



SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

PIMPRI CHINCHWAD EDUCATION TRUST'S PIMPRI CHINCHWAD COLLEGE OF ENGINEERING AND RESEARCH

**PLOT NO- B, SURVEY NO- 110(1),110(2),110(3) AT LAXMINAGER RAVET
HAVELI PUNE
412101
www.pccoer.com**

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NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Pimpri Chinchwad College of Engineering & Research (PCCOE&R) was established by Pimpri Chinchwad Education Trust (PCET) in 2014. PCET is a pioneer in offering Computer Engineering UG Programme in Marathi language. PCCOE&R is an ISO9001-2015 accredited Institute and offers NBA Accredited Undergraduate Programmes in four disciplines viz. Civil, Computer, E&TC and Mechanical Engineering. It is affiliated to Savitribai Phule Pune University. Some of the milestones achieved by PCCOE&R include being among top 5 in SPPU results, among top 10 in admissions, 300+ patents, 200+ copyrights, 200+ publications, 70% placement with 4.5 lac average salary.

PCCOE&R is located at Ravet in close proximity of industrial hub, the Pimpri-Chinchwad MIDC. It is 1.5 km away from Pune-Mumbai expressway and well connected to the nearby towns like Pune, Lonavala and Chakan.

PCCOE&R has adopted Outcome Based Education, the expected outcomes being employment, higher education and entrepreneurship. The objective is to make industry-ready, socially committed students with research and innovation aptitude. We work on Four-Pillar Philosophy, viz. Academic Excellence, Research & Innovation, Professional Competence and Social Commitment.

The Institute has contemporary infrastructure and experienced faculty qualified from IITs, IISCs, NITs, Govt Colleges. Staff is given salary as per scale with updated DA, gratuity, PF etc. Strong mentoring system, continuous assessment and parents-connect ensures effective monitoring of students' holistic development.

We focus on research, innovation, product development, publication, patent and copyright filing, incubation and entrepreneurship. PCCOE&R has achieved several milestones, including a few world records. Students and staff have the know-how of filing an IP. PCCOE&R is well-known for its National Conference CIPCIS on IPR.

Trainings in aptitude, GD, communication skills, etc. has resulted into many quality placements including a few International placements. Off-campus drives are also conducted for other Institute students.

Value added structured courses and Major/Minor Honor Courses are organized for technical growth of students. Students undergo activities like NSS camps, Unnat Bharat Abhiyaan, National Festivals, Commemoration Days, Sports, Cultural Events, etc. Recitation of National Anthem and Pasaayadan, 10 minutes vertical Yoga are regular practices. We strongly believe in education through amalgamation of ancient traditions and modern technology.

Vision

Vision of the Institute

To be a premier Institute of technical education and research to serve the need of society and all the stakeholders.

Mission

Mission of the Institute

To establish state-of-the-art facilities to create an environment resulting in individuals who are technically sound having professionalism, research and innovative aptitude with high moral and ethical values.

We are committed to;

- Develop PCCOE&R as a premier institute of technical education and research as per the needs and expectations of all stakeholders.
- Comply with all applicable requirements.
- The continual improvement in infrastructure and quality management system.

We shall strive to maintain an environment conducive to learning and students' overall development with high moral and ethical values.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

The criteria 1 through 7 in SSR reflect various strengths of the Institute. Following is a list of some representative (but not exhaustive) additional strengths of PCCOE&R;

1. The Institute PCCOE&R and the governing trust PCET are both established brands, well-known for quality education. PCCOE&R has been consistently among top Institutions in University results. In the Institutions most opted for admission, PCCOE&R has been among top 10 for all the four programmes. In placement too, PCCOE&R is among the best similar Institutions.
2. PCCOE&R is affiliated to Savitribai Phule Pune University (SPPU), which is one of the premier Universities on global level (541-550 Rank Bracket by QS World Ranking). The Institute is ISO 9001:2015 certified Institute. All the four programmes are NBA accredited, reflecting Outcome Based Philosophy of working and Student-Centric Approach.
3. PCCOE&R is located in Ravet, with proximity to an industrial hub, the Pimpri Chinchwad MIDC, which is the largest in Asia and Hinjewadi IT Park. It is well connected by railways and roadways to nearby towns like Pune, Lonavala and Chakan.
4. The four-pillar philosophy of working of PCCOE&R ensures holistic development of students. Focus on research and innovation, PBL, internships, strong mentoring systems and parent connect, strong industry connect, rigorous training and placement, tutelage in ethics and values and social activities amalgamate into producing proficient technocrats eager to cater to the societal needs.
5. The Institute has energetic, dynamic and technology-conversant faculty members, the average age being 35 years.
6. Professional working culture along with policies conducive to growth has culminated into good faculty retention.
7. Almost 100% admissions ensure sound funds position for PCCOE&R.

Institutional Weakness

1. Though nearly all faculty members have registered for doctoral programme, at present there is less number of faculties who have completed their doctorate.
2. Number of experienced faculty members is small, the average experience of faculty members being 12 years.
3. Though adequate for many sports activities, PCCOE&R has a relatively smaller provision of grounds and have to rely on PCET's other Institution grounds for some sports activities.
4. The 4 years UG programme being a full-time one, Institute, Departments and mentors have to be always on their toes to achieve the desired holistic development of students.
5. Not having completed 10 academic years yet, PCCOE&R is not eligible for Autonomy and hence has a limited freedom in curricula structuring.

Institutional Opportunity

1. To grow as a Research Institute offering PG and PhD programmes and as a center for technology transfer.
2. To cater to the huge requirement of professionals in IT/Computer/ Electronics sectors.
3. To develop skilled manpower in Civil/Mechanical sectors by offering vocational courses to the needy youth residing in the vicinity of the Institute.
4. To achieve commendable NIRF Ranking.
5. To achieve academic autonomy, thereby acquiring freedom to design curricula involving research, software training, project/problem based learning, sandwich pattern courses and extensive industry interaction.
6. To be a part of the cluster of educational institutions offering inter-disciplinary/multi-disciplinary education, academic bank of credits and multiple entries/exits for the students.
7. To develop strong tie-ups with International Institutions and Universities so as to gain global exposure for students and faculties through hybrid degree programmes, exchange programmes, research projects, summer schools and internships.

Institutional Challenge

1. To train the students to be industry-ready in the face rapidly evolving technologies.
2. To train the fast-food and short-term-gains generation of the students for fundamental know-how, sustainable and long term benefits.
3. To complete the curricula exhaustively and educate the students holistically while the industries are offering attractive jobs when students have partially finished their undergraduate programme.
4. To motivate the students of Civil Engineering and Mechanical Engineering to pursue job/higher studies in their chosen core discipline when there is huge discrimination in the packages offered by different kinds of industry. Also, students form a heterogeneous batch merit-wise, since the ones enrolling for Civil and Mechanical Engineering programmes are of lesser merit compared to other programmes.
5. To get and retain the faculty for Computer Engineering because of the growth in industrial opportunities.
6. To continuously update the faculty members' know-how in the face of fast evolving technology.
7. To produce quality publications, to float good research projects and fetch sizeable funding since the Institute does not have a PG programme.
8. To commercialize the granted IPs and products is challenging.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Academic excellence is the first pillar of the Four-Pillar-Philosophy of PCCOE&R and the Institute is conducting all the academic tasks as per Plan-Do-Check-Act (PDCA) cycle. Institution imparts quality education ensuring effective curriculum delivery through a well-planned ISO process. Outcome Based Education is accorded priority by the affiliating University and the Institution.

As per PDCA defined for PCCOE&R, curriculum planning and implementation is governed and monitored through Academic Review committee (ARC), Department Advisory Board (DAB), College development committee (CDC), Academic Monitoring and Control Committee (AMC). The Academic processes are planned based on the syllabus of SPPU compared with added content as per requirement in view of meeting local, global, national needs and desired outcomes/careers of students. Value added courses, content beyond syllabus (CBS) are covered at different platforms in view of multi skill development.

The Institute adheres to the academic calendar which is monitored by the AMC. All the programs are Choice Based Credit System and offer elective courses. Academic flexibility and bridging the gap between curriculum and industry is achieved by conducting workshops, seminars and signing MoUs with leading industries. Weak learners and fast learners are identified and are given different assignments. Holistic development of students is achieved directly through syllabus and indirectly through various add-on courses, CBS, Industrial visits, PBL, major projects, guest lecture series, workshops etc.

Value added courses like soft skills/communication skills etc., are also conducted in order to inculcate professionalism. Institute has made it mandatory for the students to undergo the internships/training in industry/corporate companies to enhance their employability.

PCCOE&R invites feedback from all the stakeholders which is collected online and based on the analysis, the corrective measures and progressive steps are taken. Institute takes initiative to sensitize and inculcate values, rights, duties and responsibilities of citizens through activities mainly organized by the committees like National Service Scheme, Student Development/Welfare Organization, Internal Complaints, Staff/Student Grievance, SC/ST/OBC Reservation, students with disabilities, Anti-ragging, Discipline and by the Departments.

Teaching-learning and Evaluation

PCCOE&R is dedicated to providing quality education through effective teaching-learning processes for students' holistic development. Admission process is centralized and Institute follows all the guidelines of DTE. Efforts are taken to serve students from different backgrounds and abilities. In last 8 years PCCOE&R has achieved University results among top 5 and has been among top 10 most opted colleges.

Institute has qualified and experienced faculty members as per AICTE specifications (17-PhD/NET qualified faculty, average teaching experience of 12 years and student to teacher ratio of 15.58).

Faculty uses conventional teaching and ICT to enable student-centered learning. Faculty members update

themselves with innovative teaching techniques by attending Workshops, STTPs, FDPs and certification programs. Institute promotes experiential learning with regular industrial/field visits, Industry Institute Initiatives like internships, sponsored projects etc. Participative learning provides problem-solving abilities, opportunity to gain professional values, knowledge and skills.

PCCOE&R has a structured method of pedagogy to address the needs of students with different backgrounds from advanced learners to average and slow learners. Advanced learners are motivated for higher studies and research. Slow learners are counseled and provided with additional course materials, remedial sessions and group studies.

The evaluation processes are dynamic and updated from time to time. Rubrics for evaluation of internal assessment are well-defined. The evaluation process is transparent and carried out efficiently. Exam-related grievances are addressed in accordance with University and Institute policies. Faculties are engaged in various up-gradation activities including Teacher Technical Training and exam reforms.

Each course is planned and delivered to achieve stated objectives and outcomes. CO-PO attainment is calculated for each course using different assessment tools. Attainment level of all COs is obtained based on the student's performance in the internal and external examinations. Course end survey is taken from students. Exit survey, alumni survey and employer surveys are taken. Gap analysis is done and corrective measures are implemented. All departments have defined PSO and added many co-curriculum activities. The outcome of all these activities is the continuous improvement in University results and attainment of COs and POs.

Research, Innovations and Extension

Research and Innovation is one of the pillars of the 4-pillar philosophy of Pimpri Chinchwad College of Engineering and Research (PCCOE&R). The Institute has a culture and ecosystem conducive to foster research, innovation and extension activities. All four departments viz. Computer, Electronics and Telecommunication, Civil and Mechanical Engineering, has its own Research Center, Innovation Center, Project Lab and Industry Sponsored Labs. The infrastructure, facilities and resources are available 24×7 for research and innovations. The institute has registered and actively participated in 'National Innovation and Start-up Policy (NISIP)', Atal Ranking of Institutions on Innovation Achievements (ARIIA) and participates in all AICTE, International/National level activities.

PCCOE&R has filed 75 patents on the name of institute to honor Azadi-Ka-Amrut-Mahotsav. The faculty and students have collectively filed 258 patents and 206 copyrights. The faculties have published 169 research papers in SCI/WoS/Scopus/UGC Care journals and 97 books/book chapters. Research funds/grants received are worth Rs. 18.74 lacs. National Conference on IPR, Patents, Copyrights, Innovations and Start-up (CIPCIS-2019 and CIPCIS-2020) were organized, which showcased 500+ IPs. Institute has organized a total of 122 seminars, conferences and workshops to upgrade knowledge and skills. The gap between industry and academia is bridged through 31 MoUs/Industry Collaborations for sponsored projects, internship, field visits, on-job training etc.

Students are encouraged to undertake industry sponsored projects to address industrial technical problems. PCCOE&R supports in-house projects, project based learning activities financially. Institute supports faculties to attend Conferences/STTP/Seminar/Workshop in India or abroad, for which policies have been made to give

study/paid leaves and reimbursement of expenses.

The institute provides a common platform 'UGCON' to exhibit the research work done by final year students. In last five academic years, a total 486 projects and 182 published papers have been presented. Institute has Entrepreneurship Development Cell through which, 27 students have become entrepreneurs.

PCCOE&R endeavors to develop emotional and psychological skills and to inculcate ethical values and National pride among students and faculties. The NSS unit conducts several activities wherein students and staff voluntarily participate in social activities like Swachh Bharat and Unnat Bharat Abhiyan, Covid-19 vaccination awareness programme, environmental awareness workshops, working with NGOs etc.

Infrastructure and Learning Resources

PCCOE&R adheres to AICTE, DTE, SPPU, NBA, NAAC, NIRF, ISO norms and requirements regarding infrastructure facilities. Additional facilities like sponsored laboratories, innovation centers, etc. have also been created to meet the expected outcomes. Physical facilities, library framework for books, e-resources and IT support are maintained in view of meeting POs, Mission and Vision of the Institute. The infrastructure including building, physical infrastructure and laboratory equipment are maintained as per requirement. Physical infrastructure consists of 20 ICT enabled classrooms, 05 tutorial rooms, 48 laboratories, 02 seminar hall, 02 Workshops, Library, Girls and Boys common rooms and other additional facilities. Laboratories and workshops have the necessary conventional and modern equipment. Laboratory equipment, elevators, fire fighting system, water tanks/coolers, DG set and experimental setups are serviced properly before starting the new semester. Corrective actions are initiated to maintain equipment and laboratory setup in working condition. Preventive maintenance is carried out in-house by the supporting staff. Major equipment maintenance and repairs are done under annual maintenance contracts. Institute has 13586 sq.m built-up and 10191 sq.m carpet area, 9430 sq.m playground and 76 sq.m of indoor sports room. Necessary kit for outdoor gymnasium, outdoor games, indoor sports room and gymnasium equipment of worth Rs. 9,28,755/- have been provided. Cultural club has musical instruments. Cultural cell organizes Annual Festival and several other programmes. PCCOE&R students regularly earn rewards and applause in various competitions.

Institute has a 158 sq.m Yoga Center, where regular sessions are organized on Yoga. Central library occupies 400 sq.m area and is partially automated by EduPlus Campus. It is WiFi enabled and has a 150 capacity reading hall. Library has 10900 Volumes, 2097 Titles and 35 print journals, subscriptions to 268 e-journals like IEEE, ASME, ASCE etc, e-ShodhSindhu and Turnitin plagiarism checker.

ERP system developed by iCloud EMS consists of modules on circulation, Admin, Reports, Masters, serial control and Web-OPAC.

Institute has 664 computers, 300 Mbps internet connectivity, Wi-Fi facility and centralized firewall Sophus network monitoring. EduPlus ERP with 20+ modules is deployed for effective academic, administrative planning. Institute has several licensed and open source software.

Student Support and Progression

PCCOE&R provides necessary support, facility and environment to enable the students to achieve designed outcomes like, Placement/Entrepreneur/Higher studies. Professional development of student is one of the pillars

of PCCOE&R. Government and non government scholarships are availed by students with Institute's active support. In last five years, 63.45% out of 7009 students from different categories and sections have availed the benefits of scholarships under various schemes of the Government. 85 students have also availed Non-Government scholarships. The Institute has also supported the students who lost their parents during the last pandemic by giving financial relaxation.

Institute has core/soft/communication/life/computing skills enhancement and capacity building initiatives. The Institute has dedicated placement, higher study and Innovation cells. Students gain guidance and opportunities for placements, entrepreneurship and higher studies. Institute has developed the German and Japanese Learning Centre to promote training and certification of foreign languages. 114 students have completed Japanese training and 16 students completed certifications while 112 students have completed German Language training. Guidance for competitive exam and career counseling is also offered by institution. 79.18% have been benefitted by guidance for competitive examination and carrier counseling.

About 62.09% students have been placed in reputed companies in India, abroad and progression to higher studies in last five years. Well structured programme for pre-placement training is effectively implemented in PCCOER. Year-wise activities are planned from first year to final year to make students competent for better career opportunities. These activities like Mock interviews and Group discussion, Company specific tests such as Co cubes test, TCS ninja, Eazy AgroTech etc.

Infrastructure has been provided for sports and cultural activities. Students actively participate in various competitions at different levels and win prizes.

The Institute has a well-defined mechanism for redressal of grievances of students through various committees formed as directed by regulating authorities. Institute organizes alumni meet every year. Alumni contribute in delivering expert talk, formulation and evaluation of projects and seminars and help in organizing industrial visits, value-added courses, and placement. A special Alma-connect portal (<https://pccoerpune.almaconnect.com/>) is designed for alumni registration.

Governance, Leadership and Management

PCCOE&R has a transparent governance and management. It leads to effective realization of its Vision and Mission, which is the extension of vision of PCET to provide quality education. PCCOE&R works on four pillar philosophy viz. Academic Excellence, Research & Innovation, Professional Competence and Social Commitments.

