

### YEARLY STATUS REPORT - 2021-2022

Part A				
Data of the Institution				
1.Name of the Institution	Pillai HOC College of Engineering and Technology			
Name of the Head of the institution	Dr. Jagdish W. Bakal			
Designation	Principal			
• Does the institution function from its own campus?	Yes			
Phone no./Alternate phone no.	02192669000			
Mobile no	9820723812			
Registered e-mail	principal.phcet@mes.ac.in			
Alternate e-mail	jwbakal@mes.ac.in			
• Address	Pillai HOC Educational Campus, Rasayani, Tal. Khalapur			
• City/Town	Dist. Raigad			
• State/UT	Maharashtra			
• Pin Code	410209			
2.Institutional status				
Affiliated /Constituent	Affiliated			
Type of Institution	Co-education			
• Location	Urban			

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• Financial Status			Self-f	inand	eing			
• Name of t	he Affiliating Ur	niversit	V	Univer	sitv	of Mum	bai	
	he IQAC Coordi			Dr. Ma				
Phone No				02192669000				
• Alternate	-			02192669002				
Mobile	phone I to.			9867967304				
• IQAC e-m	nail address			iqac.phcet@mes.ac.in				
	Email address							
3.Website addre (Previous Acade	ss (Web link of	the AQ	QAR	<pre>https://phcet.ac.in/iqac/phcet- iqac/</pre>				
4. Whether Academic Calendar prepared during the year?			Yes					
• if yes, whether it is uploaded in the Institutional website Web link:		https://phcet.ac.in/students/acad emic-calendar/term-calendar/						
5.Accreditation	Details							
Cycle	Grade	rade CGPA		Year of Accredita	ation	Validity	from	Validity to
Cycle 1	A	3.03		2019	9	28/03/	2019	27/03/2024
6.Date of Establishment of IQAC			02/07/2018					
7.Provide the list UGC/CSIR/DBT	t of funds by Ce	ntral /			C etc.,			
Institutional/Deprtment /Faculty	oa Scheme	Funding		Agency	Year of award with duration		A	mount
Nil	Nil	Nil Ni		.1	Nil			Nil
8.Whether comp		c as per	r latest	Yes				
• Upload late IQAC	est notification of	format	ion of	View File	<u>.</u>			

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9.No. of IQAC meetings held during the year	3
• Were the minutes of IQAC meeting(s) and compliance to the decisions have been uploaded on the institutional website?	Yes
If No, please upload the minutes of the meeting(s) and Action Taken Report	No File Uploaded
10.Whether IQAC received funding from any of the funding agency to support its activities during the year?	Yes
• If yes, mention the amount	93000
11.Significant contributions made by IQAC dur	ing the current year (maximum five bullets)
More emphasis on IIC activities and	d improvement in IIC rating
Participation In NIRF and ARIIA, I	so
Strengthening curricular, research	and co-curricular activities
Online Campus Essentials subscript international certifications to st	<del>-</del>
Preparation for NBA Re-accreditation program in Computer and Mechanical	
12.Plan of action chalked out by the IQAC in the	e beginning of the Academic year towards I by the end of the Academic year

Plan of Action	Achievements/Outcomes
To improve IIC Rating	IIC rating was improved to 3.5
To focus on research and innovation	No of patents published = 40
To motivate faculty to publish books	No books published= 10
To sign MoUs for training and skill development	MOUs were signed with various organization like Progressive Expert Consulting Pvt Ltd. Indian Green Building Council Bloomzen Pvt. Ltd. OHT fastcom: Date Perpetual Gravity Lab: Indian Rubber Manufacturing Research Asso
To participate in NIRF	Application submitted on 16 Feb 2022
To participate in ARIIA	Application submitted on 13 Oct 2022
ISO certification	PHCET got recertified with ISO. ISO recertification audit conducted on 24 Feb 2022
To improve students participation in the various competitions at state and National level	IIC members were actively involved in mentoring students for participating in various national level competitions.  Student participation in Smart India Hackathon, Avishkar, was increased and two winning teams received the prize of Rs 1 Lakh each.
To start new professional bodies	Association of Structural Rehabilitation Students chapter and ISTE Student Chapter was initiated
3.Whether the AQAR was placed before tatutory body?	Yes

Name	Date of meeting(s)
CDC and Governing Body	08/10/2022

#### 14. Whether institutional data submitted to AISHE

Year	Date of Submission
Yes	19/12/2022

#### 15. Multidisciplinary / interdisciplinary

Vision of PHCET is to admit, educate and train for engineering graduation, a diverse population of students who are academically prepared to benefit from the Institute's infrastructure and experience to become responsible multidisciplinary professionals in a technical arena. It will further attract, develop and retain, dedicated, excellent teachers, scholars and professionals from diverse backgrounds whose work give them visibility beyond the classroom and who are committed to making a significant difference in the lives of their students and the community. We practice subject matter of two or more STEM subjects, which are combined into a single learning experience in integrated STEM learning. At entry level students have been given exposure to learn foundation in STEM subjects. Their subject knowledge is assessed by periodic tests. Students make effective use of library to utilize the engineering components in STEM. Also we offer Value added credit based interdisciplinary courses across the disciplines for the attainment of a holistic and multidisciplinary education. Institute has developed a well established research center, to solve real life problems. Institute has world class infrastructure facilities, highly qualified and research oriented and motivated faculty members which are involved in academic development and research activities. Our students pursue and successfully complete internationally recognized value added courses from basic to advanced level at the end of 1st, 2nd and 3rd year of undergraduate education. For example, our students of UG Mechanical engineering completed a solidworks global certificate named Solidworks Associate in 2nd year and in 3rd year completed an advanced level global certificate named Solidworks Professional. Institute has planned to offer Honors/Minor degree credit based programs in line with university of Mumbai to eligible students. This will help to find solutions in various interdisciplinary areas of engineering and societal issues. Through these initiatives during the pandemic and till date our faculty and students have addressed various challenges. The best practices like "Industry visit and Internship" are offered to

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promote a Multidisciplinary/interdisciplinary approach in view of NEP 2020. We offer "Internship" to each student during semester During the pandemic period our students have pursued internships and got a chance to get paid internships. Internships helps engineering students to acquire in-demand multidisciplinary technical skills, helps to learn professional ethics or etiquette and helps in polishing the soft skills. Students get an opportunity to expose themselves to the actual work environment, contrasting with their textbook theories. Students may acquire their desire and decide their career path from the experience gained during internship. Students of PHCET offered "Industry Visit" which gives the chance to gain on-the-job skills through working procedures and employment practices. As opposed to the theoretical knowledge being taught in the classroom, it exposes the students to modern workplace practices. This will help to improve employability skills of students. The objective of Industry visit is to help students gain first-hand information regarding application of instrumentation and control in the process industry. During pandemic PHCET, offered virtual industry visits. Every semester, PHCET organizes at least two visits to industries as per domain in view of NEP 2020 to promote interdisciplinary approach.

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

PHCET is affiliated to University of Mumbai, Mumbai, Maharashtra. As per the directives of university, PHCET has initiated the process of student registration for creating ABC account. Faculties are encouraged to design and conduct Value Added Courses (VACs) to fulfill the requirements of NEP 2020. These VACs help students to develop practical skills and make them industry ready. For internationalization of education, PHCET has tie ups with international MOOCs platform like Coursera and Edx. Library is well equipped with E resources and variety of Journals and Magazines that help students and faculty to remain updated with recent trends and opportunities in various technical domains.

#### 17.Skill development:

Skills and knowledge are the driving forces of economic growth and social development for any country. With the vision of enhancing these two driving forces, Mahatma Education Society's Pillai HOC Educational Campus, Rasayani, initiated a Skill Development Program for the students. The objective and purpose was to reinforce the vocational education and soft skills of students. At the initial stage, the foremost requirement of good infrastructure was necessitated in the specialised environment of Pillai HOC campus. Experienced faculty to train and educate the students were decided

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and employed. Following programmes are offered to promote vocational education and to integrate into mainstream education

- Arc & Gas Welding
- Plumber (General)
- Asst. Works Supervisor
- Electrician Domestic
- DTP and Print Publishing Assistant
- Computer Hardware Assistant
- Basic Automotive Servicing 4 Wheelers
- PCB (Printed Circuit Board) Designing & Manufacturing

Resources such as video lectures, podcasts, recordings and articles are provided through Google classrooms in order to transfer the main bulk of the necessary knowledge from teacher to student before each PHCET always focused on both academic education as well as moral value education. Institute takes the efforts for holistic development of students through Value-Based Education. It helps in the development of a well-balanced individual with a strong character and value. Institute has a dedicated Counselling Centre. Availability of a qualified counsellor and a counselling room makes it convenient for students, faculty and staff for personal counselling. The privacy of the individual is sacrosanct and inviolable. Institute incorporates a few integral bodies that are committed to inculcating development of humanistic, ethical, Constitutional, and universal human values in students. These bodies are National Service Scheme (NSS), ISRO outreach Centre, at PHCET, and various student forums. These bodies conduct diversified events for ex. Self Defence Training, Tree Plantation, Blood-donation camp, Intellectual Property Rights Awareness, celebration of National/International commemorative days etc. which helps in inculcating positivity amongst the students. It helps in inculcating the development of humanistic, ethical, Constitutional, and universal human values in students. Institute designs the credit structure to ensure that all students take at least one vocational course before graduating. This Integration of mainstream education with vocational education helps college students in becoming "marketready" by the time they graduate, expand their career choices, and reduce their dependence on public sector jobs. Institute has

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collaboration with several industry mentors. PHCET considers mentoring as both professional and personal (grooming) preparation for corporate life with the guidance of an elder and accomplished professional. The objective is to inculcate a winner's attitude and cultivate good personal and professional traits in the young and help them become Industry ready. Through the conduction of several activities like expert webinars, seminars, business idea competitions, project competitions, these industry mentors guide the students. Institute has created a unified platform to manage learner enrolment skill mapping, and certification. by initiating Skill development programme at Pillai HOC Educational Campus, Rasayani. All the courses under this programme are designed as per the requirement of NSDC.

