



## Yearly Status Report - 2018-2019

### 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. Madhumita Chatterjee
Designation	Principal
Does the Institution function from own campus	Yes
Phone no/Alternate Phone no.	02192-252005
Mobile no.	9867968096
Registered Email	principal.phcet@mes.ac.in
Alternate Email	mathewjoseph@mes.ac.in
Address	Pillai HOCL Educational Campus
City/Town	Rasayani, Tal Khalapur, Dist. Raigad
State/UT	Maharashtra
Pincode	410207

<b>2. Institutional Status</b>																			
Affiliated / Constituent			Affiliated																
Type of Institution			Co-education																
Location			Urban																
Financial Status			private																
Name of the IQAC co-ordinator/Director			Dr. Mansi Subhedar																
Phone no/Alternate Phone no.			02192669000																
Mobile no.			9867967304																
Registered Email			msubhedar@mes.ac.in																
Alternate Email			iqac.phcet@mes.ac.in																
<b>3. Website Address</b>																			
Web-link of the AQAR: (Previous Academic Year)			<a href="https://phcet.ac.in/accreditation/">https://phcet.ac.in/accreditation/</a>																
<b>4. Whether Academic Calendar prepared during the year</b>			Yes																
if yes,whether it is uploaded in the institutional website: Weblink :			<a href="https://phcet.ac.in/students/academic-calendar/term-calendar/">https://phcet.ac.in/students/academic-calendar/term-calendar/</a>																
<b>5. Accrediation Details</b>																			
<table border="1"> <thead> <tr> <th rowspan="2">Cycle</th> <th rowspan="2">Grade</th> <th rowspan="2">CGPA</th> <th rowspan="2">Year of Accrediation</th> <th colspan="2">Validity</th> </tr> <tr> <th>Period From</th> <th>Period To</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>A</td> <td>3.03</td> <td>2019</td> <td>28-Mar-2019</td> <td>27-Mar-2024</td> </tr> </tbody> </table>						Cycle	Grade	CGPA	Year of Accrediation	Validity		Period From	Period To	1	A	3.03	2019	28-Mar-2019	27-Mar-2024
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				Period From	Period To														
1	A	3.03	2019	28-Mar-2019	27-Mar-2024														
<b>6. Date of Establishment of IQAC</b>			02-Jul-2018																
<b>7. Internal Quality Assurance System</b>																			
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Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries																	
No Data Entered/Not Applicable!!!																			
<a href="#">View File</a>																			

**8. Provide the list of funds by Central/ State Government- UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.**

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
No Data Entered/Not Applicable!!!				
<a href="#">View File</a>				

**9. Whether composition of IQAC as per latest NAAC guidelines:**

Yes

Upload latest notification of formation of IQAC

[View File](#)

**10. Number of IQAC meetings held during the year :**

6

The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website

Yes

Upload the minutes of meeting and action taken report

[View File](#)

**11. Whether IQAC received funding from any of the funding agency to support its activities during the year?**

No

**12. Significant contributions made by IQAC during the current year(maximum five bullets)**

1.ISO Certification 2.Green and Energy Audit 3.Academic Administrative Audit 4.Workplace Safety Award 5.NBA Compliance Report Submission and the peer team visit

[View File](#)

**13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year**

Plan of Action	Achievements/Outcomes
No Data Entered/Not Applicable!!!	
<a href="#">View File</a>	

**14. Whether AQAR was placed before statutory body ?**

Yes

Name of Statutory Body	Meeting Date
IQAC	11-Nov-2019

<b>15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?</b>	Yes
Date of Visit	31-Jan-2020
<b>16. Whether institutional data submitted to AISHE:</b>	Yes
Year of Submission	2020
Date of Submission	06-Feb-2020
<b>17. Does the Institution have Management Information System ?</b>	Yes
If yes, give a brief description and a list of modules currently operational (maximum 500 words)	<p>Apart from implementation of e-governance in areas of operation planning and Development, Administration, Finance and Accounts, Student Admission and Support, Examination, PHCET has developed a variety of In house software and digital archive as a part of MIS. The digital archive is created and managed by Principal and details of all activities year wise and department wise can be retrieved at a click of a mouse. This data repository is of significant help to summarise the activities and submit the details for any accreditation activity and other quality initiatives instantly. The details of in house developed software: Academic Monitoring System (AMS): It is used for academic management purpose. Every semester, each faculty uploads teaching plan, notes, assignment, daily attendance etc. It helps to keep track the progress of students attendance and Unit Test 1 and 2 marks. Faculty members, Class Coordinators, Admin, heads of Department, Principal have the right to generate reports and filter data as per requirement. Details of departmentwise student roll list, faculty teaching load distribution, faculty list, course list, etc can be viewed at a glance. Teacher Guardian Mentoring System (TGMS): It is used for maintaining the records of mentoring. The detailed profile of each mentee is available on the portal. Discussion held with each mentee on weekly basis</p>

is uploaded on the portal. It helps to study mentees past responses and behavior and guide mentee further to do well in academic and other activities. It also helps to identify weak and strong learners. Portal also allows them to interact with each other through messaging. Details of each mentee can be viewed only by the concerned mentor and it helps the mentee to share their views, issues, and problems and maintain confidentially to build strong between a mentor and mentee. Feedback System: Feedback is collected twice a semester from each student on the teaching learning process and infrastructure and other facilities. Each student is provided with a login ID and password. Principal, Head of the department, and feedback dissemination and counselling committee can thereby assess each faculty and guide them further if some improvement is required. It also helps to track the feedback of each faculty for previously taught courses. Course Exit Survey System: It is used for collecting the responses from students about the learning outcomes attained for each course. Each student is provided with a login ID and password and a survey is collected. It is further used to improve the teaching methodologies wherever necessary and calculate the attainment of each course by the indirect method. Mock Test System: To improve employability skills, PHCET has designed this online platform and is used to offer practice tests to students in academics and aptitude skills. It has been observed that this system has definitely helped students to boost their confidence and excel in aptitude which has also played a key role in placements. It is also helpful for all students to prepare for competitive exams like GATE, GRE, etc. plan to give competitive exams.

## Part B

### CRITERION I – CURRICULAR ASPECTS

#### 1.1 – Curriculum Planning and Implementation

1.1.1 – Institution has the mechanism for well planned curriculum delivery and documentation. Explain in 500 words

PHCET, considering the strengths and the limitations of its student

stakeholders has been innovating continuously for curriculum delivery. The first task is the creation and adherence to a well-planned academic calendar that incorporates the stipulations and academic calendar of the University of Mumbai. PHCET is affiliated to University of Mumbai and follows the syllabus provided by University. Many faculty members in PHCET are actively involved in syllabus setting for University of Mumbai all across the departments. They also play key role in conducting orientation programs for the new courses introduced in the syllabus. The curriculum planning and delivery are diligent and involves preparation of the lesson plan and concept inventory and adapting Bloom's Taxonomy addressing all the levels of Bloom's Taxonomy. Each department has its own well-articulated vision and mission and the academic activities of the department align with them. The Program Educational Objectives (PEOs) and Program Specific Outcomes (PSOs) are defined in consultation with Department Advisory Board (DAB), Head of the Department, Domain Coordinators and other stakeholders. Each faculty prepares course outcomes based on the course objectives and outcomes prescribed by the academic council of the University of Mumbai and a course file comprising of academic calendar, teaching plan, concept inventory, question bank, University question papers of previous semesters, module-wise notes, list of experiments and lab manual, etc., and is reviewed by the domain co-coordinator and head of the department. The department analyses the curriculum and identifies the gaps, and strives to make it practical and industry oriented through laboratory practical, Project Based Learning (PBL), talks by Industry experts, internship, etc. Every department pays special attention to enhance the breadth of awareness of students by offering content beyond the syllabus in the form of field visits, participation in technical competitions, conferences, inter university research competition such as Avishkar, etc. Academic calendar, Syllabus and Question papers are made available on PHCET Website <http://www.phcet.ac.in/students/syllabus.asp>. Teaching plan, module wise notes, lab manual and solutions to university question papers are made available for each class through goggle classroom, whastapp groups and email. Course files prepared by each faculty are reviewed by domain coordinators and head of the department. Syllabus coverage for theory and lab sessions is also monitored to ensure 100 percent completion of syllabus. Revision lectures, study workshops and practice sessions for experiments also help for effective delivery of curriculum. If some gaps in syllabus are identified in the curriculum, DAB and Head of the department ensures that corrective measures are employed to bridge the gaps and guarantee effective curriculum delivery.