PCCOE&R has a well-established organizational structure for its governance and smooth functioning. Various bodies viz. Governing body (GB), College development committee (CDC), Internal Quality Assurance Cell (IQAC), four departments, Institute/Department level committees are formed with representation from all stakeholders. Department Advisory Boards (DABs) are formed to support and advice departments. In CDC and GB, review of progress on four pillars is taken periodically. E-governance is used to streamline the operations. IQAC has been formed in 2018 and ISO certification done. It conducts regular audits of academic and administrative processes.

PCCOE&R has a set of well-defined welfare policies to ensure students' and employees' overall development

and welfare. Institute encourages and empowers students for higher studies and also supports its staff financially to participate in various seminars/workshops/conferences/trainings. Institute organizes professional development/administrative training programmes for teaching/non-teaching staff.

The recruitment process is in 3 steps viz. Written, Presentation, and Interview. PCCOE&R follows the Self-Appraisal System for the staff (details in 6.3.1). There is a policy to promote internal faculty. Additional increments are given for an exceptional performer.

Enrollment is nearly 100% and financial status is sound. The Institute budget has increased from Rs. 1.5 crore to Rs. 14.5 crore in last 8 years. Institute has transparent financial policies including sanction of budget, purchase and audits to ensure appropriate utilization of funds for academic, administrative and development purposes. More than 90% budget has been utilized in every financial year. Income and expenditure is reviewed quarterly in CDC and GB.

The functioning and policies has resulted in healthy environment and contributed towards the achievement of its Mission, resulting in retention of more than 90% of staff.

The governance, leadership and team-work have brought PCCOE&R from among first 25 to top 10 at the University level and among top 22 at the state level.

Institutional Values and Best Practices

One of the important pillars of PCCOE&R 4-pillar philosophy is Social Commitment. The Institute has always taken initiatives to serve society and promote development. Various activities are organized to promote gender equality, awareness about global warming and environmental concerns. PCCOE&R adopts environmental friendly practices and implements appropriate measures viz. waste reduction, rainwater harvesting and energy conservation, recycling and green practices etc. Institute promotes inclusion of Divyangjan (people with disabilities), human values and morals at the workplace.

Professional Competence of students is yet another pillar of the 4 pillars of PCCOE&R. Institute is following Best Practices like Competence Enhancement Programme and Project Based Learning in view of evolving with recent trends of technology and meeting outcomes of PCCOE&R. The objective is to make industry-ready, socially committed students with research and innovation aptitude. Institute provides necessary support, facility and environment to enable the students to achieve designed outcomes like, Placement/Entrepreneurship/Higher studies and others like research and innovation.

Well structured programme for pre-placement training is effectively implemented in PCCOE&R. The Institute has dedicated placement, higher study and Innovation cells. Training in aptitude, GD, communication skills, etc. has supported 1786 students to get placement opportunities including 4 International placements. Students gain guidance and opportunities for competitive examinations, entrepreneurship and higher studies. 95 students have got admitted to higher studies and 27 students have become entrepreneurs. To inculcate the creativity and innovative spirit in the students, PCCOE&R has encouraged about 2700 students to undertake Project Based Learning, which has helped them in developing their industry-specific skills and real-world experience.

The thrust area of PCCOE&R, besides strong academics, has always been Research and Innovation. Institute gives emphasis on Intellectual Property (publications, patents, copyrights). PCCOE&R is taking exhaustive efforts to cultivate research and innovation culture among faculty and students through the Research and

Innovation (R&I) Cell. As a result PCCOE&R has filed 75 patents to honor Azadi-Ka-Amrut-Mahotsav and faculty and students have collectively filed 258 individual patents and 206 copyrights. Every year, PCCOE&R organizes a unique copyrighted National Conference on IPR called CIPCIS.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	PIMPRI CHINCHWAD EDUCATION TRUST'S PIMPRI CHINCHWAD COLLEGE OF ENGINEERING AND RESEARCH
Address	Plot no- B, Survey No- 110(1),110(2),110(3) At Laxminager Ravet Haveli Pune
City	PUNE
State	Maharashtra
Pin	412101
Website	www.pccoer.com

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Harish U Tiwari	020-8237238080	8806461401	-	principal@pccoer.in
IQAC / CIQA coordinator	Santosh N Randive	-	7276407944	-	santosh.randive@pccoer.in

Status of the Institution	
Institution Status	Private

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details

State	University name	Document
Maharashtra	Savitribai Phule Pune University	View Document

Details of UGC recognition		
Under Section	Date	View Document
2f of UGC		
12B of UGC		

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	03-07-2022	12	Academic Approval

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Plot no- B, Survey No-110(1),110(2),110(3) At Laxminager Ravet Haveli Pune	Urban	3.45	12637.25

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Civil Engineering	48	Higher Secondary Certificate	English	60	33
UG	BE,Computer Engineering	48	Higher Secondary Certificate	English	120	120
UG	BE,Electronics And Telecommunication Engineering	48	Higher Secondary Certificate	English	60	60
UG	BE,Mechanical Engineering	48	Higher Secondary Certificate	English	60	43

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	5				13				42			
Recruited	2	1	0	3	2	0	0	2	25	17	0	42
Yet to Recruit	2				11				0			
Sanctioned by the Management/Society or Other Authorized Bodies	1				2				30			
Recruited	1	0	0	1	2	0	0	2	13	17	0	30
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				27
Recruited	24	3	0	27
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				19
Recruited	14	5	0	19
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	3	1	0	4	0	0	5	5	0	18
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	33	29	0	62
UG	0	0	0	0	0	0	0	0	0	0

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

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

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male		Female	
	Others		Total	
	9		1	
	0		10	

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	224	10	0	0	234
	Female	54	5	0	0	59
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Category		Year 1	Year 2	Year 3	Year 4
SC	Male	19	20	19	24
	Female	4	9	5	8
	Others	0	0	0	0
ST	Male	4	2	0	0
	Female	1	1	0	0
	Others	0	0	0	0
OBC	Male	57	54	44	43
	Female	19	22	18	22
	Others	0	0	0	0
General	Male	126	124	108	123
	Female	31	53	32	45
	Others	0	0	0	0
Others	Male	28	23	46	22
	Female	4	6	15	5
	Others	0	0	0	0
Total		293	314	287	292

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	<p>Pimpri Chinchwad College of Engineering & Research (PCCOE&R) is affiliated to Savitribai Phule Pune University (SPPU). The curricula of SPPU encompass several multi/interdisciplinary aspects. The syllabus of First Year Engineering (FE) includes credit courses on Physics, Chemistry and Mathematics in both the Semesters. The course of Mathematics continues for one more Semester in Second Year for all disciplines. FE syllabus is uniform for all disciplines and includes introductory credit courses on all the disciplines like Elements of Mechanical Engineering, Elements of Electrical Engineering, Elements of Computer engineering, etc. This ensures fundamental understanding of the</p>
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students about the natural sciences and all core branches of Engineering. A few Courses like Strength of Materials, Fluid Mechanics are uniform for Civil Engineering and Mechanical Engineering disciplines. Similarly, a few Courses like Data Structures, Object Oriented Programming, Digital Electronics & Logic Design, Computer Networks, Cloud Computing, Digital Signal Processing, Embedded Systems, System Programming & Operating System are uniform for Computer Engineering and ENTC Engineering disciplines. Further, these two have a few Honors courses in common viz. Internet of Things, Artificial Intelligence & Machine Learning, Data Science. Civil Engineering has a credit course on Computer Programming in Civil Engineering and Mechanical Engineering has credit courses on Artificial Intelligence & Machine Learning, Mechatronics and Computer Integrated Manufacturing. All the disciplines have audit courses on Environmental Sustainability, Road safety, etc. PCCOE&R is a Teaching-intensive and Research-intensive Institute. Special efforts are taken by PCCOE&R to inculcate multi/interdisciplinary research culture among faculty and students. PCCOE&R has been the pioneer Institute among SPPU institutions to adopt Project/Problem Based Learning (PBL) and the pupils are encouraged to identify problems that would need multi/interdisciplinary solution. PCCOE&R also insists on the students in their Final Year to procure Sponsored projects, which address the real life problems and which almost always involve multi/interdisciplinary approach to the solution. Funding is given by the Institute to the Final Year internal Projects. Students undergo industrial internships in their Third Year of UG course where, on the site, the interns automatically undergo multi/interdisciplinary training. The Art Cell organizes several events relevant to performing and commercial arts. Commemoration committee organizes birth and death anniversary celebration of freedom fighters and social workers. Through NSS, several events like Independence Day and Republic Day celebrations, Blood donation camps, Winter-camps, social work initiatives are taken to instill human values like Truth, Righteous conduct, Non-violence, Peace and Love. PCCOE&R plans to acquire the status of Autonomous Institute in near

	<p>future and having acquired thus, the Institute shall certainly plan multidisciplinary curricula that will enable multiple entries and exits. PCCOE&R will be proud to be a part of multidisciplinary HEI cluster or to be a Multidisciplinary Education & Research University (MERU) offering quality education in a vast spectrum of domains. One of the main objectives of NEP is improving Gross Enrollment Ratio (GER) from present 26.3% to 50%. On being autonomous, number of disciplines and number of vocational courses being offered will be increased, which will contribute to the improvement in GER.</p>
2. Academic bank of credits (ABC):	<p>PCCOE&R is affiliated to Savitribai Phule Pune University (SPPU) and is governed by SPPU as regards curricula, examination and evaluation. PCCOE&R will make all the necessary provisions of the Academic Bank of Credits, benefit of multiple entries and exits, as soon as instructed by SPPU. Also, it is proposed by PCCOE&R to apply for academic Autonomy in near future and in case it is sanctioned, the Institute shall definitely make all the arrangements to include clauses in NEP in its curriculum structure. Pimpri Chinchwad Trust (PCET) is coming up with Pimpri Chinchwad University and the International Relations Cell of PCET is taking exhaustive efforts to make tie-ups with foreign universities so as to facilitate students' exchange programme, joint degrees and credit transfers. Till date, MoUs on various collaboration aspects with have been signed 23 foreign universities. Due to continuous advancement in technology, faculties endeavor to give contents beyond syllabus (CBS) to the students through extra/value added courses. Faculties design and disseminate the content of these add-on courses either themselves or by inviting an expert from industry. ICT tools and innovative techniques like flipped classroom, participative learning, etc are used to discuss CBS. Assignments on the value added courses are designed by the course in-charge. Students' feedback of such course is taken so as to evaluate the need and worth of the course.</p>
3. Skill development:	<p>Knowledge, skills, attitude and behavior are the graduate attributes defined by AICTE and skills development in students and faculty has always been the major focus of PCCOE&R right from its inception. Many initiatives like internship, industrial</p>

	<p>training, PBL etc were taken by PCCOE&R much before, these were included in the curriculum by the University. Faculty members at PCCOE&R are encouraged to undergo industrial training, STTP, FDP and certification courses like NPTEL. Students are also encouraged to enhance their knowledge and skills by undergoing online/offline certification courses. Registrations fees are reimbursed by the Institute for the successful faculty members and students. 100% students of PCCOE&R undergo industrial internships. Hands-on experience in internships enhances students' technical skills, interpersonal skills and professionalism. For academic and administrative processes like teaching-learning, monitoring, evaluation, feedbacks, etc., the Institute has an efficient Enterprise Resource Planning (ERP) system, which is used by faculty, staff and students. PCCOE&R is endeavoring to achieve paper-less, sustainable and environment-friendly processes. Faculty and students are provided with various ICT tools like smart-boards, projectors, computational systems, audio-visual aid in the classrooms and laboratories. Students also make use of virtual labs. Institute also has Divyang (specially-able) friendly NVDA software. The Institute has sufficient mechanical workshop area with all the conventional and modern machinery as well as skilled trainers. Various sections like carpentry, tin smithy, machine shop, welding, fitting, CNC etc. are well-equipped. Institute is thus well-prepared to offer a variety of vocational courses. Presently, right from First Year, students are undergoing hands-on training in workshop. Workshop practice is a credit course common for all branches of First Year and later on for Mechanical Discipline.</p>
<p>4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):</p>	<p>Every day, academic sessions in PCCOE&R begin with National Anthem. The National Anthem is followed by a 10 minute Yoga Session in every classroom/laboratory. NSS Cell celebrates Independence Day and Republic Day on large scales. A special Commemoration Committee organizes and celebrates birth and death anniversaries of all the Freedom Fighters and Social Workers. During the Mentor-mentee meetings, faculties discuss stories from history and ancient history (mythology) so as to make the students aware of our rich heritage and culture. Anecdotes from Ramayan, Mahabharat,</p>

	<p>Shivcharitra and even from fictional compilations like Panch-tantra, Isapniti are narrated so as to teach the students valor and wisdom. The annual social event titled Expression has a special section called Naadbrahma, which is dedicated to the Indian Classical Music. It showcases classical and semi-classical singing, Bharatnatyam, Kathak and regional/folk dances, Instrument Playing talents of students and staff. Expression also showcases Rangaawali and Painting talents of the students. Lantern-making, Fort-making, Ganesh Idol making competitions are also held by the Art Circle during Deepawali and Ganesh Festival. Celebration of Shivjayanti sees the traditional Dhol-Tasha performance and procession. Though the medium of communication is English and students have to appear for SPPU examinations in English language itself, faculty use vernacular language (Marathi) or Hindi at times to make a singularly difficult concept simple to understand. Regional languages are deliberately used while mentoring the students' group in Mentor-mentee meetings or while addressing academic/personal queries raised by students. This ensures a cozy and at-home atmosphere and enables a more heart-to-heart talk. In the online regular/extra/add-on/weak-learners lectures, there are limitations on use of video due to band-width limitations at students' end. Thus, many communication modes otherwise available in offline mode, like facial expressions and gestures are disabled and that makes it difficult for the students to understand the tough concepts when discussed entirely in English. Hence, Instructors engaging the lectures in online mode disseminate the information in vernacular language (Marathi or Hindi).</p>
5. Focus on Outcome based education (OBE):	<p>All UG programmes of PCCOE&R viz. Civil, Computer, ENTC and Mechanical Engineering are NBA accredited. PCCOE&R believes in student-centric Four-Pillar philosophy, which includes Academic excellence, Professional Competency, Research and innovations and Social Commitment. PCCOE&R Four-Pillar philosophy is aligned with AICTE's Outcome Based Education (OBE) attributes, viz. Knowledge, Skill, Behavior and Attitude. Students are trained from the very First Year up to Final Year keeping in mind the probable walk of career they would choose, viz. Employment,</p>

Higher Studies and Entrepreneurship. Academic excellence has always been a strong focus of PCCOE&R. A structured process certified by ISO 9001:2015 is followed while executing knowledge dissemination and evaluation tasks. In academics, PCCOE&R results are among the best five at the SPPU level. In a short span of 7 years, PCCOE&R has already produced 9 rankers in SPPU. The Institute has an environment conducive to Research and Innovation. Students of PCCOE&R undergo Project/Problem Based Learning from their very First Year. Students are encouraged to procure sponsored projects based on real life industrial and social problems. Plagiarism check and publications on the project are mandatory for the students. PCCOE&R holds three world records for filing maximum copyrights and patents. A unique copyrighted National Conference on IPR called CIPCIS to bring inventors and investors on a common platform. Students are carefully groomed in soft-skills like communication, aptitude, interviews, GD, etc. As a result of the rigorous training given, the placement of PCCOE&R has been more than 75% for the passed out batches, including a few International placements. Higher studies Cell at PCCOE&R ensures that students get all the necessary information, resources and guidance for appearing for competitive examinations and for higher studies. As a result, 80 passed out students are at present pursuing their higher studies. The International Relations Cell organizes seminars and conducts Foreign Universities Internship/Summer-school excursions and gives guidance regarding research studies for students and faculties. The Incubation and Entrepreneurship Cell organizes talks of experts for the students to understand challenges, legal formalities and resources for start-ups and provides space, funds, advice and IP consultation for the budding entrepreneurs. The focus of PCCOE&R is on producing Engineering Professionals with high moral and ethical values. Every day, the academic sessions begin with National Anthem, which is immediately followed by a 10-minute Yoga Session. The Commemoration committee celebrates birth and death anniversaries of freedom fighters and social workers. NSS celebrates Independence Day and Republic Day with dedication and patriotism. Cultural festivals like Shri Ganesh Chaturthi, Deepawali etc. are celebrated by all the

	<p>students and faculty together. Design-courses in the SPPU syllabus, PBL, Internships, Projects, Plagiarism-checking, Patent and copyright filing, publishing research articles make the students aware of the professional ethics and obligations. Audit courses on social and ethical aspects are discussed rigorously. Through NSS and Mentoring scheme, several outreach and social events are organized so that the students develop and nourish a sense of social commitment. Foreign University Summer-school programmes offered by the International Relations Cell give our students exposure to global culture and professionalism.</p>
6. Distance education/online education:	<p>PCCOE&R is affiliated to Savitribai Phule Pune University (SPPU) and is governed by SPPU as regards syllabus, instructions, examination and evaluation. The four years undergraduate full-time programmes in Civil, Computer, ENTC and Mechanical Engineering offered by PCCOE&R are to be completed in offline, physical, on-campus mode and there is no provision or feasibility of distance education. During pandemic, all the academic activities like lecture-practical-tutorial delivery, theory and viva-voce examinations, mentor meetings, projects, seminars, etc were being conducted purely in online mode using platforms like Google Meet. Google classroom was used for circulation of study material. The online lectures delivered then have been made available as video lectures on YouTube channels and blogs created by the faculty members for anyone to refer to. E-journal, e-books, journals, Turnitin and many other resources from library too were made accessible from home. Further, many faculty members from PCCOE&R floated outreach programmes in which, the course contents were delivered in online mode for students all over the state. As the students from many Institutions and Universities were not receiving proper tuitions in pandemic, these programmes received good response from students and even course faculty members. This has indirectly led to Open Distance Learning (ODL). Thus, PCCOE&R and its faculty are well-prepared to offer ODL to become a multidisciplinary HEI. As on date too, the faculty members are delivering a portion of their curriculum in online mode. Content beyond syllabus, tutorials, extra lectures, audit courses and honors courses by industry experts are nearly always</p>

conducted in online mode. The Institute has conducted many co-curricular and extra-curricular events like First Year Induction Programme, signature National Conference CIPCIS, technical competition Technovate, cultural events Expression and Indradhanu and Departmental Students' Association events in online mode. Faculty members of PCCOE&R have been enthusiastically involved in delivering on-line talks on Intellectual Property Rights, How to File a Patent, How to File a Copyright, How to Write an SoP, Being Evergreen Forever, Positive Thinking, Pranayam and Surya-Namaskar, Veer sawarkar's Hinduism etc. Later, as the pandemic receded, PCCOE&R began to conduct all the curricular, co-curricular and extra-curricular activities in hybrid (offline-online simultaneously) mode.

