

YEARLY STATUS REPORT - 2020-2021

Part A		
Data of the Institution		
1.Name of the Institution	Pillai college of Engineering	
Name of the Head of the institution	Dr. Sandeep M. Joshi	
• Designation	Principal	
Does the institution function from its own campus?	Yes	
Phone no./Alternate phone no.	0222756100	
Mobile no	9373710001	
Registered e-mail	principalpce@mes.ac.in	
Alternate e-mail	smjoshi@mes.ac.in	
• Address	Dr. K. M. Vasudevan Pillai Campus, Sector 16, New Panvel	
• City/Town	New Panvel	
State/UT	Maharashtra	
• Pin Code	410206	
2.Institutional status		
Affiliated /Constituent	AFFILIATED	
Type of Institution	Co-education	
• Location	Urban	

• Financial Status	Self-financing
Name of the Affiliating University	University of Mumbai
Name of the IQAC Coordinator	Dr. Sharvari S. Govilkar
• Phone No.	02227451700
Alternate phone No.	9819261265
• Mobile	9820277903
• IQAC e-mail address	pceiqac@mes.ac.in
Alternate Email address	sgovilkar@mes.ac.in
3.Website address (Web link of the AQAR (Previous Academic Year)	https://www.pce.ac.in/wp-content/uploads/2021/06/AQAR-Report-2019-20.pdf
4. Whether Academic Calendar prepared during the year?	Yes
• if yes, whether it is uploaded in the Institutional website Web link:	https://www.pce.ac.in/students/ac ademic-calendar/term-calendar/#16 27888999466-e8e6a198-95c4

5.Accreditation Details

Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	A+	3.3	January 2020	07/01/2020	06/01/2025

6.Date of Establishment of IQAC 30/05/2016

7.Provide the list of funds by Central / State Government UGC/CSIR/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.,

Institutional/Depa rtment /Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Mechanical Engineering	Minor project	India resources trust	2020 for 6 months	35000
Mechanical Engineering	Minor Project	Infinite Analytics	2020 for 01 month	29500

		India Pvt. Ltd.		
Electronics Engineering	Major Project	UGC_DAE-CSR, Indore	2020 for 3 years	7,60,000
Applied science, Humanities and mathematics	Major Project	UGC_DAE-CSR, Mumbai	2020 for 3 years	1,35,000
Applied science, Humanities and mathematics	Major Project	Department of Science and Technology (DST)	2019 for 3 Years	27,80,000
Applied science, Humanities and mathematics	Minor Project	Minor Research Project, Mumbai University	2020 for 1 Year	40,000
Applied science, Humanities and mathematics	Minor Project	Minor Research Project, Mumbai University	2020 for 1 Year	25,000
Applied science, Humanities and mathematics	Minor Project	AICTE SPIECES	2020 for 1 Year	100000.0
Computer Engineering	Major Project MODROB	AICTE	2020 for 2 years	8,88,235
Information Technology	Minor Project	NPTEL	2020 for 3 Months	16625

8.Whether composition of IQAC as per latest NAAC guidelines	Yes	
 Upload latest notification of formation of IQAC 	View File	

9.No. of IQAC meetings held during the year	3
Were the minutes of IQAC meeting(s) and compliance to the decisions have been uploaded on the institutional website?	Yes
If No, please upload the minutes of the meeting(s) and Action Taken Report	No File Uploaded
10.Whether IQAC received funding from any of the funding agency to support its activities during the year?	No
• If yes, mention the amount	
11.Significant contributions made by IQAC dur	ing the current year (maximum five bullets)
Submission of proposal to UGC to g Pillai Collège of Engineering.	ain fresh autonomous status to
Submission of NBA Compliance repor Engineering, Mechanical Engineerin	_
Participation In ATAL Ranking of I Achievements (ARIIA).	nstitutions on innovation
Participation In NIRF ranking	
Regular meeting of Academic and Adreview AAA's submitted by each dep	
12.Plan of action chalked out by the IQAC in th Quality Enhancement and the outcome achieved	

Plan of Action	Achievements/Outcomes
To gain Academic Autonomy.	Offline Autonomy proposal is submitted to UGC
To sustain the improvement in research and Consultancy grants received from governemnet / Non governemnt oragnizations during Covid 19 pandemic	Research and consultancy grants received from Govenment /non government oraganization have been increased from 31 lakhs to 51.20 lakhs
To bring Innovations and creativity in teaching and learning.	faculty members have started using E-learning studio for lecture recording, Google classroom as a digital repository of teaching learning material, virtual labs to conduct online praticals, online line platforms like Google meet, zoom to condcut online lectures, Google forms and online platforms for conduction and monitoring of online examinations.
To motivate faculty members to do research publications in quality conferences and Journals during tough time of covid 19 pandemic	To motivate faculty members to do research publications in quality conferences and Journals during tough time of covid 19 pandemic
To Enrich the skill set and knowldege of students and faculty by conducting various industry expert talks and MOOC courses	over the year around 29 industry expert talks were oraganised to make students aware about industry requirements and free lisences of MOOC courses like Coursera and EDX were offered to students. In all 2173 students and faculty got benifited by completing 7773 courses .
13.Whether the AQAR was placed before statutory body?	Yes
Name of the statutory body	,

Name	Date of meeting(s)		
Board of Governance	04/10/2021		
14.Whether institutional data submitted to AI	SHE		
Year	ear Date of Submission		
2020-21	10/01/2022		
15.Multidisciplinary / interdisciplinary			
16.Academic bank of credits (ABC):			
17.Skill development:			
18.Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course)			
19.Focus on Outcome based education (OBE):	Focus on Outcome based education (OBE):		
20.Distance education/online education:			
Extended Profile			

1.Programme

1.1 720

Number of courses offered by the institution across all programs during the year

File Description	Documents
Data Template	<u>View File</u>

2.Student

2.1

Number of students during the year

File Description	Documents
Institutional Data in Prescribed Format	<u>View File</u>

2.2

Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year

File Description	Documents
Data Template	<u>View File</u>

2.3

Number of outgoing/final year students during the year

File Description	Documents
Data Template	<u>View File</u>

3.Academic

3.1

Number of full time teachers during the year

File Description	Documents
Data Template	<u>View File</u>

3.2

Number of sanctioned posts during the year

Extended Profile		
1.Programme		
1.1		720
Number of courses offered by the institution acturing the year	ross all programs	
File Description	Documents	
Data Template		View File
2.Student		
2.1		2760
Number of students during the year		
File Description	Documents	
		View File
Institutional Data in Prescribed Format		<u> </u>
Institutional Data in Prescribed Format 2.2		200
	ry as per GOI/	
2.2 Number of seats earmarked for reserved categor	ry as per GOI/	
2.2 Number of seats earmarked for reserved category State Govt. rule during the year		
2.2 Number of seats earmarked for reserved categor State Govt. rule during the year File Description		200
2.2 Number of seats earmarked for reserved categor State Govt. rule during the year File Description Data Template	Documents	View File
2.2 Number of seats earmarked for reserved categor State Govt. rule during the year File Description Data Template 2.3	Documents	View File
2.2 Number of seats earmarked for reserved categor State Govt. rule during the year File Description Data Template 2.3 Number of outgoing/ final year students during	Documents the year	View File
2.2 Number of seats earmarked for reserved categor State Govt. rule during the year File Description Data Template 2.3 Number of outgoing/ final year students during File Description	Documents the year	200 <u>View File</u> 790
2.2 Number of seats earmarked for reserved categor State Govt. rule during the year File Description Data Template 2.3 Number of outgoing/ final year students during File Description Data Template	Documents the year	200 <u>View File</u> 790
2.2 Number of seats earmarked for reserved categor State Govt. rule during the year File Description Data Template 2.3 Number of outgoing/ final year students during File Description Data Template 3.Academic	Documents the year	View File 790 View File
2.2 Number of seats earmarked for reserved category State Govt. rule during the year File Description Data Template 2.3 Number of outgoing/ final year students during File Description Data Template 3.Academic 3.1	Documents the year	View File 790 View File

3.2	143
Number of sanctioned posts during the year	

File Description	Documents
Data Template	<u>View File</u>

4.Institution	
4.1	62
Total number of Classrooms and Seminar halls	
4.2	112556577
Total expenditure excluding salary during the year (INR in lakhs)	
4.3	1267
Total number of computers on campus for academic purposes	

Part B

CURRICULAR ASPECTS

1.1 - Curricular Planning and Implementation

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

Pillai College of Engineering is affiliated to University of Mumbai and follows the curriculum prescribed by the University. Institute has an Academic and Administrative Activity Planner (AAAP) which is in-line with the Term Calendar provided by the University of Mumbai . This year was not an usual academic year but was of pandemic situations. Institute was very careful about faculty, students and every supporting staff in college. Due to Covid the teaching learning process was carried out in online mode in a very effective manner. Faculty and students switched from physical classrooms to Google classrooms very easily and various ICT tools were used by faculty to deliver the courses in the best manner. Every faculty followed a scientific and disciplined approach to make content understandable and easy for students. Every faculty was ready to help others in all the best ways possible for them. So even in a pandemic situation teaching and learning was enjoyed by everybody. Alongwith course content delivery, industry expert talks, and guest lectures, alumni talks

were arranged to make our students industry ready. Students were kept motivated through various online activities, motivational talks, yoga sessions, meditations and online competitions. The student councils and all student chapters played an active role in organizing various events in online mode. Internal assessment tests and university examinations consisting of both MCQ and subjective questions were conducted in a proctored manner. Students were able to acquire additional knowledge from Coursera and NPTEL courses. Project based learning was carried out in an online mode and various competitions like Avishkar were also conducted in online mode. The Institution Innovation Council (IIC) organized various webinars to train students seeking interest in startups and entrepreneurship.