#### 1.1.2 – Certificate/ Diploma Courses introduced during the academic year

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employ ability/entrepreneurship	Skill Development
Indian Institute of remote sensing(IIRS) Outreach Programme on Geospatial Inputs for Enabling Master Plan Formulation under AMRUT Sub-scheme LIVE Webinar organised by	NA	23/07/2018	5	Employability	NA

Pillai HOC  
College of  
Engineering  
Technology  
on July  
23-27,2018.

Indian Institute of remote sensi ng(IIRS) Outreach Programme on Geospatial Modeling Tools and techniques LIVE Webinar organised by Pillai HOC College of Engineering Technology on August 6-10,2018.	NA	06/08/2018	5	Employabilit y	NA
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Indian Institute of remote sensi ng(IIRS) Outreach Programme on Basics of Remote Sensing, Geographical Information System and Global Navigation Satellite System LIVE Webinar organised by Pillai HOC College of Engineering Technology on September	NA	04/09/2018	44	Employabilit y	NA
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Indian Institute of remote sensi ng(IIRS) Outreach Programme on Remote Sensing andDigital Image	NA	04/09/2018	10	Employabilit y	NA
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Analysis  
LIVE Webinar  
organised by  
Pillai HOC  
College of  
Engineering  
Technology  
on September  
4-14,2018

Indian Institute of remote sensi ng(IIRS) Outreach Programme on Geographical Information System and Global Navigation Satellite System LIVE Webinar organised by Pillai HOC College of Engineering Technology on September 17-31 october 1-26,2018	NA	17/09/2018	41	Employabilit y	NA
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Indian Institute of remote sensi ng(IIRS) Outreach Programme on Remote Sensing and GIS Applications for Natural Resource Management LIVE Webinar organised by Pillai HOC College of Engineering Technology on october 2 9-31November 1-11,2018	NA	29/10/2018	14	Employabilit y	NA
---	----	------------	----	-------------------	----

Indian Institute of remote sensi	NA	03/12/2018	5	Employabilit y	NA
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ng(IIRS)  
Outreach  
Programme on  
Satellite  
Remote  
Sensing in A  
grometeorolo  
gical  
Applications  
LIVE Webinar  
organised by  
Dept of Civi  
lEngineering  
,Pillai HOC  
College of  
Engineering  
Technology  
on December  
3-7, 2018

Indian Institute of remote sensi ng(IIRS) Outreach Programme on Hyperspectra l Remote Sensing and its Applications LIVE Webinar organised by Pillai HOC College of Engineering Technology on January 2 1-31february 1, 2019	NA	21/01/2018	12	Employabilit y	NA
--	----	------------	----	-------------------	----

Indian  
Institute of  
remote sensi  
ng(IIRS)  
Outreach  
Programme on  
Hyperspectra  
l Remote  
Sensing and  
its  
Applications  
LIVE Webinar  
organised by  
Pillai HOC  
College of  
Engineering  
Technology  
on January 2  
1-31february  
1, 2019

Indian Institute of remote sensi ng(IIRS) Outreach Programme on Principles of Polarimetric SAR Remote Sensing and itsProcessin g LIVE Webinar organised by Pillai HOC College of Engineering	NA	18/02/2019	14	Employabilit y	NA
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Indian  
Institute of  
remote sensi  
ng(IIRS)  
Outreach  
Programme on  
Principles  
of  
Polarimetric  
SAR Remote  
Sensing and  
itsProcessin  
g LIVE  
Webinar  
organised by  
Pillai HOC  
College of  
Engineering

Technology  
on february  
18-31 March  
1, 2019

Indian  
Institute of  
remote sensi  
ng(IIRS)  
Outreach  
Programme on  
Advances in  
forest  
remote  
sensing LIVE  
Webinar  
organised by  
Pillai HOC  
College of  
Engineering  
Technology  
on March  
5-13, 2019

NA

05/03/2019

9

Employabilit  
y

NA

Indian  
Institute of  
remote sensi  
ng(IIRS)  
Outreach  
Programme on  
Remote  
Sensing  
based  
mapping  
,monitoring  
and  
modelling of  
landslide  
and  
earthquake  
hazards LIVE  
Webinar  
organised by  
Pillai HOC  
College of  
Engineering  
Technology  
on April  
22-26, 2019

NA

22/04/2019

5

Employabilit  
y

NA

Indian  
Institute of  
remote sensi  
ng(IIRS)  
Outreach  
Programme on  
RS and GIS  
Application  
in watershed  
Management

NA

08/04/2019

5

Employabilit  
y

NA

LIVE Webinar  
organised by  
Pillai HOC  
College of  
Engineering  
Technology  
on April  
08-12, 2019

One week  
Training  
Programme,  
Advances in  
Disaster  
Management  
and Risk  
Reduction -A  
Remote  
Sensing and  
GIS Approach  
Organized by  
Dept of  
Civil  
Engineering  
,Pillai HOC  
College of  
Engineering  
Technology  
on  
June24-29,  
2019

NA

24/06/2019

5

Employabilit  
y

NA

Software  
Trainning  
Program  
(STAAD PRO)  
MOU with  
CADD CENTRE

NA

04/02/2019

10

Employabilit  
y

Skill  
Development

Software  
Trainning  
Program  
(PRIMAVERA)  
MOU with  
CADD CENTRE

NA

04/02/2019

10

Employabilit  
y

Skill  
Development

One Week  
Training  
Program as  
Network  
Associate on  
Routing and  
Switching by  
Telenetworks  
Technologies  
organized by  
Pillai HOC  
College of  
Engineering  
Technology,

NA

13/02/2019

7

NA

Skill  
Development

Rasayani  
from Feb  
13-19, 2019.

IIT Spoken Tutorial on Q-CAD conducted by Department of Automobile Engineering	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on OpenFoam conducted by Department of Automobile Engineering	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on Arduino conducted by Department of Automobile Engineering	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutoria on lQ-CAD onducted by Department of Civil Engineering	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on C conducted by Department of ComputerE ngineering	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on CPP Python conducted by Department of ComputerE ngineering	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on Java conducted by Department of ComputerE ngineering	NA	04/02/2019	30	NA	Skill Development

IIT Spoken Tutorial on Python conducted by Department of Computer Engineering	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on Scilab conducted by Department of Electrical Engineering	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on Latex conducted by Department of Electrical Engineering	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on Arduino conducted by Department of Electrical Engineering	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on Scilab conducted by Department of Electronics and Telecommunication	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on Arduino conducted by Department of Electronics and Telecommunication	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on Python conducted by Department of	NA	04/02/2019	30	NA	Skill Development

Electronics  
and Telecomm  
unication

IIT Spoken Tutorial on Java conducted by Department of Information Technology	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on Python conducted by Department of Information Technology	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on PHP and MySQL conducted by Department of Information Technology	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on Scilab conducted by Department of Mechanical Engineering	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on Latex conducted by Department of Mechanical Engineering	NA	04/02/2019	30	NA	Skill Development
IIT Spoken Tutorial on Q-CAD onducted by Department of Mechanical Engineering	NA	04/02/2019	30	NA	Skill Development
Soft Skill Development Program	NA	09/07/2019	7	Employabilit y	Skill Development

Aptitude Training Program	NA	19/12/2018	20	Employabilit y	NA
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## 1.2 – Academic Flexibility

### 1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction
No Data Entered/Not Applicable !!!		
<a href="#">View File</a>		

### 1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BE	UG Program in Automobile Engineering	09/07/2018
BE	UG Program in Civil Engineering	09/07/2018
BE	UG Program in Computer Engineering	09/07/2018
BE	UG Program in Electrical Engineering	09/07/2018
BE	UG Program in Electronics and Telecommunication Engineering	09/07/2018
BE	UG Program in Information Technology Engineering	09/07/2018
BE	UG Program in Mechanical Engineering	09/07/2018
ME	P.G. Program in Civil Engineering(Construction Engineering and Management)	09/07/2018
ME	P.G. Program in Computer Engineering	09/07/2018
ME	P.G. Program in Mechanical Engineering (Machine Design)	09/07/2018
ME	P.G. Program in Electronics and Telecommunication Engineering	09/07/2018

### 1.2.3 – Students enrolled in Certificate/ Diploma Courses introduced during the year

	Certificate	Diploma Course
Number of Students	3765	0

## 1.3 – Curriculum Enrichment

### 1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
---------------------	----------------------	-----------------------------

No Data Entered/Not Applicable !!!

