perspective plans.

File Description	Document	
Upload Additional information	View Document	
Provide Link for Additional information	View Document	

## **6.2 Strategy Development and Deployment**

#### 6.2.1

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

#### **Response:**

Our Institutional strategic planning has been critically designed for a wider vision of the institution, gathering ideas from a wide range of stakeholders, and getting specific about how to achieve institutional goals with collaborative decisions about where, how, and why to prioritize resources. Introduction of all programmes and courses to attain a status for holistic development has been on the top priority at the institution. We aim to get all programmes as well as the Institution accredited by NAAC.

**Institutional Perspective plan:** We have an objective to attain greater visibility amongst the stakeholders. We are providing state-of-the-art infrastructure, continuously upgrading our status with world class ambience, technical expertise and ethical work culture. We promote heterogeneity and demographical diversity in admitting students and recruiting faculty members which will help national

and international exposure to evolve and grow in our Institution. We aim to attain maximum faculty with Doctorate degrees. The recruitment policies are properly documented and followed rigorously while recruitment of all faculty and staff so that a high and even standard can be maintained. A highly efficient recruitment panel is in place so that each and every appointment is as per the institutional policies. The HR policy Manual describes the guidelines for all the employees. The defined appraisal system is in place and is a method to evaluate employee performance during the academic year. A perfectly planned administrative setup is in place to be followed.

Academic calendar is prepared and followed each semester, this facilitates preplanning and implementation of academic and non academic activities for complete implementation. Since the inception of the institute in 2014, the institution has always had a Strategic Plan to achieve the vision and mission of the institute and guide it in the path of growth and development. The institutions' aim has always been to achieve quality academics. introducing newer and recent engineering branches of trending technologies like Artificial intelligence and Data Science and Computer Science and Design, multidisciplinary courses like mechatronics, promoting skill development, collaborating with industries and academia. Regular Meetings are being convened by the head of the Institution as well as the various departmental heads to frame the policies, budget allocation, planning and developing of infrastructural facilities. True to its mission and vision statements, the college aims to consistently provide and sustain an invigorating work environment that nurtures excellence, innovation and growth. Through our wide array of engineering disciplines and unique clubs and committees the institution constantly fosters student development activities, to provide opportunities and experiences that build community, help them progress personally and professionally, and create a learning environment to help the students grow towards a holistic development.

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

#### 6.2.2

Institution implements e-governance in its operations

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

Response: A. All of the above

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

#### **6.3 Faculty Empowerment Strategies**

#### 6.3.1

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

#### **Response:**

NHITM strongly believes in effective welfare measures for the benefit of faculty and staff which can bring around better performance. Welfare measures taken towards the staff reflects on the output and selfless contribution towards tremendous growth of any Institution. In our Institution Staff welfare is given foremost importance. All this is reflected in the HR Policy Manual. The analysis of an employee's recent successes and failures, personal strengths and challenges, and suitability for promotion or further improvement is known as performance appraisal. As a result, as the need arises, training and mentoring are required. In terms of teacher performance evaluation, NHITM has its own appraisal system. The institute's ecosystem is open, collaborative, and data-driven. The employee's API score and interaction with technical experts in relation to the job description are crucial. In the case of non-teaching employees, only the matrix specified in the job description is considered.

This system was created to aid employees' career development and advancement. Academic qualifications, teaching experience, feedback from students and colleagues, attendance at Seminars/Conferences, number of publications and communication skills are used to evaluate teaching staff performance. Teaching innovations/contributions are evaluated based on contributions to curriculum design, teaching methods, laboratory experiments, evaluation methods, resource material preparation (including books and reading materials), laboratory manuals, and remedial teaching/student counseling. Non-teaching staff are evaluated based on their academic qualifications, work experience, the job role they are assigned, as well as deliverables and targets. During the appraisal process, the employee's leadership qualities are valued, as are the contributions made to the University/Institute/departmental functions, Co-curricular Activities, Enrichment of Campus Life, Students Welfare and Discipline, Membership/Participation in Committees.