File Description	Documents
Upload relevant supporting document	<u>View File</u>
Link for Additional information	https://www.pce.ac.in/academics/academic- and-administrative-activity-planner-aaap/

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

PCE has an indigenous academic ready reckoner. Institute prepares a term calendar which is in-line with the Term Calendar provided by the University of Mumbai . The calendar outlines the semester schedule, internal examination schedule, external examination, placement activities, feedback schedule and other curricular and co-curricular activities. Department prepares a term calendar specifying its own curricular, co-curricular activities. Timetables are prepared by coordinators adhering to the department calendar. PCE has inhouse developed, Academic Monitoring System -AMS and it is extensively used right from lesson plan to internal assessment (IA) evaluation and attendance monitoring as well. As a process, the Head of department finalizes the course allocation to the faculty members based on their choice and area of interest or expertise. Each faculty member prepares the lesson plan, assignments, laboratory experiments for each subject and also outlines its evaluation process. The performance of the students is assessed on a continuous basis by conducting the two internal assessment tests as per the university norm. In spite of pandemic situations internal assessment was a proctored examination with 50% MCQ and 50% subjective. IA was conducted using online Google forms and students submitted the scan PDF copy of the subjective

section. In addition, assignments, mini-project, PBL and final year projects are also part of continuous internal evaluation. Parent Teacher Meeting is arranged so that the faculty members can have periodic interaction with the parents. Course feedback and course exit survey provides inputs to the department for inculcating improvement in curriculum. All the activities are scheduled time bound, well-ordered and stipulated and conducted in online mode in pandemics. Continuous Internal Evaluation (CIE) is an ongoing commitment to the student and to the academic community.

File Description	Documents
Upload relevant supporting document	<u>View File</u>
Link for Additional information	
	https://www.pce.ac.in/students/academic-ca
	<u>lendar/term-</u>
	<u>calendar/#1627888999466-e8e6a198-95c4</u>

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

B. Any 3 of the above

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

1.2 - Academic Flexibility

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

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

11

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

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

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

9

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

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

3187

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

1.3 - Curriculum Enrichment

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

The curriculum has integrated Professional Ethics, Gender, Human Values, Environment and Sustainability in various courses such as Environmental Studies, Business Communication and Ethics, Intellectual Property Rights, Cyber Security etc. at UG and PG

level. Students are motivated to take part in various intercollegiate events such as project competitions, University level competitions like Avishkar, poster presentations which address diverse social and environmental issues. PCE Nature club in association with Centre of Excellence in Polymer Science and Engineering (CEPSE) and Indian Centre for Plastics in the Environment (ICPE) celebrated the World Environment Day by conducting an Intra College Debate Competition. The eminent dignitaries like Dr Brajesh K Dubey, Mr Swapan Ray. Mr Manish Khandelwal, Dr D D Kale, Mr Rajendra Gupta and Mr T K Bandhopadhyay were invited to evaluate the competition and create awareness among students regarding the degradation of nature around us. Programs such as Universal Human Values, Community Service Day, Uber Rang, Teachers Day, 21 Days Meditation Challenge, Dhyanotsav 2020 are organized to inculcate human values and professional ethics. Students and Faculty reports/papers/thesis are checked for plagiarism using TURNITIN software to maintain Professional Ethics. Special activities are carried out for girl students like webinar on Society of Women Engineers. Women's day is celebrated each year along with some special events in the month of March. In project group formation for SE/TE/BE projects, Coder of the Semester-season 3, Deep Blue -Project Competition it is suggested to have at least one girl student in the group. This practice actually helps the girls to overcome inhibitions and function effectively and prepares them for their future.

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

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

108

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

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

1933

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

1.4 - Feedback System

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

A. All of the above

File Description	Documents
URL for stakeholder feedback report	https://www.pce.ac.in/wp-content/uploads/2 021/10/Stakeholders-Feedback-2020-21.pdf
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	<u>View File</u>
Any additional information	<u>View File</u>

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

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

File Description	Documents
Upload any additional information	<u>View File</u>
URL for feedback report	https://www.pce.ac.in/wp-content/uploads/2 021/10/Stakeholders-Feedback-2020-21.pdf

TEACHING-LEARNING AND EVALUATION

2.1 - Student Enrollment and Profile

2.1.1 - Enrolment Number Number of students admitted during the year

2.1.1.1 - Number of students admitted during the year

569

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

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

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

153

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

2.2 - Catering to Student Diversity

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

PCE has well defined policies and procedures to allow for the identification of different types of learners. Faculty at PCE are

trained to identify and support students with varying learning capabilities.

At the First year level, students are identified into different academic categories based on their performance in the first internal assessment test. The weaker students thus identified are given more attention and made to practise so that they score at least to a level of passing in the university examinations.

Course-in-charge and class counselors during the teaching learning process identify the slow learners and advanced learners by observing their performance in different activities as well as the results of various assessment processes during the semester.

Mentor Mentee scheme, wherein a small group of students is allotted to one faculty mentor, helps to monitor the progress and difficulties faced by the students. It helps to enhance the performance of slow learners and groom advanced learners

Periodic Parent Teacher meetings are organised to update the parents about the performance of their ward.

Remedial classes, Special counselling and extra classes are conducted for the students who are not good performers. Additional support is offered through coaching, Extra lab sessions, additional tutorial hours, links to e-books and subject related video lectures, question banks as well as notes prepared by faculty are some of the other initiatives for slow learners.

Students having good academic records are encouraged to achieve higher ranks in university exams, and to take exams like GATE, GRE, TOEFL, IELTS, CAT etc. Teachers conduct extra sessions for students to prepare them for the GATE examination.

Students having orientation towards research are motivated to present their work at conferences and competitions such as Avishkar, and this has helped us in winning awards at the university and also the state level.

These students are also encouraged to become part of the student council and form other student groups. Student activity fund has also been initiated to ensure that students have funds to participate in various competitions.

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

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

Number of Students	Number of Teachers
3114	148

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

2.3 - Teaching- Learning Process

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

PCE has placed the student learning experience at the center of the institute's vision and mission and strongly believes in providing hands-on and experiential learning to its students. Below are some of the cocurricular activities and facilities that provide for experiential learning

Project based learning has been implemented from the first year itself. Every semester students are given a defined project on the basis of theoretical subjects they are learning. The projects are generally defined as a problem for which student groups are required to come up with a solution. They are expected to implement these projects during the term and present their work at the end of the semester.

PCE also has many infrastructural facilities that are available to students where they can work on their projects. There is a full fledged Maker Studio having laser cutting machines, 3D printing machines, CNC machines, tinkering workstations etc which students can use to build projects and inventions.

PCE also has a Component Library where students can issue various engineering tools and components such as arduino boards, microcontrollers, motors, sensors etc and utilize it for their projects.

Group Discussions and mock interviews are some of the methods which are practiced by faculty members through the online session.

Use of Virtual labs is encouraged and online courses like NPTEL, SWAYAM, EDX, COURSERA etc are promoted amongst the students.

Case Studies, Online Internships, Webinars and Industry Expert Talks are conducted across all departments to improve the overall experiential learning experience.

Student Chapters and Professional Organizations such as CSI, IEEE, MESA, ETSA, AESA, ISHRAE organize many activities like webinars, expert talks and competitions for students which are managed entirely by students in each department. This provides exposure to the professional world as well as helps develop coordination, leadership ,team building, management skills and technical skills amongst students

File Description	Documents
Upload any additional information	<u>View File</u>
Link for additional information	https://www.pce.ac.in/students/project- based-learning/

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

Innovation and creativity are fundamental and essential qualities the PCE seeks to develop both in its students and faculty. Some of the initiatives for ICT enabled tools for an effective teachinglearning process are listed below.