[View File](#)

### 1.3.2 – Field Projects / Internships undertaken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
No Data Entered/Not Applicable !!!		
<a href="#">View File</a>		

### 1.4 – Feedback System

#### 1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	Yes

#### 1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

##### Feedback Obtained

For smooth and conscious running of academics, a well planned feedback system suffices the entire exigency. Each stakeholder i.e., parent, student, faculty, employers, act as a resource for a well received and ascertained feedback. Many PHCET faculty members are actively involved in syllabus setting committee and conduct orientation programs and thus provide feedback on curriculum planning. Corrective actions are taken wherever necessary after analysing the faculty feedback on Curriculum. At the institute level, each faculty also submits 360 degree feedback about the dept activities and various other activities conducted at Institute level for training, workshops, etc. This feedback is analysed and discussed by Principal in meeting with faculty, IQAC and management. Feedback from students is collected in two ways informal discussions with mentors and head of the department, and a formal well planned feedback on the online portal. Students submit feedback about the teaching learning process, subject teachers, lab facilities and infrastructure and other facilities twice a semester. Each department's feedback dissemination and counselling which comprises of Head of the department and one or two senior faculty members discuss it with faculty and corrective actions are asked to be taken if required. Faculty with excellent feedback is appreciated by Principal regularly. Feedback on infrastructure and other facilities discussed with Heads, Principal, management. Feedback is also collected from graduates through graduate exit surveys and from alumni during alumni meetings. Parents also provide feedback two times a year in parent teacher meetings about their wards overall progress and their level of satisfaction about the efforts taken by faculty, department and institute. Employer feedback is collected and analysed by training and placement team in order to identify the additional skills that student needs to make them employable. Departments coach the students on various aspects to make up for the deficiencies. Grievance Redressal cell (<http://www.phcet.ac.in/aboutus/grievance-redressal-mechanism.asp>) committee, anti ragging committee, women grievance cell also contribute to handle the grievances and feedback given by the students. Apart from all these methods, a provision is also made available on PHCET website (<http://www.phcet.ac.in/feedback/feedback-students.asp>) to submit all grievances online. All grievances are collected analysed and corrective actions



are taken by principal, concerned heads and faculty members.

## CRITERION II – TEACHING- LEARNING AND EVALUATION

### 2.1 – Student Enrolment and Profile

#### 2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
No Data Entered/Not Applicable !!!				
<a href="#">View File</a>				

### 2.2 – Catering to Student Diversity

#### 2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2018	2641	72	152	4	4

### 2.3 – Teaching - Learning Process

#### 2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Number of smart classrooms	E-resources and techniques used
No Data Entered/Not Applicable !!!					
<a href="#">View File of ICT Tools and resources</a>					
<a href="#">View File of E-resources and techniques used</a>					

#### 2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

PHCET has an active mentorship programme for the benefit of students. Mentoring program has emerged as a strong response to the plight of purposelessness among students. Mentoring is a valuable strategy to provide students with emotional and academic support throughout their undergraduate degree program of four years. This can help them in planning and taking charge of their personal and professional lives. By providing information, guidance and encouragement, mentors play an important role in nurturing students' college aspirations and helping them prepare for the coming years. Each faculty member is allotted a group of 15-20 students for mentoring. Each student has a faculty member who is his / her mentor throughout the four years of engineering studies. This develops a strong bond between the mentor and mentee and contributes to overall academic and personality development. An observation report or feedback record of the interactions with the students is maintained by the mentor. Each mentor interacts with the mentee once a week. Mentor also keeps the track of mentees attendance, results in internal assessment and university examination. The overall behaviour of the mentee is monitored and guides to overcome the weakness if any focussing on the strengths to reach greater heights. Mentor maintains confidentiality of the records and observations to make mentee feel comfortable to share issues and concerns. Mentoring also helps to identify slow and advanced learners and guide them to excel in academic and co-curricular activities. This way the mentorship program helps to contribute towards a student's academic excellence and overall development as a professional Engineer. Mentors and mentees develop a personal bond as they participate together in social, recreational activities and community service. Whatever the activity, mentoring provides guidance and support to vulnerable areas which are essential part of student life and the college experience. PHCET has developed in house online platform to maintain the complete profile of students (mentees) and track the progress of each over the duration of four years. Mentoring is really helping students to enhance the quality of academic life at PHCET and continues to influence their professional life as well.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
2641	160	17

## 2.4 – Teacher Profile and Quality

### 2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
159	160	0	12	20

### 2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year )

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
No Data Entered/Not Applicable !!!			
<a href="#">View File</a>			

## 2.5 – Evaluation Process and Reforms

### 2.5.1 – Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
No Data Entered/Not Applicable !!!				
<a href="#">View File</a>				

### 2.5.2 – Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

Continuous Internal Assessment Continuous Internal Evaluation (CIE) is of paramount importance in PHCET to reform the process continuously for academic excellence. PHCET adheres to University of Mumbai (UoM) guidelines for an effective teaching learning and evaluation process. Continuous Internal Evaluation (CIE) is established through innovative mini projects, unique assignments, Unit tests and practical exams. Institute's academic calendar is effectively used for CIE. The following reforms in CIE are executed to ensure quality teaching-learning standards: The evaluation system followed by the Institute, has two components 1. The Internal Assessment (IA). 2. The End Semester Examination. The weightage is 20 for IA and 80 for theory end examination. As per the guidelines of UoM two unit tests are conducted per semester. A) Internal Assessment: Test papers are based on Blooms Taxonomy model to assess the varying levels of learning. The evaluated answer sheets and marks are shared with students and parents during parents-teacher meeting. This helps to secure lucidity in the CIE. Remedial lectures are arranged wherever required after declaring the unit test result. B) Digital Academic monitoring system: An Academic Management System (AMS) is developed in-house to ensure consistency in evaluation. Attendance, teaching plan, course content, notes, assignments, question paper with solutions is uploaded by each faculty on AMS. Notes and solution keys are made accessible to the students with their login Id's. C) Assessment method: The assessment is based on attendance, project methods and parameters set to analyze student's learning. The result analysis done at the end of semester examination helps to evaluate student's performance in every subject. The attainment of COs (Course Outcomes) and POs (Programme

Outcomes) is monitored by mapping it for each subject. D) Term work: Innovative and unique assignments are designed to enhance problem solving approach. This prevents students from sharing solutions and enhance individual problem solving ability. Students are motivated to do challenging assignments and projects. Application based assignments are designed for the students to imbibe critical learning process and meet desired course outcomes. Students are encouraged to work on Problem Based Learning experiments (PBL), mini projects, project presentations and application based assignments. Students of third and final year are guided on innovative projects to accelerate research and publications. This creates a positive impact on the students and raises the standard of projects. E) Oral and Practical Exam: Oral and Practical exam is conducted as per the syllabus scheme for each subject. Panel of internal external examiners for conducting exams is nominated by Institute and approved by University of Mumbai. Oral exam is also conducted for Projects for final year students with panel of examiners approved by University of Mumbai.

### 2.5.3 – Academic calendar prepared and adhered for conduct of Examination and other related matters (250 words)

The academic calendar aligns with the Term Calendar of the University of Mumbai as PHCET is an affiliated college. Before the semester starts the Principal conducts a meeting with all Heads of Departments to discuss the plans for upcoming semester and schedule of all curricular, co-curricular and extra-curricular activities. Academic calendar is prepared semester wise. It includes schedule of all semester activities such as start and end of semester, internal examinations, co-curricular and extracurricular activities, and intensive study camps, Term-end submissions, Oral/Practical Examination and University Examination, etc. The academic calendar is also shared with all faculty members in a meeting which is conducted at the start of the every semester by the Principal. All faculty prepare their teaching plan and practical session plan according to the no. of instructional days as mentioned in calendar. They also plan extra lectures if required on non instructional days. The semester plan as mentioned in academic calendar is also discussed with all students by respective Head of the Departments in the orientation program which is conducted at the beginning of the semester. It is made available on the home page of PHCET website and displayed on department notice boards as well. Apart from the Academic Calendar a Department wise Activity Schedule for smooth functioning is also prepared. This ensures curriculum enrichment through related activities like Expert Lectures, Training Activities and Industry-Academia Interaction, PBL evaluations, etc. A periodic review of the progress of the syllabus covered is taken in each month and extra sessions are added in time table (if required) to meet the academic deadlines. Periodic audits are taken to review the syllabus completion and related academic activities. The HoDs, in turn, organize departmental meetings and initiate the required steps for syllabus completion. Preliminary exams are conducted for the students to practice for University End-Sem Theory Examinations. The record of a continuous assessment is maintained by the subject teacher and performance of students is evaluated at the end of a semester.