Page 62/80 25-04-2024 01:42:11

The performance of faculty and staff members is evaluated on a regular basis. When changes are made to the employee performance appraisal system, both teaching and non-teaching staff are notified. The teaching and non-teaching staff are constantly informed of their performance in order to ensure that it corresponds to changing University standards/norms, which can provide opportunities for future development. For example, each academic year, faculty must submit a self appraisal report on a format provided to the principal.

An evaluation system is created in which student feedback, research, and examination results are given weightage and a score is calculated based on that. Faculty are counseled and trained for continuous development based on the findings of the student feedback reports and appraisal reports. A central system is developed in order to encourage faculty involvement in research, consulting, and field projects. It is expected that faculty will use their spare time to conduct research that will result in publications, patents, and product development. They (both faculty and non-teaching staff) are also encouraged to engage and participate in activities like Faculty Development Programs and Staff Development Programs which improve their skills and assist them to gain practical experience, which substantially improves the quality of their performance in various academic and non academic activities.

File Description	Document	
Upload Additional information	View Document	
Provide Link for Additional information	View Document	

#### 6.3.2

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

Response: 60.48

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

2022-23	2021-22	2020-21	2019-20	2018-19
45	35	0	33	37

Page 63/80 25-04-2024 01:42:11

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

#### 6.3.3

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

**Response:** 45.28

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

2022-23	2021-22	2020-21	2019-20	2018-19
43	38	28	39	39

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

2022-23	2021-22	2020-21	2019-20	2018-19
33	33	33	33	33

Page 64/80 25-04-2024 01:42:11

File Description	Document	
Refresher course/Faculty Orientation or other programmes as per UGC/AICTE stipulated periods, as participated by teachers year-wise.	View Document	
Institutional data in the prescribed format	View Document	
Copy of the certificates of the program attended by teachers.	View Document	
Annual reports highlighting the programmes undertaken by the teachers	View Document	
Provide Links for any other relevant document to support the claim (if any)	View Document	

#### 6.4 Financial Management and Resource Mobilization

#### 6.4.1

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

#### **Response:**

The New Horizon Institute of Technology and Management under the aegis of New Horizon Education Society is a self-financing private Institute which runs by the funds raised through the collection of fees from students. It has a well-defined financial policy which ensures optimal utilization of finances for academic and administrative purposes. Financial planning is exercised well in advance for efficient budgeting and review is done on periodic intervals under the supervision of principal, management representative, and the account department involving the various academic departments and administrative sections of the institute. The Institute is being run with self sufficient funds generated from tuition fee and other miscellaneous incomes. In case of shortage of funds, the management supports by providing the required finance. In case activities like expansion and renovation of buildings, the management assists by providing required finance. Financial planning is done at the beginning of the academic year well in advance with adequate budgeting which involves all the Heads of Academic Departments and Administrative Sections. The management reviews all the financial activities through scrutiny of budgets and expenses in every quarter. Through centralized purchase the funds are monitored and utilized in an effective manner.

M/S. N. K Mittal and associates, Chartered Accountants have been our Statutory Auditors for the last 5 years. They are independent auditors appointed by New Horizon Education Society to conduct the audit of the financial statements including the Balance Sheet and Income & Expenditure Account of the Society. They have continuously monitored the accounts and have not pointed out any weakness in the internal control system. The reports of the statutory auditors are available for the last 5 years. They have stated in their report that proper books of accounts have been kept by the Society and expressed the opinion that the financial statements give a true and fair view in conformity with the accounting

Page 65/80 25-04-2024 01:42:11

principles on the Balance Sheet and Income & Expenditure Account. The qualified opinion is not related to the systems and procedures or the internal control systems.

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

#### **6.5 Internal Quality Assurance System**

#### 6.5.1

Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities

#### **Response:**

IQAC at NHITM facilitates the institute's work processes and helps in achieving learning outcomes and objectives focussing on quality enhancement. IQAC has been creating parameters for reaching academic as well as non academic learning objectives ensuring a student centric teaching learning environment. The faculties are equipped with the abilities to efficiently use Ed Tech tools for innovative teaching. The feedback of students and faculty are taken regularly for best practices. Various workshops and seminars are organized for a quality learning environment. IQAC creates a strategic planning for NHITM by ensuring the effectiveness of all the constituted bodies/committees and cells of the college.