PCE has a dedicated recording room called "E-Learning Studio". An inhouse developed Light Board and recording facility in this E-learning studio is part chalkboard and part projection screen that floats course content in the space between the instructor and their student audience. These videos after editing are shared with students via YouTube or other learning platforms. These online lectures allow the faculty to more easily incorporate interactive, audio-visual tools, digital resources, animation and simulations in their lectures. This allows students to review lectures and various concepts at home and then come to class and ask questions. It also allows for faculty to cover material not in the syllabus but is still relevant to industry.

Zoom, GotoMeeting and Google meet are being used by all our faculty members to conduct online lectures, Online practicals, discussion with students and to conduct online examinations.

Google Classroom , Moddle are used by faculty and students for conducting assignments/quizzes and online submission of the same respectively.

E-books, E-Journals, Digital Database are some of the ICT enabled tools used by our teachers for an effective teaching-learning process.

Teachers regularly enrol and get certifications from NPTEL, Coursera, Edx courses thus, enhancing their knowledge in particular research areas.

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

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

2.3.3.1 - Number of mentors

148

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

2.4 - Teacher Profile and Quality

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

148

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

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

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

38

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

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

2.4.3.1 - Total experience of full-time teachers

2345

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

2.5 - Evaluation Process and Reforms

2.5.1 - Mechanism of internal assessment is transparent and robust in terms of frequency and

mode. Write description within 200 words.

Academic calendar of the institute provides planned dates of internal assessment tests, projects, and term work submission. Academic calendar is made available well before the commencement of the semester through the college website.

Internal assessment comprises term work assessment and internal tests which are two separate heads of passing as per the syllabus scheme prescribed by the University of Mumbai. Internal assessment is carried out on a periodic basis over the entire semester. The assessment of term work is based on the performance and evaluation of assignments, case studies, project based learning and experiments on a regular basis. The concerned students are also aware of their grades/marks obtained in a particular assignment or experiment or case study as the marks are awarded in front of the students.

Each internal test is conducted for 20 marks and an average of two tests is considered as 20% of the total weightage in each theory subject along with an end semester examination of 80 marks. Once the papers of internal tests have been assessed, they are shown to the students to assess themselves and also to ensure the correctness of marks awarded by the teachers. The teacher also discusses all the questions asked in the paper and their appropriate answers so that students improve upon their mistakes made.

In the middle of every semester, a parent-teachers meeting is conducted to update the parents about their ward's attendance and performance in internal assessment of all subjects and feedback is also sought from parents to improve the system.

The internal assessments are routinely monitored by Department Advisory Committees to ensure that they meet the learning outcomes outlined in the course syllabus.

File Description	Documents
Any additional information	<u>View File</u>
Link for additional information	
	https://www.pce.ac.in/students/academic-
	<u>calendar/</u>

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

Examination related grievances are addressed by the Examination Cell of the institute. In general the examination related grievances include- examination forms, assessment of answer scripts, corrections in Grade Card, marks updating after revaluation, pending results of lower semesters and, correction in name etc.

All the grievances are promptly handled and addressed on time and forwarded to the university with regular follow up till the matter is resolved by the University.

The Examination Committee comprises Principal, Examination Cell Incharge, senior faculty members. The committee ensures smooth conduct of the examination.

An Unfair Means and Discipline Committee addresses any issues related to malpractices or any unsavoury incident during the examination, if reported.

The End Semester Examination are conducted according to the Time table given by the University and the senior committee members take rounds at regular intervals to ensure fair conduction of examinations and if any unfair incidents or malpractices observed, are reported to the Examination cell of the institute for further action. The proctored examinations are conducted to avoid any sort of malpractices.

After the declaration of the results, if the student has any grievances, there are provisions for applying for revaluation after paying the prescribed fees within the stipulated time frame. Revaluation process is normally completed within 45 days and their results are declared. The examination cell always tries to minimise the time spent between application of a grievance and its disposal.

File Description	Documents
Any additional information	<u>View File</u>
Link for additional information	
	https://www.pce.ac.in/students/student-
	<u>handbook/</u>

2.6 - Student Performance and Learning Outcomes

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

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The Course Outcomes (COs) represent the expected knowledge and skills a student acquires at the end of a course. COs have been thoughtfully defined for all courses across the various programs being offered. Bloom's Taxonomy is also kept into consideration while defining the COs. Referring to the University prescribed syllabus, COs for theory as well as laboratory courses are normally defined by the concerned course teacher in consultation with senior teachers. In general 4 to 6 COs listed out for every course across all departments.

The introductory lectures for all courses are meant for communicating the COs to the students. COs are revised, if needed, after seeking approvals from the department level committee. The Course Assessment Report prepared for all courses offered also lists the course outcomes and their attainments. Internal Assessment test questions are prepared based on COs. Each question addresses a particular CO.

Since 2015, National Board of Accreditation has defined 12 POs thus maintaining a uniformity across all branches of Undergraduate Program in Engineering. Workshops, seminars and webinars have been conducted to educate the teachers about the outcome based education and its implementation.

Program Specific Outcomes(PSOs) and Program Educational Objectives(PEOs) have been defined and stated after much deliberations and involvement of stakeholders. This has been done for all undergraduate programs being offered at the institute. In our institution, every faculty member understands the concept of Outcome based education and diligently tries to ensure that outcome attainments are met.

The Program Outcomes (POs), Program Specific Outcomes(PSOs) and Program Educational Objectives(PEOs) are prominently displayed on Department notice boards, laboratories, classrooms, college brochure and also the institute website.

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

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

PCE strongly believes in outcome based education and courses are regularly evaluated based on the schedule provided in the academic ready reckoner. The attainment of the POs, and COs are calculated for all programs through a systematic process of:

1.Calculation of the Course Outcomes(CO) attainment

Direct attainments are made from all evaluation done through the semester ie. labwork, assignments, internal tests, seminars, mini projects, project based learning and open book study camp. The weightage for direct attainment followed at our institute is 70%.

Indirect attainments of COs are calculated from responses received from and semester Course Exit survey. The weightage for the indirect attainment followed at our institute is 30%.

The total attainments of the COs are obtained by the sum of the direct and indirect attainments.

2. Calculation of the Program Outcomes attainment from CO attainment

Mapping of every CO is done with the POs and the attainments are calculated on a 3 point scale. This forms the direct attainment component of the POs.

Indirect attainments of POs are calculated on a 3 point scale from the responses obtained from feedback taken from alumni, graduates and employers.

Here again the total attainment is calculated as the weighted average of the direct and indirect attainment.

3. Calculation of the Program Specific Outcomes attainment from CO attainment

Mapping of every CO is done with the PSOs and the attainments are calculated on a 3 point scale. This forms the direct attainment component of the PSOs.

Indirect attainments of PSOs are calculated on a 3 point scale from the responses obtained from feedback taken from alumni, graduates and employers.

Here again the total attainment of PSO is calculated as the weighted average of the direct and indirect attainment. The weightage for direct attainment is 70 % and that for indirect assessment is 30 %.

Course Assessment Reports(CAR) are prepared for all courses offered by all programs and are used to calculate the Program Outcome attainment and Program Specific Outcome attainment.

Course attainments are routinely discussed in the HOD's meetings and deliberations are made when a certain course reports a low level of attainment. Action is initiated to improve the attainments levels by offering bridge course/workshops and any other approach to supplement the overall learning in the particular subject and thus help in improving attainment levels. Course Outcomes are evaluated at the department level by different committees which have been formulated as per the area of expertise of the senior faculty members. The CARs have to be approved by the relevant department level committee prior to it being used in the PO attainment or PSO attainment.

The evaluation of the COs, PSOs and POs are then made use of to evaluate attainment of PEOs

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional information	https://www.pce.ac.in/academics/bachelors/ information-technology/program-overview/

2.6.3 - Pass percentage of Students during the year

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

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the year

790

File Description	Documents
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	<u>View File</u>
Upload any additional information	<u>View File</u>
Paste link for the annual report	https://pceexamresults.pce.ac.in/results-2

2.7 - Student Satisfaction Survey

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

https://www.pce.ac.in/students/student-satisfaction-survey/

RESEARCH, INNOVATIONS AND EXTENSION

- 3.1 Resource Mobilization for Research
- 3.1.1 Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)
- 3.1.1.1 Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)

51.20

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

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

15

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

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

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

5

File Description	Documents
List of research projects and funding details (Data Template)	<u>View File</u>
Any additional information	<u>View File</u>
Supporting document from Funding Agency	<u>View File</u>
Paste link to funding agency website	https://www.aicte-india.org https://dst.gov.in

3.2 - Innovation Ecosystem

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

Institute has well-defined policies and procedures and a desire to do innovative and impactful research in various fields.

PCE has taken an initiative to strengthen its research and industry connections by setting up centers of excellence in various fields. Faculty members are encouraged to enhance their academic qualifications or professional competence by participation in FDPs, STTPs, workshops, and conferences. Institute felicitates this by providing leave and/ or financial support and often provides incentives through promotion and increments.