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

As PHCET is affiliated to the University of Mumbai, the Institute follows the syllabus prescribed by the university for UG and PG Courses. While delivering lectures, teachers follow a blend of English and local language to manage the population of mixed students coming from backgrounds of both vernacular and English in the classrooms. The institute provides several online and offline sessions on curricular, co curricular and extra curricular activities in various Indian languages. Institute celebrates several local and national festivals like Dasseha, Pongal, Onam, Ganesh Festival, Christmas etc. PHCET maintains the sanctity of the Indian languages by conducting events and activities like Marathi day, Ekta Divas, Shiv Jayanti, Agnipath Scheme etc. PHCET has planned for enhancing integration of the Indian Knowledge System in Curriculum delivery by incorporating several measures like encouraging faculty to become translators for books and courses for higher education. PHCET offers courses on Sanskrit and other regional languages through books etc. PHCET conducts various elocution competitions for students where no language barrier exists. Students are encouraged to deliver speeches in their local languages. Winners are awarded with certificates and prizes. To promote Indian ancient traditional knowledge and its importance, PHCET conducts awareness programs/workshops for local communities in local languages. To name a few, PHCET conducted awareness sessions on Solar system panels, Water preservation, World Biofuel day, World Environment Day, Yoga Day celebration, Poster making competition on Lokmanya Tilak and Chandrashekhar Azad Jayanti and independence day, Constitution day. The PHCET NSS Unit approved by University of Mumbai is actively involved in conducting various activities/student camps for the benefit of nearby communities. To

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promote Indian Culture, NSS conducted blood donation camps, tree plantation drives, health and hygiene awareness, cleaning drives etc. PHCET has marathi Wangdmay Mandal - a Group of Students and faculty to integrate Indian knowledge system (Marathi- mostly used by local communities). This group organises Sahitya Vachan, drama, kala and sanskriti.

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

PHCET being an affiliated Institution with University of Mumbai, follows the curriculum structure offered by University of Mumbai. The curriculum planning and delivery are diligent with the preparation of the lesson plan and concept inventory, adapting Bloom's Taxonomy focusing on Information, Understanding, Application and Synthesis. PHCET has taken initiatives to organise various workshops, seminars, orientation programs, industrial visits, etc., to strengthen curriculum in order to meet OBE guidelines. This results in NBA re-accreditation of UG programs in Computer Engineering and Mechanical Engineering. Institute has obtained A grade in the first cycle of NAAC. Students are provided with resources such as computers, working space and financial help for establishing start-ups. PHCET has MoU with many industries and organizations of repute for academic and research collaboration. PHCET has focused on digital learning to enhance the teaching learning process during Pandemic to provide active and personalized education to all students through digital learning to ensure effective curriculum delivery. Faculty uses several modern technologies and digital tools like Flipped Classroom, Quizzes, Google Classroom, Google Meet, Zoom, Virtual Laboratory. A large number of students benefited through digital learning as is evident from the results of examinations conducted. Students are also encouraged to take subject related Certificate programs and MOOCs. The institute has developed a Research Innovation and Incubation Centre to motivate faculty and students to conduct research in areas of their interest and social benefit. Publishing of good quality research papers is the expected offshoot of the work. PHCET has started a digital library which is an online database of digital objects that can include text, still images, audio, video, or other digital media formats. Library Space (LSDLR) is a centrally hosted repository for Study Materials, co-curricular and extra-curricular information. The institute follows Project Based Learning (PBL) to enable the students to think out of box and ensures skill development with implementation of several concepts. A project environment also fosters group work, cordiality and minimally even collective bargaining. PHCET has found PBL a subtle way of introducing in the young students desirable social behaviour

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that would help them in their professional lives. PBL has the potential to enhance employability and productivity and prepare them for the world of work. The institute has initiated a study workshop to improve learning skills and academic proficiency of the students and help them achieve their goals. Many students find it difficult to voice their opinions and contribute to a class discussion. These workshops give them a platform where they can share their views and opinions. Workshops are organized in each department to enhance the exposure and understanding of the subjects. It also aims to introduce the students to strategies which will help them overcome their reluctance to participate actively in the class. in attaining continuous learning and evaluation and OBE in turn. PHCET has formed Student Chapters of Professional Organizations such as CSI, ACM, IETE, IE, etc., to give exposure to the professional world as well as help learn management. Public Speaking Forum, Debating Club, etc. are intended to enhance communication, soft skills and confidence.

#### **20.Distance education/online education:**

PHCET has always provided students a platform for online education. Institute has a NPTEL local chapter that allows students and faculty to enroll in NPTEL courses. PHCET has tied up with Coursera and EDX international online platforms to provide online certificate courses offering a diverse range of subjects in the domain of engineering and technology. Students find it very helpful to prepare for interviews and obtain professional training from professors at NITs, IITs, and international level. Institute has purchased a license version of zoom to ensure a support for online education during pandemic. Recorded Zoom sessions were shared with students using course wise google classroom. Faculty shares entire course material on Google Classroom so that students can utilize it after college hours. Faculty use flipped classroom, quizzes, polls and other assessment ways to ensure active participation of students in academics. PHCET has excellent IT infrastructure, Wifi in classroom and labs, library and Research Centre with 500 mbps internet Digital library with Wifi provides an online platform for students to access various E-resources, E- magazines, ebooks and other study materials. The PHCET library provides remote access to OPAC to verify the availability of books and other resources in the The inhouse developed facility named as Lightboard Studio helps faculty to record lectures. These recorded lectures are made available on MES official YOUTUBE channel. This helps students to clear their concepts remotely. During the pandemic also, it helped students to revise the contents taught in online classes who missed their lectures due to poor network connectivity. Various departments

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at PHCET have designed Value added Courses (VAC) as per the industry requirements. These courses are conducted in online and offline modes by experts from industry and in house faculty. For a few courses, the certification for VAC is provided in collaboration with Industry. The details of these VACs are available on the PHCET website. PHCET is an affiliated institution with University of Mumbai and follows the guidelines prescribed by the University. Hence, at present PHCET does not provide multiple entry and exit to UG students.

Extended Profile			
1.Programme			
1.1	502		
Number of courses offered by the institution across during the year	all programs		
File Description	Documents		
Data Template	<u>View File</u>		
2.Student			
2.1	2103		
Number of students during the year			
File Description	Documents		
Institutional Data in Prescribed Format	<u>View File</u>		
2.2	116		
Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year			
File Description	Documents		
Data Template	View File		
2.3	752		
Number of outgoing/ final year students during the year			
File Description	Documents		
Data Template	<u>View File</u>		

3.Academic		
3.1		142
Number of full time teachers during the year		
File Description	Documents	
Data Template		<u>View File</u>
3.2		135
Number of sanctioned posts during the year		
File Description	Documents	
Data Template		<u>View File</u>
4.Institution		
4.1		59
Total number of Classrooms and Seminar halls		
4.2		800.89
Total expenditure excluding salary during the year (INR in lakhs)		
4.3		1060
Total number of computers on campus for academic purposes		
Part B		
CURRICULAR ASPECTS		
11 C		

#### 1.1 - Curricular Planning and Implementation

1.1.1 - The Institution ensures effective curriculum delivery through a well planned and documented process

Pillai HOC College of Engineering and Technology is affiliated to University of Mumbai (UoM) and recognized by AICTE and other governing bodies. Institute follows the curriculum given by the university. Institute term calendar is prepared before the commencement of every semester as per guidelines given by the university. Semester plan and the process of teaching learning is carried out with careful planning and effective delivery of lectures. Every faculty prepares a detailed course academic plan (v4.0) which includes COs mapping with POs and PSOs, experiment

list, reference books, NPTEL courses and MOOCs that ensures effective curriculum delivery. Faculty members use smart classrooms, and various ICT tools for lecture delivery. PHCET has an in-house developed light board studio to record sessions with demonstrations and are made available on MES official YouTube channel. All study material, notes, assignments, question banks and videos of recorded lectures etc are made available through the Google classroom. Students are provided with handouts, lab manuals and case studies for practical learning. NPTEL local chapter at PHCET conducts various courses for additional professional training. The assessment performance of each student was monitored continuously and actions were taken accordingly for improvisation if required.

File Description	Documents
Upload relevant supporting document	<u>View File</u>
Link for Additional information	https://phcet.ac.in/students/student- activities/student-events/

## 1.1.2 - The institution adheres to the academic calendar including for the conduct of Continuous Internal Evaluation (CIE)

Continuous Internal Evaluation (CIE) is critical for continuously reforming the process for academic excellence. Institute academic calendar declares a tentative schedule of internal assessment, oral and practical exams and end sem examination in advance before the commencement of each semester in adherence with University academic calendar. The academic calendar is made available to all students and faculty and is displayed on PHCET website and at key locations in PHCET. Internal Assessment is conducted twice a semester. Test papers are mapped based on bloom's taxonomy in order to assess students' learning levels. This contributes to the CIE's lucidity. Problem-solving skills are enhanced through the use of innovative and distinct assignments. Students are required to complete application-based tasks. Mini and Major projects are assessed by academicians and industry experts through project competitions and oral exams. Students' learning levels are assessed through oral and practical exams conducted on behalf of the university. Each semester study camps are organized for each subject before the internal and end sem examination to make them competent. Remedial classes are also organized as per requirement for slow learners.