Quality culture has been established in the college through continuous assessment patterns. Internal assessments in both written and oral format are conducted as per the necessity of the subject. Remedial lectures after college hours are conducted for weak students where individual attention is given to solve their doubts in difficult subjects. Regular assessment of the progress of students' in their project is done keeping in mind the research aspect. Feedback is taken continuously from the students and after the analysis of feedback, appropriate measures are taken to refine the quality of teaching and learning. The Parent Teachers' meetings conducted ensures that all stakeholders get an opportunity to participate in important decision making focussing on maintaining high standards in teaching learning. Computer, internet and library facilities are provided beyond the lecture hours for students and teachers to improve the teaching learning process. Number of hard bound books and e-books are purchased periodically. Conferences, workshops and seminars and Value added courses are conducted regularly to augment the academic knowledge of students. The faculties take part in FDPs and Short Term Training Programs to stay relevant and up to date. Equal weightage is given to co curricular and extra curricular activities along with academics. College Day, Technical and Sports Day are conducted as per the academic calendar. The Training and Placement cell rigorously conducts coaching sessions for the students in verbal aptitude and interview skills for enhancing their professional Skills. The Industry Institute Interaction Cell (IIIC)of

Page 66/80 25-04-2024 01:42:11

college has been constituted to create a roadmap for the institute to interact with the industry. Various Industry visits are conducted by the departments to provide the students with an opportunity to interact with the industry professionals. Class and course committee meetings are scheduled regularly and the issues are addressed and resolved. All the activities of the college are documented and reviewed for further improvement. A periodic academic and administrative audit is conducted.

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

#### 6.5.2

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

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

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

File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period.	View Document
NIRF report, AAA report and details on follow up actions	View Document
List of Collaborative quality initiatives with other institution(s) along with brochures and geo-tagged photos with caption and date.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document
Link to Minute of IQAC meetings, hosted on HEI website	View Document

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

#### 7.1 Institutional Values and Social Responsibilities

#### 7.1.1

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

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

#### **Response:**

The Institute is committed to gender equity on the campus and provides facilities for the same. To achieve this, the institute focuses on all aspects where healthy growth can be fostered among all genders. The Institute believes in the basic human principle of equality which can be observed in the balanced distribution of work between its male and female staff, catering to students' needs irrespective of their gender and also providing extra attention wherever necessary for promoting a wholesome outcome.

The Institute has organized several activities such as workshops on gender equality, a celebratory program on International Women's Day, and a defense workshop. These being the major steps towards gender equality, the Institute also engages in implementing subtle steps such as using language that is gender sensitive in both official and routine work, providing separate hygiene space for women, strictly adhering to anti-ragging policies, and encouraging women towards entrepreneurship.

The institute also has common rooms for boys and girls separately. There are automatic sanitary pad vending machines installed on the campus premises that allow women to avail the necessary hygiene products during their periods. Along with this, a separate disposal system is available to dispose of used sanitary napkins thereby maintaining a healthy environment. The college has appointed security personnel, which consists of a good number of lady security personnel to ensure the safety, security, and identity of all students and staff members on the campus. Housekeeping also consists of a mix of male and female staff taking care of cleanliness and sanitation.

The Institute believes in taking up several initiatives that promote gender sensitivity amongst the members of the institute. Keeping this view in mind, the institute has organized several workshops, seminars, counseling sessions, and educational and fun activities that have been instrumental in promoting gender sensitivity in society. Expert talks also include crucial conversations and discourses on the health and well-being of all genders. Women achievers are regularly invited to campus to motivate the girls.

Both male and female students work shoulder to shoulder-in various college activities. All students irrespective of their genders are given equal opportunities while selecting representatives in the student council of the Institute. The Institute also appoints a girl representative and girl class representative in the student's council to immediately address issues of girls on the campus. The Institute thus focuses on preserving the rights of its members as well as promoting gender sensitivity among its members, both teachers and students.