## 2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

<https://phcet.ac.in/academics/bachelors/mechanical-engineering/program-overview/>

### 2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students	Number of students passed	Pass Percentage
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			appeared in the final year examination	in final year examination	
No Data Entered/Not Applicable !!!					
<a href="#">View File</a>					

## 2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

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

## CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

### 3.1 – Resource Mobilization for Research

3.1.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
No Data Entered/Not Applicable !!!				
<a href="#">View File</a>				

### 3.2 – Innovation Ecosystem

3.2.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
Seminar on Electric Bike	Automobile Engineering	10/03/2019
Workshop on Advanced Tools in Solid Works	Automobile Engineering	09/01/2018
Expert Lecture on Entrepreneurship Skill Development among Students	Automobile Engineering	29/09/2018
Expert Lecture on Metallography for Industry	Automobile Engineering	05/10/2018
3 Days Workshop on Go-Kart Design and Manufacturing	Automobile Engineering	19/10/2018
Workshop on Finite Element Analysis	Automobile Engineering	04/01/2019
Expert Lecture on Steels for Smart Cities	Automobile Engineering	08/01/2019
Workshop on Non - Destructive Testing	Automobile Engineering	16/01/2019
Expert Lecture on Challenges Opportunities In Foundry Industries For Engineering Students	Automobile Engineering	14/02/2019
Seminar on Hot Bulk Forging and Extrusion Technologies	Automobile Engineering	01/04/2019

Seminar on Automation Awareness Program	Automobile Engineering	02/03/2019
Workshop on Design Analysis of Chassis	Automobile Engineering	12/04/2019
Expert Lecture on Entrepreneurship development and selection of innovative projects	Automobile Engineering	16/04/2019
Expert Lecture on Entrepreneurship development	Automobile Engineering	24/04/2019
Workshop on Real-time Applications of Geotechnical Engineering and Transportation Engineering	Civil Engineering	03/08/2018
Workshop on Disaster Preparedness and Safety Precautions	Civil Engineering	25/06/2019
Worksho on Web Development using Angular 5	Computer Engineering	28/07/2018
Training Programme on Cisco Certified Network Associate	Computer Engineering	13/02/2019
Expert Lecture on NoSQL by Vishwjeet Jadhav	Computer Engineering	11/03/2019
Workshop on PL/SQL by Devendra Terse	Computer Engineering	09/03/2019
Workshop on Machine Learning by Afrid Shaikh	Computer Engineering	16/03/2019
Workshop on Arduino	Electrical Engineering	22/09/2018
Workshop on Hands on Experience on Robotics	Electrical Engineering	16/03/2019
Workshop on PCB Designing	Electrical Engineering	04/08/2018
Institutional Training Program on Energy Saving Energy Conservation	Electrical Engineering	06/03/2019
Training Programme on Cisco Certified Network Associate	Electrical Engineering	13/02/2019
Institutional Training Program on Energy Saving Energy Conservation	Electrical Engineering	06/03/2019
Training Programme on Cisco Certified Network Associate	Electronics Telecommunication Engineering	13/02/2019
Workshop on Matlab Applications	Electronics Telecommunication Engineering	03/08/2018

Industry Institute Interaction	Electronics Telecommunication Engineering	20/07/2018
Seminar on Intellectual Property Rights	Mechanical Engineering	21/07/2018
Workshop on Patent Drafting Filing	Mechanical Engineering	09/02/2019
Workshop on Advanced Tools in Solid Works	Mechanical Engineering	01/09/2018
Expert Lecture on Entrepreneurship Skill Development among Students	Mechanical Engineering	29/09/2018
Expert Lecture on Metallography for Industry	Mechanical Engineering	05/10/2018
3 Days Workshop on Go-Kart Design and Manufacturing	Mechanical Engineering	19/10/2018
Workshop on Finite Element Analysis	Mechanical Engineering	04/01/2019
Expert Lecture on Steels for Smart Cities	Mechanical Engineering	08/01/2019
Workshop on Non Destructive Testing	Mechanical Engineering	16/01/2019
Expert Lecture on Challenges Opportunities In Foundry Industries For Engineering Students	Mechanical Engineering	14/02/2019
Seminar on Hot Bulk Forging and Extrusion Technologies	Mechanical Engineering	01/04/2019
Seminar on Automation Awareness Program	Mechanical Engineering	02/03/2019
Workshop on Applications of Mechanical and Automobile Engineering using Matlab Tool	Mechanical Engineering	03/02/2019
Workshop on Design Analysis of Chassis	Mechanical Engineering	12/04/2019
Expert Lecture on Entrepreneurship development and selection of innovative projects	Mechanical Engineering	16/04/2019
Expert Lecture on Entrepreneurship development	Mechanical Engineering	24/04/2019
Guest Lecture on Upcoming Emerging Technology- Data Science	Information Technology	08/10/2018

Two days handson workshop on IOT and Embeded Target Boards	Information Technology	02/08/2018
Guest lecture on Upcoming emerging technology - Data science i.e R language , SAS , Python and connectivity with machine learning	Information Technology	10/08/2018
One day workshop on Big Data Hadoop	Information Technology	09/03/2019

### 3.2.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
No Data Entered/Not Applicable !!!				
<a href="#">View File</a>				

### 3.2.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsered By	Name of the Start-up	Nature of Start-up	Date of Commencement
Research Development Lab	Research Dev	Mahatma Education Society	Bright Metals	Mechanical Core Industry	02/07/2018
Research Dev	Research Dev	Mahatma Education Society	Betmount	Pvt Ltd company	26/07/2018
No file uploaded.					

## 3.3 – Research Publications and Awards

### 3.3.1 – Incentive to the teachers who receive recognition/awards

State	National	International
2	6	0

### 3.3.2 – Ph. Ds awarded during the year (applicable for PG College, Research Center)

Name of the Department	Number of PhD's Awarded
Electronics and Telecommunication	1

### 3.3.3 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
No Data Entered/Not Applicable !!!			
<a href="#">View File</a>			

### 3.3.4 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
No Data Entered/Not Applicable !!!	
<a href="#">View File</a>	

### 3.3.5 – Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index



Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
<b>No Data Entered/Not Applicable !!!</b>						
<a href="#">View File</a>						

### 3.3.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
<b>No Data Entered/Not Applicable !!!</b>						
<a href="#">View File</a>						

### 3.3.7 – Faculty participation in Seminars/Conferences and Symposia during the year :

Number of Faculty	International	National	State	Local
<b>No Data Entered/Not Applicable !!!</b>				
<a href="#">View File</a>				

## 3.4 – Extension Activities

### 3.4.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
<b>No Data Entered/Not Applicable !!!</b>			
<a href="#">View File</a>			

### 3.4.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
<b>No Data Entered/Not Applicable !!!</b>			
<a href="#">View File</a>			

### 3.4.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activities	Number of students participated in such activities
<b>No Data Entered/Not Applicable !!!</b>				
<a href="#">View File</a>				

## 3.5 – Collaborations

### 3.5.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
<b>No Data Entered/Not Applicable !!!</b>			
<a href="#">View File</a>			



3.5.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
No Data Entered/Not Applicable !!!					
<a href="#">View File</a>					

3.5.3 – MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
No Data Entered/Not Applicable !!!			
<a href="#">View File</a>			

## CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
723.95	386.43

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
No Data Entered/Not Applicable !!!	
<a href="#">View File</a>	

### 4.2 – Library as a Learning Resource

4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or patially)	Version	Year of automation
KOHA	Fully	17.05.03.000	2016

4.2.2 – Library Services

Library Service Type	Existing	Newly Added	Total
No Data Entered/Not Applicable !!!			
<a href="#">View File</a>			

4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
No Data Entered/Not Applicable !!!			
<a href="#">View File</a>			

### 4.3 – IT Infrastructure

#### 4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/GBPS)	Others
Existing	847	640	848	46	45	70	46	145	0
Added	110	90	110	0	15	5	0	5	0
Total	957	730	958	46	60	75	46	150	0

#### 4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

150 MBPS/ GBPS

#### 4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
Lecture Capturing and Recording system	<a href="https://www.youtube.com/channel/UC-mLb2dq2Q0aThykHmXatCg/featured">https://www.youtube.com/channel/UC-mLb2dq2Q0aThykHmXatCg/featured</a>

### 4.4 – Maintenance of Campus Infrastructure

#### 4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
247.75	28.6	154.25	27.56

#### 4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)

PHCET has streamlined procedures, skilled manpower, and budgetary provision to maintain academic, physical, and support facilities. The persons responsible regularly check the availability and usefulness of the resources and identify insufficient consumables and non-functioning capital items. The same is discussed with the lab in-charge and the head of the department. It is communicated to the respective authority and appropriate action is taken as per the protocols. There are designated Lab In-charge, Workshop In-charge, and Lab assistants as per need. Duties and responsibilities of the Laboratory /Workshop Assistant include Maintaining the Dead Stock Registers and Consumables Registers, estimating and procuring required equipment and consumables for the laboratories, making the infrastructure facilities in the labs adequate before the start of every semester. Laboratory /Workshop Assistants help the Lab In-charge for the smooth functioning of the laboratories and for maintenance and care of resources/services of the institute. The physical facilities including Laboratories, Classrooms, computer labs, and Smart Boards, Seminar rooms, Conclaves and Lecture Recording room, etc. are made available for the students. All required facilities like printers, scanners, etc., are also available in sufficient numbers for the use of students, teachers, and staff. All mentioned physical facilities are supported by continuous electrical supply with two 250 kV stand by generators. Internet facility with Internet bandwidth of 150 Mbps with 1:1 connection is provided in all laboratories. Wi-Fi facility is available in the institution in the required area. The library is automated

with library management software and LAN/internet facility. The library committee, headed by a senior Professor, makes all important decisions to ensure the continued availability of knowledge resources for students and faculty. Library also has arrangements and protocols similar to laboratories.