File Description	Documents
Upload relevant supporting document	<u>View File</u>
Link for Additional information	https://phcet.ac.in/students/academic- calendar/term-calendar/

# 1.1.3 - Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the year. Academic council/BoS of Affiliating University Setting of question papers for UG/PG programs Design and Development of Curriculum for Add on/ certificate/ Diploma Courses Assessment /evaluation process of the affiliating University

#### A. All of the above

File Description	Documents
Details of participation of teachers in various bodies/activities provided as a response to the metric	<u>View File</u>
Any additional information	<u>View File</u>

#### 1.2 - Academic Flexibility

## 1.2.1 - Number of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented

#### 1.2.1.1 - Number of Programmes in which CBCS/ Elective course system implemented

12

File Description	Documents
Any additional information	<u>View File</u>
Minutes of relevant Academic Council/ BOS meetings	<u>View File</u>
Institutional data in prescribed format (Data Template)	<u>View File</u>

#### 1.2.2 - Number of Add on /Certificate programs offered during the year

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## 1.2.2.1 - How many Add on /Certificate programs are added during the year. Data requirement for year: (As per Data Template)

39

File Description	Documents
Any additional information	<u>View File</u>
Brochure or any other document relating to Add on /Certificate programs	<u>View File</u>
List of Add on /Certificate programs (Data Template )	<u>View File</u>

## 1.2.3 - Number of students enrolled in Certificate/ Add-on programs as against the total number of students during the year

718

File Description	Documents
Any additional information	<u>View File</u>
Details of the students enrolled in Subjects related to certificate/Add-on programs	<u>View File</u>

#### 1.3 - Curriculum Enrichment

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

PHCET has imbibed different programs to enhance the professional competencies and general competencies like social human values, environment sensitivity, and professional ethics to foster holistic development of students. PHCET has various committees to monitor cross-cutting issues relevant to professional ethics, gender, human values, environment and sustainability into the curriculum like antiragging Committee, internal complaint committee, women's development cell etc. The committee composition includes senior faculty, staff and students. The anti-Ragging Committee is formed to supervise ragging and harassment issues in the Institute. Grievances, feedback from faculty, staff, students, parents can be submitted in college and/or via PHCET website. In AY 21-22, NSS team has organized camps, blood and plasma donation drives, Health Care Camps, and tree plantation activities to foster the sense of human values among students. Webinars on "Zero waste and sustainability lifestyle ', 'Suicide prevention' and 'Awareness on organ donation' were also

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organised. Women's Development cell address issues related to gender sensitisation and human values by conducting various online and offline events. The details are available on the PHCET website. Students gain insight on professional ethics and etiquettes through various seminars on interpersonal skills, soft skill development programs and site visits and industry visits organised every semester.

File Description	Documents
Any additional information	<u>View File</u>
Upload the list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum.	<u>View File</u>

## 1.3.2 - Number of courses that include experiential learning through project work/field work/internship during the year

133

File Description	Documents
Any additional information	<u>View File</u>
Programme / Curriculum/ Syllabus of the courses	<u>View File</u>
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	<u>View File</u>
MoU's with relevant organizations for these courses, if any	<u>View File</u>
Institutional Data in Prescribed Format	<u>View File</u>

#### 1.3.3 - Number of students undertaking project work/field work/ internships

827

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File Description	Documents
Any additional information	<u>View File</u>
List of programmes and number of students undertaking project work/field work//internships (Data Template)	<u>View File</u>

#### 1.4 - Feedback System

# 1.4.1 - Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders Students Teachers Employers Alumni

A. All of the above

File Description	Documents
URL for stakeholder feedback report	https://phcet.ac.in/feedback/
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	<u>View File</u>
Any additional information	<u>View File</u>

## 1.4.2 - Feedback process of the Institution may be classified as follows

A. Feedback collected, analyzed and action taken and feedback available on website

File Description	Documents
Upload any additional information	<u>View File</u>
URL for feedback report	https://phcet.ac.in/feedback/

#### TEACHING-LEARNING AND EVALUATION

#### 2.1 - Student Enrollment and Profile

#### 2.1.1 - Enrolment Number Number of students admitted during the year

#### 2.1.1.1 - Number of students admitted during the year

298

File Description	Documents
Any additional information	<u>View File</u>
Institutional data in prescribed format	<u>View File</u>

## 2.1.2 - Number of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy during the year (exclusive of supernumerary seats)

#### 2.1.2.1 - Number of actual students admitted from the reserved categories during the year

116

File Description	Documents
Any additional information	<u>View File</u>
Number of seats filled against seats reserved (Data Template)	<u>View File</u>

#### 2.2 - Catering to Student Diversity

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

Learning level of the student is assessed by various direct and indirect methods. In a direct method, the students' knowledge and skills are assessed from their performance in the assignments, tutorials, experiments, lab assignments, internal assessment test, oral/practical examination, and end semester examination. In an indirect method, a student's performance in a particular subject is continuously monitored by the subject in-charge. This is done by observing student's involvement in classroom participation, students' attention during lectures and practical along with their attendance. Interaction of mentors with students also helps in identifying students' learning level. To bring slow learners into the mainstream, remedial classes, extra lab sessions and timely tests are conducted. Additional tutorials and problem-solving sessions are organized or difficult topics by subject in-charge.

To create awareness in advanced learners about various career options and enhance their skill, webinars, expert lectures and guests' sessions on the latest technologies, higher studies are organized. The advanced learners' having high academic track records are encouraged to achieve university ranks, to take up competitive examinations etc. Research oriented students are motivated to present their work at various platforms and competitions. Students

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also get financial support from the institute to participate in such competitions.

File Description	Documents
Paste link for additional information	https://phcet.ac.in/students/student- activities/student-associations/
Upload any additional information	<u>View File</u>

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

Number of Students	Number of Teachers
2055	142

File Description	Documents
Any additional information	<u>View File</u>

#### 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

Student centric methods concentrate on enhancing knowledge through different practices adopted by the institution. Experiential learning is promoted by arranging the industrial visits, as well as encouraging students for internships, field projects, field visits, field surveys. Students are allotted Mini projects and Major Projects to impart practical experience.

Under student chapters like IEI, IETE, CSI, MESA, ISTE, ASTR, ISRS etc, various student activities like hands on sessions, debates, poster competitions, group discussion, extempore talks, skill based workshops are organised which will promote participative learning. NSS unit organises many activities like awareness sessions, camps, Blood Donation, Swachh Bharat Abhiyan etc. to promote participative learning. PHCET organises National level technical event, Tech Euforia to give young engineers a platform to showcase their creative ideas and hidden talent, technical soundness and also an arena for them to compete, learn and prove themselves.

PHCET encourages students to acquire problem solving skills by arranging project competitions. Simulations, case studies are discussed to make students aware about real life scenarios. Students

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participate in Avishkar, Hackathons, Go-kart competitions, research activities conducted by the centre for innovation and research at PHCET and in the outside world.

File Description	Documents
Upload any additional information	<u>View File</u>
Link for additional information	<pre>https://phcet.ac.in/students/student- activities/student-events/</pre>

## 2.3.2 - Teachers use ICT enabled tools for effective teaching-learning process. Write description in maximum of 200 words

In PHCET, divergent ICT tools are used by the faculty members to support, enhance, and optimize the delivery of education. Projector and internet facility is made available in all classrooms, labs and seminar halls. Library is also equipped with a wifi facility and digital library. Faculty members use PPTs, video and online audio clips to improve teaching- learning experience. Topic related news, latest trends and examples are shared with students during live sessions from the internet. Google classrooms are used by the faculty to share study material, assignments, conduct tests, and keep record of each students' performance. Additional lectures, lab sessions are conducted using online platforms such as Google Meet and Zoom whenever required. Quizzes and additional assessments are conducted using google forms, tie up with Coursera and Edx is available to provide professional training and skill development. Smart Board facility equips faculty to demonstrate real-time examples, easy access to the internet and search tools. Video lectures are prepared by the faculty using in-house developed lightboard studio and are made available using MES official YouTube Channel. Library space (Digital Learning Repository) provides remote access to course materials for students. Digitally well-equipped auditoriums, seminar halls, conclaves are used by teachers to conduct seminars, webinars, training, workshops etc.

File Description	Documents
Upload any additional information	<u>View File</u>
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	<u>View File</u>

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

#### 2.3.3.1 - Number of mentors

142

File Description	Documents
Upload, number of students enrolled and full time teachers on roll	<u>View File</u>
Circulars pertaining to assigning mentors to mentees	<u>View File</u>
Mentor/mentee ratio	<u>View File</u>

#### 2.4 - Teacher Profile and Quality

#### 2.4.1 - Number of full time teachers against sanctioned posts during the year

142

File Description	Documents
Full time teachers and sanctioned posts for year (Data Template)	<u>View File</u>
Any additional information	<u>View File</u>
List of the faculty members authenticated by the Head of HEI	<u>View File</u>

## 2.4.2 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.B Superspeciality / D.Sc. / D.Litt. during the year (consider only highest degree for count)

## 2.4.2.1 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.C Superspeciality / D.Sc. / D.Litt. during the year

19

File Description	Documents
Any additional information	<u>View File</u>
List of number of full time teachers with Ph. D. / D.M. / M.Ch./ D.N.B Super specialty / D.Sc. / D.Litt. and number of full time teachers for year (Data Template)	<u>View File</u>

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

#### 2.4.3.1 - Total experience of full-time teachers

7

File Description	Documents
Any additional information	<u>View File</u>
List of Teachers including their PAN, designation, dept. and experience details(Data Template)	<u>View File</u>

#### 2.5 - Evaluation Process and Reforms

2.5.1 - Mechanism of internal assessment is transparent and robust in terms of frequency and mode. Write description within 200 words.

Internal assessment comprises of term work assessment and internal tests as per the syllabus scheme prescribed by the University of Mumbai. The assessment of term work is based on the performance and evaluation of assignments, case studies, project-based learning and experiments on a regular basis. Two internal tests are conducted each of 20 marks and an average is considered as 20% of the total weightage in each theory subject along with end semester examination of 80 marks. The first test is conducted within 45 days of college reopening in such a way that at least 40% syllabus is covered in the class and the second test is scheduled after the next 40 % is covered.

The solution of the test along with question wise marking scheme is discussed with students to maintain transparency and uniformity in the assessment of the internal tests. In mid of every semester, parent teachers meeting is conducted to update the parents about their ward's attendance and performance in internal assessment of all subjects and feedback is also sought from parents. With these systems in place, PHCET very well exhibits transparency in the mechanism of internal assessment and robustness in terms of frequency and mode.

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File Description	Documents
Any additional information	<u>View File</u>
Link for additional information	
	https://phcet.ac.in/students/examination/exa
	<u>mination-notices/</u>

## 2.5.2 - Mechanism to deal with internal examination related grievances is transparent, time-bound and efficient

PHCET has devised an efficient mechanism to deal with examination related grievances which is transparent. The conduction of CIE and rectification of grievances is time bound. Guidelines issued by the affiliating university for internal and end semester examination are strictly followed and are conveyed to students, faculty and staff. An exam committee, consisting of a senior faculty as convener and faculty is constituted by principal to handle the issues regarding the evaluation process. Internal assessment answer sheets are distributed to students and their performance is discussed. If students have grievances related to evaluation of university answer scripts, students can apply for re-evaluation within a week from the declaration of results. The results of re-evaluation are announced as per the university norms and schedule. If a student is not convinced with recounting/revaluation results, he/she can submit a grievance. The fees will be refunded to the students if he/she clears the paper. The entire process is maintained transparently and in a time bound manner by the Institute and the university.