Extended Profile

1 Students

1.1

Number of students year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
1466	1477	1356	1362	1348

File Description	Document
Institutional data in the prescribed format	View Document

2 Teachers

2.1

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

Response: 95

File Description	Document
Institutional data in the prescribed format	View Document

2.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
68	70	69	67	73

3 Institution

3.1

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

2021-22	2020-21	2019-20	2018-19	2017-18
447.47	351.15	446.02	521.93	497.29

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

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

Response:

Academic excellence is an important pillar of Four-Pillar-Philosophy of PCCOE&R. Institute is committed to conduct all academic tasks in line with the Plan-Do-Check-Act cycle and ISO schedule.

According to the inputs given by Internal Quality Assurance Cell (IQAC), Academic Monitoring and Control Committee(AMC), Departmental Advisory Board (DAB) and other stakeholders, curricular/co-curricular/extra-curricular activities are scheduled in Institutional and Departmental activity calendar. Departmental activity calendar is shared with students and faculty members well before the start of semester.

HOD assigns subject to faculties as per their expertise and preference. Time table is prepared to fulfill the subject-wise structure provided by Savitribai phule Pune University(SPPU).

Faculties prepare teaching plans which includes content beyond syllabus, course files and laboratory manuals. Faculties give subject presentations to AMC to seek suggestions for improvement in the delivery contents/techniques. Academic monthly review by the AMC is an integral part of the teaching learning process, which ensures progress of curricula. Every year, External academic review is done and detailed reviews are sought to ensure continuous improvement.

Attendance is noted daily and progress of students is monitored regularly. Defaulter's list is displayed every month and parents are informed about progress of their ward. Counseling of defaulters is done by the batch mentor.

Institute implements outcome based education, innovative pedagogy, use of Bloom's taxonomy, ICT, participative learning for enhanced teaching-learning experience. Effective curriculum delivery is ensured by supplementing classroom teaching with expert lectures, seminars/hands-on-sessions, mini/industry supported projects, industry visits, industrial internships, case studies, e-learning, NPTEL lectures, etc. Contents beyond syllabus are identified and taught in the classroom/laboratory to expose students to recent trends in the industry. Soft-skills training, value added courses and counseling for holistic development of students is done.

Feedback from Student is taken twice in semester and other stake-holders once in a year through ERP/physically. Inputs from various stakeholders are summarized and communicated to the Board of Studies for curriculum revision.

Continuous Assessment is done to improve overall performance in internal and external examinations. Continuous Internal Assessment for Practical, Term-work, Projects, Seminars, internal examination, assignment is conducted and assessed by well-defined rubrics and is monitored by Departmental Academic

Coordinator (DAC). Internal Evaluation is carried out with respect to following points:

- Unit tests and Prelim examinations are conducted every semester. Test papers are set using Unit-wise COs and BT levels and answers are evaluated. Students who scored less are asked to complete additional tasks.
- Assignment is given after completion of every unit and is assessed based on timely submission and quality of answers.
- Mock project review is organized twice in each semester for Final year. Final Review assessment is done by an external examiner.

Students are assessed on all possible platforms and internal marks are given as per their performance in internal tests, assignments, mock oral, mock practical, mock project review and in active participation in technical, non-technical events.

Adherence to the academic calendar is monitored through course file verification, ARM Meetings, Faculty meetings, Feedback on syllabus, Management Review Meeting(MRM), Internal and external ISO Audit.

File Description	Document
Upload Additional information	View Document

1.2 Academic Flexibility

1.2.1 Number of Add on /Certificate/Value added programs offered during the last five years

Response: 75

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

1.2.2 Percentage of students enrolled in Certificate/ Add-on/Value added programs as against the total number of students during the last five years

Response: 88.23

1.2.2.1 Number of students enrolled in subject related Certificate/ Add-on/Value added programs year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
1758	1248	1379	857	942

File Description	Document
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Institutional data in the prescribed format	View Document

1.3 Curriculum Enrichment

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

Response:

PCCOE&R is affiliated to SPPU, a leading University at National level. SPPU syllabus has many courses addressing issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability. Institute has added some curricular and extracurricular activities to further strengthen these.

Curricular courses addressing Professional Ethics:

- Advanced Concrete Technology: Applying ethical principles and professional codes in designs.
- Total Quality Management and Management Information System: Applying ethical principles, professional codes and TQM philosophy.
- Quantity Survey Contracts & Tenders: Applying ethical principles and professional codes.
- Plagiarism check for PBL, seminars, projects.
- Air Pollution & Control: Applying ethical principles and government norms to design air pollution control equipments and adapt the
- Value addition courses covering professional ethics.

Curricular courses addressing Human Values:

- Industrial Engineering: This Course highlights the work ,human and machine relationship.
- Information and Cyber Security: Digital vulnerability and data protection from malicious users.
- Road Safety Management: Enforcement of law for greater road safety and environment friendly road transport.
- PBL activity covering many societal projects.

Curricular courses addressing Environment and Sustainability:

- Environmental Engineering: Environment contaminants and hazards, sustainable solutions.
- Architectural Planning and Design of Buildings: Optimum planning, utilization of resources, building bye laws, green buildings, rain water harvesting, waste management system.
- Geotechnical Engineering: Causes and remedial measures of landslides.
- Ecology and Environment: Maximizing the use of renewable energy sources, importance of energy conservation and management.
- Environmental Studies: Science and technology for monitoring and control of pollution.

- CBS covering Environment and Sustainability issues.
- Many projects address Sustainability issues.

Gender equality is the second nature of PCCOE&R. Girls and boys participate equally in various curricular/co-curricular/extra-curricular activities such as projects, seminars, presentations, group discussions, workshops, competitions, events, etc.

Induction program is arranged on cross cutting issues. Guest lectures are arranged on mind-body alignment, stress management and soft skills. Yoga, Human values session, cultural performances, art of living etc are frequently organized.

National Service Scheme organizes Winter Camps in rural areas involving activities like Beti Bachao, Beti Padhao, Unnat Bharat Abhiyan, Street plays to make villagers aware of various social issues. Every year the Institute organizes blood donations to raise awareness of the importance of blood donation. The average blood collection for 8 years has been 160 units. For increasing awareness related to women's rights, safety, security and health issues, the Institute organizes various sessions on Women's day for women employees and students. To protect the environment and to generate awareness, the Institute regularly organizes activities like tree plantation, Swachhata Pakhawada Abhiyan, Swachhata Rally, Poster competition on World Environment Day, etc.

Pimpri Chinchwad Education Trust has come up with a community radio named PCET's Infinity 90.4 FM, to which all the students and staff contribute by way of content development. The contents developed are of the nature *for-of-and by-the community*.

File Description	Document
Upload Additional information	View Document

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

Response: 99.39

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

Response: 1457

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

1.4 Feedback System

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

the feedback is made available on institutional website (Yes or No)

Response: Yes

File Description	Document
Upload supporting document	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Enrolment percentage

Response: 88.47

2.1.1.1 Number of students admitted year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
256	266	258	275	272

2.1.1.2 Number of sanctioned seats year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
300	300	300	300	300

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

2.1.2 Percentage of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy during the last five years (Exclusive of supernumerary seats)

Response: 75.14

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

2021-22	2020-21	2019-20	2018-19	2017-18
136	137	147	124	109

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

2021-22	2020-21	2019-20	2018-19	2017-18
165	165	214	165	160

File Description	Document
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Institutional data in the prescribed format	View Document

2.2 Student Teacher Ratio

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

Response: 21.56

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 using ICT tools

Response:

Teachers of PCCOE&R have been trained and equipped with modern ICT tools in addition to Conventional Teaching Tools. Faculties have attended professional development programmes and training to enhance skill sets related to ICT. Each department has a smart board and interactive flat panel with internet connectivity to make teaching more vibrant.

Student-centric teaching-learning methods are used to improve student learning which includes conventional chalkboard and non-conventional learning viz. experiential, problem-solving, participative, and collaborative learning for slow, advanced, and average learners.

1. Experiential Learning:

- Students undergo summer internships and Project Based Learning to learn about the latest technology, this teaches students to mine data from various sources and adopt various approaches.
- Students present their project work in the form of presentations, which improves their communication and presentation skills.
- To enhance self-learning, learning material created by faculty is made available through blogs, google classroom, and youtube channels.

2. Participative Learning:

- Flipped Classroom aims to increase student engagement and learning.
- Students are encouraged to actively participate in additional courses such as NPTEL/Coursera etc.

For advanced learners, these courses are mandatory to promote higher-order thinking.

- Activities like SAE-BAJA, Go-Cart, and TIFAN provide an opportunity for the students to work as an individual and in teams.

3. Problem-Solving Methodologies:

- Multiple activities are carried out to familiarise students with real-world industry issues.
- Institute conducts activities to boost their problem-solving abilities like puzzles, quizzes, etc. through knimbus platform, exambuzz.com, etc.
- The seminar helps to understand fundamental concepts, recent trends/technologies, and the expression of practical skills and knowledge gained.

Some of the ICT tools used in PCCOE&R are given below;

- Classrooms (equipped with network connectivity, LCD projector, standard teaching aids, audio-video components, smart boards, etc.)
- ERP System (<https://pceterp.in>)
- Knimbus Platform (<https://pccoer.knimbus.com/>)
- exambuzz.com
- Google classroom, google meet, google form
- YouTube channels and blog, video lectures on the website (<https://pccoer.com>)
- Simulation software
- Online material like E-books, E-Journals etc.

Extensive use of google classroom, google meet, knimbus platform etc. was observed during the pandemic and it has been continued in the post-pandemic period in hybrid mode. Institute encourages students to use the available tools for the conduction of various workshops, hands-on training, and technical events with an emphasis on the use of the software.

A summary of various students-centric methods is given below;

Experiential Learning	Participative Learning	Problem-Solving methods
Industrial visits	Group discussions	Case studies
Field visits	Presentations	Projects
Seminar	Technical events	Puzzles
Project Based Learning	Student committees	Quizzes
Projects	NPTEL/ FOSS/ Coursera etc.	Crosswords
Softwares	Flipped classroom	Online tests
Youtube videos and blogs	Hands-on experience	
Industry internship	Resource pooling	
Virtual labs		
Computer-assisted learning		

File Description	Document
Upload Additional information	View Document

2.4 Teacher Profile and Quality

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

Response: 98.02

2.4.1.1 Number of Sanctioned posts / required positions for teaching staff/ full time teachers year wise during the last five years:

2021-22	2020-21	2019-20	2018-19	2017-18
68	70	69	67	80

File Description	Document
Upload supporting document	View Document

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

Response: 18.44

2.4.2.1 Number of full time teachers with NET/SET/SLET/Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
18	13	12	12	9

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

2.5 Evaluation Process and Reforms

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

Response:

PCCOE&R follows the outcomes-based philosophy for the assessment of students. The evaluation process is bifold i.e., internal and external. The internal evaluation process is designed to prepare and guide students for the SPPU examination. To make internal assessment transparent we follow the mechanism of the ISO Process. The external assessment process is as per SPPU guidelines and schedule. The SPPU examination scheme consists of in-semester, end-of-semester, oral/practical exams, and term work. The detailed evaluation process and tools for internal and external assessment are provided in 2.6.1.

The mechanism followed for internal and external assessment is listed below;

1. Internal Assessment

- Institute/Department academic calendars have internal examination schedules.
- Examination timetables are displayed on the notice board.
- Question papers for internal examinations are set as per the ISO guidelines.
- After every internal test, the faculty members explain the solution in class.
- Answer sheets are evaluated within one week after examination and provided to students in the classroom for verification. Necessary action is taken by course faculty on a query raised.
- A retest is conducted for absent and failed students.
- Marks are shared with parents in parent meetings.
- The evaluation process and assessment rubrics of term work, seminar, project, Project Based Learning (PBL) are shared with students at the beginning of each semester to keep transparency.
- Continuous internal assessment and their frequency of conduction are as follows:

Sr. No.	Teaching Scheme	Internal Assessment Tools*	Recurrence per Semester
1	Theory	Unit Test/ Prelim Exam	1
		MCQ Test/ Prerequisite Test	1
		Assignment	3 to 6
		Tutorial	As per Time Table
		Quiz	1
2	Practical	Practical Assessment	Continuously throughout the semester
		Mock Oral/ Practical	1
3	Project and Seminar	Project Review	2 to 3
		Seminar Review	2 to 3
* Internal assessment and its conduction frequency are selected as per the need of the course.			

1. External Assessment

- University conducts external assessments through in-semester and end-semester examinations.
- University also conducts external practical/ oral/ project/ seminar examinations by appointing external examiners.
- The examination timetable is displayed on the notice board and is available on the university

website.

Grievances Redressal:

If any internal grievances occur, they will be addressed and resolved by mentors, course faculty, and the head of the department.

To address all examination and evaluation-related grievances, Institute has appointed College Examination Officer (CEO). Once the university exam schedule is released students are notified to fill out the exam forms. Any queries or issues identified are resolved by the departmental exam coordinator along with CEO in communication with the university exam cell.

During SPPU External Examination if any malpractice occurs, the issue is registered and forwarded to the university for further action.

After the declaration of results, aggrieved students can make an online application for photocopies, rechecking, or revaluation of answer sheets. The application is forwarded to SPPU for corrective action.

File Description	Document
Upload Additional information	View Document

2.6 Student Performance and Learning Outcomes

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

Response:

Our Institute adheres to the NBA's Program Outcomes (POs). These are twelve in number and are similar to and in line with the Graduate Attributes. Programme Specific Outcomes (PSOs) are also defined for all programs.

Every Department has Department Advisory Board (DAB), Program Assessment Committee (PAC), and Modules. Course Teachers and Module-coordinators define Course Objectives and Course Outcomes (COs) for every Course. The CO statements and CO-PO/PSO mapping matrix are defined using Bloom's Taxonomy and communicated to all stakeholders.

For POs, a graphical presentation is shown to ensure that all stakeholders have a clear understanding. It is mandatory for the course in-charge to prepare the course presentation at the start of each semester and present it at the ARM. Students are detailed about CO/PO/Mission and Vision of the Institute and Department.

Following are some methods/avenues for disseminating information;

- Institute website

- Laboratories
- Class Room
- Lobby
- H.O.D. Cabin
- Faculty Presentation

CO, PO, and PSO Attainment

The attainment process of POs/PSOs is divided into Direct and Indirect Attainments. Direct attainment includes the attainment of each CO contributing towards the attainment of PO and Indirect attainment includes views of stakeholders on the PO/PSO attainment. 80% weightage is given to Direct and 20% weightage is given to Indirect attainment.

CO attainment is further divided into two parts viz. Course attainment (direct) and course end survey (indirect).

Course attainment is further divided into Internal attainment and External attainment. The internal attainment is done at Department as per Institute's academic calendar and the External attainment is done at University.

The Indirect Attainment tools include Passing out Student Surveys, Alumni Surveys, and Employer Surveys.

The weightage and assessment tools are broadly shown below

Direct CO Attainment (80% Weightage)		Indirect CO Attainment (20% Weightage)
Internal Assessment tools (20% Weightage)	External Assessment tools (80% Weightage)	Indirect Assessment tools
Unit Test Examination	In-semester Examination	Course End Survey
Prelim Examination	End-semester Examination	
Lab/ Practical Assessment (Term-work)	External Lab/ Practical Examination	
Mock Orals	External Project Presentation	
Seminar, Project Presentation		
Assignments		

With the help of the above-mentioned tools, CO attainment is calculated by Course In-charge as per the CO attainment levels decided by PAC.

Level 1: If a student scores 40% to 49.99% marks out of the relevant maximum marks allocated for a particular CO.

Level 2: If a student scores 50% to 59.99% marks out of the relevant maximum marks allocated for a particular CO.

Level 3: If a student scores 60% and above marks out of the relevant maximum marks allocated for a

particular CO.