Students are encouraged and provided financial support for attending conferences, participation in Project Competitions. The

emphasis is on producing high quality impact-making research output. In addition, college gives awards to students under categories such as Best Project Awards, Outstanding Student Award, Class Topper Award etc.

The outcome of the above progressive policies is that faculty members of PCE receive grants for research projects from various funding agencies. There has been a significant rise in research, infrastructure and consultancy fundings. Students have won several awards and recognitions at various competitions including three first place finishes at the AICTE SIH and one winner at IIC NIC 2020. Incubation cell has a dedicated space at PCE and has helped more than 20 startup companies.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://pcie.mes.ac.in

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

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

06

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

3.3 - Research Publications and Awards

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

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

00

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

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

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

92

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

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

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

39

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

3.4 - Extension Activities

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

PCE strives to impart, imbibe and inculcate human values and humanely approach among the students, faculty and staff members. In view of this various community development programs are

organised from time to time. Community Service Day, cultural night, Uber Rang is organised annually to help underprivileged children.

Swachh Bharat Mission Internship of 100 hrs is offered to students. Under the internship all the participants are sent to nearby identified villages and spread awareness about cleanliness, health and hygiene among the villagers. PCE Nature Club organizes cleanliness drives, tree plantation drives, nukkad nataks on cleanliness and health awareness, environment awareness rallies. Blood Donation, Health Checkup Camps, K12 program etc are organised regularly. Various student bodies are arranging social issues related programs/workshops like Road Safety, Disaster Management, Relief fund collection for natural calamities, Helmet awareness etc. 10KM Marathon was organised to promote literacy and eradicate illiteracy.

The management of the institute is proactive in helping tribals. Homes were rebuilt for a few tribal communities in Kerala after recent floods. Health and hygiene of tribal girls' ashram schools was addressed by building toilets for them.

All above initiatives help in sensitizing students about social issues and their holistic development.

File Description	Documents
Paste link for additional information	https://www.pce.ac.in/extension/
Upload any additional information	<u>View File</u>

3.4.2 - Number of awards and recognitions received for extension activities from government / government recognized bodies during the year

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

14

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

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

39

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

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

889

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

3.5 - Collaboration

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

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

218

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

3.5.2 - Number of functional MoUs with institutions, other universities, industries, corporate houses etc. during the year

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

14

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

INFRASTRUCTURE AND LEARNING RESOURCES

4.1 - Physical Facilities

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

PCE is committed to provide high quality education through classroom teaching, practical training, and by providing excellent infrastructure and experience. The Institute fulfils all the norms specified by the statutory bodies in terms of land requirement, instructional, administrative and amenities area.

The college houses spacious and sufficient classrooms, seminar halls, state of the art auditorium and conclaves. There is an abundance of infrastructural resources such as Lecture Halls, Tutorial room, Drawing Halls, Seminar Halls, Laboratory, Library, Office, Exam Cell, Workshops, Conference Halls, Auditorium, Research and Incubation centre, E-Learning Studio.

All classrooms are equipped with ICT facilities which render content delivery for lectures at an elevated platform for disseminating data, videos, demonstrations and simulations. Each department has one smart class room.

PCE has over 62 state of the art teaching laboratories fully equipped for enhanced teaching and learning experience for its students. The laboratories are well equipped with latest equipments like 3D printer, Laser cutting machine, CNC machines, and softwares/simulation tools like Rational Rose, Oracle, NS2, MATLAB, LABView, ANSYS, AUTOCAD, etc., to give hands on experience to satisfy industry needs. PCE has a fully fledged language lab available with the latest language tools that students can use to improve their English speaking and writing skills and learn new languages.

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

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

The institute has modern and futuristic facilities to instil an inclination for sports among the student community to qualify them to participate in various national and international level competitions. The institute has a full time sports director to train, equip and guide students in various sports.

The institute has indoor games facilities like air-conditioned

sound proof six lanes Olympic level shooting range with internationally approved rifles. It also has designated areas for games like Chess, Carrom and Table Tennis.

Multipurpose Polyurethane outdoor sports complex with area 22m x 44m is built for students to play various sports like Volleyball, Basketball, Ball badminton, Handball and Futsal. In addition, a multipurpose ground measuring 211m x 94m designated with different courts for Football, Volleyball, Kho-Kho, Cricket, Kabaddi, Ball Badminton, Handball and running track fulfills most of the outdoor sports requirements.

PCE has won many sports awards at University, State, National and International level. Regular Yoga sessions are organized for students and faculty members in association with TAPAS, the student chapter of the institute. The institute's gymnasium is equipped with facilities like treadmills, cross-trainer, recumbent bike, abdominal machine, dumbbells and gravity expansion and many others.

PCE encourages students to participate in various co-curricular, extra-curricular, social and cultural activities by providing facilities like Auditorium, mini-auditorium, multiple open area theaters and conclaves. Many cultural events like Alegria, Uber-Rang, etc., are organized on campus. Alegria is the Mega Festival of Pillai college campus.

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

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

62			

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

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

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

520

File Description	Documents
Upload any additional information	No File Uploaded
Upload audited utilization statements	<u>View File</u>
Upload Details of budget allocation, excluding salary during the year (Data Template	<u>View File</u>

4.2 - Library as a Learning Resource

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

PCE library is automated using KOHA ILMS software in its daily activities. It is installed, configured, maintained and upgradated by the PCE library team on the regular basis. The Main reason for using KOHA ILMS software is that it is Open Source and internationally accepted. KOHA ILMS software is web based software that can be accessed from anywhere in the world. KOHA is a fully featured, scalable library management system. In use worldwide, its development is steered by a growing community of users collaborating to achieve their technology goals. KOHA's feature set continues to evolve and expand to meet the needs of its user base. KOHA includes modules for acquisitions, circulation, cataloging, serials management, authorities, flexible reporting, label printing, multi-format notices, offline circulation for when

Internet access is not available, and much more. KOHA will work for consortia of all sizes, multi-branch, and single-branch libraries. The details of library description for PCE Integrated Library Management System (ILMS) are mentioned below:

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

4.2.2 - The institution has subscription for the | A. Any 4 or more of the above following e-resources e-journals e-ShodhSindhu Shodhganga Membership ebooks Databases Remote access toe-resources

File Description	Documents
Upload any additional information	No File Uploaded
Details of subscriptions like e- journals,e-ShodhSindhu, Shodhganga Membership etc (Data Template)	<u>View File</u>

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

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

2.22122

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

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

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

14

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

4.3 - IT Infrastructure

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

The intitute has cutting edge IT infrastructure to cater to the latest technology learning environment for its students, faculty and staff which includes: a) Server: Institute has 7 high configuration servers such as ENTAB XEON, NPTEL XEON, MASTER XEON, DIGITAL LIBRARY XEON , ACCOUNTS XEON, Academic Management System (AMS) and LMS. b) Main Firewall: Cyberoam 2500, Router, Airtel Wi-Fi, CISCO Networking Switches, 1308 Computing Machines (i5 Proceesor) d) Other peripherals: Institute has 91 printers, 71 projectors, 7 smart boards. e) Software: Six legal system software like Windows, Linux etc. and 37 application software. f) The campus is having internet facility with 250 Mbps with Wi-Fi support. q) The facilities like institute website include various portals like Learning Management System (LMS), Attendance Monitoring System (AMS) ,Attitude skill knowledge (ASK), Faculty Portal, Student Portal and Library Patron Portal that can be accessed online h) The data center has 24 hours power backup and standby facilities to provide 24/7 services. i) The details of up gradation that has taken place in 2020-21 are mentioned below: 1) Subscription Renewal of solidworks. 2) MODROB Workstation: AI and ML LAB with AMD Thread Ripper 2970WX Processor, Motherboard X399 Asrock with 1G * 2 Network, GPU Nvidia RTX 3090 24 GB, Memory 128 GB DDR4 3600, NVME SSD 1TB NVME m.2, and SSD 960 GB. 3)) High Performance Systems for AI and ML Workstation: CPU AMD Ryzen 5 5600X 3.7 GHz 6-Core Processor, Motherboard MSI MPG B550 Gaming Plus ATX AM4, GPU GeForce RTX 3060 Gaming X 12G, Memory Corsair Vengeance RGB Pro 32 GB DDR4-3600 CL16 Memory, and NVME SSD Crucial P1 1 TB M.2-2280 NVME SSD . 4) Educational Annual ZOOM Licenses 30 Nos and other peripherals like 30 Chrome Book, 30 WEB CAMs. 5) Renewal of AMC is done at the beginning of the academic year for the Generators. 6) 5G Communication Station: Perpetual License of CST STUDIO SUITETM "Educational License", 11B~4CBN.idaGTXKJJJfi~ZJ'L.BJwthl-lM, f/I)Wt/s~ATXOi:irswth Extra Qxiirg Fa-ls,USB Keyboard, Optical

Mouse, Marxdf Wn 10Prrfes9ala , Anti Virus Internet Suite, Anritsu Shockline VNA, Model No: MS 46122B-OI0, Coaxial Calibration Kit, RF Cables (2 no.), RF adapters and connectors

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

4.3.2 - Number of Computers

1267

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

4.3.3 - Bandwidth of internet connection in the Institution

Α.	?	50MBPS
A .	•	OUTDED

File Description	Documents
Upload any additional Information	No File Uploaded
Details of available bandwidth of internet connection in the Institution	<u>View File</u>

4.4 - Maintenance of Campus Infrastructure

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

145.41942

File Description	Documents
Upload any additional information	No File Uploaded
Audited statements of accounts	<u>View File</u>
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	<u>View File</u>

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

The college adopts best practices for scalable and sustainable implementation of all IT services. It provides computing and networking services such as desktops, Wi-Fi based internet to all departments, library and office.