File Description	Documents
Any additional information	<u>View File</u>
Link for additional information	
	https://phcet.ac.in/students/examination/examination-notices/
	miliacion nocices/

#### 2.6 - Student Performance and Learning Outcomes

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

Course objectives and course outcomes for each course are prescribed by the academic council of the University of Mumbai. However, each college can reframe the course outcomes (CO's) if required without disturbing the core of the specified objectives and outcomes.

The course outcomes of each course for all branches for eight semesters are available on PHCET website for the benefit of all

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stakeholders. PHCET has nominated domain coordinators in each branch of engineering. Domain coordinators along with the head of department finalize the course outcomes. Each course has 4-6 course outcomes as per credit and are framed as per Bloom's Taxonomy. Faculty includes the COs in their course file and the same is communicated to the students during classes by the concerned faculty. Programme outcomes and Program specific outcomes are displayed in prominent locations of the department for staff, students and public view. PO's, PEOs, and PSOs of specific lab courses are printed on lab manuals and issued to all students at the beginning of every semester. POs and PSOs are communicated to employers and alumni during the meeting.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional information	https://phcet.ac.in/academics/bachelors/civi l-engineering/program-overview/
Upload COs for all Programmes (exemplars from Glossary)	<u>View File</u>

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

PHCET practices outcome-based education. The course attainment is assessed as per NBA (Washington Accord) guidelines. The direct and indirect assessment methods are followed for CO-PO and CO-PSO attainment. Direct assessment includes assessment of assignments, practical and oral examination, mini-projects, final year projects, experiments, internal assessments and the end semester examination, while indirect method includes course exit survey.

The target values for each subject are set by considering the difficulty level of the subject. Based on university curriculum, weightage was given to each parameter. Based on previous results, levels were selected (1- High, 2-Moderate, 3-Low). The final level was decided by comparing level criteria and percentage of students at and above set target value of marks. The course attainment was calculated by multiplying final level by weight percentage. Indirect assessments include course exit surveys to map course outcomes in the scale of 1 to 5. Total attainment was calculated by giving 80% weightage to direct assessment and 20% weightage to indirect assessment.

The PO's were mapped with CO's in the scale of 0, 0.33, 0.66 and 1

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(0- No correlation, 0.33- Low, 0.66- Moderate and 1- Fully correlated). Programme attainment is calculated by multiplying total attainment with PO and CO mapping scale. Same procedure is followed to calculate PSO attainment.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional information	https://phcet.ac.in/academics/bachelors/elec trical-engineering/program-overview/

#### 2.6.3 - Pass percentage of Students during the year

## 2.6.3.1 - Total number of final year students who passed the university examination during the year

694

File Description	Documents
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	<u>View File</u>
Upload any additional information	<u>View File</u>
Paste link for the annual report	https://phcet.ac.in/about/mandatory- disclosures/annual-report/

#### 2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire) (results and details need to be provided as a weblink)

https://phcet.ac.in/igac/student-satisfaction-survey/

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

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#### 5539200

File Description	Documents
Any additional information	<u>View File</u>
e-copies of the grant award letters for sponsored research projects /endowments	<u>View File</u>
List of endowments / projects with details of grants(Data Template)	<u>View File</u>

#### 3.1.2 - Number of teachers recognized as research guides (latest completed academic year)

#### 3.1.2.1 - Number of teachers recognized as research guides

6

File Description	Documents
Any additional information	<u>View File</u>
Institutional data in prescribed format	<u>View File</u>

## 3.1.3 - Number of departments having Research projects funded by government and non government agencies during the year

## 3.1.3.1 - Number of departments having Research projects funded by government and nongovernment agencies during the year

6

File Description	Documents
List of research projects and funding details (Data Template)	<u>View File</u>
Any additional information	<u>View File</u>
Supporting document from Funding Agency	<u>View File</u>
Paste link to funding agency website	https://phcet.ac.in/research/consultancy/

#### 3.2 - Innovation Ecosystem

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

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PHCET practices the innovation ecosystem in a structured way and has various initiates like formation of IIC, NISP, IPR cell and incubation centre etc. PHCET IIC was formed in AY 2020-21 as per the guidelines by the Ministry of MHRD. PHCET IIC conducts several sessions on design thinking, innovation, IPR and entrepreneurship. IIC members have completed foundation level and advanced level innovation ambassador training offered by MHRD. IIC members actively conduct mentoring sessions for faculty and students on a regular basis. PHCET IIC application was shortlisted for AICTE IDEA LAB development at the institute premises to engage student innovation through industry collaborations.

PHCET participates in NIRF and ARIIA every year. In ARIIA, PHCET obtained band B for AY 2020-21. PHCET motivates and encourages students and faculty to file patents, copyrights on research topics and has organised several expert lectures on "Patent filing process", "design thinking" etc. This has resulted in an increased number of patent applications from students and faculty in AY 2021-22. PHCET actively participates in YUKTI 4.0 and KAPILA programs every year. Many teams have participated in Smart India Hackathon (SIH), Avishkar, Toycothon and other innovation based national competitions. IIC members are invited as evaluators, judges at SIH.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://phcet.ac.in/research/research- development/

## 3.2.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship during the year

## 3.2.2.1 - Total number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during the year

4	3
-	_

File Description	Documents
Report of the event	<u>View File</u>
Any additional information	<u>View File</u>
List of workshops/seminars during last 5 years (Data Template)	<u>View File</u>

#### 3.3 - Research Publications and Awards

#### 3.3.1 - Number of Ph.Ds registered per eligible teacher during the year

#### 3.3.1.1 - How many Ph.Ds registered per eligible teacher within the year

1

File Description	Documents
URL to the research page on HEI website	https://phcet.ac.in/academics/ph-d/computer- engineering/program-overview/
List of PhD scholars and their details like name of the guide, title of thesis, year of award etc (Data Template)	View File
Any additional information	<u>View File</u>

## 3.3.2 - Number of research papers per teachers in the Journals notified on UGC website during the year

#### 3.3.2.1 - Number of research papers in the Journals notified on UGC website during the year

24

File Description	Documents
Any additional information	<u>View File</u>
List of research papers by title, author, department, name and year of publication (Data Template)	<u>View File</u>

- 3.3.3 Number of books and chapters in edited volumes/books published and papers published in national/international conference proceedings per teacher during the year
- 3.3.3.1 Total number of books and chapters in edited volumes/books published and papers in national/international conference proceedings year wise during year

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#### 41

File Description	Documents
Any additional information	<u>View File</u>
List books and chapters edited volumes/ books published (Data Template)	<u>View File</u>

#### 3.4 - Extension Activities

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

PHCET provides education to prepare the individual to find out one's inherent potential and develop the same to the maximum extent in order to derive utility for himself and contribute to the society. Community oriented education and its extensional activities are the modern ideologies of Education. Extra -curricular activities open avenues for the students to make social participation and contribute for the social empowerment through Community Service, Uberang, NSS, Student Council, Marathi Vagmay Mandal, Alumni Association, etc,. Due to the pandemic it was not possible to reach out to the community for some duration but PHCET arranged many events online and tried to achieve the objectives. Few events were conducted online to provide financial assistance to Panvel Gurudwara. A session on "Awareness about Organ Donation" was organized as a result of which one faculty registered himself for the Eye Donation. Through all these activities students work for the society directly and try to help them in a better way.

File Description	Documents
Paste link for additional information	https://phcet.ac.in/nss-day- celebration-2022-23/
Upload any additional information	<u>View File</u>

- 3.4.2 Number of awards and recognitions received for extension activities from government / government recognized bodies during the year
- 3.4.2.1 Total number of awards and recognition received for extension activities from Government/ Government recognized bodies year wise during the year

4

File Description	Documents
Any additional information	<u>View File</u>
Number of awards for extension activities in last 5 year (Data Template)	<u>View File</u>
e-copy of the award letters	<u>View File</u>

- 3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organized in collaboration with industry, community and NGOs ) during the year
- 3.4.3.1 Number of extension and outreach Programs conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the year

18

File Description	Documents
Reports of the event organized	<u>View File</u>
Any additional information	<u>View File</u>
Number of extension and outreach Programmes conducted with industry, community etc for the during the year (Data Template)	<u>View File</u>

- 3.4.4 Number of students participating in extension activities at 3.4.3. above during year
- 3.4.4.1 Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachh Bharat, AIDs awareness, Gender issue etc. year wise during year

1587

File Description	Documents
Report of the event	<u>View File</u>
Any additional information	<u>View File</u>
Number of students participating in extension activities with Govt. or NGO etc (Data Template)	<u>View File</u>

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#### 3.5 - Collaboration

- 3.5.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/internship during the year
- 3.5.1.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/internship year wise during the year

150

File Description	Documents
e-copies of related Document	<u>View File</u>
Any additional information	<u>View File</u>
Details of Collaborative activities with institutions/industries for research, Faculty	<u>View File</u>

- 3.5.2 Number of functional MoUs with institutions, other universities, industries, corporate houses etc. during the year
- 3.5.2.1 Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. year wise during the year

26

File Description	Documents
e-Copies of the MoUs with institution./ industry/corporate houses	<u>View File</u>
Any additional information	<u>View File</u>
Details of functional MoUs with institutions of national, international importance, other universities etc during the year	<u>View File</u>

#### INFRASTRUCTURE AND LEARNING RESOURCES

#### 4.1 - Physical Facilities

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

PHCET is well-equipped with laboratories, computer centre, spacious classrooms, workshops and well stocked library which provide a stimulating educational environment. Classrooms are encompassed with LCD projectors for conducting interactive theory classes. PHCET has

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ICT enabled Smart Classroom with the provision of Multimedia learning. Adequate infrastructure in terms of state-of-the-art computer labs, library, language lab, faculty rooms, seminar Halls with audio visual facilities, Auditorium, Conclaves is available. Conclaves are regularly used for conducting various hands-on workshops STTP, FDP and seminars for students and faculty. Labs have required licensed software and open source tools to cater the requirements of curriculum. Effective delivery of education through various E-learning modes is adapted for an effective teachinglearning process especially during pandemic. PHCET has a Zoom licence for smooth conduction of online events. Through the component Library, components and boards are made available to the students and faculty. Research and Incubation Centre is also available to promote Research activities. PHCET is a Network Institute with Indian Space Research Organisation (ISRO) under Indian Institute of Remote Sensing (IIRS) and conducted more than 80 courses and 20 various workshops. The well-designed ISRO Lab is set up in PHCET with all course materials in the form of books, online notes and videos are available.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://phcet.ac.in/about/infrastructure-and- facilities/academic-infrastructure/

4.1.2 - The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga centre etc.