CO Attainment is calculated as follows

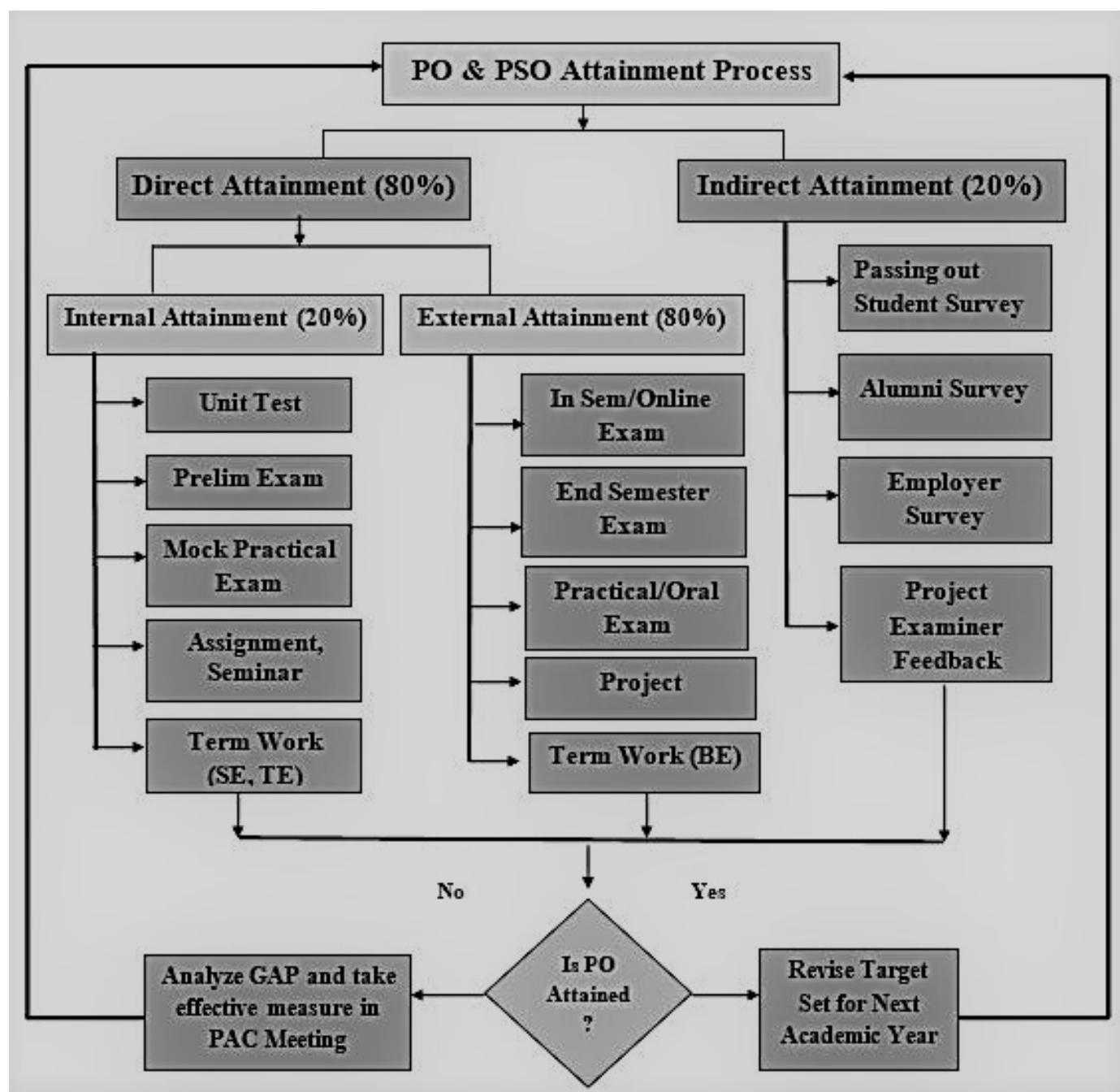
$$CO_i \text{ Course Attainment} = (0.2 \times CO_i \text{ Internal Attainment Level} + 0.8 \times CO_i \text{ External Attainment Level})$$

$$CO_i \text{ Attainment \%} = (0.2 \times CO_i \text{ Course End Survey Attainment} + 0.8 \times CO_i \text{ Course Attainment})$$

Calculated CO attainment is compared with target CO attainments set by PAC. If the calculated CO attainment is more than the target CO attainment, the targets are raised by the decided policy, and if not, corrective actions are planned to achieve the target.

Final PO/PSO Attainment is calculated as the sum of Direct PO/PSO Attainment (80% weightage) and Indirect PO/PSO Attainment (20% weightage).

The figure below shows PO/ PSO attainment process.



File Description	Document
Upload Additional information	View Document

2.6.2 Pass percentage of Students during last five years

Response: 98.07

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

2021-22	2020-21	2019-20	2018-19	2017-18
364	382	355	334	291

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

2021-22	2020-21	2019-20	2018-19	2017-18
375	384	356	343	302

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

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response:

File Description	Document
Upload database of all students on roll	View Document

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

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

Response: 18.74

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

2021-22	2020-21	2019-20	2018-19	2017-18
4	5.24	0	0	9.5

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

3.2 Innovation Ecosystem

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

Response:

Pimpri Chinchwad College of Engineering and Research (PCCOE&R) has created a research and innovation culture and has taken initiatives in favor of creation and transfer of knowledge. The institute is committed for the contribution to Nation's Vision to become a global superpower by achieving a 5 trillion dollars economy. This is possible by generating wealth through quality research, innovations and intellectual properties.

PCCOE&R has a Research and Innovation (R&D) Cell, Entrepreneurship Development Cell (EDC) to encourage faculty and students to explore their creative ideas and convert them into innovations. The Institute has registered and actively participated in National Innovation and Start-up Policy (NISP), Atal Ranking of Institutions on Innovation Achievements (ARIIA), Kalam Program for IP Literacy and Awareness (KPILA). Students are motivated to undertake design, fabrication and development projects based on innovations and prove their skills through various technical competitions.

Research and Innovation - PCCOE&R has a research culture spread over the all departments, admin office and from students to faculties and supporting staff and even housekeeping staff. Four records are set in IPR which have got recognized by "World Records India" and "Limca Book of Records".

Sensitization:

The Institute started 'Journal of Engineering Design and Computational Science (JEDCS)' ISSN : 2583-5165, in the year 2021-22.

Patents filed: 333

Copyrights registered: 206

Granted patents: 11 patents

Patents under examination: 43

Patents published: 49

Organized the National Conference 'CIPCIS' in 2019 and 2020 where 500+ participants presented their innovations and IPs.

Institute has registered four records in "World Record India" for maximum (149) copyrights registered in a day, maximum patents (39) filed by women in a single day, maximum patents (14) filed by an Indian couple in a single day, and maximum patents (51) filed by engineering couple in a single day.

Projects and Product Development - Students are encouraged to undertake industrial projects. Institute provides financial support of Rs. 10,000/- under the college sponsored project. Institute conducts project competition – UGCON for all the branches. Industry experts are called for the assessment and evaluation so that students get valuable inputs for the future enhancement. Project Based Learning (PBL) was introduced by the Institute in 2017, which was recognized by the university and introduced as a mandatory part of the Engineering syllabus of 2019 pattern courses.

Sensitization:

UGCON started in 2019

Papers published: 182

Projects undertaken by students: 486

Industry Sponsored project: 120

College Sponsored projects: 246

Projects/posters presented in PBL: 200

Research article published in SCI/WoS/UGC Care: 169.

Entrepreneurship Development - EDC organizes entrepreneurship awareness sessions, industry experts talk about career opportunities and technology trends in the industrial environment, orientation program for new entrepreneurs etc. The institute provided a seed funding of 1.5 lakhs to E&TC student for incubation.

Also, given financial support of INR 33,000/- to a computer student under the EDC cell.

Sensitization:

Students becoming entrepreneurs: 27 (13 from Civil, 10 from Mechanical, 03 from E&TC, 01 from Computer Engineering)

Seed funding of INR 1,83,000/- provided to aspirant entrepreneurs.

File Description	Document
Upload Additional information	View Document

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

Response: 122

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

2021-22	2020-21	2019-20	2018-19	2017-18
25	24	42	19	12

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

3.3 Research Publications and Awards

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

Response: 1.78

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

2021-22	2020-21	2019-20	2018-19	2017-18
41	52	31	29	16

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

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

Response: 1.08

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

2021-22	2020-21	2019-20	2018-19	2017-18
28	29	25	17	4

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

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 last five years.

Response:

The Institute is committed to contribute to the overall growth of students in research, innovation and social aspects. The Institute believes in Social Commitment, Ethics and National Pride, which is a 4th pillar of 4-pillar philosophy of PCCOE&R. Extension activities, are encouraged in order to fulfill the aspirations outlined in the Institute Vision. Students undertake research projects based on agriculture, farming, renewable energy, river cleaning, road safety, pollution reduction etc.

The Institute is actively engaged in conducting a number of activities in nearby schools, colleges and villages like Computer Literacy Programme, Awareness programs of Government Schemes and Funds for developments, conducting sessions Intellectual Property Rights etc.

SOCIAL SERVICE

NSS organizes Special Camps every year, which includes activities like, Temple and Gram Swachhata,

opposing superstitions, human-animal coexistence awareness, etc.

During Covid19 tree plantation was done by the students at their home. Between 1st July and 30th July 2019, 70 saplings were planted at Harit Wari activity conducted at Nigdi road near Bhakti Shakti Chowk, while 40 saplings were planted in Dehuroad Police Station.

SPPU created a World Record of a total distribution of 16731 Saplings (Neem) in 2 hrs, 38 minutes, 30 seconds in presence of the then Chief Minister of Maharashtra Shri. Devendraji Fadnavis. 115 volunteers of NSS, PCCOER had contributed to this event.

Rashtriya Ekta Diwas was celebrated successfully on occasion of Sardar Vallabhai Patel birth anniversary, 31st October 2019.

The Faculty Development Cell, Students' Development Cell and NSS have been celebrating International Yoga Day each year with training sessions on Yoga, Surya-Namaskar, Pranayam, Healthy Habits and Diet.

PCET's Infinity 90.4 FM Community Radio gives expression and solution to the needs of community in and around Ravet.

Sensitization: *These service activities have made the students observe several social woes and develop empathetic orientation. These programmes help the students understand the significance of reciprocating to the society.*

HEALTH AND SAFETY

COVID-19 Vaccine - Public Awareness Campaign Contest was conducted between 11th April and 14th April 2021. A total of 200 Face Shields were prepared and distributed between 28th June and 30th June 2020.

In the Blood Donation Camp organized with Sasoon Hospital Blood Bank, a total of 171 blood bags were collected. A Medical Health Checkup camp was organized at Vadeshwar Mau Gram Panchayat by the NSS unit with a team of 11 doctors.

Sensitization: *These events inculcate civic sense, awareness of society health and safety, optimum utilization of medical resources, individual safety with public safety especially in the situation of Covid-19 pandemic.*

ENVIRONMENTAL PROTECTION

On 2nd October 2019, 30 volunteers from PCCOE&R conducted cleaning activity near the Ravet Basket Bridge and Pavana river area.

Under the UBA, five villages viz., Mau, Vadeshwar, Kuawali, Dahuli, and Khandi were adopted for overall development. Awareness sessions about various Government Schemes were conducted in these villages.

PCCOE&R organizes programmes to spread awareness of environment friendly festival celebrations.

Sensitization: These events contributed to rural development, creating awareness related to health, cleaning and sanitation practices, importance of environment protection and minimization of water pollution.

File Description	Document
Upload Additional information	View Document

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

Response:

Pimpri Chinchwad College of Engineering and Research (PCCOE&R) is affiliated to Savitribai Phule Pune University and runs under Pimpri Chinchwad Education Trust (PCET). PCET is well-known for the quality education from KG to Ph.D. Recently the trust received approval for new University proposed at Sate, Talegaon Dabhade. The Institute is engaged in 360 degree development of students through quality education, social activities, higher package campus selection and research oriented culture, to make students more employable and good citizens with patriotism.

Institute's all the four programmes have been accredited by NBA for a period of three years. Institute follows outcome based philosophy and imparts quality education at par with the International standards. Students are motivated to participate in social activities while enhancing professional career. Institute continuously supports the students to participate in extension activities to create social awareness among them.

Extension activities are conducted by the NSS team of the Institute. One of the outstanding activities arranged every year is Blood donation camp. This activity has received a certificate of honor from R.G. Gholap memorial blood bank and appreciations from Ruby Hall Clinic, Yashwantrao Chavan Smruti Hospital Pimpri, Sassoon Hospital Pune.

PCCOE&R has been selected under Unnat Bharat Abhiyaan (UBA) Programme of Ministry of Human Resource Development (MHRD), Government of India through a Challenge Mode Application. Under UBA five villages were adopted for developmental activities. NSS team organized several events and activities in these villages, which were appreciated by the villagers.

To inculcate an environmentally friendly approach in the students, Savitribai Phule Pune University (SPPU) had conducted "Swacha Vari- Swastha Vari: Nirmal Vari-Harit Vari". The institute participated in the same and received a Certificate of Honor.

SPPU also created a World Record of Distribution of 16731 Saplings (Neem) in 2 hrs, 38 minutes, 30 seconds in presence of the then Chief Minister of Maharashtra Shri. Devendraji Fadnavis. In this event, 115 NSS volunteers of PCCOE&R participated. For this too, PCCOE&R has received a Certificate of Honor.

The Institute has recognition for the efforts taken in the IPs , viz, "World Record India" awarded a new

record for Maximum Copyrights (149 numbers) filled in the single day, maximum patents (38 number) filled by women in a single day, and maximum patents (51 numbers) filled by Indian Engineer Couple in a single day. Also “Limca Book of Record” and “World Record India” both recognition the new record for maximum patents (14 number) filled by Indian couple in a single day.

The research work of Dr. Sudarshan Bobade has been recognized by Indian Roads Congress, by inviting as speaker in 81st Annual Session of IRC at Lucknow, October, 2022.

Dr. Rahul Mapari has been awarded “Best Teacher Award 2018” by International Association of Research and Development Organization, and “Research Excellence Award 2019” by Institute of Scholar and “Y. K. Bhushan Most Influential Professor Award 2022” by World Education Congress.

Dr. Archana Chougule has been awarded with “Research Excellence Award 2019” by Institute of Scholar and “EduTech Leadership Award 2022” by Global EduTech Congress.

File Description	Document
Upload Additional information	View Document

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 organised in collaboration with industry, community and NGOs) during the last five years

Response: 28

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., year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
3	5	5	10	5

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

3.5 Collaboration

3.5.1 Number of MoUs, collaborations/linkages for Faculty exchange, Student exchange, Internship, Field trip, On-the- job training, research and other academic activities during the last five years:

Response: 32

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

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 Availability of adequate infrastructure and physical facilities viz., classrooms, laboratories, ICT facilities, cultural activities, gymnasium, yoga centre etc. in the institution

Response:

Establishing contemporary facilities for students, faculties, staff and other stakeholders is one of the Missions of PCCOE&R.

Institute has the essential infrastructure to fulfill the norms laid by the AICTE, NBA, NAAC, NIRF, DTE, SPPU and several additional facilities for effective Teaching-Learning (TL) process, and research and development activities.

Physical infrastructure consists of well-maintained 20 classrooms (76sq.m), 05 tutorial rooms (36sq.m), 49 laboratories, 2 workshops and 02 seminar halls (600 and 200 capacity), Medical room, Girls/Boys Common rooms, faculty cabins, cubicle etc. The overall ambiance is cheerful and conducive to learning and experimenting. Classrooms are equipped with ICT tools like smart-board, interactive panel and projector. Each department has a departmental library, Concept/Project/sponsored labs and separate cabins for the faculty members. The available physical infrastructure is optimally utilized to conduct co-curricular/extra-curricular activities. Laboratories are equipped with essential equipment and add-on set-ups, which are regularly calibrated. Institute also has departmental centers of excellence and facilities to enhance the learning experience. Workshop consists of adequate facilities such as milling, fitting, carpentry, welding, CNC, Centre Lathe, Bench Grinder Machine, Plastic injection molding machine etc. for imparting practical skills.

Enterprise Resource Planning (ERP) is deployed for effective academic planning, execution, monitoring and analysis, for the automation of academic and administrative processes and to maintain the data. This cloud-based ERP software facilitates the computerized process for student admission, teachers-parents communication, examinations, leaves management, attendance, students' feedback, etc. PCCOE&R has 664 Computers, 10 Laptops, 35 printers, 7 scanners, 17 multi functional printers and 5 color plotters.

Institute has a well-established Sports section and Art circle for organizing various sports and cultural activities. Students are motivated to take part in cultural and sports activities to develop leadership qualities, decision making abilities, team spirit, socio-psychological awareness, molding the students into an intellectually integrated persons.

Institute has a well equipped indoor sports room (76 sq.m) and indoor gymnasium. Indoor Sports activities include carom, chess, table tennis, badminton, etc. Students are provided with funds for participating in intra and inter University tournaments. Annual sport competitions are organized in the Institute.

PCCOE&R has open ground (1333+8096 sq.m) for outdoor sports. Necessary kit/equipment for outdoor games like Cricket, Football, Volleyball, Basketball, Badminton, etc. is provided by the Institute.