The hostel facility is available for girls and boys. On a request basis infrastructure is also made available for the other governmental and the nongovernmental organizations for conducting the exams like JEE, MHCET, MPSC, UPSC, GATE, etc. The maintenance and the cleaning of the classrooms and the laboratories are done regularly. In other administrative sections (like office, students section, establishment, exam section, stores) the computers with LAN connectivity are loaded with utility software making work easier and systematic. Electrical and plumbing related maintenance is undertaken with the help of institute appointed skilled persons and the expenditure is borne from the yearly approved allotted budget. The academic support facilities like sports and other platforms supporting the overall development of the students like NSS or placement cell etc. are open to all college students. A well-equipped Gym, Sports Authority of India supported indoor and outdoor sports facilities with qualified coaches are available. All the policies and procedures are well defined in the Faculty Handbook which is also available on the PHCET website <http://www.phcet.ac.in/aboutus/handbooks-faculty.asp>

<https://phcet.ac.in/faculty/faculty-handbook/>

## CRITERION V – STUDENT SUPPORT AND PROGRESSION

### 5.1 – Student Support

#### 5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
No Data Entered/Not Applicable !!!			
<a href="#">View File</a>			

#### 5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
No Data Entered/Not Applicable !!!			
<a href="#">View File</a>			

#### 5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passed in the comp. exam	Number of students placed
No Data Entered/Not Applicable !!!					
<a href="#">View File</a>					

#### 5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
0	0	0

## 5.2 – Student Progression

### 5.2.1 – Details of campus placement during the year

On campus			Off campus		
Name of organizations visited	Number of students participated	Number of students placed	Name of organizations visited	Number of students participated	Number of students placed
No Data Entered/Not Applicable !!!					
<a href="#">View File</a>					

### 5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of programme admitted to
No Data Entered/Not Applicable !!!					
<a href="#">View File</a>					

### 5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg: NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
No Data Entered/Not Applicable !!!	
<a href="#">View File</a>	

### 5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
No Data Entered/Not Applicable !!!		
<a href="#">View File</a>		

## 5.3 – Student Participation and Activities

### 5.3.1 – Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/medal	National/ International	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
No Data Entered/Not Applicable !!!						
<a href="#">View File</a>						

### 5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

A student council is brought together to act as bridge between the students of all departments. The council looks after the needs and requirements of students and intimate the same to faculty representatives, the Principal and management. They also host, coordinate and conduct various technical, social, sports and cultural activities at the Institute campus. Nominations are called for the various posts under students council and then Student Council Election is conducted fairly in the presence of the Principal, HODs of all departments, Senior Faculty and students. By the procedure of ballot voting President, Secretary, Lady representative, Reservation representative, along with Cultural Coordinator, Sports Coordinator and Project Coordinator. The objective of this elected Student Council is to coordinate and conduct various events like special lectures, cultural events, sports, training program, industrial visit

and interaction, conducting students enhancement workshops etc. for all students of PHCET. Senior Faculty is also appointed by the principal as a mentor for student council. Student council long with a team of other members work together for successful conduction of annual Technical and cultural fest termed as Tech Euforia and Euforia respectively. Apart from student council, PHCET has various active student chapters like CSI, IETE, IE, ISHARE, MESA, SAE, SFA, AESA, Team starkers, All the student bodies are involved in organizing co-curricular and extra-curricular activities under the guidance of the faculty coordinators. Such platform offers a plethora of opportunities to students to give them a voice of their own and shed their inhibitions through enriching and engaging experiences. These activities, workshops and intra-domain competitions enhance the communication, team management, time management, resource management, and leadership skills and above all build confidence in each student. Institute promotes participation of students on various academic as well as administrative committees as nominated members. Students members are given more freedom in presenting various issues and their suggestion are given due importance in taking decisions at the respective committee meeting. In addition to this, students represent the following academic and administrative bodies of the college: • College Development Committee • Internal Quality Assurance Cell • Anti Ragging Committee • Internal Complaint Committee • Prevention of Atrocities to SC/ST Committee • Extracurricular Activities committee • Canteen Committee NSS unit and program officer (Faculty Incharge) also nominate two leader on boy and one girl every year along . These leaders coordinate and conduct all NSS activities with the help of students from each department.

#### 5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

Alumni Association, administered by an Alumni Committee is very active in promoting interactions and camaraderie among the current students, faculty, and management. Employment and placement related support and information about available opportunities are great input and contributions from alumni. The Alumni network enables them for changing jobs and make upward mobility easier. The Alumni database is created and updated meticulously to have the latest information from all alumni. The alumni bring their experience and even financial contribution to PHCET and in turn gain by the affiliation and other recognitions that are available at higher echelons. Though a young institution, PHCET has been successful in attracting and retaining its alumni.

5.4.2 – No. of enrolled Alumni:

2326

5.4.3 – Alumni contribution during the year (in Rupees) :

722500

5.4.4 – Meetings/activities organized by Alumni Association :

On 16th February 2019 Alumni meet was organized by Pillai HOC College of Engineering and Technology. The meet was inaugurated by respected principal Dr. Madhumita Chatterjee along with Dr. Mathew T. Joseph and HODs of all the departments. The meeting was attended by 215 Alumni members. Alumni appreciated the effort taken by Team PHCET for organizing the meet as it was a unique opportunity for all the meet their teachers. Meet ended on an emotional note.

#### CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

##### 6.1 – Institutional Vision and Leadership

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

The PHCET functions in a well-structured and defined manner to ensure participative management at all levels of decision making. Their association and participation in devising and implementing decision making policies for academic and administrative affair through different bodies and committees have added to the development of the college. Institution focuses keen on decentralization by expecting equivalent chance to participate in the functioning of the Institution management comprises of management committee, college governing council and each committee has been provided with specific functions cater to the needs of institution for the continuous advancement and improvement of the institution. There are 15 committees that help manage various academic, administrative, co-curricular and extracurricular activities that make PHCET vibrant. The teachers are the co-ordinators and members of these committee At different levels the college grooms the initiative. The Governing body, College Academic Council , Principal, , HODs, Registrar, IQAC Members, Teaching staff, nonteaching staff, supporting staff, student council ,Alumni ,stakeholders and members of various committees jointly propose, design, figure and execute their plans within the framework of college.

**Principal Level:** Principal is member of governing body and the chairperson of IQAC. The Principal in consultation with members of Teacher Council nominate different committees for implementation of different academic, student administration and related policies. All academic and operational policies are based on unanimous decision of governing body ,the IQAC and teachers of the college

**Department level and Faculty Level:** Each department in turn also practices decentralization thus brining greater transparency and better provision of services that address the specific needs of each department. At department level there are various committees headed by HODs and senior faculty. They are urged to create initiative aptitudes by being responsible for different academic, co-curricular, and extracurricular activities. They are given authority to conduct industrial tours and to have tie up with industries for organising seminars/workshops/conferences/FDPs.

**Student Level:** PHCET has a highly decentralized students' council that operates at Department, and at the College level and addresses the needs of every group of students. The student's councils are a great source of energy and responsibility and provide opportunities for students to assume leadership roles. It is through these vehicles of human transformation that the students imbibe values in ethical leadership, responsiveness, patriotism, self-discipline, integrity, ingenuity, creativity, responsibility, compassion through interactions in classrooms and outside, conflict resolution, cultural and sports activities, etc.