Page 68/80 25-04-2024 01:42:11

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

#### 7.1.2

#### The Institution has facilities and initiatives for

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

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

File Description	Document
Policy document on the green campus/plastic free campus.	View Document
Geo-tagged photographs/videos of the facilities.	<u>View Document</u>
Circulars and report of activities for the implementation of the initiatives document	<u>View Document</u>
Bills for the purchase of equipment's for the facilities created under this metric	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 7.1.3

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

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

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

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

#### 7.1.4

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

#### **Response:**

The institution organizes several on-campus events that promote the spirit of unity and fraternity among its faculty and students. Being situated at the heart of the city with people from various cultural backgrounds associated with it, the Institute aims to foster a kaleidoscopic outlook towards the diversity that it has and to celebrate it. The Institute is exemplary for showcasing the patriotic feelings by observing Independence Day and Republic Day celebrations with zeal. The institution also celebrates festivals such as Navratri by holding Garba events where all the students and faculty experience the bliss and devotion of the Mother Goddess. There is a special focus on the pride of Maharashtra, the Marathi language, which is commemorated on the Marathi Rajbhasha Diwas where students pay their respects to the ancient and rich language of Marathi by dressing up in traditional attire, reciting Marathi poetry, enacting plays, and singing songs.

However, the Institute does not fail to recognize the value of all the traditions that are a part of it, for which Traditional Day is celebrated, where all the faculty and students dress up in their traditional attire and share the beauty of their regional identity. This promotes a spirit of oneness and a feeling of pride for the nation and its rich culture. The students enthusiastically participate in Rangoli and Mehendi Competitions where they can showcase their artistic talent and unwind themselves. There are some serious issues faced by the country that are addressed by the students who put together street plays on various topics dealing with social issues like female infanticide, social taboos, and emancipation of weaker sections.

Womanhood is celebrated every year on International Women's Day by organizing a get-together of all the female faculty. The institution has a special focus on pressing environmental issues and makes extra

Page 70/80 25-04-2024 01:42:12

efforts to sensitize its students towards a greener environment and encourage sustainable development, tree plantation drives, and poster-making competitions. These are promoted on World Environment Day, and Earth Day as well as on other general occasions. Drives like blood donation are also a constant part of the institution's academic activity. The institution realizes that academics without fun-filled activities are incomplete. In order to cater to the young and dynamic students who enter the college in their first year are greeted with a vibrant fresher's party where they get to sing, dance, act, and showcase their talents. The entire institution has an annual cultural gathering named Kshitijam where a burst of talent is witnessed. This is usually preceded by a Technology fest called Nav Pravartan where students present their technological prowess. This also brings out the original and unique talents of many students who create gadgets and devices on their own and exhibit them to everyone. In this way, the Institution focuses on the aspect of creating and maintaining an inclusive environment by promoting tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic, and Sensitization of students and employees.

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

#### 7.2 Best Practices

#### 7.2.1

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

#### **Response:**

#### **Best Practice 1: Planning and Execution of Projects**

#### **Objectives and Intended Outcomes**

BE Major Project is an important instrument for enhancing the technical competency of the students. The projects serve as a culmination of the students' academic journey, providing a platform to them to apply theoretical knowledge to real-world problems.

#### The Context

The BE Major Project is a part of the semester VII & VIII curriculum which is carried out by a group of two or a maximum of four students. These projects can be in-house or outhouse (industry-based). An innovative and worthwhile BE project helps to provide practical exposure that helps to enhance the problem-solving skills, management skills, research, and analysis of students.

#### The Practice

At the end of semester VI, the orientation for group formation and problem identification is conducted by the project coordinator and head of the department. In the outhouse projects, students consult external guides along with internal guides. Domain areas of faculty members are listed and updated for the students. At the beginning of sem VII, students are instructed to present 3 ideas for project development in front of an expert panel which comprises experienced faculties of the department. The Expert panel then evaluates the student's ideas based on innovativeness, feasibility of the problem, and value addition. A project calendar is prepared exclusively for the students and guides. The timelines are followed for the successful completion of the project. The final topics of groups and their respective guides allotted as per the expertise of faculty are displayed on the notice board. In each semester, two reviews of the project work are conducted by the panel to evaluate the student's progress as per the rubrics and marking scheme. Internal Evaluation is conducted at the end of each semester as part of Term work. External evaluation is conducted through viva where a group has to present and demonstrate their project to the external examiner. As a part of the competition for students' projects, the department has made mandatory requirements for each group to publish papers in reputed journals, prepare posters, and participate in conferences/ project competitions/ hackathons/poster competitions.