Cultural club has musical instruments and an independent practice area. Cultural cell organizes Annual Cultural Festival and several cultural programmes. As a result, our students have earned applause in

various competitions like Firodiya Karandak, Gadkari Karandak, Yuvak Mohostav organized by SPPU Pune and many Inter collegiate events.

Students who represent the Institute in various sports and cultural events are provided with necessary gears/materials and are felicitated at Annual Social Function.

Institute has a Yoga Center (158 sqm), where regular workshops, seminars, training programmes are organized on Yoga Asanas, Surya-Namaskar, Pranayama and Meditation. International Yoga Day is celebrated with zeal and enthusiasm in the Yoga Center by students and staff under the guidance of Yoga experts.

File Description	Document
Upload Additional information	View Document

4.1.2 Percentage of expenditure, excluding salary for infrastructure augmentation during last five years (INR in Lakhs)

Response: 27.64

4.1.2.1 Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
101.02	57.92	69.23	211.28	186.26

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

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS), subscription to e-resources, amount spent on purchase of books, journals and per day usage of library

Response:

Library at PCCOE&R is a premier learning resource that facilitates transference of information to fulfill the needs of learners. Library has a basic collection of necessary resources and is continuously updated in view of changing scenarios. Library plays a leadership role in today's distributed information environment, creation, organization, dissemination in building affiliations with students and faculty

members. Each Department has its own library and central library provides counsel regarding the library processes.

PCCOE&R library spreads over 400 sq.m area with WiFi enabled Reading Hall of 100 capacity. Library is partially automated by the Eduplus Campus ERP system which is developed by Vishwakarma Education Service Pvt.Ltd. The ERP system is an integrated multi-user system that supports all in-house operations of the library. ERP consists of modules on circulation, Admin, Reports, Masters, serial control and Web-OPAC.

Circulation module is the backbone of this system for daily transaction of library resources. Barcode reader is used for fast & effective issue/return of books.

Administration is useful for adding new members, defining Library policies, settings of fine charges and many more.

All types of reports, viz. Daily, monthly, students, staff issue/return, Department-wise collection of books, year-wise purchasing data, Accession number-wise, fines etc are generated by the system. Spine labels, barcodes for books and for library cards are created easily. This history of users is helpful in administration.

OPAC provides various search options of books by Title, Author, Publisher, Keywords, Accession number. It provides online information about the library collection, availability, status of the books etc. WEB-OPAC application is also provided for remote access.

Kiosks is made available to all the users for web-OPAC in the Library. Implementation of the newly installed RIFD system is in progress.

Staff and students are registered on Knimbus mobile application which provides remote access. Knimbus application helps students to get multiple information resources on one single platform and makes user search process more efficient and fruitful.

Research databases like Elsevier Science Direct, IEEE, ASME, ASCE, DELNET helps students for their research writing. Reading material on MPSC, UPSC, GATE, GRE helps students in competitive examinations preparations.

E-resources like E-journals, e-ShodhSindhu, Shodhganga, J-Gate Engineering and Technology, have been made available to students for academic excellence. All the e-resources are integrated in Knimbus viz. NPTEL videos and lectures, VIDWAN database, IRINS database, ShoudhGanga etc. Previous years question papers, BE Project reports and syllabi are also available. In pandemic, plagiarism-check through Turnitin, Science Direct, online journals, Knimbus were made available online to access from home.

Every year, more than 1000 books and 25 journal subscriptions are added to the Library. Average amounts spent in last five years on purchase of books and subscriptions are Rs. 11,36,672/- and in 2021-22, Rs. 10,26,511/-.

Library is exhaustively used by students and staff, usage for A.Y. 2021-22 being 130 foot-falls per day, the average for last five years being 70 readers per day.

Many activities/events are conducted by library to motivate readers to visit Library frequently, which are included in the attached Additional Information

File Description	Document
Upload Additional information	View Document

4.3 IT Infrastructure

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

Response:

It is the policy of PCCOE&R to keep its faculty and students updated on recent development in ICT. The campus is Wi-Fi enabled with 400 Mbps bandwidth, has 664 desktops and Sophos Firewall XG for network security. Updating and maintenance of all systems is carried out regularly. Open source and license software like Hit-office, language, Multisim etc are available for students. Knimbus, Science-direct are available for students to refer to recent online literature.

With the changing teaching-learning/administration needs and evolving technology, IT services are constantly upgraded as discussed below;

Desktop Systems

Institute has 664 Desktops, 14 laptops (540 Desktops for students). Brands used are Dell, Lenovo, and Acer. Configurations are; Desktops Intel ci7- 10th Generation, Intel Core i7 , 8 GB RAM, 1 TB HDD, Intel Graphics, Wi-Fi and Bluetooth connectivity, USB Keyboard and Mouse. Smart-boards, ICT facilities are provided in classrooms with system, projector and internet connectivity. The Institute has 49 LCD projectors. In Computer Labs 2:1 ratio of systems is maintained. There are 35 Canon/HP/Epson single printers, 17 Multi-function printers, 07 scanners, 5 color printers and one A3 color printer.

Security

Institute has a network of 664 computers with 400 Mbps Internet connectivity and Wi-Fi facility to fulfill the academic and research needs. Centralized Sophos Firewall XG 330 is used for network monitoring, management and security. We regularly upgrade or move to the latest version.

ERP

Learning Management System (LMS) is used for learning processes. The Institute has deployed educational Enterprise Resource Planning (ERP) software, EduPlus, which manages the entire administration, campus operations, and academic management in an efficient way. EduPlus software has 20+ modules and it facilitates computerized processes for student admission, transfer of educational certificates on completion of studies, teachers-parents communication, examinations, financial and administrative operations, attendance and academic monitoring etc.

Internet Bandwidth

Institute has 400 Mbps internet bandwidth and is fully Wi-Fi enabled. Regular maintenance of Wi-Fi is done.

Licensed Software

Windows 7, 8 and 10, Microsoft Office, Anti-Virus, OPAC-Library software ,Hit-office, Esri, Arcgis , Catia, Matlab, Multisim, Proteus, Microwind, Language Software.

Library Automation

In the library, we have ESSL security stainless steel access Control RFID Barrier gate, kios, opac system, RFID security gate, book drop-station, self-issue counter, multi-purpose staff station. Updating and maintenance is periodically done by the vendors Altra-safe Tech solutions and GTS Techno Soft Solutions.

Intercom System

Intercom facility is provided for each staff cabin. Institute has EPABX which is a private telephone network used by PCET trust for various types of communication, either between the employees or with outside clients.

Updating IT infrastructure:

PCCOER upgrades IT infrastructure by:-

Regularly upgrading the software and desktop system for fast execution of processes.

Maintaining once in a semester check by system admin, Lab in-charge and Lab assistant.

There is a 30-40 minutes reliable backup service for each lab, which is pivotal for conducting any IT-based business.

As mentioned above, the Institute regularly upgrades and maintains ICT facilities to enhance and strengthen the infrastructure.

File Description	Document
Upload Additional information	View Document

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

Response: 2.71

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

Response: 540	
File Description	Document
Upload supporting document	View Document

4.4 Maintenance of Campus Infrastructure

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

Response: 7.91

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

2021-22	2020-21	2019-20	2018-19	2017-18
36.95	33.29	40.71	35.45	32.68

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

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Percentage of students benefited by scholarships and freeships provided by the Government and Non-Government agencies during last five years

Response: 63.45

5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government and Non-Government agencies year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
986	962	950	853	696

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

5.1.2 Capacity building and skills enhancement initiatives taken by the institution include the following

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

Response: A. All of the above

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

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

Response: 79.18

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

2021-22	2020-21	2019-20	2018-19	2017-18
972	1366	1278	1079	855

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

5.1.4 The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases

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

Response: A. All of the above

File Description	Document
Upload supporting document	View Document

5.2 Student Progression

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

Response: 62.09

5.2.1.1 Number of outgoing students placed and / or progressed to higher education year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
216	222	227	237	207

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

2021-22	2020-21	2019-20	2018-19	2017-18
379	386	356	356	309

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

5.2.2 Percentage of students qualifying in state/national/ international level examinations during the last five years (eg: JAM/CLAT/GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

Response: 75.86

5.2.2.1 Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ Judicial Services/Public Prosecution services/All India Bar Exams/State government examinations) year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
11	10	4	16	3

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

2021-22	2020-21	2019-20	2018-19	2017-18
11	13	8	20	6

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

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 last five years

Response: 33

5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at

national/international level (award for a team event should be counted as one) year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
8	0	11	9	5

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

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

Response: 28.8

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

2021-22	2020-21	2019-20	2018-19	2017-18
32	16	36	33	27

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

5.4 Alumni Engagement

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

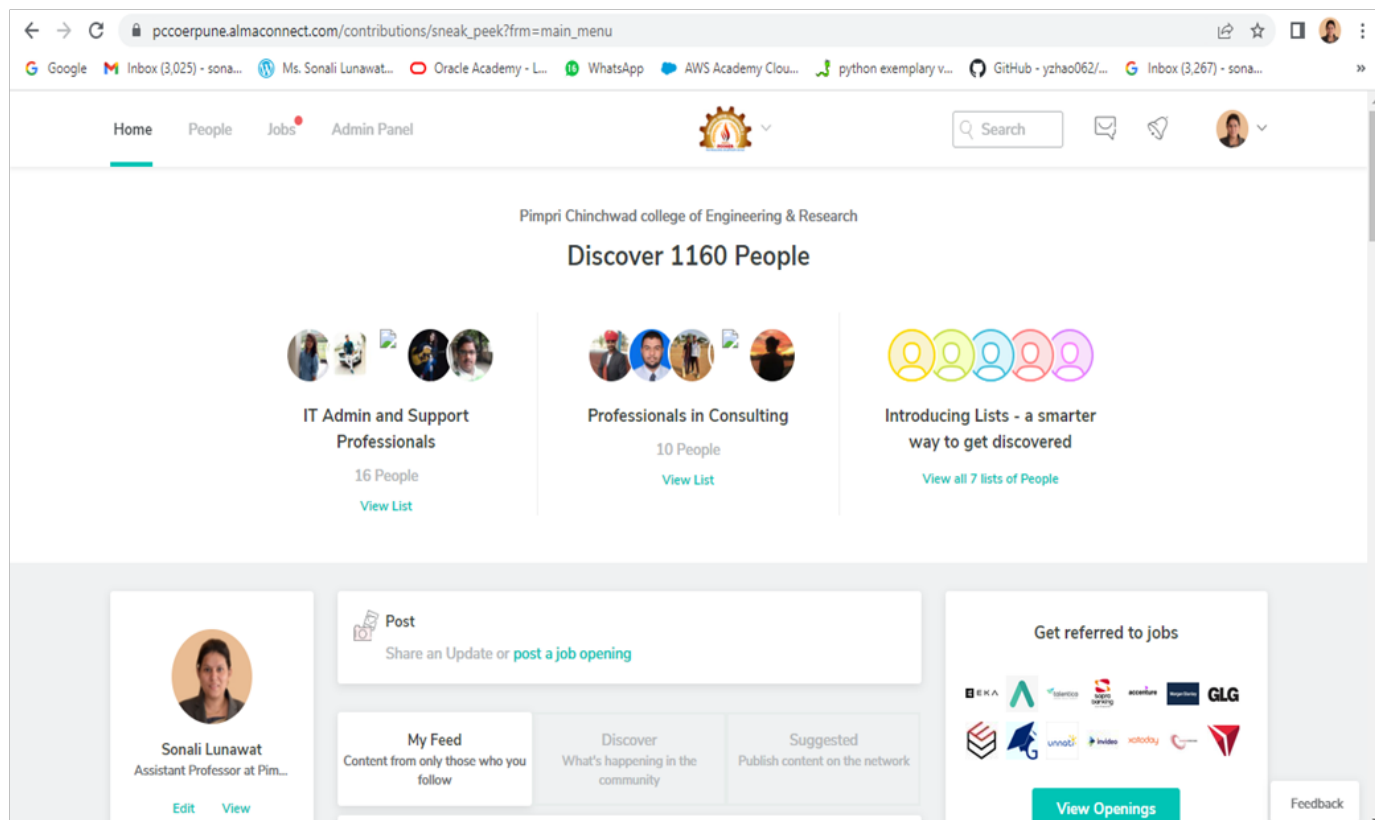
Response:

PCCOE&R has been established in 2014 and the first batch passed out in 2018. To date, 5 batches have passed out. In the last 8 years around 1750 alumni have been there. The alumni are in continuous touch with PCCOE&R and their respective departments.

PCCOE&R has registered Alumni Association with Registration Number MH/13/6/2019/Pune. The purpose of the association is to bring together all the alumni on a single platform, to share their

experiences, to extend support, and provide guidance to the students.

Apart from this, the alumni have formed groups at various locations including the USA, Japan, Pune, etc. A special Alma-connect portal (<https://pccoerpune.almaconnect.com/>) is designed for alumni registrations.



Despite being in its infancy, our alumni have occupied various positions like Managers, Design engineers, Entrepreneurs, and plant heads at various MNCs, Public sector, and Government organizations at the global, national level, and state levels.

The Institute organizes alumni meet every year. On average more than 300 alumni participate in the event. During the meeting, they interact with the students, faculties, and management and share their ideas for improvement of the overall progress of the institute and department.

Few of our alumni are members of our department advisory board (DAB) and college development committee (CDC), apart from the annual event, the alumni visit the department throughout the academic year to provide guidance through guest lectures, seminars, workshops and support for industry visits and internships etc.

The alumni of the institute support the students for getting sponsorship (not always in the form of money) for their project work or competitions. They also provide facilities at their own end wherever the technological need arises.

Alumni provide feedback on infrastructure development and other academic-related matters of the college and suggest gaps in the syllabus considering the current demands of the industry.

The alumni from our sister institute PCCOE are working as faculty members and in labs too. Our alumni indirectly contribute to the college and department through events like BAJA, Go Cart, TIFAN, ROBO-

CON, e-yantra etc.

Alumni guide the students in academics, skill development, psychological development, and career development. Department invites them as a jury member for events. They inspire and motivate the student to achieve excellence by sharing their own journey.

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

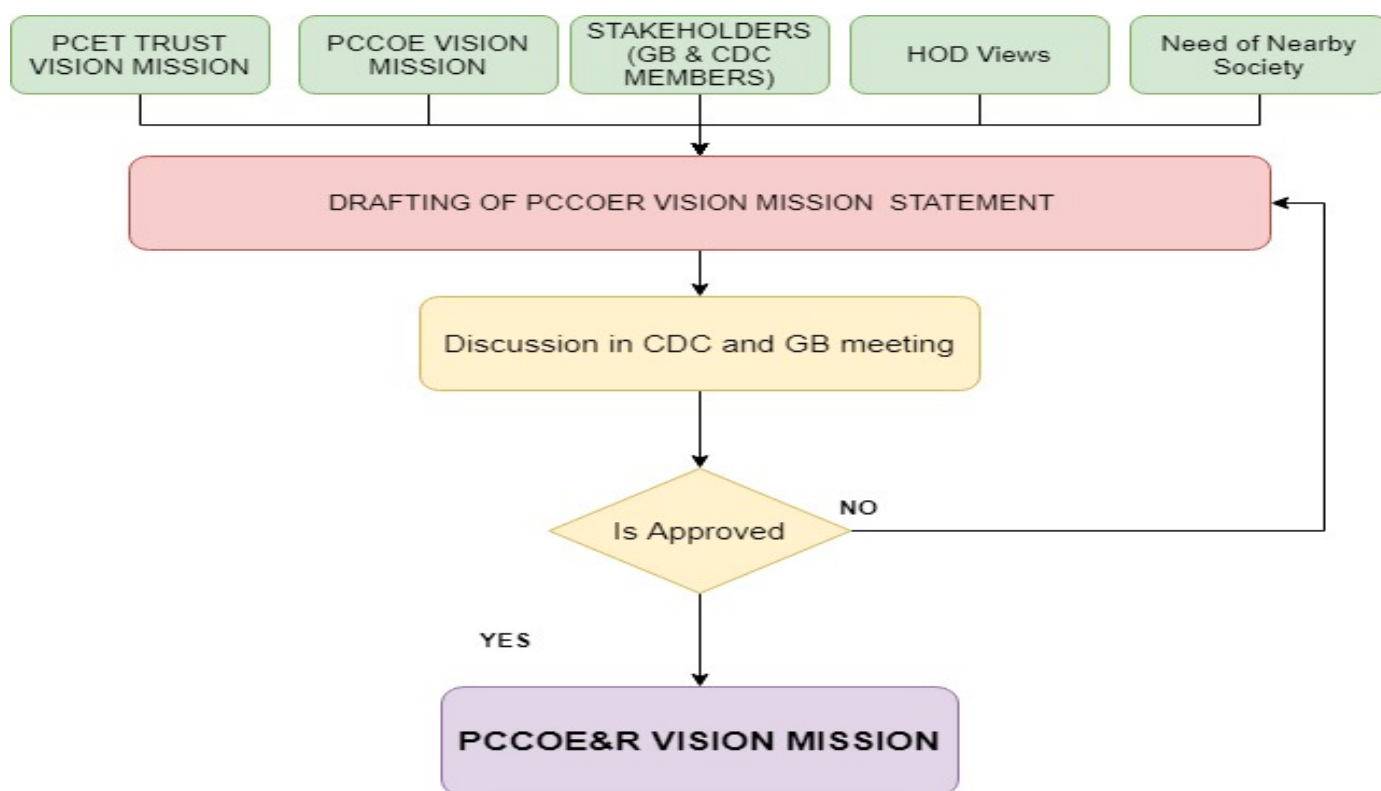
Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The governance and leadership is in accordance with vision and mission of the institution and it is visible in various institutional practices such as decentralization and participation in the institutional governance

Response:

PCCOE&R is governed by its Vision and Mission. The Vision and Mission have been developed with the active participation of all internal members and stakeholders. It is set taking into consideration the present day technical needs of the society and forecasting the future requirements in various technological fields so as to become an element in the growth of the society and nation.