**Participative Management** The Institution advances the culture of participative administration at the key level, functional level and operational level. The Principal, governing body, Teachers and the IQAC are involved in defining policies procedures, framing guidelines and rules regulations pertaining to admission, examination, code of conduct-discipline, grievance, support services, finance etc

The Institution advances the culture of participative administration at the key level, functional level and operational level. The Principal, governing body, Teachers and the IQAC are involved in defining policies procedures, framing guidelines and rules regulations pertaining to admission, examination, code of conduct-discipline, grievance, support services, finance etc. Faculty members share knowledge among themselves, students and

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

6.2 – Strategy Development and Deployment



6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details
Admission of Students	PHCET is approved by AICTE, New Delhi and recognised by Govt of Maharashtra. Institute maintains a transparent and well-administered admission process, complying with all statutory norms of the concerned regulatory/governing agencies including DTE Maharashtra and affiliating University. Admission is strictly on merit based through Central Admission Process of state of Maharashtra. All the admissions are based on merit in accordance with the rank obtained in the MHCET or rank obtained in all India level entrance examinations JEE (Main).
Industry Interaction / Collaboration	During the year 2018-19, a total amount sanctioned for consultancy was Rs. 271,305/- and collaboration was done with reputed organisations like Performance Motorworks , Terminal Technologies Pvt Ltd, and Welspun Corp. Ltd, Gujrat etc. Also PHCET is one of the remote centres for ISRO activities. It has conducted 14 IIRS Outreach courses for coursers for students and faculty. 7 MoUs were signed with reputed organisations like Performance Motor Works (AIRC), Pune, Greycast Founders, Ambernath Bhuj, Gujrat, RightSol Pvt Ltd, Singapore etc. PHCET also has Local chapter for NPTEL and IIT Spoken Tutorials to conduct variety of courses and also conducts regular Industry and Academia meet
Human Resource Management	We are building the institute on the quality of individuals who are working for us. So our recruitment strategy is very much transparent and well established. We also take review about individual not only from the students but also from other colleagues and also from higher management individuals like HoD and Principal. We take frequent re-interviews of the employees, so that we have a better judgement of their contribution. We recently asked faculty members to demonstrate their lecturing skill through presentations and also asked them to give IELTS test for understanding their command over the language.
Library, ICT and Physical Infrastructure / Instrumentation	Institute has a large physical library and also an Online Public Access Catalogue Searching Area, Digital

library for accessing e-resources, Laptop zone with Wi-Fi facility and specialized areas like discussion rooms, reference section for users. We are using new Dspace platform as strategy to make reading material like notes to be distributed and other resources to be accessible to students. We are also using ICT tools such as smart board classrooms, light board studio for recording video lectures which can be circulated among the learning community using our MES YouTube channel. We are promoting research oriented activities for students as well as faculty members.

#### Research and Development

PHCET has a dedicated research and incubation centre for encouraging students and faculty to involve in the various research projects. A In house free of cost Component Library is maintained to ease research and project implementation. High-end facilities such as 3D printer, Laser Cutter are also available to assist various research activities. Faculty is actively involved in research and take up collaborative research with students, industry and other academicians. Library resources are updated with state-of the art Journals for various programs. Various seminars/talks are conducted for faculty to create awareness about various funding agencies for research projects. Seminars on guidelines on write research proposals, research paper etc are also organised regularly.

#### Examination and Evaluation

Examination and Evaluation Policy is an integral part of learning process during the progression of a course. A variety of assessment methods are adapted in the examination and evaluation process for students enrolled for UG and PG courses. The students are assessed on continuous basis by the teachers based on attendance, participation in tutorials, assignments, presentations, viva-voice and other activities. End sem evaluation is based on Examination, Internal Assessment, Oral/Practical and Term-work assessment. Faculty prepare unit test papers in accordance with the Bloom's Taxonomy and Course Outcomes.

#### Teaching and Learning

In PHCET, we adapt innovative teaching strategies such as model based learning



(to bring dull academic concepts to life with visual and practical learning experiences such as field visits, helping our students to understand how these concepts apply in the real-world), project based learning (group of students find a solution to the problem given by faculty achieving all the levels of revised Bloom's taxonomy (Remembering, Understanding, Applying, Analysing, Evaluation Creating in their learning process)).

#### Curriculum Development

PHCET follows a well-defined process for the development of curriculum in order to create positive improvement in the offered courses. In each semester, each faculty prepares Course Academic Plan that includes Revision of course outcome and objective, Teaching plan, Concept inventory, Rubrics for the Evaluation process, etc. Course Outcome is revised if the subject In-Charge feels the need for upgrading it owing to the recent research development. This in turn incorporates many state-of-the-art topics related to the course for discussion among students. In concept inventory, students are provided with the minute details of concepts with Reference Books, Research Papers or websites.

#### 6.2.2 – Implementation of e-governance in areas of operations:

E-governance area	Details
Administration	Internet Access with 150 mbps is available in all sections of the Institute. Free Wifi facility in classrooms and library is also provided. CCTV surveillance system is available in library, research centre, exam cell, corridors and other sections. PHCET has online Student portal to disseminate exam related notices, sem results and submit exam forms. Each department has central digital archive to maintain dept information. PHCET also has Mentor-Mentee Platform that helps each mentor to keep track of discussions and counselling done over the period of graduation. Student Feedback portal helps to gather feedback for courses taught and facilities provided.
Finance and Accounts	For finance and accounts the EduRight software developed In house to track Fees payment of every student. For Staff salary calculations and Accounts

we have purchased Tally ERP software for generating Form 16 and maintaining of account.

#### Planning and Development

PHCET has developed Academic Management System Portal that helps to track every students academic progress like lecture attendance, Unit Test marks, Assignments etc. Its other module developed for faculty has provision to upload, Course Plans, Course Outcomes, Notes etc. Course exist survey is also managed by AMS system. It helps Principal and management to review and monitor course wise details for each faculty. It also helps Head of the Department and Principal to track every students progress. ICT in all classrooms, well equipped laboratories and library, and research centre facilitates the overall functioning of the Institute. Faculty members are using Trackmack to evaluate university exam papers within the campus.

#### Student Admission and Support

In PHCET e-governance is implemented to facilitate internal and external stockholders. Online grievance facility is available for students, parents, recruiters, and faculty to register their suggestions and grievances. MES digital resources facility is developed by MES digital library team to provide study and research resources online for students and faculty. Eduright platform is available with administration and office staff to maintain student database. Examination notices, results and regular updates are provided with online student portal that can be accessed from anywhere. Online Mentor Mentee Platform helps mentor and mentee to keep a note of discussions and track mentees overall progress.

#### Examination

PHCET maintains a Student Portal where each student has a personal profile and login credentials using which several services such as their results, fill revaluation and photocopy form, examination form, take print of their hall ticket required for the final examination can be availed. All the notices are displayed on College website. Apart from these facilities, photocopies of the answer sheets which is applied for is sent in official email id of students to promote paperless activities. CCTV footages are maintained to keep track of all

**6.3 – Faculty Empowerment Strategies**

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
No Data Entered/Not Applicable !!!				
<a href="#">View File</a>				

6.3.2 – Number of professional development / administrative training programmes organized by the College for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
No Data Entered/Not Applicable !!!						
<a href="#">View File</a>						

6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
No Data Entered/Not Applicable !!!				
<a href="#">View File</a>				

6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
160	160	58	58

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
Employment of local people for selected jobs, Subsidized food in the canteen, Free transport facility, Special leave is offered to all faculty members during their marriage, Maternity leave facility for all employees, Paternity leave facility for all employees, Provision of 50 concession in fees to	Establishment of on-campus Skills development and training centre in collaboration with Government of India and the Government of Maharashtra for training students and staff, Employment of local people for selected jobs, Subsidized food in the canteen, Free transport facility, Special leave	Establishment of on-campus Skills development and training centre in collaboration with Government of India and the Government of Maharashtra for training students and staff, Subsidized food in the canteen, Subsidised transport facility, Provision of on-campus Gym facility, Special

<p>faculty members pursuing Ph.D. at the Institute, Provision of on-campus Gym facility, Special sports coaching facility sponsored by Sports Authority of India (SAI) for children of employees and neighbouring children from socio-economically challenging background, First aid centre with a dedicated room and beds and doctor on call, Faculty members (nursing mothers) are permitted for flexi hours, Sponsorship for External Faculty Development Programs at (ISRO, IIT and RCF), Teaching assistantship for faculty members pursuing Masters in engineering, Financial support for faculty members pursuing Ph.D. from well-known Institutions such as IIT and VJTI, Provision of Paid On duty leave for faculty members pursuing Ph.D. from other universities, Special leave for research paper presentations and participation in International Conferences, Provident fund for all employees with contributory pension, Financial assistance for travel to important International conferences and seminars, Provision of Counselling Centre, Sponsorship for STTP /seminars/ workshops at national and international level, Sanitary Napkin Vending Machine, Excellent facilities for multiple sports and athletics.</p>	<p>is offered during their marriage, Maternity leave facility for all employees, Paternity leave facility for all employees, Provision of on-campus Gym facility, Special sports coaching facility sponsored by Sports Authority of India (SAI) for children of employees and neighbouring children from socio-economically challenging background, First aid centre with a dedicated room and beds and doctor on call. Faculty members (nursing mothers) are permitted flexi hours, Provision of Counselling Centre Sanitary Napkin Vending Machine, Excellent facilities for multiple sports and athletics.</p>	<p>sports coaching facility sponsored by Sports Authority of India (SAI) for children of employees and neighbouring children from socio-economically challenging background, First aid centre with a dedicated room and beds and doctor on call, Provision of Counselling Centre, Group Insurance for students, Sanitary Napkin Vending Machine, Excellent facilities for multiple sports and athletics.</p>
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#### 6.4 – Financial Management and Resource Mobilization