Classrooms are ICT enabled and equipped with LCDs, whiteboards, WiFi/Broadband. Appropriate standards are followed for selection, purchase, setup and maintenance of all computing and networking equipment, the choice of protocols for stored and transmitted data security. In general, time tables, accession registers, schedules, dead stock registers, issue registers are maintained.

CCTVs are installed in the campus, common area, computer laboratories etc for surveillance. Civil, mechanical and electrical maintenance of the entire campus is carried out with proper planning. AMCs are in place for maintenance of Generators, UPS, Water Purifiers, Lifts, Air conditioners etc. General cleanliness of the entire campus is maintained by the housekeeping team.

Safety of personnel, buildings and equipment is ensured by periodic testing and maintenance of the fire protection system and equipment. Utilization and maintenance of gymnasium, playgrounds and all sports related equipment and its servicing are carried out under the supervision of Sports Director.

Our College has come up with strategic tie-ups with medical facilities and put protocols in place to deal with COVID challenges. Protocols defined by UGC for COVID care are followed as safety and precautionary majors.

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

STUDENT SUPPORT AND PROGRESSION

5.1 - Student Support

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

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

1030

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

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

5.1.2.1 - Total n	umber of students l	benefited by scholars	ships, free ships,	etc provided by the
institution / nor	ı- government agene	cies during the year		

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9	ш

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

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

A. All of the above

File Description	Documents
Link to Institutional website	https://www.pce.ac.in/students/get-career- ready/value-added-certificate- programs/#1565000424415-f3307b20-2604
Any additional information	<u>View File</u>
Details of capability building and skills enhancement initiatives (Data Template)	<u>View File</u>

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

3344

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

3344

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

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

A. All of the above

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

5.2 - Student Progression

5.2.1 - Number of placement of outgoing students during the year

5.2.1.1 - Number of outgoing students placed during the year

308

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

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

5.2.2.1 - Number of outgoing student progression to higher education

41

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

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

73

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

5.3 - Student Participation and Activities

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

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File Description	Documents
e-copies of award letters and certificates	No File Uploaded
Any additional information	<u>View File</u>
Number of awards/medals for outstanding performance in sports/cultural activities at unive rsity/state/national/international level (During the year) (Data Template)	<u>View File</u>

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

A council of students at the helm of student affairs is one that looks to bind everyone together and move onwards & upwards, together.

Under the guidance of faculty advisors and the Principal, the PCE Student Council is responsible for conducting technical, cultural, social and sports events.

Events organized by Student Council 2020-21 are:

Drishti - The Unseen Vision

Anubhav 2021

Independence Day Quiz

Essay Writing Competition

Alegria 2021:

The most celebrated college festival of Navi Mumbai just considering the reach it has over the years is remarkable.

We conducted various events like, Drishti - The unseen vision, Anubhav, Independence Day Quiz, Essay Writing Competition.

Apart from the student council, PCE has various student chapters like CSI, IEEE, ISHRAE, ETSA, SWE PCE, SAE PCE, AESA-MESA, Hyperion Racing, Spark Racing team, Vanguard Racing team, TAPAS,

TPC, etc. All the student bodies are involved in organizing activities under the guidance of the faculty coordinators.

Students represent following academic and administrative bodies in the college: College Development Committee

Internal Quality Assurance Cell

Anti Ragging Committee

Internal Complaint Committee

Prevention of Atrocities to SC/ST Committee

Student Activities Committee

Training and Placement Committee

Canteen Committee

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

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

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

2

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

5.4 - Alumni Engagement

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

The Alumni Association of PCE was formed in September 2012, named as "Pillai Institute of Information Technology Media Studies and Research Alumni Association". Some of the PCE focus areas with regards to its alumni are

- ? Career Guidance Alumni is a huge talent pool whose guidance can be beneficial to many students and other fellow-alumni in their respective areas of study. Even in this pandemic situation, the Alumni association conducted several online workshops and webinars.
- ? Alumni Workshops and Seminars Alumni regularly conduct workshops and seminars for the students of various departments. The college provides funding for such events either through student groups or through student activities funds.
- ? MES Alumni Registration PCE, through MES, provides a uniform platform for all its alumni to register on alumni.mes.ac.in. PCE also has its own alumni committee and registered organization which manages the day to day activities and financial aspects of the PCE alumni community.
- ? Continuing Education PCE offers many add on and certificate courses that are offered to alumni at discounted rates. In partnership with our college, SAP also provides global certificational courses to its students at an affordable rate.

File Description	Documents
Paste link for additional information	https://www.pce.ac.in/alumni/alumni- contribution-engagement/
Upload any additional information	<u>View File</u>

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

A. ? 5Lakhs

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

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 - Institutional Vision and Leadership

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

In line to the institute's vision of making responsible technical professionals with the help of trained and dedicated teachers, PCE has taken numerous initiatives to develop both students and faculty. The institute takes a 360 view of the development of itself and all its stakeholders. PCE has articulated broad institutional goals such as: 1. Empowerment of its stakeholders (Faculty, students, employers, alumni) 2. Increased Industry interactions through training, placement and consultancy 3. Conducting impactful research through its research centers and encouraging technology transfer 4. Creating social, moral, environmental awareness by following best practices such as recycling, using renewable sources or energy, value education, community service etc. 5. PCE also believes in maximum automation of its various processes so that faculty and students can focus on teaching, learning and research. It believes that this will not only develop professional engineers having respect for the environment and nation but also will contribute to technological development both from an Indian and global perspective. • Student Centered Activity: • Faculty Centered Activity: All the initiatives practiced at PCE assure a 360 degree development of both students and faculty which contributes to progress of institute and nation.

File Description	Documents
Paste link for additional information	https://www.pce.ac.in/about/institute- organogram/
Upload any additional information	<u>View File</u>

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

PCE promotes and practices decentralization in all academic and administrative activities, it has various Academic and administrative committees to monitor, plan and execute smooth functioning of the Institute. Apart from this, when most of the world had stopped in the pandemic situation, Team PCE was planning on self development and institutional growth by transitioning to the online mode where Staff participated in numerous events and organized a variety of events / seminars/ faculty development programs/ workshops and orientation programs with our own faculty as resource persons. Case Study on Conducting Value added course on Electric Vehicles: Due to pandemic and automobile industry going through transition phase of shifting to clean mobility, it was decided to conduct Value added course for TE and BE Automobile student to expose them to EV Infrastructure and technological developments in India. The proposal was submitted to HOD of Automobile Engineering Department which was forwarded to Principal for final approval. The Management and Principal did not only provide immediate approval to conduct the program but also reduced the cost of program to 50% so that the more students could benefit out it. This highlights effectiveness of leadership towards overall development of stakeholders.

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

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ perspective plan is effectively deployed

Pillai College of Engineering was established in 1999 and since

2004 has developed a perspective plan every five years starting from the year 2004, then in 2009, 2014 and the latest one in 2019. Each plan is developed by the Principal, representatives of the Board of Governors, the heads of the various departments and a member of the non-teaching staff. The plan lays out the goals of the institute for the upcoming five years, by thoroughly analyzing the previous plans and listing out their successes as well as analyzing the challenges still faced by the institute. It also lists out the strategies to achieve each and every goal of the institute. In 2014, it was also decided to sign strategic MOUs with various industries that involve research and knowledge sharing. At present PCE has over 13 active MOUs with different industries, PSUs and agencies. PCE received Rs 8.95 lakhs among 03 faculty between 2019-2021 under Major Research Grants, PCE received Rs 6.36 lakhs among 16 faculty between 2019-2021 under minor research grants, PCE received Rs 16.63 lakhs among 03 faculty between 2019-2021 under Infrastructure Grants, Total PCE received 31.94 lakhs from all external agencies. Thanks to its strong research focus, PCE is now an approved PhD center of the University of Mumbai in the fields of Mechanical Engineering, Computer Engineering and Information Technology.