The institute has conference halls, auditorium, and stage for organizing cultural events. The institution provides a platform-Euforia, the annual cultural festival which brings all the students together and encourages bringing out their abilities, capacities and skills by organizing and participating in the diverse events.

The institute has a tie-up with Sports Authority of India and due to this tie up, students can get trained for sports. The institution has 7 acres of sports ground, 400m athletic track, 1 football court, 4 volleyball courts, 1 basketball court, 2 handball courts.

Institution has the facility for various outdoor and indoor games, such as badminton, basketball, volleyball, carom, chess and table tennis. A well equipped gymnasium is there in the campus for the students and faculty. All the major equipments are available in the

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gymnasium such as 2 leg press, 2 Multi Stations, 2 Olympic boxes, 4 benches for bench press, treadmill etc.

Institute has signed an MOU with the Heartfulness Meditation Centre, under which we conduct various yoga and meditation sessions and programs.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://phcet.ac.in/about/infrastructure-and- facilities/academic-infrastructure/

## 4.1.3 - Number of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc.

59

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://phcet.ac.in/about/infrastructure-and- facilities/academic-infrastructure/
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	<u>View File</u>

## 4.1.4 - Expenditure, excluding salary for infrastructure augmentation during the year (INR in Lakhs)

## 4.1.4.1 - Expenditure for infrastructure augmentation, excluding salary during the year (INR in lakhs)

2	Λ	2		1	2
2	υ	3	•	4	4

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File Description	Documents
Upload any additional information	<u>View File</u>
Upload audited utilization statements	<u>View File</u>
Upload Details of budget allocation, excluding salary during the year (Data Template	<u>View File</u>

#### 4.2 - Library as a Learning Resource

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

Library has created Digital Library (Institutional Repository) for Comprehensive Study materials like Lecture Notes, PPTs, Lab Manuals, Assignments, Experiments, Syllabus, Question Papers and all the other Academic relevant materials required by the users. Moodle an Open Source Online Learning Management System is used for developing the Digital Library. A dedicated Rack Server with remote access Facility is provided for the purpose. Students benefitted a lot specifically during COVID - 19 Pandemic.

PHCET Library is housed with modern amenities and situated on second floor of the Engineering building. PHCET Library being an integral part of learning and curriculum, enhancing the quality of academic and research environment in the college. It has got a rich collection of more than 25,500 books in the field of Engineering, Technology and related disciplines. Library has subscribed to over 5400 Ejournals and E-Books. Library houses an enviable collection of resources in the field of Engineering, Study Skills, Personality Development, General Management, Humanities, Science and allied subjects. The library has also created a learning environment by establishing Online Public Access Catalogue Search Area, internet browsing area for accessing e-resources, Laptop zone with Wi-Fi facility and specialized workstations like discussion room, Separate Room for rare documents and reference books. The library has a nucleus to meet the information requirements of students and faculties of the institution.

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File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional Information	https://phcet.ac.in/library/library- information/

# 4.2.2 - The institution has subscription for the following e-resources e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access toe-resources

A. Any 4 or more of the above

File Description	Documents
Upload any additional information	<u>View File</u>
Details of subscriptions like e- journals,e-ShodhSindhu, Shodhganga Membership etc (Data Template)	<u>View File</u>

## 4.2.3 - Expenditure for purchase of books/e-books and subscription to journals/e- journals during the year (INR in Lakhs)

## 4.2.3.1 - Annual expenditure of purchase of books/e-books and subscription to journals/e-journals during the year (INR in Lakhs)

1.62

File Description	Documents
Any additional information	<u>View File</u>
Audited statements of accounts	<u>View File</u>
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	<u>View File</u>

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

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

308

File Description	Documents
Any additional information	<u>View File</u>
Details of library usage by teachers and students	<u>View File</u>

#### 4.3 - IT Infrastructure

#### 4.3.1 - Institution frequently updates its IT facilities including Wi-Fi

PHCET has excellent infrastructure and updates IT facilities regularly as per the requirements obtained from various departments. The computer labs are equipped with computers with a configuration Gigabyte GA-H81M-DS2 Motherboard, i5 Processor, 8 GB RAM, 500 GB HDD, Standard Keyboard, Optical Mouse, Logitech HD Webcam, and headphones Circle Concerto 201 USB, Printer. Institute has several licenses like Autocad, Primavera, Ansys, etc, and open-source software like Scilab, packet tracer, latex, Pspice, and many more as per the lab requirements. Internet bandwidth is upgraded from 300 Mbps to 500 Mbps in A.Y. 2021-22. Servers available include Tally ERP with configuration Windows Server 2003 R2, Intel Xeon Processor E5-2609, 32 GB RAM, 1 TB HDD, Solidworks with configuration Windows 7 SP1, Gigabyte Processor 8 GB RAM, 500 GB HDD and Eduright as Windows Server 2008 R2, Intel Xeon Processor E5-2620 32 GB RAM, 5 TB HD. In addition, licenses for Zoom, and G suite, are available. 24 x 7 WIFI facility in labs, classrooms, staff room, seminar hall, and the library is available.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://phcet.ac.in/about/infrastructure-and- facilities/academic-infrastructure/

#### 4.3.2 - Number of Computers

1060

File Description	Documents
Upload any additional information	<u>View File</u>
List of Computers	<u>View File</u>

#### 4.3.3 - Bandwidth of internet connection in the A. ? 50MBPS

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#### **Institution**

File Description	Documents
Upload any additional Information	<u>View File</u>
Details of available bandwidth of internet connection in the Institution	<u>View File</u>

#### 4.4 - Maintenance of Campus Infrastructure

- 4.4.1 Expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the year (INR in Lakhs)
- 4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component during the year (INR in lakhs)

#### 204.43

File Description	Documents
Upload any additional information	<u>View File</u>
Audited statements of accounts	<u>View File</u>
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	<u>View File</u>

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

PHCET has defined policies and procedures for resource maintenance and utilization, which are outlined in the PHCET handbook. Resources are repaired, calibrated, maintained and upgraded at optimal levels. The use of resources is tracked, and records are kept. Time tables, accession records, schedules, dead stock registers, and issue registers are all available with respective departments.

Repair/ maintenance of equipment and instruments is initiated by Laboratory in-charges as and when required and the same is communicated to the respective HoD for further action. CCTV cameras are installed to monitor the campus, common areas, computer laboratories, and other areas. The entire campus maintenance is meticulously planned. AMCs are in place for the maintenance of generators, UPS, water purifiers, lifts, and air conditioners etc.

The housekeeping team is in charge of keeping the entire campus clean. Periodic testing and maintenance of the fire extinguisher and equipment ensures safety.

The gymnasium, playgrounds, and all sports-related equipment are used and maintained under the supervision of the Sports Director. Exclusive personnel from the hardware maintenance department are on hand to constantly monitor, repair, and maintain the systems' usage. Computer configurations are upgraded based on software compatibility and academic requirements.

File Description	Documents		
Upload any additional information	<u>View File</u>		
Paste link for additional information	https://phcet.ac.in/faculty/faculty- handbook/		

#### STUDENT SUPPORT AND PROGRESSION

#### **5.1 - Student Support**

## **5.1.1** - Number of students benefited by scholarships and free ships provided by the Government during the year

## 5.1.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year

1371

File Description	Documents
Upload self attested letter with the list of students sanctioned scholarship	<u>View File</u>
Upload any additional information	<u>View File</u>
Number of students benefited by scholarships and free ships provided by the Government during the year (Data Template)	<u>View File</u>

- 5.1.2 Number of students benefitted by scholarships, free ships etc. provided by the institution / non- government agencies during the year
- 5.1.2.1 Total number of students benefited by scholarships, free ships, etc provided by the institution / non- government agencies during the year

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#### 257

File Description	Documents
Upload any additional information	<u>View File</u>
Number of students benefited by scholarships and free ships institution / non- government agencies in last 5 years (Date Template)	<u>View File</u>

## 5.1.3 - Capacity building and skills enhancement initiatives taken by the institution include the following: Soft skills Language and communication skills Life skills (Yoga, physical fitness, health and hygiene) ICT/computing skills

A. All of the above

File Description	Documents
Link to Institutional website	https://phcet.ac.in/enhancement-schemes/
Any additional information	<u>View File</u>
Details of capability building and skills enhancement initiatives (Data Template)	<u>View File</u>

## 5.1.4 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

1647

## 5.1.4.1 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

#### 1647

File Description	Documents
Any additional information	<u>View File</u>
Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	<u>View File</u>

5.1.5 - The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases Implementation of guidelines of statutory/regulatory bodies Organization wide awareness and undertakings on policies with zero tolerance Mechanisms for submission of online/offline students' grievances Timely redressal of the grievances through appropriate committees

#### A. All of the above

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

#### **5.2 - Student Progression**

#### 5.2.1 - Number of placement of outgoing students during the year

#### 5.2.1.1 - Number of outgoing students placed during the year

289

File Description	Documents
Self-attested list of students placed	<u>View File</u>
Upload any additional information	<u>View File</u>
Details of student placement during the year (Data Template)	<u>View File</u>

#### 5.2.2 - Number of students progressing to higher education during the year

#### 5.2.2.1 - Number of outgoing student progression to higher education

11

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File Description	Documents
Upload supporting data for student/alumni	<u>View File</u>
Any additional information	<u>View File</u>
Details of student progression to higher education	<u>View File</u>

- 5.2.3 Number of students qualifying in state/national/ international level examinations during the year (eg: JAM/CLAT/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations)
- 5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations) during the year

23

File Description	Documents
Upload supporting data for the same	<u>View File</u>
Any additional information	<u>View File</u>
Number of students qualifying in state/ national/ international level examinations during the year (Data Template)	<u>View File</u>

#### 5.3 - Student Participation and Activities

- 5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national / international level (award for a team event should be counted as one) during the year
- 5.3.1.1 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 year.