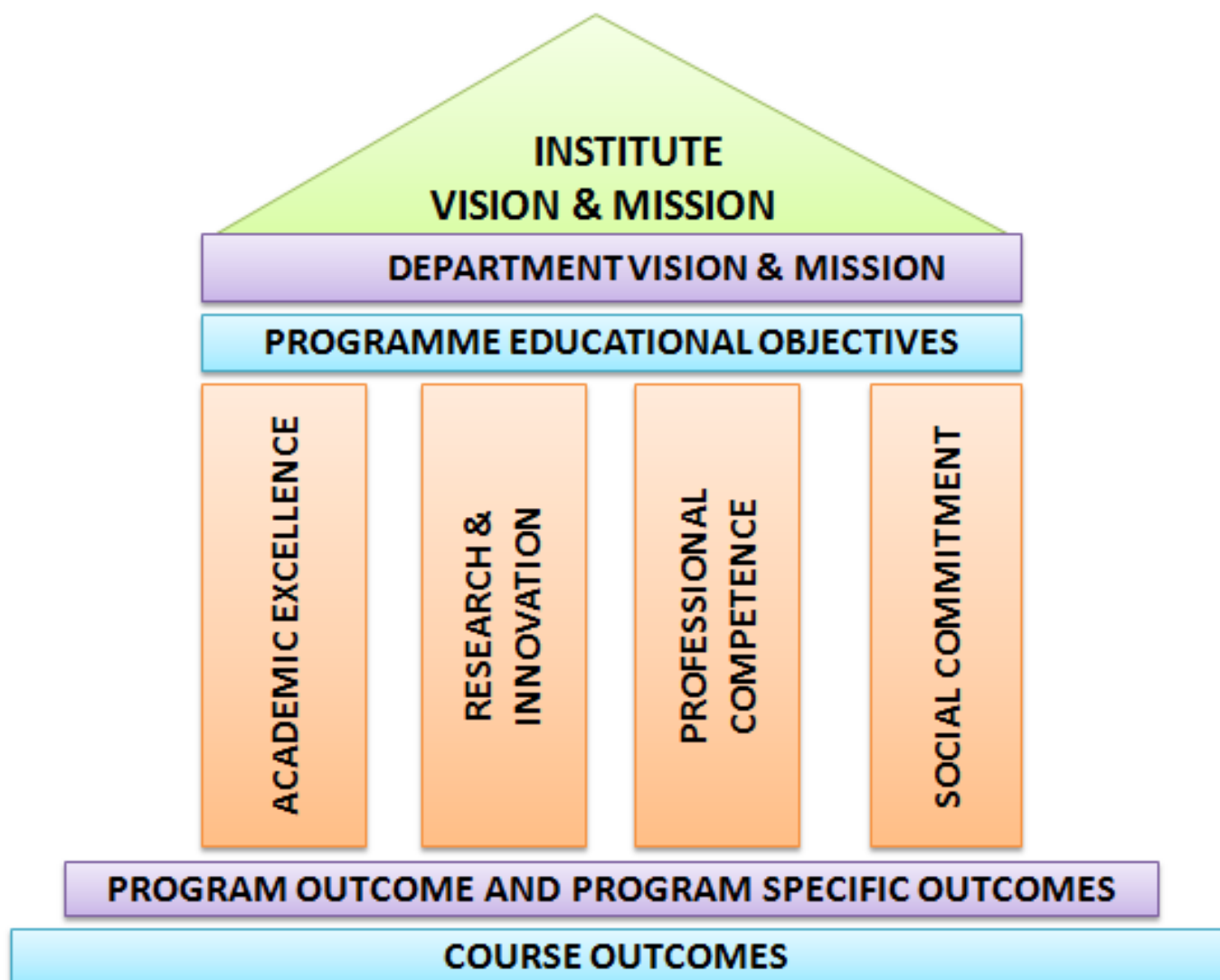
Vision of the Institute

To be a Premier Institute of technical education and research to serve the need of society and all the stakeholders.

Mission of the Institute

To establish state-of-the-art facilities to create an environment resulting in individuals who are technically sound having professionalism, research and innovative aptitude with high moral and ethical values.

In line with Vision and Mission, PCCOE&R has defined four pillar philosophy as illustrated below;



The organizational hierarchy is illustrated in the chart below;



The governing body (GB) is supreme and is responsible for articulating the organization Vision and Mission and major policy decisions. The GB has been formed as per AICTE norms involving all stake holders. Every year, at least two meetings are held.

The College Development Committee (CDC) is operating in accordance with Section 97 of the Maharashtra Public University Act 2016. (More information in attachment about structure formation/roles/responsibilities).

CDC has representation of all HoDs, faculty members, supporting staff and students representative. It regularly reviews and monitors the overall development of the institute. It meets three times a year.

The review is conducted on Academics, Financial Planning, Utilization and Administration. (Sample MoM, Agenda of CDC with role and responsibilities in attachment).

Internal Quality Assurance Cell (IQAC) has been formed as per NAAC guidelines. It has representation from all staff. It gives guidelines about the overall audit of the Institute, particularly on academic front. IQAC decided to obtain ISO certification for achieving quality and excellence in the overall functions.

ISO certification was obtained from TUV NORD and PCCOE&R is functioning as per the ISO standards. PDCA cycle is followed in the ISO 2018 process.

There are seven sections under ISO, where internal and external audits are conducted and reviewed in Management Review Meeting.

36 different portfolios have been formed to provide decentralized administration. Faculty members are portfolio in-charges and faculties and supporting staff are representing their departments. 14 PhD staff (out of 18) are handling responsibilities of Institute level portfolio. Around 80% of remaining faculties are in-charge at Institute/Department level portfolio.

All portfolios have defined roles and responsibilities and overall progress is monitored by the principal through meetings with the relevant committees.

On the same lines in all departments, portfolios have been formed and are functioning.

In all five departments, Students Association and Clubs have been formed in order to strengthen Institute Mission under students' leadership.

Expenses required for different co-curricular/extra-curricular activities are included in Institute budget. Portfolio in-charges are authorized to spend as per sanctioned budget.

Thus, the approach of governance and leadership is to involve all the stakeholders to achieve Vision of the Institute.

File Description	Document
Upload Additional information	View Document

6.2 Strategy Development and Deployment

6.2.1 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, deployment of institutional Strategic/ perspective/development plan etc

Response:

PCCOE&R has established organizational structure as mentioned in 6.1. The Governing Body (GB) is the highest decision making body constituting members from the Management, Principal and nominated faculty members. College Development Committee (CDC, formerly Local Management Committee) includes members from the Management, members from industries, Principal, society representatives, three members elected from teaching faculty, one member of non-teaching staff and student representatives.

There are 5 Departments including the First Year Engineering Department. Each department has a Department Advisory Board (DAB), a Program Assessment Committee (PAC) and Department level portfolios/committees for effective implementation of policies.

In view of staff, faculty and student development, PCCOE&R has some additional policies [Reference: Policy Manual] as recommended by GB, CDC and PCET. The Service Rules, Code of Conduct, Ordinances, Procedure, Recruitment policies and promotional policies are governed by the Maharashtra University Act, 2016, University Statutes and AICTE. All the amendments are binding on the Institute.

PCCOE&R has prepared its own Policy Manual and ISO process manuals to streamline and support academic processes and overall administration.

Staff, faculty, student development policies, Policy manual and ISO Process Manuals (Academic and Administration) are available with HoDs and Section In-charges and on the college website. These have also been disseminated among all students and faculties.

For Teaching and Non-teaching Staff all administrative Rules, Procedures and Policies are as per directives of

- Norms of All India Council for Technical Education, New Delhi.
- GR from DTE, Government of Maharashtra.
- Maharashtra University Act 2016
- Statute of Savitribai Phule Pune University and other applicable governing authorities.

All the policies including financial support, maternity leave and other are effectively implemented and executed [Case studies attached in additional documents].

List of policies:

- Revised Policy for Academic and Admin. Staff to Attend Conferences/Seminars/Workshops
- Policy on Sponsorship for Higher Studies (Ph.D. Programs)
- Policy on Sponsorship for Higher Studies (Post-Doctoral Research Programs)
- Policy for Leaves and Vacation
- Policy on Awards/Prizes for Meritorious Students of PCCOE&R
- Policy for distribution of charges for conducting Practical Sessions, Practical Examinations of other Colleges in our Laboratories
- Policy for Consultancy, R&D, Industry Sponsorship and Collaboration
- Policy for Intellectual Property (IP)
- Policy Revision Patent and IPR
- Policy for Financial Authority
- Policy for Incubation, Entrepreneurship and Startups
- Environment and Energy Policy
- E-Governance Policy
- Process for appointment of staff
- Service rules

In 2017, the Institute prepared a prospective plan for 10 years by involving all HODs. It has been approved by GB and inputs have been obtained about implementation and improvement in the quality of the four pillars of PCCOE&R. A regular review of short term/ long term goals is taken in GB meetings.

The effectiveness of functioning of PCCOE&R and a zeal to achieve long term goals by 2027 is reflected in the table below.

Short Term Goals and its status		Long Term Goals and its status	
Short Term Goals	Current status	Long Term Goals	Current status
Result wise within Top 05 in University	✓	Aim to be among top colleges of Maharashtra	22 nd in Maharashtra
All clear result more than 65%	✓	Creating university rankers	15 rankers
Placement more than 60%	✓	Number of PhDs: 30% of total faculties	22.5%
Number of PhDs: 02 per Department	✓	100% Placement for interested students	} 70% achieved
Per year SCOPUS indexed/Peer reviewed technical paper publication: 02 per staff	In Progress	10% Entrepreneurs & 20% higher studies	
More than 100 patents	✓	Initiate process to recognize as a research center	Not Eligible
Initiative for commercialization of patents	✓	Getting accredited by NAAC/NBA	NBA ✓
Fetch Research funds from various funding agencies	✓	Collaborations with international institutes	✓ (PCET Level)
Organize one National Level Conference	✓		
Center of Excellence	In Progress		
Faculty Training Programmes	✓		

File Description	Document
Upload Additional information	View Document

6.2.2 Implementation of e-governance in areas of operation

1. Administration

2. Finance and Accounts

3.Student Admission and Support

4.Examination

Response: A. All of the above

File Description	Document
Upload supporting document	View Document

6.3 Faculty Empowerment Strategies

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

Response:

Welfare Measures

PCCOE&R has established a set of well-defined welfare measures to ensure employee's well-being. Some of the measures adopted are given below;

- Eligible staff as per the Staffs' Provident Fund legislation is given EPF. Equal contribution of Rs. 1800/- per person per month by PCCOE&R and individual staff is done.
- Institute has a gratuity scheme.
- The employees are provided Group Insurance cover from LIC.
- Retirement benefits are provided to staff members as per EPF norms.
- The DA is updated as per GR. Current DA is 164% and a rise is proposed, which is under process.
- Around 90% faculty is on AICTE/DTE recommended pay scale.
- The salary has always been regular and never been delayed.
- Over and above the leaves that come under Institute Policy (Casual/Vacation/Earned/Medical/Maternity/On-duty) faculty and staff members are given special leaves under singular situations. Additional medical leaves for prolonged treatments, special sabbatical/study leaves for improving qualification, special relieving-hours for lady faculty members with infants at home are given.
- A special fund called Gangaajali is raised, which is used in case a staff member has acute financial issues (e.g. costly medical treatments).
- It is the strategy of PCCOE&R to promote internal eligible candidates rather than employing outside talent. Further, the Institute absorbs back eligible and competent candidates, who have previously left employment due to genuine reasons.

- Staff Development and Welfare Cell takes various initiatives for staff welfare. Several programmes like get-together, cultural programme, Yoga sessions, picnics are organized annually.
- Many formally known Welfare Measures have actually been implemented by Institute as Policies (as mentioned in Section 6.2.1)

Appraisal System

PCCOE&R follows a systematic Performance Appraisal System for teaching and non-teaching staff. Institute has designed a Self Appraisal Form (SAF). SAF is shared with staff well in advance.

Institution evaluates teaching staff on four categories viz. teaching-learning-evaluation, co-curricular and extension activities, research, professional development and special achievement. Due importance is given to all the activities.

PCCOE&R evaluates non-teaching staff on professional competence, responsibility, attendance, punctuality, discipline, interaction with colleagues, etc.

A structured SAF is used for this purpose, wherein they give the details of their performance and participation in all the activities.

Concerned HOD gives their remarks on the performance of the faculty member. Principal gives his remarks and suggestions to each staff member after personal interaction.

Additional Increment is introduced while awarding annual increments. HoDs and Principal evaluate the faculty members and staff by merit rating based on their performance and have one-to-one interaction. For non-teaching staff, increment is given based on their performance in the department, up-gradation in qualification, interpersonal behavior and punctuality.

Above welfare measures and appraisal system has helped the Institution to positively motivate all the employees and to identify and reward meritorious ones. It has also helped staff and students to perform progressively on all four-pillar fronts.

File Description	Document
Upload Additional information	View Document

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

Response: 52.74

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

2021-22	2020-21	2019-20	2018-19	2017-18
23	37	25	62	36

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

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

Response: 59.96

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

2021-22	2020-21	2019-20	2018-19	2017-18
56	60	61	58	51

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

2021-22	2020-21	2019-20	2018-19	2017-18
25	21	21	28	35

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

6.4 Financial Management and Resource Mobilization

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

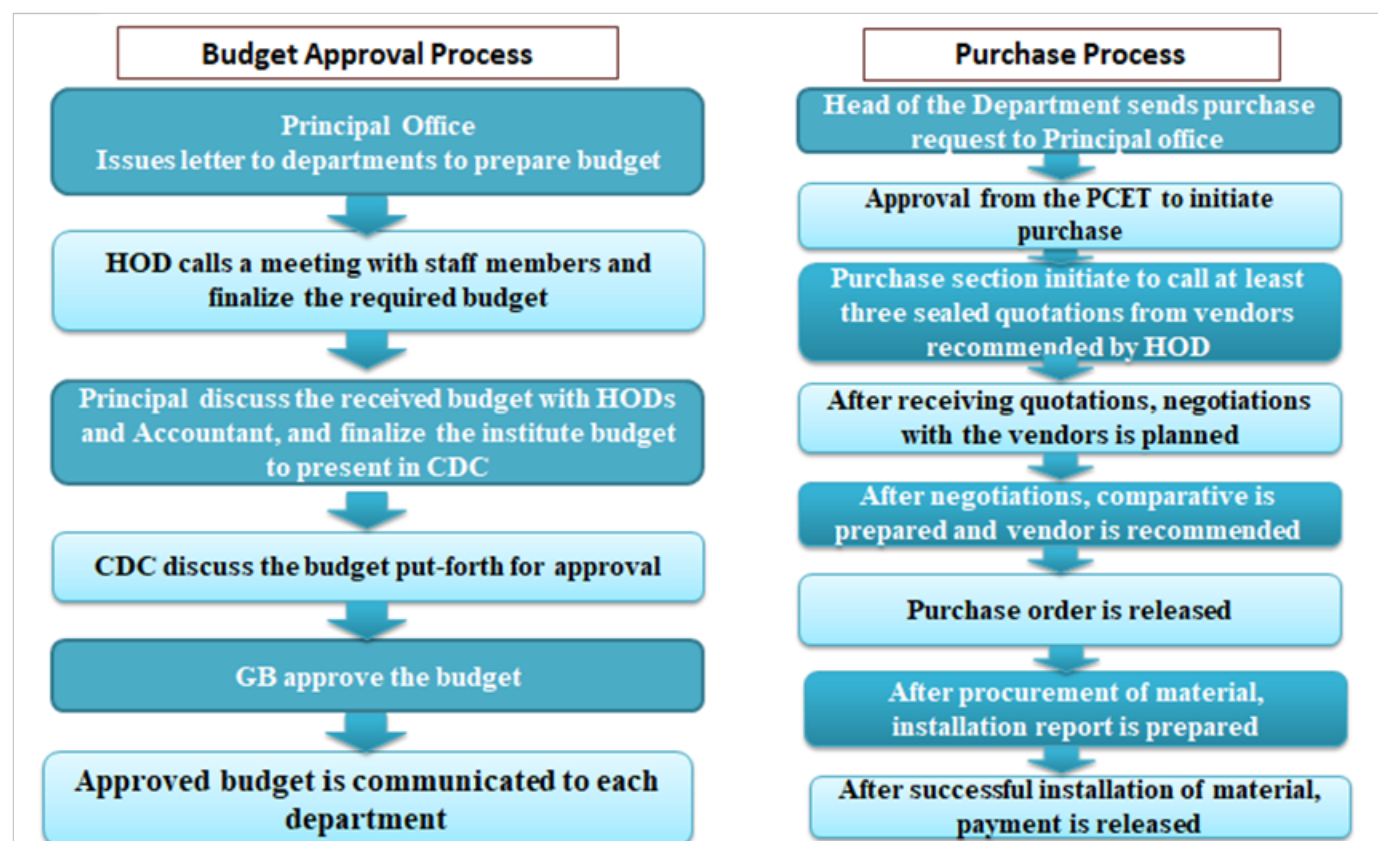
Response:

Resource Strategies:

PCCOE&R has strategy and financial policy which ensures effective and appropriate utilization of finances for academic, administrative and development purposes, which culminates in realizing the Institute's Mission and Vision.