File Description	Documents
Strategic Plan and deployment documents on the website	<u>View File</u>
Paste link for additional information	https://www.pce.ac.in/about/perspective- strategic-plan/
Upload any additional information	<u>View File</u>

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

Response: The Institute is managed by the Board of Governance, constituted as per the guidelines stipulated by AICTE. The members of the BoG discuss and decide policies and action plans for fulfillment of the stated Mission. PCE has decentralized its operations and has delegated authority at various levels to ensure good governance. As per Organogram, Principal takes guidance, directions and approvals from the Board of Governance for various academic and administrative activities of the Institute. The Principal is the academic & administrative head who monitors the overall functioning and has powers for academic, administrative, finance and institute's growth. The Institute has IQAC and College

Development Committee (CDC) working under Principal for strengthening the academic quality. These committees advise the principal and the authorities above him on various quality initiatives that need to be undertaken by the institute. Principal interacts directly with HoDs, Dean R & D, Examination Cell, Placement Cell Registrar, Librarian and Student Council for conduction of various activities in the department/ Institute, research grants / consultancy proposals, smooth conduction of internal and end semester University examinations, various trainings / career opportunities / MoUs / Placement / Industry Institute Interactions, conferences/seminars and colloquia technical/cultural/special day celebration/sport etc.

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

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

A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning)Document	No File Uploaded
Screen shots of user inter faces	<u>View File</u>
Any additional information	<u>View File</u>
Details of implementation of e- governance in areas of operation, Administration etc(Data Template)	<u>View File</u>

6.3 - Faculty Empowerment Strategies

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

The Institute has effective welfare schemes for the benefit of its

teaching and non-teaching staff. Institute understands that faculty is the backbone of the educational system. Therefore the skill sets and the core competency of faculty are required to be upgraded on regular basis. The Institute encourages faculty and staff members for acquiring the latest skills by supporting them to attend various programs and has a sponsorship fee reimbursement scheme for STTP/Workshop/Trainings/Professional Membership. The institute also reimburses travel cost for faculty for travelling to conferences outside of Mumbai. The Institute facilitates various soft-skills training programs for teaching and nonteaching staff members. The Institute recognizes the need for continuous qualification up gradation. Institute motivates and supports faculty members financially for acquiring higher degrees from renowned and accredited Universities. Welfare Schemes for Teaching Staff: Credit Cooperative Society, Maternity Leave EPF, Gratuity, and Travel Grants for attending International Conferences in India and Abroad, Permission for Qualification Up gradation. Welfare Schemes for Non-Teaching Staff: Credit Cooperative Society, Maternity Leave PF, Gratuity, and Permission for Qualification up gradation. Welfare Schemes for Students: Scholarships (Full and Partial) Government and Institute level, Support for Student's co curricular Activities, Finance for Racing Car teams (Hyperion, SPARK, Vanguard).

File Description	Documents
Paste link for additional information	https://www.pce.ac.in/faculty/faculty-deve lopment- schemes/#1562997251488-83705190-9f83
Upload any additional information	<u>View File</u>

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

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

3

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

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

31

File Description	Documents
Reports of the Human Resource Development Centres (UGCASC or other relevant centres).	No File Uploaded
Reports of Academic Staff College or similar centers	<u>View File</u>
Upload any additional information	<u>View File</u>
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	<u>View File</u>

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

8	8

File Description	Documents
IQAC report summary	<u>View File</u>
Reports of the Human Resource Development Centres (UGCASC or other relevant centers)	No File Uploaded
Upload any additional information	<u>View File</u>
Details of teachers attending professional development programmes during the year (Data Template)	<u>View File</u>

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

Response: Performance based appraisal system (PBAS) which is similar to API (Academic Performance Index) of UGC is followed every year to measure the performance of faculty members. The form consists of two parts. The first comprises personal details related to academic qualification, merits and awards received in the academic year. The second part is to evaluate the API which has three different categories. A minimum score of 200 marks out of 250 in category 1, 30 out of 75 marks in category 2 is required and In category 3, depending on the research work the API score is claimed, there is no limit on API score in this category. To evaluate API score claimed by faculty member, the Principal verifies the API score with proofs. The final score sheet is forwarded to Management Board of the Institute. Non-teaching staff performance is assessed in every academic year based on Attitude towards co-workers, attitude towards public, perceptivity and sensitivity, staff/student relation, dependability, attendance/job performance, initiative, Judgment/decision making, method of expression, potential, innovation and creativity, job knowledge, related accomplishments. Assessment uses questionnaires based on above specified parameters and non-teaching staff is evaluated on a five point scale.

File Description	Documents
Paste link for additional information	http://pcefacultyportal.mes.ac.in
Upload any additional information	<u>View File</u>

6.4 - Financial Management and Resource Mobilization

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

Internal Audit: The Mahatma Education Society, parent body of the institution appoints internal and external auditors annually. The audited accounts of PCE are annually scrutinized by the Shikshan Shulk Samiti (Fee regulating body) of the Directorate of Technical Education (DTE), Government of Maharashtra. Auditing processes of PCE takes place in two stages namely, Internal audit and External Audit. The Internal audit is carried out by CA Susanna Co. The Internal auditor is in regular contact with the accounts department, observes and audits the working. PCE is proud that no audit objection has ever been reported in its 20 years of existence. External Audit: The external auditors are Mr. Y.S. Muzumdar Co. The auditors are re-appointed by the Governing body each year. Most of the transactions are in non-cash mode and are done using Tally ERP 9 Software. The accounting processes and practices are meticulous and carried out scrupulously by capable people. Regular monitoring of fund flow helps to monitor the financial health of the college and also helps in timely meeting of financial commitments to all debtors and all payment of salaries on time to its employees. PCE has always been a financially prudent institution.

File Description	Documents
Paste link for additional information	https://www.pce.ac.in/about/mandatory- disclosure/university-affiliation/
Upload any additional information	<u>View File</u>

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

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

15.187072

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

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

Response: PCE is a linguistic minority institution. Therefore, the funding required for running the college is mostly self-generated. The institute's budget is the primary instrument of fiscal control and, accordingly, contains all projected revenues and expenditures of the administrative and academic programs. In general, salaries of teaching, non-teaching and administrative staff are fixed as per their qualifications and experience and are notified separately by the management of the institute. Also examinations are conducted as per the examination policy of the university and exam fees are charged separately from the students. The fees approved, by the Shikshan Shulk Samiti (FRA) of the Directorate of Technical Education, Government of Maharashtra, that the students pay is the main source of funds for the operational purpose. Other sources of income include Funding projects from Government/University in research or through consultancy. The College organizes Industry sponsored, paid conferences and Value added courses, seminars, workshops, etc. Keeping in mind the academic calendar of the institute we allow various agencies to utilize our well equipped laboratories, class rooms and all other infrastructures for conducting various examinations, conferences and seminars which generates additional fund. The institute has Policy for budget and it is mentioned in Faculty and Staff Handbook.

File Description	Documents
Paste link for additional information	Nothing to add
Upload any additional information	<u>View File</u>

6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing

the quality assurance strategies and processes

As per the perspective plan, the major focus of the institute is on empowering the student as well as faculty with the latest knowledge and skill. IQAC has contributed significantly in implementing the strategies and processes in this regard. IQAC has implemented two strategies:

- 1. Knowledge Beyond Curriculum and
- 2. Skill Development Programs

To have a good career, pursue higher studies or for being a successful entrepreneur, it is essential for students to gain knowledge beyond curriculum and develop or acquire necessary skills. Keeping this in mind, IQAC has proposed various MOOC courses available on Swayam, Coursera and edX. IQAC has also asked various departments to float the Soft Skills, Certificate and Value Added Courses and various talks including awareness of New Education Policy(NEP) for students. IQAC has contributed significantly in conceptualizing and implementing skill development programs in the institute.

Various workshops and seminars on effective report writing, Use of Latex for report writing, and on IPR have been arranged to develop the research skills. Through the Institute Innovation Council various motivational talks and events have been organized to help students to conceptualize, develop and run a business enterprise. Business plan competition provides students a platform to present their ideas. Also PCE incubation cell help students to get support to build their business from ground zero. To develop employability skills, PCE IQAC has taken various initiatives like connecting to Alumni through Alumni talks, career guidance, talks by Industry experts and Internships. To develop life skills PCE coducts events and programs to promote yoga and meditations and help students to include it in their daily life. Yoga day is celebrated at PCE and meditation sessions are periodically conducted by TAPAS (Student body for life skill development). Stress management programs and counselling helps students to overcome stress and anxiety.