File Description	Documents
e-copies of award letters and certificates	<u>View File</u>
Any additional information	<u>View File</u>
Number of awards/medals for outstanding performance in sports/cultural activities at univer sity/state/national/international level (During the year) (Data Template)	<u>View File</u>

5.3.2 - Institution facilitates students' representation and engagement in various administrative, cocurricular and extracurricular activities (student council/ students representation on various bodies as per established processes and norms)

PHCET's student council (SC) framework consists of Institute faculty coordinator (FC) which branches down to department faculty coordinator. There are seven positions i.e President, Vice President, Secretary, Vice Secretary, Caste Coordinator, Women Coordinator, and Sports Coordinator. Department FC selects these seven positions from their respective departments and nominates them to institute Later in the presence of the principal, HODs, and other senior faculty members, Institute SC is formed.

SC is involved in various co-curricular and extracurricular activities across departments and institute. All information is communicated to all classes by a respective class representative (CR) through notices, WhatsApp, and telegram groups. SC conducted various events under a proper hierarchy and coordinated in 360 degree for the successful completion of the events.

various clubs such as Kaya (Gym), Khoj (Lost and Found), Kreeda (Sports), Prayojana (Project), Raag (Music), Sadhana (Meditation), and Umeed (Determination) which are active and run by the students.

Various Technical (Prayog-Science Completion, days for Innovation, Brainstorming, environment etc), Cultural (Euforia - Annual College festival), Co-curricular (celebrating days for biofuel, earth, water conservation. Unity etc), and extra curricular (sports, quiz etc) activities are very well organized and managed by the SC.

File Description	Documents
Paste link for additional information	https://phcet.ac.in/students/student- council/
Upload any additional information	<u>View File</u>

## 5.3.3 - Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions)

## 5.3.3.1 - Number of sports and cultural events/competitions in which students of the Institution participated during the year

21

File Description	Documents
Report of the event	<u>View File</u>
Upload any additional information	<u>View File</u>
Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions (Data Template)	<u>View File</u>

#### 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

PHCET has a registered Alumni Association under the Societies Registration Act 1860 at the Registrar of Society, Raigad Region. It is a link between alumni and the institute. PHCET alumni are working at various positions all over the globe and proving their mettle in all spheres of Technology and management. Alumni contribution through various means:

- Webinars and Seminars on advanced technology.
- Alumni Interaction: They are invited as resource persons at various events, guest lectures and panel discussions and share their experience regarding skills, trends & technologies in the corporate world.

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- Placement & Career Guidance Assistance: Alumni are working in organizations at various capacities. They keep the faculty and the placement officer abreast about the available job opportunities.
- Entrepreneurship Awareness: Alumni have established startups in different sectors, many of them are first generation entrepreneurs and guide students for the same.
- Alumni Meet: PHCET conducts Alumni Meet. Alumni get a chance to reconnect with their Alma mater and old friends to establish a network and share new trends in the corporate world and provide valuable inputs.
- PHCET "EUFORIA" is an annual fest event Alumni take an active role in planning and organizing "EUFORIA" and do branding of the institute.

File Description	Documents
Paste link for additional information	https://phcet.ac.in/alumni/alumni- registration/
Upload any additional information	<u>View File</u>

## 5.4.2 - Alumni contribution during the year (INR in Lakhs)

A. ? 5Lakhs

File Description	Documents
Upload any additional information	<u>View File</u>

#### GOVERNANCE, LEADERSHIP AND MANAGEMENT

#### 6.1 - Institutional Vision and Leadership

6.1.1 - The governance of the institution is reflective of and in tune with the vision and mission of the institution

In all its endeavors, PHCET is focused on quality engineering education and has evolved continuously over years to meet this quest. In AY 2017- 18, the two eligible departments, Computer Engineering and Mechanical Engineering were accredited by NBA in 2017 and reaccredited in 2020. PHCET was awarded with 'A' grade by

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NAAC in the first cycle in 2019. This itself indicates governance of the Institute is reflective of effective leadership. PHCET practices various best practices for all the stakeholders like value added courses, industry interactions, infrastructure development, tie ups with industry for training and skill development. These initiatives ensure the PHCET vision and mission to develop professional engineers in terms of technical development and global perspectives. Effective leadership includes various stakeholders, federal structure of administration and involvement of teachers and students in decision making. PHCET has world class infrastructure that includes wifi enabled classrooms, labs, seminar halls, and library, research and incubation center and IPR cell. PHCET functions through in house developed automated processes that includes lightboard studio, student and faculty portal for various tasks, feedback portal, etc. to strengthen the academic environment. PHCET has set up policies for allocation of research funds for faculty and students for innovative projects. Competitions like business ideas competition etc. motivate students to think innovatively. PHCET offers the prize of Rs 1 lakh each year to the winners of this competition.

File Description	Documents
Paste link for additional information	https://phcet.ac.in/about/board-of- governance/
Upload any additional information	<u>View File</u>

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

The function of the PHCET is to achieve complete transparency through participatory management and to encourage quicker decision-making in relation to academic and administrative activities. PHCET has a structure in place for distributing power and giving each individual functional operational autonomy as they strive towards a decentralised governance system.

PHCET employs a number of decentralisation techniques. The numerous academic, administrative, research and extracurricular activities that keep PHCET vibrant are managed by a number of committees and subcommittees. These committees are coordinated by faculty and staff, who also serve as members. PHCET fosters initiative on various levels. The Governing body, Principal, CDC, heads of department, registrar, members of the IQAC, professors, staff,

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student council, stakeholders, and committee members propose that they work together to create, configure, and carry out their plans within the framework of the institution.

The Principal and the heads of departments systematically plan and prepare the Academic Calendar according to the University Calendar. The academic schedule and institutional practices are continuously monitored by the Principal. Department heads ensure the smooth operation of department activities. Academic activities are monitored by senior faculty members. Faculty conduct the academic and extracurricular activities. The roles and responsibilities of all committees are well defined in the Faculty Handbook and is available on the PHCET website.

File Description	Documents
Paste link for additional information	https://phcet.ac.in/about/institutional- committees/
Upload any additional information	<u>View File</u>

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

#### 6.2.1 - The institutional Strategic/perspective plan is effectively deployed

The strategic plan involves steps taken on various core competencies like Student-Centered Excellence, Teaching-Learning Process, Research and Innovation, Extension Activities Quality Consciousness, Infrastructure, and Learning Resources. In AY 2021-22, various seminars and hands-on workshops were organized in both online and offline mode. In addition, the Institute offered value added courses and various MOOCs platforms like edx and coursera to ensure industry readiness and promote skill development. Faculty were encouraged and provided support and in house funding to publish quality research articles, books and file patents on research topics. IIC at PHCET conducted various activities on research, innovation and entrepreneurship and ensured that IIC members complete Innovation ambassador training programs and in turn train students and faculty. The NSS Unit of PHCET along with the student council organized various extension activities. Institute participated in NIRF and ARIIA ranking and efforts were taken to improve various aspects. Minor research grants from UoM and funds from other organizations for consultancy were obtained. IT infrastructure was strengthened and internet bandwidth was upgraded to 500 Mbps.

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File Description	Documents
Strategic Plan and deployment documents on the website	<u>View File</u>
Paste link for additional information	https://phcet.ac.in/about/board-of- governance/
Upload any additional information	<u>View File</u>

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

PHCET has various administrative and academic bodies/committees to monitor the overall functioning of the Institute. Governing body is the key body involved in planning and decision making. Governing body meetings are held regularly to review academic, administrative, and financial matters. This body gives a vision about new technology and courses that are to be initiated and plays a role in intellectual leadership and evaluates new scientific perspectives. It evolves policies and strategies for the generation of innovations & development of technical programs. The college development committee (CDC) prepares an overall comprehensive development plan of the college regarding academic, administrative, and infrastructural growth, and enables the college to foster excellence in curricular, co-curricular, and extracurricular activities. IQAC is one of the significant bodies that ensure the timely, efficient, and progressive performance of academic, administrative, and financial tasks. Apart from these, there are several bodies/committees. The roles, constitution, and powers of each committee are well defined and followed by all members strictly. Each committee should meet a minimum of once a semester and should provide written minutes after each meeting. To improve work efficiency in the day-to-day functioning of the Institute, to ensure accountability of each and every layer of administration, and to make the administrative environment of the Institute very cordial are the main objectives of these bodies. The service rules, policies, objectives, and responsibilities are clearly stated are available in Faculty Handbook at https://phcet.ac.in/about/policies/ and https://phcet.ac.in/faculty/faculty-handbook/

File Description	Documents
Paste link for additional information	https://phcet.ac.in/about/institutional- committees/
Link to Organogram of the institution webpage	https://phcet.ac.in/about/institute- organogram/
Upload any additional information	<u>View File</u>

## 6.2.3 - Implementation of e-governance in areas of operation Administration Finance and Accounts Student Admission and Support Examination

A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning)Document	<u>View File</u>
Screen shots of user inter faces	<u>View File</u>
Any additional information	<u>View File</u>
Details of implementation of e- governance in areas of operation, Administration etc(Data Template)	<u>View File</u>

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

#### 6.3.1 - The institution has effective welfare measures for teaching and non-teaching staff

PHCET faculty conducts classes and laboratories with class of infrastructure, good internet and free Wi-Fi facilities. Research and Incubation centre laboratory is accessible to all faculty to help them with their academic research. Well-equipped library facility at PHCET creates curiosity, innovation, and critical thinking in teachers.

The institute has provided free access to international e-learning platforms like Edx and Coursera to improve the knowledge and quality of teaching. Institute also conducts various FDP, STTP, workshops and seminars for faculty to upgrade their knowledge. Faculty are encouraged to attend STTP /seminars/ workshops outside PHCET and duty leave and sponsorship is provided for the same.Institute provides maternity and paternity leave for all employees. Duty

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leaves support provided for faculty members pursuing Ph.D. from well-known Institutions such as IIT and VJTI etc. Summer and winter vacations were allowed to teaching staff as per University of Mumbai guidelines. Employee Provident fund is implemented to all employees as per norms. Bus facility was also made available for all the employees. In case of emergency, free 24\*7 ambulance service for teaching and non-teaching staff is available in the campus. Welfare measures like group insurance, maternity, medical leaves and employment provident fund schemes are employed for non-teaching staff as well. Free uniforms and safety accessories are also provided for supporting staff during laboratory demonstrations.