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

The long term sustainability of any organization is directly related to its

financial health. The financial health is determined by the financial discipline and accounting practices. Budgeting, accounting, and auditing are the three pillars on which financial discipline of organizations rests. In an environment rampant with fudging and frauds, there are stellar organizations with unimpeachable integrity. Mahatma Education Society (MES), the parent body of Pillai HOC College of Engineering and Technology (PHCET) is one of them. The fact that MES has been in existence without any blemish and has created and managed forty eight renowned educational Institutions despite a plethora of regulations, regulatory bodies and compliances to follow is a proof of the quality of its accounting practices and its law abiding nature. PHCET has inherited the same financial discipline, accounting practices, audit procedures and abides by the requirements and stipulations of various regulatory authorities. The audited accounts of PHCET is annually scrutinized by the Shikshan Shulk Samiti (Fee regulating body) of the Directorate of Technical Education (DTE), Government of Maharashtra. Auditing processes of PHCET takes place in two stages namely, Internal audit and External Audit. These auditors are belonging to different auditing firms. The auditors re-appointed by the Governing body each year. The Internal audit is carried out by CA Susanna Co. and the external auditors are Mr. A.S. Majumdar Co. The Internal auditors are in regular contact with the accounts department and visits at least once in two weeks and observes and audits the working. Most of the transactions are in non-cash mode and is done using Tally ERP 9 Software. SensysEasyPay from Sensys Technologies Pvt. Ltd., is used for salary related computations and disbursement and also for Income Tax purposes including generating of Form XVI. 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. Budgeting is a fairly complex activity in PHCET considering the seven departments with varying requirements. Each department creates its own budget and the budgets of all departments are consolidated at the college level. Budget preparation and accounting are specially supervised by well qualified and experienced persons of the level of deputy finance officer. PHCET is proud to record that no audit objection has ever been reported in its ten years of existence as the accounting processes and practices are meticulous and carried out scrupulously by capable people. Regular monitoring of fund flow also helps to monitor the financial health of the college and also helps in timely meeting of financial commitments to all debtors and most of all payment of salaries on time to its employees. Thus, PHCET has always been a financially prudent institution.

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

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
No Data Entered/Not Applicable !!!		
<a href="#">View File</a>		

6.4.3 – Total corpus fund generated

5100000
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## 6.5 – Internal Quality Assurance System

6.5.1 – Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes		Yes	IQAC
Administrative	Yes		Yes	IQAC

#### 6.5.2 – Activities and support from the Parent – Teacher Association (at least three)

- Parent-Teacher meeting is organized once in a semester. The Class coordinators update parents about the progress of their wards. Parents give their feedback in the meeting. Feedbacks from parents are effectively analyzed.
- As per the Parent's suggestion remedial classes and extra lectures for week students are organized. If any parent requested extra lectures, special attention is given to the students and extra revision lectures are organized.
- Scholarship for needy students.

#### 6.5.3 – Development programmes for support staff (at least three)

- Workshop on Disaster Preparedness and safety precautions was conducted on 25-Jun-19
- Regular Yoga and meditation training for female non-teaching staff
- Establishment of on-campus Skills development and training center in collaboration with the Government of India and the Government of Maharashtra for training students and staff.

#### 6.5.4 – Post Accreditation initiative(s) (mention at least three)

- PHCET being the ISRO outreach network institute, conducted 13 outreach courses and 04 workshops with a total of 175 days, 372 hours, 3417 participants.
- Academic Administrative Audit was carried out from June 04 to June 06, 2019
- PHCET was certified for Energy and Safety Audit on June 13, 2019

#### 6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b) Participation in NIRF	Yes
c) ISO certification	Yes
d) NBA or any other quality audit	Yes

#### 6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
No Data Entered/Not Applicable !!!					
<a href="#">View File</a>					

### CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

#### 7.1 – Institutional Values and Social Responsibilities

##### 7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
Womens Day	08/03/2019	08/03/2019	158	133
Visit To Zilla Parishad School, Rasayani	10/03/2019	10/03/2019	51	23
International Yoga Day	21/06/2019	21/06/2019	183	152
Stress	22/04/2019	22/04/2019	108	154

### 7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources

(a)Percentage of annual power requirement of the Institution met by the renewable energy sources 1.17 (1)Total annual power requirement (in KWH) : 645580.6 (2)Annual power requirement met by the renewable(SOLAR) energy sources (in KWH) : 11037.6 (b) Percentage of annual lighting power requirements met through LED bulbs: 28.48 (3)Annual lighting power requirement (in KWH) : 89510.4 (4)Annual lighting power requirement met through LED bulbs (in KWH) :25494

### 7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	2
Provision for lift	Yes	2
Ramp/Rails	Yes	2
Rest Rooms	Yes	2
Scribes for examination	Yes	2
Special skill development for differently abled students	Yes	2

### 7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
No Data Entered/Not Applicable !!!							
<a href="#">View File</a>							

### 7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
Faculty Handbook	01/05/2019	The handbook for Code of Conduct for various stakeholders has been revised and published in May 2019. The same has been disseminated and is made available on Institute website. It is a policy of Mahatma Education Society (MES) and its institutes to give equal opportunity to all the employees and applicants for employment without regard to



religion, race, creed, caste, colour, sex, disability, and age. The policy applies to initial employment, promotion, compensation, and termination. The employees / students are not denied benefits, or subjected to discrimination under any program or activity of the Institute. As an affiliated Institute, PHCET follows code of conduct set by University of Mumbai. The Institute also releases information brochure every academic year that provides all the necessary information regarding the changes in admission process if any and also highlights changes in rules and regulations of government authorities if any.

#### 7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
No Data Entered/Not Applicable !!!			
<a href="#">View File</a>			

#### 7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

Solid waste management
Liquid waste management
Rainwater harvesting system
Plastic bottle Recycling machine to make plastic-free campus
Institute Walls of Gypsum Cubes reduces the carbon footprint in terms of year to year maintenance and the consumption of paint and other hazards of painting an eleven storey building and the associated risks.

### 7.2 – Best Practices

#### 7.2.1 – Describe at least two institutional best practices

1. Title of the Practice: Project Based Learning (PBL) 2. Objective of the Practice The objective of Project Based Learning (PBL) is to enable the students to apply the concepts and theories they have learnt in the previous semesters and in the on-going semester. Developing projects that incorporate the learning from various courses makes the students understand inter-connectedness of the courses. A project environment 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 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. 3. The



Context The Engineering curriculum in most Indian Universities include a six months to twelve months of project work. The students may opt to carry out the project in the Industry, RD institutions, etc. However, due to the poor preparation, many students are not able to take advantage of this opportunity.

This affects placement and employability and becomes an institutional challenge. Hence, it was decided to introduce PBL in PHCET. This has been a great turning point and the enthusiasm of students is palpable. PBL was started as a pilot in the Computer engineering department and has now become an institution wide practice in each semester. 4. The Practice PBL has become integral part of all programs at PHCET and is included in the academic calendar. The method adopted is practical and implementable. It has evolved in such a way that students have published their work in conferences, participated at government approved national competitions like Hackathon, Vishwakarma awards, etc. Testimonials of each program are available on [phcet.ac.in](http://phcet.ac.in). Rubrics are framed for evaluation of PBL projects. The evaluation is conducted in two stages. Stage 1: students perform literature review and design calculations and in stage 2: students develop complete solution of the given problem. The following example illustrates the practice. A. The Problem: Design and build a flat plate solar water heater, FPSWH, for a temperature rise of about 7 to 10°C/m length of tube/pipe at 1000 W/m<sup>2</sup> solar radiation intensity. Students follow the engineering design process to: (a) build a FPSWH (b) test to see if it can raise the temperature of water to the desired level, and (c) use their testing results to improve the design and get as big a temperature change as possible. They apply their understanding of the three forms of heat transfer viz., conduction, convection and radiation, and how they are related to energy efficiency. They calculate the efficiency of the solar water heaters during initial and final tests. Students need to take temperature measurements of outlet water from the tube after every filling of 100 ml in the container, and plot graph of outlet water temperature versus time. Stage I - Students are instructed to brainstorm for the FPSWH designs (come up with at least three ideas, write or draw all the ideas, can be as weird as possible—don't get too critical at this stage), select the best design (most promising one) based on various parameters, prepare an initial budget sheet with the cost and quantity of materials needed for starting construction. Prepare a detailed drawing that includes labeled materials and dimensions, prepare a CAD model of the SWH, materials budget worksheet (include quantity of each item), build the first iteration of design, check for leaks (if any) before sealing the devices. Stage II - Students are advised to take time to make design modifications - focus on improving the efficiency of the devices, include any additional material in the budget, need to furnish measurements and calculations leading to temperature graphs (over time), efficiencies, total costs, cost/degree change, and cost percentage efficiency. 5. Evidence of Success: The experience of PHCET with PBL as a teaching learning process has been very positive. PBL engages the students. The survey conducted by PHCET of the students and the guides show that it is an effective and enjoyable way to learn - and develop deeper learning competencies required for success in college, career, and civic life. Activities like projects engage the hearts and minds, and provide relevance for learning. A project improves learning and by completing a project, students understand content better remember what they learn and retain it longer than with traditional teaching. Hence, students who gain content knowledge along with PBL are better equipped to apply what they know in new situations. The 21st century workplace needs people with knowledge and skills, dynamism, initiative and confidence to take responsibility, ability to solve problems, and work in teams, communicate ideas, critically analyse ideas and situations, and manage themselves effectively. PBL type of environment can inculcate many of these attributes in young students and the PBL in each semester gives adequate time for students to imbibe them. 6. Problems Encountered and Resources Required Prior learning experiences and