#### **Evidence of Success**

Projects are often judged by respective employers as the measure by which students are considered and are also closely examined. In some instances, final-year projects lead to publications in conferences and journals and also allow students to continue their academic study into research degrees. As a result, various student groups have participated and published research papers in various reputed journals.

#### Problems encountered and resources required

Developing a final-year project can cause a lot of stress. A group must have students with complementary attributes for sharing the responsibilities. Other common issues are - Deciding the Topic, Lack of Time management, and Understanding the required skills of each member to accomplish the whole project. Communication gaps between team members or project guides can be fatal. Due to a time gap between the proposal date and the final developed project often causes disruptions.

#### **Best Practice 2: Teaching Learning Practices**

#### **Objectives and Intended Outcomes**

At NHITM, teaching learning practice has been designed as the combination of various elements. The objectives are to implement it as a cardinal factor for institutional status. The teaching and learning methods are student-centric to increase the grasping and learning levels of the students. Emphasis is to go beyond the conventional methods to maximize teaching effectiveness.

#### The Context

Outcome-based learning principles are implemented at the Institute. Learning outcomes are aligned with program objectives and industry standards to ensure relevance and effectiveness. This involves incorporating diverse instructional methods, such as lectures, discussions, hands-on activities, and technology-enhanced learning tools, to cater to varied learning styles. The focus is not only on delivering content but also on fostering critical thinking, problem-solving skills, and meaningful connections to real-world applications.

#### The Practice

#### Teaching, Learning, and Evaluation schedules

An Academic Calendar is prepared before the start of the semester. The academic calendar includes the date of commencement of the academic session, duration of the semester, dates of continuous internal assessments, semester end end-semester examinations, also consists of the curricular, co-curricular, and extra-curricular activities to be carried out during the semester.

The notices are sent through mail regarding changes in schedules if any.

#### **Teaching, Learning, and Evaluation Tools**

NHITMs Educational practices adhere to OBE which starts with a clear statement on Knowledge, Skills, and Attitudes that the Graduates will be able to demonstrate. These are stated as Programme Outcomes and Course Outcomes and are related to the Vision, and Mission statements. The faculty prepares the teaching plan, course file, and Educational practice tools consisting of lecture notes, course description, tutorial question bank, PPTs, concept video topics, and model question papers which are uploaded on Google Classrooms and are accessed by the students.

To monitor the quality of the teaching-learning process, the conventional way includes evaluation like conducting Internal Assessment (IA) during every semester and Oral/practical and End semester examinations. A Course exit survey and faculty feedback are given by the students at the end of the semester.

#### **Evidence of Success**

Faculty members have the opportunity to strategize as per the academic calendar of the semester, determining which teaching methods and tools align with the syllabus requirements. Students, upon receiving the schedules at the beginning of the semester, can organize their studies accordingly. This approach not only showcases students' enhanced grades but also contributes to improving their attendance throughout the semester.

#### Problems encountered and resources required

Challenges include students having low attendance or limited cognitive retention. Remedial lectures are conducted for the slow learners. During lockdown, the education sector suffered the most. There was a massive shift in the Teaching learning process with the sudden unprecedented outbreak of the pandemic. NHITM with certain proactive measures taken in the year 2019 rapidly acted on the situation. Proactive measures such as institute email IDs for students and faculty members, maintaining soft copies of students' attendance, and sharing it with students to monitor their attendance.