Admissions are consistently around 100%, ensuring adequate availability of funds. There is a standardized budget for all recurring/non-recurring expenditure. Accounts section, departments and portfolio in-charges are involved in preparation, allocation and mobilization of budget before the financial year. To ensure transparency and regular monitoring, income, expenditure and balance of funds is audited every 3 months and also reviewed in CDC meetings.

- Annual requirement for the Department is prepared by Head of Department (HoD) after taking inputs from faculty for fulfillment of academic requirements and development activities.
- HoD, after discussion with the Principal, finalizes the budget and submits it to the Principal.
- On approval in CDC, the account section issues the approved budget to the Department.
- On receiving the approved budget, Department initiates the purchase process.



Institute has a defined and documented procedure to make effective and efficient utilization of available financial resources for infrastructure development and academic processes. Principal and HoD discuss the requirement and decide the priorities while allocating financial resources for various purposes and also ensure appropriate use of available funds. Institute has standardized procedures for sanctioning of funds for various activities and also for payment of advance and passing of bills for settlement. Principal and HoDs have a financial authority of Rs.1,00,000/- and Rs.20,000/- respectively.

Purchase Committee members viz. Management representative, Principal, HoD and Faculty handle various activities (seeking quotation, technical bid, preparing comparative statements, negotiations) in purchase process. Committee ensures that suitable equipment with right specifications is procured at optimal price.

Principal has the authority to organize various co-curricular and extra-curricular activities like technical events, faculty sponsorship for conferences/workshops/professional memberships. Financial support is also provided for participation of students at various National and International level events like Annual gathering/Smart India Hackathon/Baja/Supra/Go-Kart/Robocon etc. and for student associations, clubs and local chapters.

Financial audits:

Transparent financial system has been maintained in the Institution. There are well defined policies regarding sanction of financial budget, approval of purchases and audits [Ref.6.4.1a & b].

An external auditor appointed by the trust executes the statutory audit quarterly as well as at the end of financial year. The report is made available on the college website to maintain transparency.

No major objections have been found in the audit by the statutory auditors and minor audit suggestions are complied as per procedure.

Some key features are;

- The fees have been increased from Rs.60,000 to Rs.1,14,000 (2014 to 2022).
- Expenditure has increased [Ref.6.4.1d & e].
- Utilization is more than 90% [Ref.6.4.1d & e].
- Salary budget is consistently around 60%.

File Description	Document
Upload Additional information	View Document

6.5 Internal Quality Assurance System

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

Response:

Internal Quality Assurance Cell (IQAC) was constituted in 2018. PCCOE&R has a defined Quality Policy approved by IQAC with effective participation from all the stakeholders. IQAC meets twice in a year to

review the Academic and Administration systems and their progress. It was decided to apply for NAAC/NBA accreditation on being eligible as per the inputs provided by IQAC.

Quality Policy:

- Develop our Institute as premier Institute of technical education and research as per the needs and expectations of all stake-holders.
- Comply with all applicable requirements and expectations.
- Continual improvement in infrastructure and quality management system.

We shall strive to maintain conducive learning environment and student's overall development with high moral and ethical values.

IQAC recommended to apply for ISO Certification and Institute got ISO Certification by TUV NORD in the second semester of academic year 2018-19. Since then regular audits are done and reviews are taken by the IQAC.

An Academic Monitoring and Control Committee (AMC) have been formed with Coordinators from all departments. AMC conducts academic review meeting before commencement of semester in the presence of Principal and members of AMC and other portfolio in-charges. AMC conducts three academic reviews in a semester to ensure smooth conduction of Teaching Learning process. Once in a year, External Academic Audit is conducted by academicians from other Institutes and the audit report is discussed in IQAC. As per ISO guidelines, for semester I and II, internal audits and Management Review Meetings (MRM) are conducted and at the end of academic year, surveillance audit is carried out. PCCOE&R is associated with Quality Circle Forum of India (QCFI) to create awareness among the staff and students about the quality and its importance.

Seven sections viz. academic, administration, library, security, workshop, training and placement, student development welfare are audited under ISO, which ensures the standardized and established systems and procedures of Institute for maintaining the physical, academic and support facilities.

Various aspects of maintenance and utilization are taken care of by concerned sections and committees. It is ensured that the facilities are created, maintained and updated to facilitate effective teaching-learning process in a conducive academic ambience and for overall development of students.

Continuous improvement is achieved through periodic audits satisfying statutory requirements. The recommendations and guidelines provided by the College Development Committee (CDC), Governing Body (GB) and Department Advisory Board (DAB) are implemented effectively in coordination with the IQAC.

Various initiatives taken under IQAC are as follows;

- 1.Roles and Responsibilities of departmental portfolios
- 2.Development of quality culture in the Institute in association with the Quality Circle Forum of India
- 3.Academic Monitoring Control (AMC)
- 4.Academic Review Meetings (ARMs)
- 5.ISO Process initiation
- 6.Academic and Administrative Audit

7.NAAC/NBA process initiation

8.Strengthening of Industry Institute Interaction.

As reflected in the various tables and mentioned in uploaded additional information, IQAC has contributed for overall improvement and quality assurance on the four pillars of PCCOE&R.

File Description	Document
Upload Additional information	View Document

6.5.2 Quality assurance initiatives of the institution include:

- 1.Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements
- 2.Collaborative quality initiatives with other institution(s)/ membership of international networks
- 3.Participation in NIRF
- 4.any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA, ISO Certification etc

Response: A. All of the above

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

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity and Institutional initiatives to celebrate / organize national and international commemorative days, events and festivals during the last five years

Response:

Gender equality/Justice is a culture of PCCOE&R. Institute has 30% of female staff and 29% female students. Women faculties are leading as HoD and coordinators in portfolios/activities. The average salary of placed girls is 3.54 Lacs/annum and of boys is 3.5 Lacs/annum. In academics/R&D/social activities/BAJA, SUPRA, GOKART and TIFAN, girls and boys are getting equal opportunity. 4 girls are internationally placed with highest package of 22.8 lacs/annum.

PCCOE&R celebrates Women's Day every year. Students and staff are sensitized on Gender-Equity through webinars/seminars/counseling/guidance sessions.

PCCOE&R has Women Empowerment Cell, which looks after the welfare of girl students and lady staff. Motivational talks by eminent speakers, Health checkup camps, speech on health and diet, hands-on training on self-defense are conducted for girl students and staff. Professional Counselor counsels over depression/anxiety/distress/disabilities/disorders/phobia/panic, etc.

Separate Girls and Boys Common Rooms have been provided. Sanitary Napkin vending and Disposal machine is available in the ladies toilet. The institute provides maternity leave. Faculty with infant babies are allowed to visit their homes during working hours.

National Social Services and its overnight camps have recorded 44% of Girls participation. Lady faculties and girl students at the Institute have filed 38 patents in a day, creating a world record.

Institution celebrates the National and International festivals to inculcate values, ethics, social responsibilities and global awareness among students and staff.

Institute hosts Independence Day and Republic Day celebration, followed by patriotic cultural events. Institute enthusiastically observes the birthdays of National Heroes. Swachh Bharat Abhiyan Promise, Run for Unity, Unity Oath and number of other programmes are organized as directed by AICTE/DTE/SPPU. Engineer's Day is observed in the memory of Bharatratna Dr. Mokshagundam Visvesvaraya. On this occasion, all the Departments conduct a number of technical programmes.

Institute observes International Yoga Day on 21st June each year. Experts talk/training are held to raise awareness about yoga.

As per SPPU circular 27th February is observed as Marathi Bhasha Diwas (Regional Language Day) to commemorate the birthday of illustrious Marathi poet Kusumagraj. Activities include debating, essay writing contests and poetry readings are organized by the Art-Circle. On 28th February, the Institute celebrates National science day by organizing a poster competition.

Environmental Day, Teacher's Day and Guru-Purnima are observed by PCCOE&R.

Major festivals like Ganesh Festival and Diwali are celebrated with competitions like Ganesh-idol making, lantern and diya exhibitions and fort building. Expression, the yearly social gathering, includes singing, dancing, fashion shows, dramas, musical instrument performances, traditional days, etc. Naad-Brahma, a performing arts event dedicated to traditional/classical music is organized annually. The budget for cultural activities is around 15 lakhs.

Institute organizes Indradhanu, a cultural festival especially for faculty and staff of all Institutes under the umbrella of Pimpri-Chinchwad Education Trust. Numerous additional activities are carried out by NSS, such as Street Plays with a Social Cause, Road Safety, Traffic Regulations, etc.

File Description	Document
Upload Additional information	View Document

7.1.2 The Institution has facilities and initiatives for

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

Response: A. 4 or All of the above

File Description	Document
Upload supporting document	View Document

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

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

Response: A. All of the above

File Description	Document
Upload supporting document	View Document

7.1.4 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and Sensitization of

students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)

Response:

PCCOE&R is governed by PCET trust, whose objective is to provide value based quality education. Vision & Mission of PCCOE&R are on same line.

Mission statement of PCCOE&R includes keywords like High Moral and Ethical Values. Students and staff from different cultural/regional/religious/linguistic/socioeconomic backgrounds work together as a team in a cohesive working environment. Institute has Uniform for All students and faculties. There has not been a single incidence of any kind of disparity/discrimination among staff and students.

A typical day at the Institute begins with National Anthem, followed by ten minutes Vertical Yoga. Institute Celebrates National Unity Day, Environmental Day, Regional Language Day. Experts on Constitution and obligations are invited to speak. Speeches are organized on Road Safety to guide the students about their duties and responsibilities. Republic Day and Independence Day are enthusiastically celebrated. Persons who have contributed selflessly and without discrimination are honored.

Faculties and students celebrated Azadi ka Amrut Mahotsav by hoisting the Tricolour on August 13-15, 2022 and also filled 75 patents on various innovations. Active participation was seen in initiatives like HAR GHAR TIRANGA, "RASHTRA-GAAN: Record a Video Singing the National Anthem and in SPPU's world record of LARGEST ONLINE ALBUM of people holding the National flag.

During Covid19 PCCOE&R students developed "Face Mask Detection System". National Service Scheme (NSS) volunteers prepared and distributed masks at hospitals, police stations, security guards. Public Awareness Campaign and Contest about Covid19 vaccination were organized. NSS Volunteers helped in Shashan Apalya Daari (Governance at Your Doorstep) in various activities like income-certificate, cast-certificate, Mahila Baal-kalyan yojana, Aadhar card updating and Covid19 vaccination drive at Vadeshwar village, Mawal, Pune. Around 1800 villagers were benefited during these activities. A one-week Special Winter Camp in rural areas is organized by NSS and women's empowerment through community-based events like Beti Bachao, Beti Padhao and street plays are conducted. The survey of five villages under Unnat Bharat Abhiyan has been completed and Village Development plans are under process.

On Women's Day, Institute organizes workshops to raise awareness of women's rights, safety, security and health issues. Visits to orphanage and old-age homes are organized. Institute hosts a blood donation camp to educate and inspire the public, students and staff to donate blood. Collection of blood bags has already exceeded the 500 mark.

Earn & Learn Scheme is effectively implemented for economically weaker students in which, apart from University contribution, PCCOE&R also contributes monetarily. Faculty and staff contribute one day salary to a special fund for fiscally hampered students.

Students undergo Audit course on Professional Ethics & Values. In Induction Programme, sessions on human values and guest talks on constitution, social, environmental and value-based topics are organized.

To raise awareness about the importance of nature in our lives, PCCOE&R organizes activities such as tree planting, Swachha Pakhawada Abhiyan, Swachhata rally, Poster-making competition etc. on World

Environment Day.

The campus is entirely Ragging-free. Anti-ragging Committee proactively monitors student behavior on academic campus and hostels. Tobacco chewing, smoking, consumption of alcohol and drugs is totally banned on campus.

File Description	Document
Upload Additional information	View Document

7.2 Best Practices

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

Response:

Best Practice-I

Title of the Practice: Competence Enhancement Programme

PCCOE&R prepares the students through its Competence Enhancement Programme for all facets of career planning, viz. employment prospects, entrepreneurial ventures, postgraduate studies and others like research and development. The Institute endeavors to improve both individual and Institutional culture to produce better graduates who are technically sound and have professional attitude, skills and temperament needed to meet the community's evolving and dynamic demands. Almost all students get desired career opportunities through implementation of Competence Enhancement Programme.

Objectives of the Practice

- To develop the technocrats who are competent not only for their first job but for a diversified future profession too.
- To inspire students to explore their creative potential and to be able to think innovatively.
- To train the students on communication, soft skills, social inclination, recent trends and technologies to achieve Programme Specific Outcomes.
- To inculcate industry oriented technical and professional skills for campus placements and future career.
- To enable higher-studies-seeking students to select appropriate higher education programmes.
- To enhance entrepreneurial skills and facilitate with the necessary resources viz. process, technology, know-how, etc.

The Context

NASSCOM and many other agencies have reported that a meager 25% of graduates are actually employable. PCCOE&R has accepted this challenge as an opportunity. Engineering industries and technology have experienced spectacular growth in the past few decades and this has completely

transformed the job market's scenario. Today the Technical Educational Institutes need to develop technically sound and ethically-morally-professionally integrated Engineers and Entrepreneurs having social inclination.

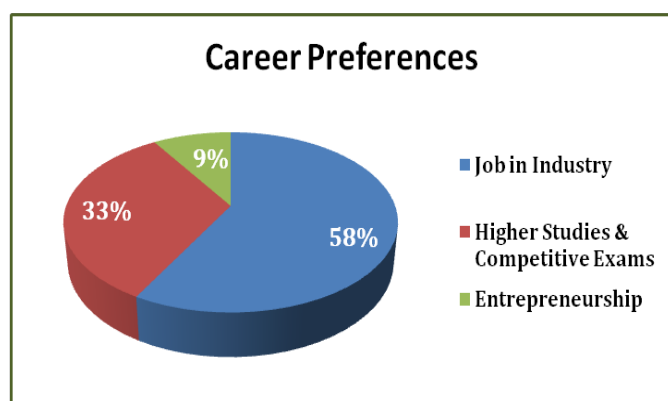
Students entering Institute are from varied backgrounds like rural/semi-urban/urban, who face difficulty in meeting industry requirements and need various qualities including technical competence. To overcome this hurdle, the Institute has designed a comprehensive Competence Enhancement Programme. Through this programme, students develop knowledge, skills, attitude, behavior and social orientation, to achieve quality placements, higher education and entrepreneurship as per their inclination.

The Practice

To achieve a holistic development in the students, PCCOE&R has taken several initiatives for all the students as given below;

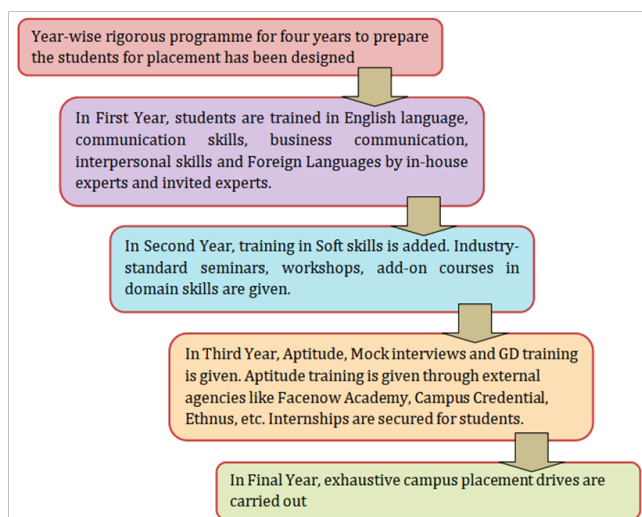
Holistic Development Initiatives for all Four Years			
Pre-requisites, Content beyond syllabus	Soft-skills, Communication Skills	Intellectual property rights	Vertical yoga, National anthem
Industrial visits	Aptitude training, Mock interview, GD	Effective academic, professional, personal mentoring	National Service Scheme
Add-on courses	Foreign language training	Parent connect, Counselling	Professional ethics and human values

Further, to know the preference of students towards various career options, a survey is conducted and analyzed.

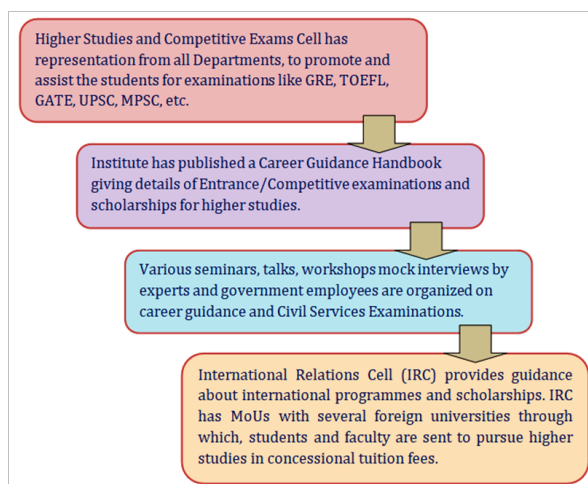


As per students' preference, Institute's dedicated cells provide additional inputs to prepare the students for various options like employment, higher studies and entrepreneurship.