File Description	Documents
Paste link for additional information	https://phcet.ac.in/about/infrastructure-and- facilities/academic-infrastructure/
Upload any additional information	<u>View File</u>

- 6.3.2 Number of teachers provided with financial support to attend conferences/ workshops and towards membership fee of professional bodies during the year
- 6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the year

61

File Description	Documents
Upload any additional information	<u>View File</u>
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	<u>View File</u>

- 6.3.3 Number of professional development /administrative training programs organized by the institution for teaching and non-teaching staff during the year
- 6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff during the year

42

File Description	Documents
Reports of the Human Resource Development Centres (UGCASC or other relevant centres).	<u>View File</u>
Reports of Academic Staff College or similar centers	<u>View File</u>
Upload any additional information	<u>View File</u>
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	<u>View File</u>

6.3.4 - Number of teachers undergoing online/face-to-face Faculty development Programmes (FDP) during the year (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course etc.)

#### 6.3.4.1 - Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course during the year

86

File Description	Documents
IQAC report summary	<u>View File</u>
Reports of the Human Resource Development Centres (UGCASC or other relevant centers)	<u>View File</u>
Upload any additional information	<u>View File</u>
Details of teachers attending professional development programmes during the year (Data Template)	<u>View File</u>

#### 6.3.5 - Institutions Performance Appraisal System for teaching and non-teaching staff

PHCET follows the guidelines given by AICTE related to Performance Based Appraisal System (PBAS) for teaching and non-teaching staff. Every year, teaching and non-teaching staff of the institute fill the Self-Appraisal Form (SAF) for the period from January to December in the prescribed Proforma.

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In PBAS, there are three categories (i) Teaching, Learning and Evaluation related activities (ii) Co-Curricular, Extension and Professional Development related activities (iii) Research Publications and Academic Contributions. The screening/selection committee verifies all the documents the self-assessment score will be based on verifiable criteria and will be finalized in the third category. The principal in consultation with the Head of the respective department finalises certain minimum API scores to be achieved by the faculty members in all three categories. Further, in the middle and at the end of each semester, faculty feedback is taken from the students for each of the courses attended by them. The feedback forms in the form of questionnaires collect information about the teacher and different aspects pertaining to the teaching process. HoD goes through the feedback forms and send to all faculty members for their information and suggests suitable measures to improve the teaching-learning process.

File Description	Documents
Paste link for additional information	https://phcet.ac.in/faculty/faculty- handbook/
Upload any additional information	<u>View File</u>

#### 6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly Enumerate the various internal and external financial audits carried out during the year with the mechanism for settling audit objections within a maximum of 200 words

PHCET maintains financial discipline, accounting practices, and audit procedures and abides by the requirements and stipulations of various regulatory authorities. The audited account of PHCET is annually scrutinized by the Shikshan Shulk Samiti (Fee Regulatory Authority) of the Directorate of Technical Education (DTE), Government of Maharashtra. The auditing processes of PHCET take place in two stages namely, internal audit and external audit. The auditors are re-appointed by the Governing body each year. The Internal audit is carried out by CA Susanna & Co. and the external auditor is S.B. Bhavi & Co. Internal auditor is in regular contact with the accounts department. Most of the transactions are in noncash mode and are done using Tally ERP 9 Software. SensysEasyPay from Sensys Technologies Pvt. Ltd., is used for salary-related computations and disbursement and for Income Tax purposes including generating Form 16. The salary of each employee is directly credited into their bank accounts and Easy Pay is used to generate the

quarterly income tax returns of the taxes deducted at source for various activities including monthly salary. Each department creates its own budget and the budgets of all departments are consolidated at the college level. Budget preparation and accounting are supervised by the Finance and Budget Committee.

File Description	Documents
Paste link for additional information	https://phcet.ac.in/faculty/faculty- handbook/
Upload any additional information	<u>View File</u>

## 6.4.2 - Funds / Grants received from non-government bodies, individuals, philanthropers during the year (not covered in Criterion III)

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

468000

File Description	Documents
Annual statements of accounts	<u>View File</u>
Any additional information	<u>View File</u>
Details of Funds / Grants received from of the non- government bodies, individuals, Philanthropers during the year (Data Template)	<u>View File</u>

#### 6.4.3 - Institutional strategies for mobilization of funds and the optimal utilization of resources

PHCET upholds and adheres to a well-planned approach for the mobilization of funds and optimal utilization resources. The institute has created specific guidelines through the PHCET handbook for the use of resources and funds. The primary source of funding for the institute is the tuition paid by students. Various government and non-government agencies sponsor events like seminars and workshops. Individual and corporate sponsorships are sought for cultural events and festivals.

Resource Mobilization Policy and Procedure

· Before the financial year begins, the Principal and Heads of departments prepare the institute budget.

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- The institutional budget includes recurring and non-recurring expenses.
- The budget is scrutinized and approved by the management and governing council.

Optimal utilization of resources

- The institute aims at promoting research, development, consultancy and other activities, involving the faculty at various levels.
  - Effective utilization of infrastructure is ensured through the appointment of adequate and well-qualified lab technicians & system administrators.
- The optimal utilization is ensured through encouraging innovative teaching-learning practices.
- The available physical infrastructure is optimally utilized beyond regular college hours, to conduct remedial classes, co-curricular activities/extra-curricular activities, parent teacher meetings.
- · Also utilized as an examination center for Government and Nongovernment examinations/university examinations.

File Description	Documents
Paste link for additional information	https://phcet.ac.in/about/mandatory- disclosures/balance-sheet/
Upload any additional information	<u>View File</u>

#### 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

Since the establishment, PHCET's IQAC has been regularly working towards improvement in the quality of teaching and research through regular input from all stakeholders. Two examples of institutionalized practices as a result of IQAC initiatives are as follows:

1. Financial Assistance for the Patent filing

PHCET gives emphasis on the involvement of the faculty members in

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the research work and innovation. To motivate faculty member institutes provided financial assistance for patent filing. 40 patents are filed by faculty members across departments. Patent filing fees are paid by the college.

#### 2. State-of-art facility for the student Club Team starkers

PHCET always encourages students to participate in various competitions. Competitions help students explore their strengths and their limitations. Team Starkers is a Go-Karting team of PHCET. This team participates in the motorsport events run at national level for students of engineering colleges by various organizers. The financial assistance institute has also created a special facility for the students to work. Workspace of approximately 2000 sq.ft. is provided to the team. It is strategically located at the ground floor of Institute premises. It includes all the basic facilities (Electric supply, Internet Connection, benches, toilet etc.).

File Description	Documents
Paste link for additional information	https://phcet.ac.in/students/starkers- motorsports/
Upload any additional information	<u>View File</u>

## 6.5.2 - The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

PHCET is consistently in the front when it comes to implementing teaching and learning reforms through IQAC to improve academics. The best practices like "Industry visit and Internship" are followed to improve the teaching-learning process.

Students of PHCET offered "Industry Visit" which gives the chance to gain on-the-job skills through contact, working procedures, and employment practices. As opposed to the theoretical knowledge being taught in the classroom, it exposes the students to modern workplace practices. This will help to improve employability skills of students. The objective of Industry visit is to help students gain first-hand information regarding application of instrumentation and control in the process industry. During pandemic PHCET, offered virtual industry visits. Every semester, PHCET organises at least two visits to industries as per domain.

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We offer "Internship" to each student during semester break. During the pandemic period our students have pursued internships and got a chance to get paid internships. Internshipshelps engineering students to acquire in-demand technical skills, helps to learn professional ethics or etiquette and helps in polishing the soft skills. Students get an opportunity to expose themselves to the actual work environment, contrasting with their textbook theories. Students may acquire their desire and decide their career path from the experience gained during internship.

File Description	Documents
Paste link for additional information	https://phcet.ac.in/students/placements/internship/
Upload any additional information	<u>View File</u>

# 6.5.3 - Quality assurance initiatives of the institution include: Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analyzed and used for improvements Collaborative quality initiatives with other institution(s) Participation in NIRF any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

A. All of the above

File Description	Documents
Paste web link of Annual reports of Institution	https://phcet.ac.in/about/mandatory- disclosures/annual-report/
Upload e-copies of the accreditations and certifications	<u>View File</u>
Upload any additional information	<u>View File</u>
Upload details of Quality assurance initiatives of the institution (Data Template)	<u>View File</u>

#### INSTITUTIONAL VALUES AND BEST PRACTICES

#### 7.1 - Institutional Values and Social Responsibilities

7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

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PHCET is an institution that encourages gender equity. The institution treats all its staff and students in the same way irrespective of gender and promotes women empowerment by conducting various activities throughout the academic years. Under Women's cell various workshops, webinars were conducted to relieve faculty and students from stress and encourage them to lead a healthy lifestyle.

There is a separate counseling room with a personal counselor. The campus has a first aid facility, resting room and doctor on call, and 24 hours ambulance service. The college provides transport on a subsidized rate for students and free for the faculty and staff. There is 24/7 security on the campus; Along with security guards, round the clock CCTV surveillance is also provided. Provision of standby power supply ensures protection against power outages.

For maintaining Safety and Security of women, a college grievance and redressal cell has been constituted. PHCET have constituted different committees like Internal Complaints Committee (ICC) to deal with any dereliction . These committee's main motive is to empower and uplift women in the field of science and technology and also motivates them to participate in both technical and nontechnical events.

File Description	Documents
Annual gender sensitization action plan	https://drive.google.com/drive/folders/1H- Q M1ALFhuzAeiCeluX qoME 43EfuL?usp=share link
Specific facilities provided for women in terms of:a. Safety and security b. Counseling c. Common Rooms d. Day care center for young children e. Any other relevant information	https://drive.google.com/drive/folders/1HQ MlALFhuzAeiCeluX_qoME_43EfuL?usp=share_link

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation measures Solar energy Biogas plant Wheeling to the Grid Sensorbased energy conservation Use of LED bulbs/power efficient equipment

B. Any 3 of the above

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File Description	Documents
Geo tagged Photographs	<u>View File</u>
Any other relevant information	<u>View File</u>

7.1.3 - Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 200 words) Solid waste management Liquid waste management Biomedical waste management E-waste management Waste recycling system Hazardous chemicals and radioactive waste management

Each collection point is furnished with separate dustbins for the storage of dry waste and wet waste. Biodegradable waste from the canteen is deposited in the compost bins where it is converted to manure. Non-degradable waste is taken to the dumping yard and collected by gram panchayat?? staff.