File Description	Documents
Paste link for additional information	https://www.pce.ac.in/igac/annual- reports/#1566380977681-e94c9274-fe83
Upload any additional information	<u>View File</u>

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

The institution reviews its teaching learning process by conducting academic audits. The academic audit committee reviews AAA reports of every department and suggests the necessary corrective measures in terms of CO-PO attainment, examination results, workshops, certificate courses, MOOC courses and training programs for students as well as faculty to upgrade their knowledge. In addition, IQAC has specifically suggested conducting the faculty training program for e-content development through the available in-house developed E Studio facility, effective use of e-resources and building the competencies of teachers for online teaching. The following workshops/training programs were conducted to improve the teaching learning process and methods of operations:

- 1. 2 days FDP on "Online Content Development" conducted by Mechanical & Automobile Engineering department
- 2. 4 Week Certificate course on "Teaching Online: Interactive and Inclusive Aspects"

Also, various MOOC courses like Coursera, EDx, NPTEL and spoken tutorials were being offered to students.

Incremental improvement has been observed in various activities:

- 1. Research and consultancy grants received from Government /non government organizations have been increased from 31 lakhs to 51.20 lakhs.
- 2. Total publications in UGC notified journals have been increased from 75 to 92. Overall 134 research papers including books and book chapters have been published.

- 3. Around 29 industry expert talks were organized to make students aware about industry requirements and free licenses of MOOC courses like Coursera and EDX were offered to students. In all 2173 students and faculty benefited by completing 7773 courses.
- 4. The institute has won the overall championship in the Avishkar: State level Research Convention organized by University of Mumbai.

File Description	Documents
Paste link for additional information	https://www.pce.ac.in/igac/annual- reports/#1566380977681-e94c9274-fe83
Upload any additional information	<u>View File</u>

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

A. All of the above

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

INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 - Institutional Values and Social Responsibilities

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

Women's empowerment and gender equality are one of the primary concerns at PCE. PCE practice to bring a positive change in the attitude and support equity among genders within the institute and in its outreach.

The security of the Women employees in the campus is strictly monitored by deployment of security persons and CCTV monitoring. "Internal Complaints Committee" was formed in the institute to solve the issues raised by Girl students thus by maintaining a secure environment for girl students.

The institute has a mentor-mentee programme in which every student has a mentor allocated to help the students by counselling about academic as well as non-academic issues. The institute also has a full time counsellor, who is available to resolve student issues related to their personal and social life or if they are in need of psychiatric counselling.

The institute has about 50% female staff members. Institute has a separate common room facility for Girls. The students utilize these for having lunch and also for common discussions.

SWE PCE Affiliate was installed on May 13, 2021. It's a Society of Women Engineers which support female students and faculty members to showcase their talent.

File Description	Documents
Annual gender sensitization action plan	https://www.pce.ac.in/students/Gender Sensitization
Specific facilities provided for women in terms of:a. Safety and security b. Counseling c. Common Rooms d. Day care center for young children e. Any other relevant information	https://www.pce.ac.in/students/

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

A. 4 or All of the above

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

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

??PCE is concerned about the environmental issues arising from improper waste handling and takes responsibility to ensure that waste from the campus is properly disposed off and/or recycled. The institute uses dedicated bins to collect different waste at the source. Organic waste is collected in green dustbins and non-biodegradable waste in blue dustbins. The Municipality staff collects dry waste, and all the canteen organic waste and gardening waste is recycled to generate good quality manure which is used for in-house gardening. This is done in a composting plant located in the campus.

PCE practices rain water harvesting, recycling of non-potable water for watering plants, toilets etc. All the old non-working electronic goods are given away for recycling and new electronic appliances which adhere to the environment protection rules and power consumption norms are purchased at regular intervals. Electronic waste is minimized by reusing the electronic components and regular maintenance. Pillai College of Engineering; in collaboration with Reliance India Ltd. has installed a Biocrux Plastic Bottle Recycling Machine Pillai Campus. All the plastic bottles are put in the machine which crush the bottles into small pieces which are further recycled to produce different products such as bags and T-shirts.

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

7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction

A. Any 4 or all of the above

of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus

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

7.1.5 - Green campus initiatives include

7.1.5.1 - The institutional initiatives for greening the campus are as follows:

A. Any 4 or All of the above

- 1. Restricted entry of automobiles
- 2. Use of bicycles/ Battery-powered vehicles
- 3. Pedestrian-friendly pathways
- 4. Ban on use of plastic
- 5. Landscaping

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

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

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

A. Any 4 or all of the above

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	No File Uploaded
Certification by the auditing agency	<u>View File</u>
Certificates of the awards received	No File Uploaded
Any other relevant information	<u>View File</u>

- 7.1.7 The Institution has disabled-friendly, barrier free environment Built environment with ramps/lifts for easy access to classrooms. Disabled-friendly washrooms Signage including tactile path, lights, display boards and signposts Assistive technology and facilities for persons with disabilities (Divyangjan) accessible website, screen-reading software, mechanized equipment 5. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading
- A. Any 4 or all of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	<u>View File</u>
Policy documents and information brochures on the support to be provided	<u>View File</u>
Details of the Software procured for providing the assistance	No File Uploaded
Any other relevant information	<u>View File</u>

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

Pillai College of Engineering believes in building students with high technical and moral values. The Institution has students, teachers and staff from diverse cultural backgrounds. PCE takes several initiatives, through different events to bring everyone together and work in harmony towards societal and environmental

causes. Its strives to work for the betterment and upliftment of its nearby locality by organizing Jumble sale, Garage Sale, K12 programs, Community Service Day etc. In the academic year 2020-21, the whole world was fighting against the pandemic and the faculty and students were at home. Though this restricted the possibilities to organize events, PCE still continued to organize the K12 to deliver the basic of science to nearby school children through online mode. Garage sale was organised to make available the useful items made by students I workshop available to the teaching and non-teaching staff at affordable price. PCE continues to inspire students to take up work to support social activities, engage in cultural activities, to treat everyone equally regardless of race, religion and become responsible citizens. As its situated in the sub urban region, PCE take initiatives to provide all support to its students and a developing environment to nearby citizens.

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

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

Institute offers courses such as Business Communication and Ethics, Professional Ethics and CSR, IPR and Patenting, Environmental Management, Ethical Issues in Security Management, to educate students about Human values.

PCE conducted SANMATI 2021 - A webinar on Universal Human Values and Professional ethics and a workshop on Youth health and Mind Management. PCE Alumni Association organized a webinar for students to become "Atma Nirbhar" during these tough times by learning about various challenges across different industries. Webinar on "Insights on National Education Policy -2020 as a part of Unnat Bharat Abhiyan was organised. PCE staff and students participated in various activities like Meditation to relieve Stress, Social Service Day, support Mahad Flood Affectants, Blood Donation camp, Faculty Enrichment Programme (Heartfulness) etc.

The winter was brutal this year and thousands of homeless people experienced severe illness due to the lack of shelter and warm

clothing. Hence a collection drive of old/new blankets, pillows, sweaters, warm clothing, etc. was conducted in the month of January 2021 to celebrate Community Service Day. Pillai Institutes, the student council and the Alegria committee organised a Dog Feeding Drive.

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	https://www.pce.ac.in/extension/
Any other relevant information	https://www.pce.ac.in/wp-content/uploads/2 021/09/Annual-Report-2020-21.pdf

7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff 4. Annual awareness programmes on Code of Conduct are organized

B. Any 3 of the above

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

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

In spite of the Pandemic, PCE celebrated many national and international commemorative days, events and festivals during the

year like Independence Day, Teacher's Day, Engineers Day, Dussehra, Republic Day, Shivaji Jayanti, International Women's Day and International Yoga Day. Major events were organised on an online mode and few were celebrated offline or on a mix mode. Few events were accompanied by online talk to implant the seed of nationalism and patriotism among the students and also commemorate the sacrifices of our great leaders and freedom fighters. India is a country imbued with the festive spirit and religion is a living force. Celebration of festivals served as an opportunity to strengthen the social and emotional bond within the institute. Such events also remind us about the contribution made by people in the field of technology and development. The cultural events organised also gave a break to the routine academic activities to the students and faculty members. It provides a platform for showing various extracurricular skills in students and faculty members. Celebrations served as a stress buster in the difficult time of the pandemic.

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

7.2 - Best Practices

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

Best Practice 1

- 1. Title of the Practice: Knowledge Beyond Curriculum
- 2. Objectives of the Practice:

PCE believes to build students that will not only have in-depth knowledge of the curriculum but also have skills that would help them to have a good career, pursue higher studies or be successful entrepreneurs. It is therefore important to have the cutting-edge skills to meet the industry requirements. At PCE we constantly encourage students to go beyond curriculum and acquire necessary

skills. In view of this, PCE offers its students the opportunity to enroll and complete various MOOC courses, Soft Skills, Value Added Courses and attend various talks including awareness of New Education Policy(NEP).