theoretical understanding of the curriculum do not prepare students well for PBL. It requires a different kind of thinking and certainly has a learning curve. Many times students who are not very academically inclined or proficient seem to pick up PBL very fast and work productively and their attitude and approach to learning changes. Some students need more time to immerse themselves into PBL. Differences of opinion and personal conflicts, though naturally expected, the feedback of the guides indicate that the prevalence of these traits was nil or negligible. There was hardly any resistance or lack of enthusiasm among the students. PBL affects other academic activities and therefore, the students and the guides have to work extended hours and even on holidays. However, it was well-received. The required resources were available in the Component Library of the research Lab or the students procured them. 7. Notes The enthusiasm and the participation of the students gave the impetus to include PBL as an institution wide practice. Students organize themselves, share responsibilities, and negotiate among themselves. They come to the Institute on holidays also to work on their projects. Observations of the guides are that the PBL has significantly impacted the behaviour of students and a degree of earnestness and enthusiasm has been instilled. With the entire Institute adopting PBL and having it as a semester wise activity twice a year will change the learning culture of PHCET and proved the quality of the final year projects that the students undertake.

1. Title of the Practice: Institute-Industry Interaction  
2. Objective of the Practice PHCET strives to bridge the gap between Education 3.0 and Industry 4.0 by collaboration and continued Institute-Industry interaction. The students should always be trained with clear objective that they are the workforce and professionals of tomorrow. Hence exposure to and knowing in advance what is happening in the work place provides hindsight advantage and forms part of the well-prepared and future ready professionals. Towards this end, a plethora of opportunities, activities, processes and procedural modifications are explored and adopted. Expert lectures by senior industry professionals, Industry visits, industry internships, seminars on advanced technologies, etc. are some of them.  
3. The Context The location of the PHCET necessitates extra support for the students to do well in academics as they have several disadvantages such as long travel, vernacular medium up to class XII, financial insecurities, etc. Some are first generation learners. Hence, there is a dire need to proactively innovate to support the students. PHCET is situated in the underdeveloped area of Raigad District. Majority of the students come from agrarian background. Despite many handicaps, the sparkle in their eyes tells of the longing for the good life an engineering education can provide. And they dare to study engineering. It is observed that vast majority of the graduates opt for jobs to meet financial necessities. The best that PHCET can do is to bring the students face to face with industry veterans and the realities of the work place. There are several success stories to illustrate that the practice is worth it.  
4. The Practice Over the years PHCET has developed several academic activities and student centric methods for enhancing learning and for making learning interesting. The need of the industry and the changing requirements makes it imperative to continually innovate to enhance the quality of service. Industry-Institute interaction is one of the best practices among nearly 50 student centric methods that have been developed in the PHCET since its inception. These methods keep increasing consonant to the growth of the Institution. Lectures by industry experts, invited talks, industry visits, internship, campus placement, etc., are a few of the activities that are carried out under this practice. These are conducted in each semester. Various experts as per specialization are invited from industry to share their practical knowledge. Better interaction between Technical institutions and industry is the need of the hour. This will strengthen engineering curriculum, exposure to industry to engineering students and subsequent placement of young graduating engineers in industries. Similarly, there is an urgent need to prepare engineering students for jobs in

multinational companies, by exposing them to new technologies and engineering methodologies. These objectives can only be achieved well

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

<https://phcet.ac.in/igac/best-practices/>

### 7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

The strength, success and sustainability of any organization worth its name depend on its core values, core competency and perpetual performance. The bedrock of the performance of PHCET is expressed in its motto: Vidya Karmasu Kaushalam (Knowledge is Excellence at Work. Ten years is a very short span in the history of a large organization like PHCET. However, PHCET has achieved remarkable success and growth in ten years. This has been possible due to its performance its belief that excellence has hands and legs and a thinking mind. Therefore, perpetual quest for excellence and quality in all that it is about has become a kind of obstinacy. Also 'Building Quality Consciousness' has been an area of great most concern and thrust for PHCET from its inception. This concern has been consistently addressed during the course of the three phases of its perspective plans and strategic development. Quality in all that it does, and inculcating quality consciousness in its students, faculty, staff and other stakeholders is a relentless mission. Several workshops, on 'Building Quality Consciousness', were conducted by the Principal and senior faculty for all students and faculty. In a large institution for engineering education building quality consciousness is multipronged and strategic. It directly involves the students, the faculty, and administration and other stakeholders. The principal stakeholders - the students - are concerned with academics. A robust teaching learning process is the first necessity to have quality academics and is the hallmark of wholesome education. Identifying gaps in curriculum and bridging them in different ways was the first step. PHCET has in its ten years of existence evolved nearly fifty student-centric methods to enhance the learning experience of students. Some of these methods like Project Based Learning (PBL) and Concept Inventory (CI) have become best practices and methods like Special Interest Groups (SIGs) and Meditation are still in the growth phase. PHCET has a large number of students from the rural areas of Raigad District of Maharashtra and come from relatively poor academic background too. Some are first generation learners. Hence need special attention. Counselling by a professional counsellor and by senior faculty, mentoring by the faculty, are all part of the academic process to help students to become achievers. Quality is multidimensional and the commitment of PHCET is unambiguous. "When students leave PHCET they should be confident and competent engineers determined to meet the challenges that may come in their professional and personal lives and take risks as appropriate, and have a 'WINNER'S ATTITUDE - no matter what background they come from when they enter PHCET." All effort is to realize this. Mentoring is the new 'mantra'. The students have access and possess the same information that the teacher has in the changing dynamics and democratization of knowledge. Therefore, the role of the teacher is getting transformed from being an information provider to a mentor who guides how to evaluate the information that is available and how to use it for solving problems that the society faces. PHCET has added a new dimension to the mentoring process

Provide the weblink of the institution

<https://phcet.ac.in>

## 8.Future Plans of Actions for Next Academic Year

PHCET, having been awarded an A' grade by NAAC in the first cycle, has become even more ambitious, expanded on its vision, and canvas of action. In view of this, all departments are encouraged to seek out opportunities to strengthen themselves as well as to improve the quality of service provided to the students and other stakeholders. Several parameters are identified to achieve it as well as to make brands 'PHCET' stronger. The idea is to do better what it does already and to bring in new and better innovation and thus value add. The parameters identified are broadly in the areas of teaching-learning processes, co-curricular activities, employment and placements, creation of financial support for the needy students, and other activities and projects that would give societal recognition. It is planned to enhance the scope and reach of project-based learning and application of Bloom's taxonomy for enhancing evaluation and testing. Meditation, mentoring, etc., will be streamlined for deriving better results. The specific plans and projects visualized for 2019-20 are as follows:

1. Apply for re-accreditation of Computer and Mechanical undergraduate programs in Computer Engineering and Mechanical Engineering
2. Submit research proposals for the cumulative worth of at least Rs. 50.00 lakhs
3. Conduct additional awareness workshops on "Patent Filing Procedure"
4. Initiate training for aspiring entrepreneurs in Market Survey, Business Analysis, Budget analysis, writing project proposals, and Report writing, etc.
5. Obtain Indian Merchant Chamber's Ramkrishna Bajaj National Quality (RBNQA) Certification
6. Enhance training for students in technical writing and documentation according to international standards
7. Participate in the Work Place Safety Award Competition 2019 of the Bombay Chamber of Commerce and Industry (BCCI)
8. Participate in IIC, NIRF, and ATAL educational Initiatives of the GoI
9. Increase the existing Inter-departmental projects