Liquid waste includes Sewage and Cafeteria effluent waste: Sewage is collected with a proper underground sewer system which is connected to the inlet pipe of the septic tank built in the campus. The outlet of the septic tank is connected with the sub-main of gram panchayat?? which leads to the Sewage Treatment Plant, Rasayani.

Waste recycling system: "Plastic Bottle Recycling Machine" is installed at PHCET. Plastic bottles used for packaging soft drinks and drinking water are fed into machines where they are crushed. This material is used for manufacturing other plastic products, in association with Reliance Industries Limited.

E-Waste Management: Hardware waste from labs such as CPU, ICs, computer system components etc. are scraped and stored at E-Waste Collection Cell (EWCC) then these components are separated and segregated as per their characteristic properties. The E-waste generated is used whenever there is minor repairs/change in hardware parts as replacements, minimizing the procurement cost. The E-waste generated in PHCET is used as partial replacement of Coarse Aggregate(CA) in combination with fly ash as part of Civil Engineering projects.

File Description	Documents
Relevant documents like agreements / MoUs with Government and other approved agencies	<u>View File</u>
Geo tagged photographs of the facilities	<u>View File</u>

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- 7.1.4 Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus
- A. Any 4 or all of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	<u>View File</u>
Any other relevant information	<u>View File</u>

#### 7.1.5 - Green campus initiatives include

- 7.1.5.1 The institutional initiatives for greening the campus are as follows:
  - 1. Restricted entry of automobiles
  - 2. Use of bicycles/ Battery-powered vehicles
  - 3. Pedestrian-friendly pathways
  - 4. Ban on use of plastic
  - 5. Landscaping

A. Any 4 or All of the above

File Description	Documents
Geo tagged photos / videos of the facilities	<u>View File</u>
Various policy documents / decisions circulated for implementation	<u>View File</u>
Any other relevant documents	<u>View File</u>

#### 7.1.6 - Quality audits on environment and energy are regularly undertaken by the institution

7.1.6.1 - The institutional environment and energy initiatives are confirmed through the following 1.Green audit 2. Energy audit 3.Environment audit 4.Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities

A. Any 4 or all of the above

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File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	<u>View File</u>
Certification by the auditing agency	<u>View File</u>
Certificates of the awards received	<u>View File</u>
Any other relevant information	<u>View File</u>

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

A. Any 4 or all of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	<u>View File</u>
Policy documents and information brochures on the support to be provided	<u>View File</u>
Details of the Software procured for providing the assistance	<u>View File</u>
Any other relevant information	<u>View File</u>

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 200 words).

PHCET helps in transforming, motivating the thoughts of all its stakeholders towards learning and understanding the various diversities and become a responsible citizen completing his/her academic education. Institute initiatives for smart sustainable solutions by students participating in STEM, IIC for innovations and

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competitions like Avishkar, Hackathon, Mapathon, Toycathon, Chatra Vishwakarma Awards. In campus environment awareness like solar panel, rainwater harvesting, waste management, plastic recycling. Institute always believes in the practice of involving people from a range of different social and ethnic backgrounds and of different genders, sexual orientations in spreading harmony by giving monetary support to Panvel gurudwara for covid and floods, blood / food/mask/shield donation dives during covid. Spreading prosperity irrespective of caste and creed through cultural festivals for regional -Shivaji Jayanti, National - Diwali, Christmas, Onam, Navratri's Jalsa, Independence day, Lokmanya Tilak Diwas. Communal socioeconomic events like tree plantation, road safety, pothole filling, helping traffic police, and events for tolerance against drug abuse, illicit trafficking, stress management were conducted. Days celebrated across diversities are Yoga, Biofuel, National remote sensing, Kargil memorial, science, statistics day, etc. Talent hunt events for improving talents, personality development, skills, and strength are conducted under the students' council through various clubs.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	<u>View File</u>
Any other relevant information	<u>View File</u>

7.1.9 - Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens

PHCET conducts diversified events to sensitize students and employees to the constitutional obligation, values, rights, duties and responsibilities of the citizens. PHCET has formed several policies (Anti-ragging, ICC, Atrocities to SC, ST etc.) that reflect core values. Faculty and staff handbook is disseminated and is made available on PHCET website.

Institute incorporates a few integral bodies that are committed to inculcating these obligations of national service; the bodies are NSS, ISRO outreach Centre, at PHCET, and various student forums. These bodies discern search programs and activities required to fulfil the realization of constitutional obligations.

• Institute has encouraged students and employees for National service during the pandemic. Institute organized Covid-19

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Vaccination Drives. Institute has organized webinars on Suicide prevention, Safer Internet, Intellectual Property Rights Awareness, etc.

- NSS unit of Institute fosters service to its community by organizing several events, Self Defence Training, Tree Plantation, Blood-donation camp.
- various student forums of the institute have organised several competition such as Game of Code Competition 4.0, Fun Friday, Mech- Tek , Business Idea Exhibition.

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	https://drive.google.com/drive/folders/1HQ M1ALFhuzAeiCeluX_qoME_43EfuL?usp=share_link
Any other relevant information	https://drive.google.com/drive/folders/1H- Q M1ALFhuzAeiCeluX qoME 43EfuL?usp=share link

7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff

4. Annual awareness programmes on Code of Conduct are organized

#### A. All of the above

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File Description	Documents
Code of ethics policy document	<u>View File</u>
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	<u>View File</u>
Any other relevant information	<u>View File</u>

### 7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

The institute makes tremendous efforts to make the students aware of the national pride and rich cultural heritage. National/International commemorative days are regularly being celebrated and observed throughout the year.

- In this academic year 2021-2022 various National/International commemorative days like, Independence Day, Aayakar Divas, Republic day, National Unity Day, International Women Day, International Yoga Day, Kargil Vijay Diwas, National Remote Sensing Day, Lokmanya Tilak Jayanti, Chandra shekhar Azad Jayanti, Shivaji Jayanyti were celebrated.
- Several events like, Reels Making Competition ,Drawing,
  Painting and Poster Making Competition on the occasion of
  'Independence Day', Poster Making Competition On 'Lokmanya
  Tilak Jayanti and Chandra Shekhar Azad Jayanti Celebration',
  Awareness Program On "National Innovation And Start Up Policy
  (NISP), National Workshop On 'QGIS: Hands on Training' were
  organised.
- National Festival, and Dussehra was also celebrated.

File Description	Documents
Annual report of the celebrations and commemorative events for the last (During the year)	<u>View File</u>
Geo tagged photographs of some of the events	<u>View File</u>
Any other relevant information	<u>View File</u>

#### 7.2 - Best Practices

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

Best practices in details are available at https://phcet.ac.in/iqac/phcet-iqac/

1. Teacher Guardian Mentoring Scheme (TGMS)

#### Goal:

- To monitor the student's regularity and performance
- To motivate students and develop confidence to take up challenging tasks and also help the society in nation building.
- To counsel students for solving their problems/ traits and boost confidence to improve their quality of life.
- To ensure that the parents/ guardian know about the performance and regularity of their wards.

#### Context:

It aims at enabling, fostering and nurturing constructive and positive interaction, guidance and mentorship of students by Faculty Members.

#### 2.Student Empowerment

#### Goal:

- To inspire and educate students to be better prepared for the challenges of today's fast growing technologies.
- To help students to become more stronger and confident in controlling one's learning.
- To encourage students to take ownership in achieving their goals.

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#### Context:

Student empowerment is the process by which students obtain the ability to self-direct and act on their own choice. Support them in decision-making in their professional career. Student empowerment in the classroom is illustrated through the ability of an instructor to enable a student to learn, teach, and lead others through gaining sense of power.

File Description	Documents
Best practices in the Institutional website	https://phcet.ac.in/igac/phcet-igac/
Any other relevant information	https://phcet.ac.in/igac/phcet-igac/

#### 7.3 - Institutional Distinctiveness

7.3.1 - Portray the performance of the Institution in one area distinctive to its priority and thrust within 200 words

The PHCET motto, Vidya Karmasu Kaushalam (Knowledge is Excellence at Work), serves as the centre of gravity for both the institute's academic and extracurricular activities. Since PHCET's inception, the pursuit of quality and excellence has been continuously pursued.

PHCET has established the Institution's Innovation Council (IIC) as per the guidelines of "MoE'S Innovation Cell (MIC)" in the academic year 2020-21. The initiative was to create a vibrant local innovation ecosystem, start-up supporting mechanism, establish a functional ecosystem for scouting ideas and preincubation of ideas and to develop better cognitive ability for technology students. Since then PHCET, IIC is actively involved in organizing and conducting various seminars, workshops, Idea competitions, Hackathon for school children's etc. for our students and faculties.

PHCET has established IIC comprising members from Industry and Interdisciplinary departments. Each member contributes to fulfill the Vision and Mission of IIC established at the institute conducting expert webinars, Workshops, Field visits, Add-on programs for students and faculty of PHCET. PHCET celebrates various days like National Technology Day, World Intellectual Property Day, World Earth Day, Azadi Ka Amrit Mahotsav, World Entrepreneurs Day, World Environment Day etc. PHCET actively participated in YUKTI - National Innovation Repository (NIR) to build a system to repository of ideas, innovations and start-ups developed at PHCET, IIC.

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

#### 7.3.2 - Plan of action for the next academic year

- 1. To submit pre qualifier of NBA application for IT and Civil UG Programs
- 2. To submit NBA compliance report for Computer and Mechanical UG program
- 3. To strengthen Lab infrastructure ECS department
- 4. To organize various competitions at institute level for participative learning
- 5. To motivate students to participate in National level hackathons and project competitions
- 6. To more focus on green campus
- 7. To provide more focus on field and industrial based projects
- 8. To strengthen Academic and Administrative audit process
- 9. To promote innovations inTeaching-learning
- 10. To offer interdisciplinary Honours/ Minor Program to promote NEP 2020
- 11. To implement ABC as per directives given by affiliating university

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