3. What were the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (130 /150 words)

To overcome the gap in curriculum, various hands-on workshops and seminars were conducted by experts and Alumni. However due to the pandemic, the entire teaching and learning had to be done online. To overcome this challenge and provide students with extracurricular knowledge, PCE offered students with MOOCs courses on Swayam, Coursera, edX where students have benefited by gaining knowledge and certification in respective domains. Use of VLabs helped students to perform experiments and gain knowledge while being deprived of physical facilities during the pandemic. Certificate courses and other value added courses like Solidworks, Ansys, Industrial IOT etc. have helped students gain confidence and gain advantage to have better job opportunities. Courses on Industry 4.0 conceptualizes rapid change to technology, industries, and societal patterns and processes in the 21st century.

4. The Practice Describe the practice and its uniqueness in the context of India higher education. What were the constraints / limitations, if any, faced?

Knowledge beyond curriculum helps students to overcome the challenges they would face in Industry and be acquainted with the latest technologies. The transition from offline teaching to online teaching has been a major constraint to the students in adopting the new learning methodology. However, on the other hand the online platform has provided the opportunity to reach experts all over the globe and gain expertise in not only their domain but also across different domains. This helped the students to take courses in Python, AI, ML, Ansys etc.

MOOC Courses

Courses are offered through various sources like Swayam, edX, Coursera where students are able to learn from best of teachers in India and around the world. PCE has partnered with these channels through MOUs that benefit students to a great extent.

Soft Skills

Developing soft skills helps students build communication abilities, language skills, personal habits, cognitive or emotional empathy, time management, teamwork and leadership traits. Courses like College to Corporate, Spoken tutorials help students to become confident and take responsibility for their future development.

Value Added Courses

Value added courses provide necessary skills to increase the employability quotient and equip the students with essential skills to succeed in life. To have an edge, students are motivated to take up certification courses organised by PCE faculty in Solidworks, Ansys etc.

NEP Awareness

The policy aims to transform India's education system by 2040. Seminars were organized by experts to make students aware of the outlines and vision of new education system of India

While having great advantages, the major challenge lies in completion of the courses students get enrolled. As the majority of the courses are held online and self paced, it becomes difficult for students to maintain continuity and lose track of their progress and eventually end up dropping out of the course. PCE through its Program incharges and mentors make sure that students are motivated enough. It provides support to make sure that continuity is maintained and thereby making sure to get maximum output from the programs enrolled in.

5. Evidence of Success Provide evidence of success such as performance against targets and benchmarks, review/results. What do these results indicate?

Studying online has become a new normal during the Covid pandemic.

Having ready access to world class courses have helped students to learn new courses and concepts. Its evident from students learning new technologies by enrolling in a number of courses. Knowledge beyond curriculum has helped students to become self-learners and has resulted in better execution of projects and to develop research skills. Students receiving global certification in Solid Works are 56, in ANSYS 30 and around 20 in NPTEL/Swayam courses. Around 2173 students have enrolled in 20468 Coursera courses. Along with students, PCE faculty have also benefited to upgrade their knowledge and skills.

6. Problems Encountered and Resources Required Please identify the problems encountered and resources required to implement the practice.

Having limited physical access to resources during the pandemic has been a major challenge by the students in executing the projects. However the use of simulation softwares and VLab helped students to execute their projects successfully. Other challenges faced was to motivate students to complete the enrolled courses. Mentor-mentee interaction with the students helps to understand the progress made by students and guide the students accordingly. Acknowledging students' achievement helped them feel motivated to take and complete new courses. Biggest challenge lies in the requirement of hardware and specific licensed software to complete the course by students studying online. The problem of hardware requirements was overcome by students issuing required hardware and IOT components from the PCE component library even during the pandemic.

Best Practice 2

- 1. Title of the Practice: Skill Development Programs
- 2. Objectives of the Practice:

The main objective of the Skill Development Program is to provide adequate training to the students which is market relevant and sustainable for coming years. Through the different skill development programs, PCE aims to increase Research, Entrepreneurship and Employability. Events like the Business Plan Competition help ignite young minds and promote entrepreneurship. PCE by its Life skill development programs like Yoga, meditation

and stress management tries to help students manage their work and at the same time give importance to health and mental stability.

3. What were the contextual features or challenging issues that needed to be addressed in designing and implementing this practice .

Other than technical skills, recruiters also look for necessary skills in Communication, Leadership, Critical Reasoning, Creativity and Innovation. The major challenge is to have a 360 degree development of students that provide students with enough opportunities to explore various options, gain insightful knowledge, build networks with industry and gain experience through internship. Students are encouraged for research thereby inculcating the values of Lifelong learning. PCE has been instrumental in providing students with resources, infrastructure, training and mentoring to pursue higher studies, become industry ready or become successful Entrepreneurs.

4. The Practice: Describe the practice and its uniqueness in the context of India higher education. What were the constraints / limitations, if any, faced?

The development of skills can contribute to problem-solving, building self-esteem, confidence, becoming competitive and to develop leadership skills. At PCE, various initiatives are taken to ensure the overall development of students.

Research

Students are constantly encouraged to innovate and present their work in conferences, idea competitions like Avishkar and publish their work in reputed journals. Workshops and seminars are conducted for effective report writing and IPR. These seminars help students to present their work in the best possible manner and protect their work by applying for patents and copyrights.

Entrepreneurship

PCE Institute Innovation Council plans and organizes various motivational talks and events to help students to develop, organize and run a business enterprise. To inculcate the correct mindset and motivate students, events such as Business Plan

Competition are held where students present their business ideas. PCE Incubation cell helps students to get support to build their business from ground zero. Student entrepreneurs are the future to develop new Innovations, promote Digital India and be an Ambassador of modern India and support Atmanirbhar Bharat.

Employability

Employability skills are the range of competencies that are necessary for engineering graduates to get employment in their respective domains. To increase student employability, PCE has taken various initiatives like connecting to Alumni through Alumni talks, career guidance, talks by Industry experts and Internships.

Life Skills

Students these days are exposed to higher stress levels, hence incorporating Life Skills like Yoga and meditation into a student routine help enhance health and reduce symptoms of stress, depression and anxiety. PCE performs events and programs to promote yoga and meditations and help students to include it in their daily life. Yoga day is celebrated at PCE and meditation sessions are periodically done through the Heartfulness program. Stress management programs and counselling helps students to overcome stress and anxiety.

5. Evidence of Success Provide evidence of success such as performance against targets and benchmarks, review/results. What do these results indicate?

Skills Development Programs have helped students to have critical thinking, be employable, and provide solutions to real world problems. PCE has been rated as an 5 star institute for its initiative towards Innovation and entrepreneurship. PCE is the first institute to implement the National Innovation & Startup Policy. It has given students confidence to solve problems and create employability by becoming entrepreneurs. Skill Development programs have greatly helped in increasing the placement of students and have better job prospects. Life skills program has been significant to reduce stress and perform better in academics. Following events were conducted by PCE w.r.t skill development program

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6. Problems Encountered and Resources Required Please identify the problems encountered and resources required to implement the practice

The thing that discourages students from starting their own business is the fear of failure. Students always think about what if the startup doesn't work. As they are in the start of their career they are not prepared to bear financial losses and hence hesitate to think about startups. PCE hence puts more efforts to organize talks by successful entrepreneurs to discuss the reasons for failures and how proper planning and execution can avoid it.

Students are also motivated to take Research initiatives which can lead to fruitful Innovations and business. The daily routine makes it difficult for the students to find time for Yoga and meditation. The session experts guide the listeners to plan properly so that they can have a healthy and peaceful life.

File Description	Documents
Best practices in the Institutional website	https://www.pce.ac.in/igac/institutional- values-and-best-practices/
Any other relevant information	https://www.pce.ac.in/wp-content/uploads/2 021/09/Annual-Report-2020-21.pdf

7.3 - Institutional Distinctiveness

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

In this year when the whole world was struggling to fight with the pandemic, the biggest responsibility with the educational institute was to deliver the knowledge as per the academic requirements to the students at their places using online platforms. The biggest challenge was to have the content delivered at the same level of learning as it was in classroom teaching. In order to bridge the gap between online teaching and classroom teaching, PCE has taken an initiative to enhance its e-Learning content by adding more lectures to important topics and making it available to its students. This not only helped for more effective learning, but also offered a user friendly platform to students to understand important concepts.

Special programs and workshops were organised to train the faculty in developing video lectures using the e-studio facility. It also helped the faculty offer user-friendly solutions for educational requirements by providing learning stimuli beyond the conventional learning methodology of textbooks, manual demonstrations or classroom-based instructions. Instead of limiting the students to attending classroom lectures or reading printed texts, the students will acquire knowledge and skills through computer graphical videos, audios or animations, interactive sessions and games.

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

7.3.2 - Plan of action for the next academic year

During the current year, major academic activities were delivered through the online platform. Though the faculty followed all possible means to make the students understand the practical application of the curriculum during the lab exercise, still the hands-on experience was missing. Hence, PCE has planned to introduce Lab internships for the students, during which the students can undergo all the practical exercises after their end semester examination. This will give a practical experience to the students.