File Description	Document
Any other relevant information	<u>View Document</u>
Best practices as hosted on the Institutional website	View Document

#### 7.3 Institutional Distinctiveness

#### 7.3.1

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

#### **Response:**

At NHITM, the need for a digital identity was initiated during the pandemic times to combat the challenges of the unprecedented pandemic. However, this emerged as a smart way of propagating technical education in the institute. Hence this system of digitization was continued and the system was reinforced. The students, faculty, and staff are continuously trained to work and update all academic and administrative records digitally. The system is monitored and managed regularly and diligently by an efficient digital team that comprises the faculty of the institute. This enables easy access to systematic data, and better storage capacity, than hard copies, which take up more space, a room full of filing cabinets versus a single hard drive. This ensures easy accessibility, faster file retrieval, easier and faster collaboration, increased security, savings on resources, better data recovery, and file longevity.

The advancement of technology has invaded every aspect of our lives, specifically, the students' lives are impacted the most. The digital world offers enormous benefits to us all. Moreover, to understand this changing world, we need to analyze, assess, contribute to, and evaluate the impacts of technology on everyday life and work. These multiple types of digital literacies will be critical for the citizens and workers who will thrive in the 21st century. Developing such abilities needs to be an essential part of lifelong learning. Moreover, NHITM being an institute with various branches involving recent technologies, it is expected to be digitally enabled. NHITM, being proactive, had already initiated the creation of the digital identity of Students, Faculty, and staff. With the sudden unprecedented challenge of the pandemic, the institute organized to establish a complete digital platform for all teaching-learning and even administrative practices. A core digital team was designed which came together to outline the digital policies of the institution. This was a complete digital revolution for the Institution.

#### **Implementation Practices**

• A digital identity is allotted to students, even faculty and staff on admission or appointment. A personalized email ID is allotted to each NHITM student on the day of admission. This email ID is for the students active for four years. All the communication to them is through the mail. Secured login and 1 terabyte of personal cloud storage for storing study material are granted to each student. Students are grouped according to the branch and year of Graduation. There is a Digital Administrator at the Institution and Department level.

Page 74/80 25-04-2024 01:42:12

- 24/7 Online digital platform G Suite workspace, Google's education assist program for students has been utilized as the digital platform. All information is on the cloud. For all the students right from the First year, across all branches, there are specifically created dedicated Google classrooms. All Learning materials and presentations are shared in the Google Classroom. Course material, assignments, prerequisite surveys, course exit forms, and module tests all are shared online. Even attendance, evaluation, grading, and feedback all are shared in the student's email. Digital tools like Gmail, Google Drive, Google Classroom, and Google Meet are extensively used.
- The Google classrooms are created and utilized for all the subjects, with separate Digital space for every subject. Teaching planners and lecture notes are made available. Lab manuals are shared in advance. Students upload the solutions and the assigned work here. Submission dates are monitored for the grades. PDFs of the recommended books and videos are also shared.
- E-learning portals, like Virtual Labs, NPTEL, Swayam, and IIRS are now within reach for all. Also the students are advised to create or update their LinkedIn accounts. An interactive website of the institute www.nhitm.ac.in is regularly updated. Youtube NHITM LIVE is utilized as a channel for communication.

There was a massive shift in the Teaching learning process with the sudden unprecedented outbreak of the pandemic COVID 19 which hit the country in 2020. During the time of lockdown in the year 2020, the education sector suffered the most. With a proactive approach, the management and faculty came together to work on a sturdy digital platform for the implementation of a complete teaching-learning process for all the students. The entire system at NHITM transitioned from offline to online medium in terms of technology, transactions, and paperwork focusing on digital learning. We streamlined the digital practices immediately at lockdown by working on GSuite and conducting classes with regular timetables on Google Meet. Sharing notes and PPTs on Google classrooms, and conducting regular assessments and examinations online. Parents-teacher interactions were also conducted online to review the learning status of the students. Post the pandemic also NHITM continued with all these practices of digital management of records, communicating through emails, Google Classrooms, and maintaining records on Google Drive.

#### **Impact Analysis**

These digital transformations at NHITM have made a progressive paradigm shift in the entire system at the Institute.

- Technological improvements in education have made life easier for our students. Instead of always using pen and paper, students nowadays use various software and tools to create presentations and projects. When compared to a stack of notebooks, a digital device is relatively light.
- The attendance of students which is shared with them can be referred to for improvement in their attendance to meet the attendance mandate.
- Blended learning models are effective in improving student performance. This is partly due to

their potential to overcome traditional classroom constraints such as having a wide range of student learning levels, minimal student-teacher interaction, and large class sizes.

- This has enhanced better reach for the teacher-student interaction. This has further improved Accessibility and Searchability, Enhanced Document Security, Cost Savings, Increased Productivity, Eco-Friendly Practices, Better Compliance and Records Management
- Resourcing and time were the biggest challenges of the digital transformation. Creating the required digital infrastructure was immensely time-consuming and required great digital skills. The team effort of the Institute overcame all challenges and made digital Identity practice a success.
- Assignments can be shared digitally and submission schedules can be made easy. Blending online learning with face-to-face teaching has practically produced better outcomes than face-to-face or online learning alone.

File Description	Document	
Appropriate web in the Institutional website	<u>View Document</u>	
Any other relevant information	View Document	

### 5. CONCLUSION

#### **Additional Information:**

The Institute follows the Outcome-based Education approach in the teaching-learning-evaluation process. The institution puts forward the idea of holistic excellence by keeping social and environmental welfare at par with academic achievements. A separate socio club is functional and continuously organizes programs to develop among themselves a sense of social and civic responsibility to utilize their knowledge in finding practical solutions to individual and community problems and develop competence required for group living and sharing of responsibilities. Days of Patriotism and cultural importance are duly commemorated. The Annual Cultural Event Kshitijam, Sports Event Kreedangan, and Technical event Navpravartan are organized every year with the participation of faculty, staff, and students. The hallmark of Cultural events is to promote cultural diversity among students, whereas sports events are to ensure a healthy mind in a healthy body, Technical events are designed to create a competitive spirit gauging student performance. NHITM is the nodal learning center for the Indian Institute of Remote Sensing IIRS and the Indian Space Research Organization ISRO. We also have our own YouTube channel, NHITM LIVE which is a platform to showcase various events.

### **Concluding Remarks:**

The governance and leadership of the Institute perfectly aligns with the Vision and Mission of the institute. We have the conviction that robust curricular aspects, student-centric teaching learning & evaluation, progressive Research, Innovation & extension, adequate Infrastructure & Learning Resources, favorable Student support & Progression, and ethical Institutional Values & Best Practices all together contribute to the Institution's overall growth. The Institute will do continuous refinements to achieve distinguished output benefitting all our stakeholders. With dedicated efforts of almost a decade, New Horizon Institute of Technology and Management, Thane is constantly marching ahead providing high quality Engineering Education.

Page 77/80 25-04-2024 01:42:12

### **6.ANNEXURE**

#### 1.Metrics Level Deviations

Metric ID Sub Questions and Answers before and after DVV Verification

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

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

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
78	62	36	34	55

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
62	56	33	33	54

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

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
120	120	120	120	120

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
120	120	120	120	120

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

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

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
14	13	2	6	1

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
10	17	2	5	1

Remark: DVV has made changes as per the report shared by HEI. 3.5.1 Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years. Answer before DVV Verification: Answer After DVV Verification:12 Remark: DVV has made changes as per the report shared by HEI. 5.3.2 Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions) 5.3.2.1. Number of sports and cultural programs in which students of the Institution participated year wise during last five years Answer before DVV Verification: 2020-21 2018-19 2022-23 2021-22 2019-20 48 30 3 32 49 Answer After DVV Verification: 2022-23 2021-22 2020-21 2019-20 2018-19 9 4 2 6 10 Remark: DVV has made changes as per the report shared by HEI. 6.3.3 Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative

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

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
43	38	28	39	39

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
43	38	28	39	39

6.3.3.2. Number of non-teaching staff year wise during the last five years Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
5	5	5	5	5

#### Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
33	33	33	33	33

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

#### 2.Extended Profile Deviations

2023 Mediada I I ome Deviations	
Extended Profile Devia	itions
No Deviations	