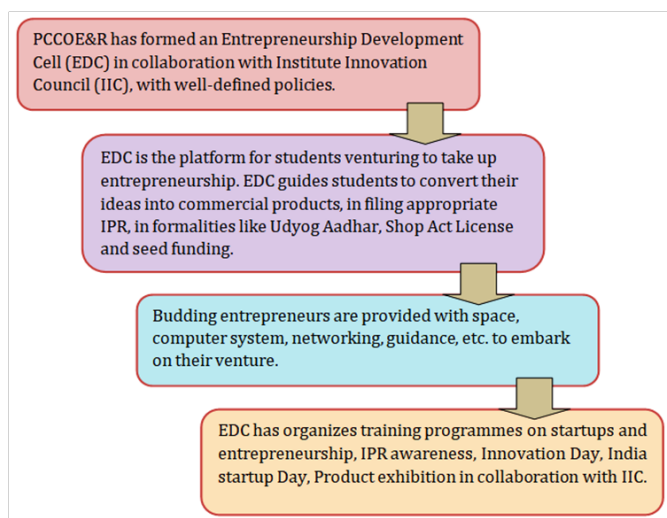
• Employment (Training & Placement)



• Higher Education and Competitive Examinations

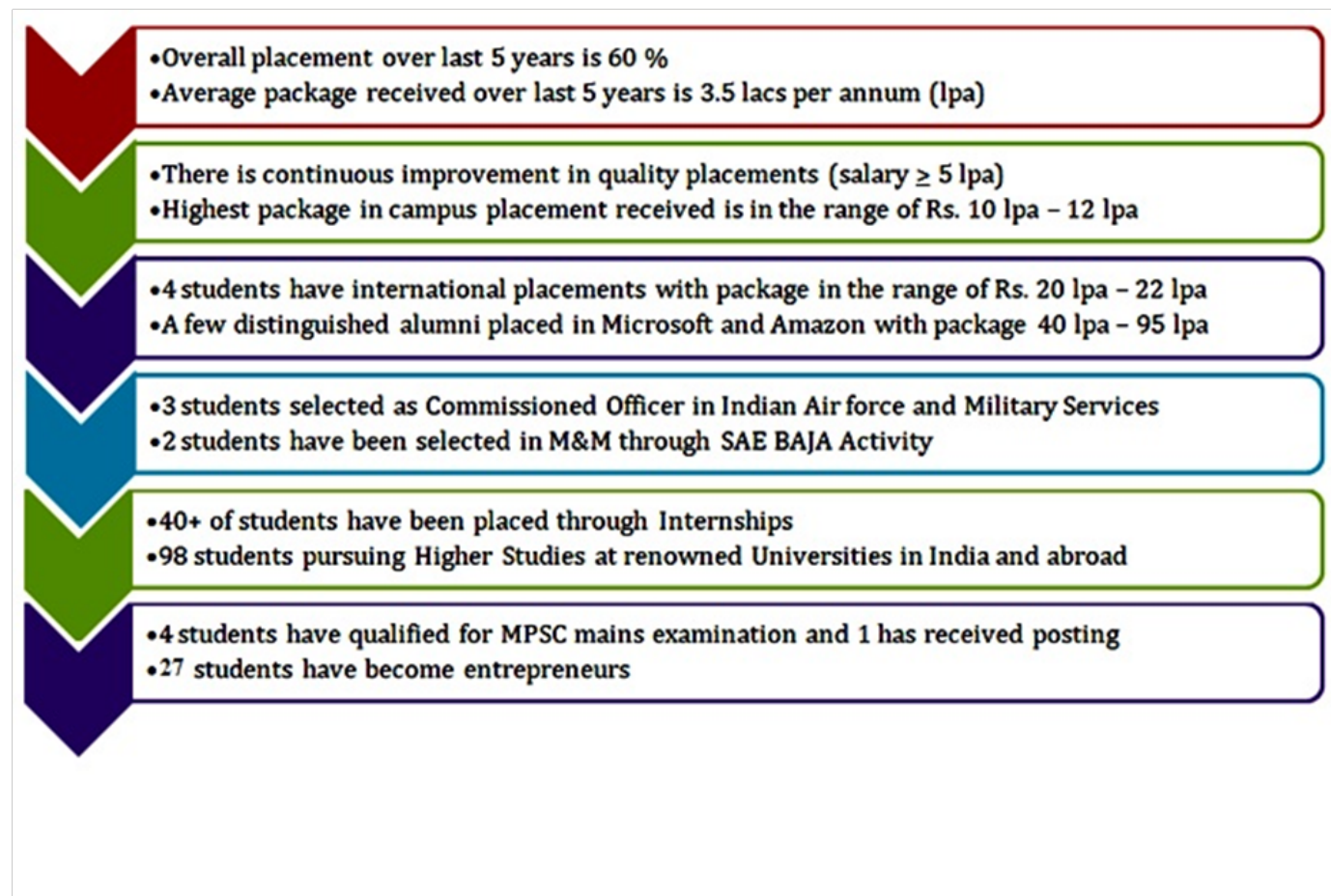


• Entrepreneurship Development



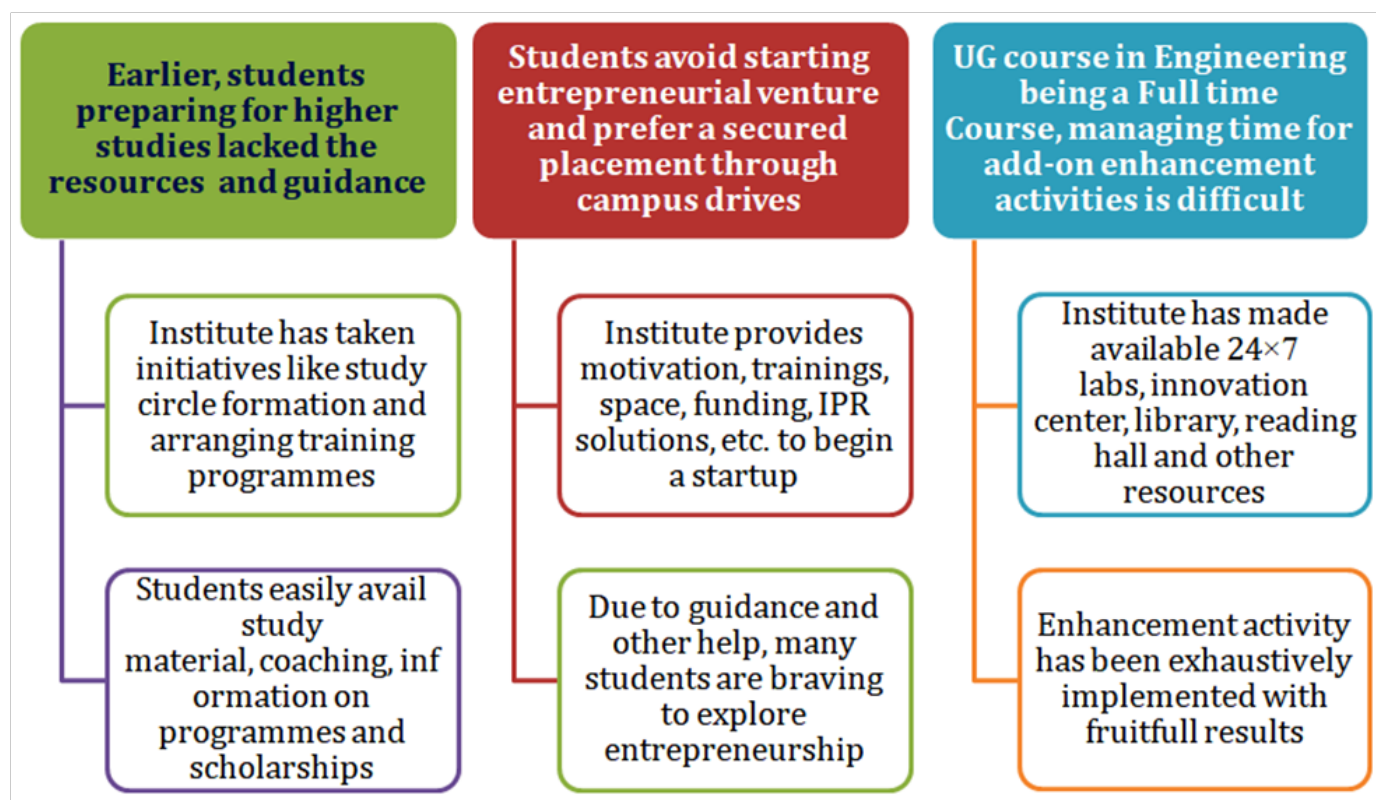
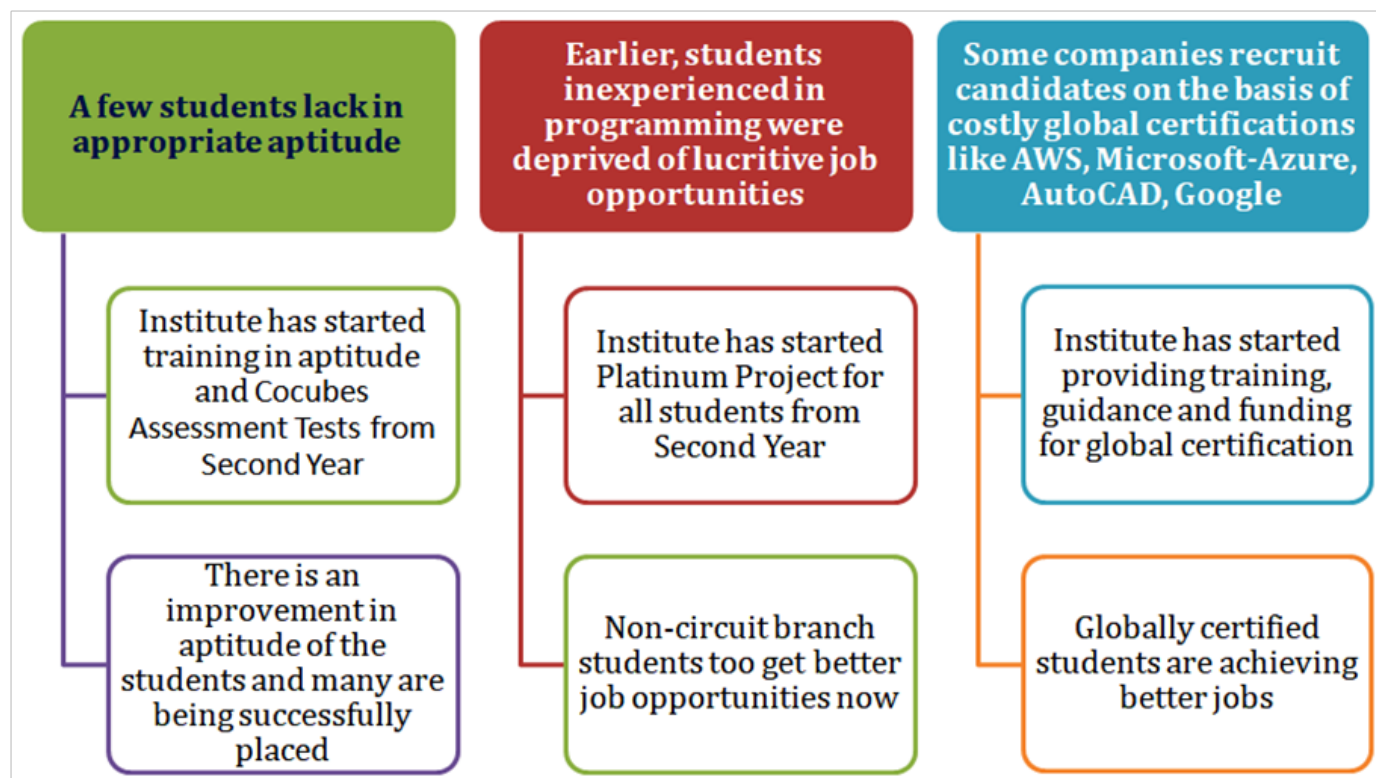
Evidence of Success

The success of Competence Enhancement Programme is evident from the impact and success stories given below;



Problems encountered and resources required

Designing and implementing Career Enhancement Programme was met with several challenges like time constraints, varied orientations and novice mindset of the tutee. However, with appropriate scheduling and perseverance, the Institute has implemented the Programme successfully. Following illustration shows step-by-step, the challenges faced, actions taken by the Institute and the outcomes achieved;



Best Practice-II

Title of the Practice: Project Based Learning

Introduction

Project/Problem Based Learning (PBL) is an innovative practice used to implement Outcome-Based Education in which students do multiple projects every semester throughout their programme of 4 years. To map the outcomes, Institute has taken 12 defined Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) as reference. Out of these, the first four POs and some PSOs are strongly addressed through University syllabus. In order to strengthen the remaining POs/PSOs, to address the higher levels of Bloom's taxonomy and in view of matching with recent trends of technology and meeting outcomes of PCCOE&R, PBL was introduced by Institute in the academic year 2017-18. PBL encourages students to execute innovative projects by applying their Engineering knowledge at different levels from First year to Final year.

Objectives of the Practice

The Overall objective of PBL is to create a platform to address multiple objectives and to attain the final outcome for students. Major Representative Objectives are to;

- Develop problem solving skills, team skills, critical thinking
- Strengthen POs/PSOs attainment
- Enhance quality of BE projects
- Perceive recent trends in Engineering/Technology
- Design and accomplish research projects
- Nurture research attitude and societal inclination by working on societal/industry problems beyond curriculum
- Inculcate interdisciplinary approach in product development activity and entrepreneurship.
- Learn report writing/prior art of plagiarism.
- Enhance collaboration, interpersonal communication
- Teach professional ethics, values

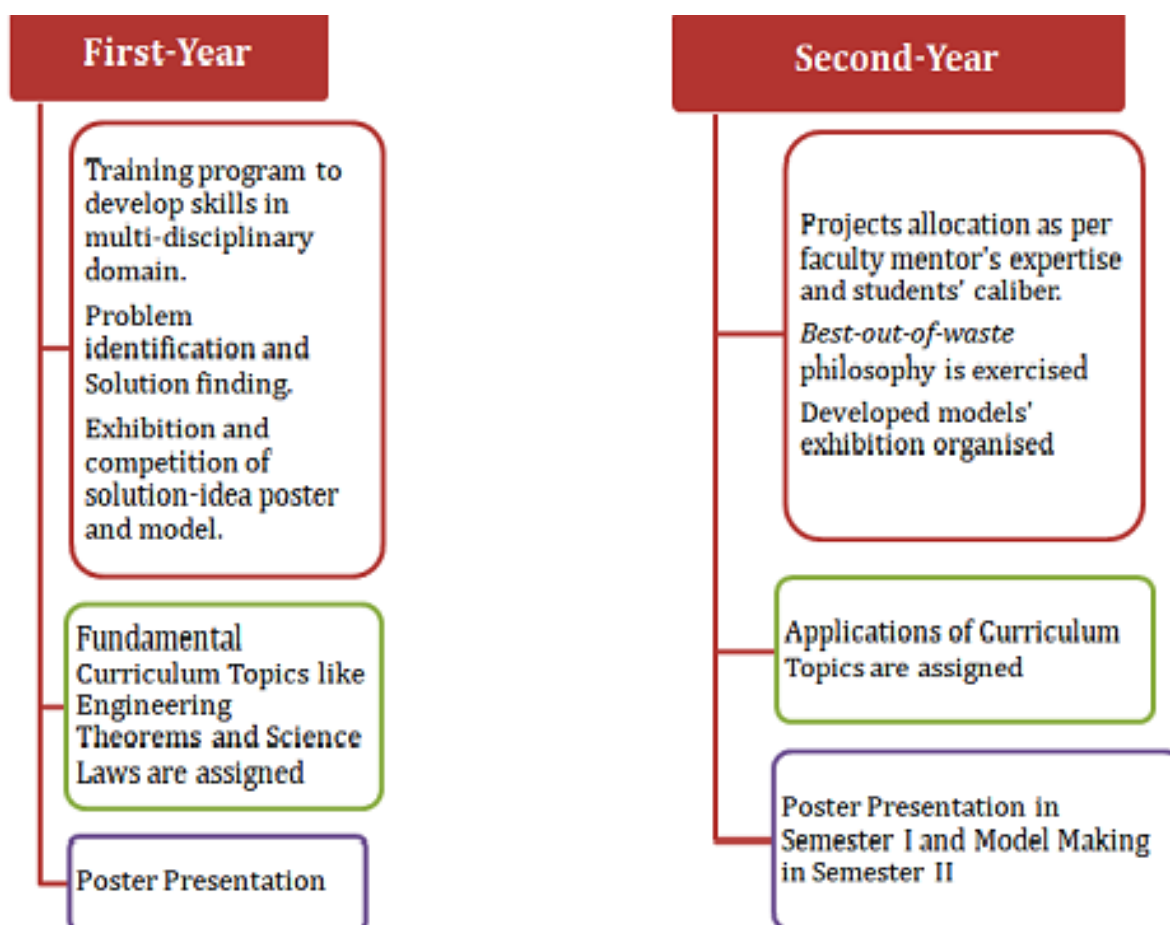
The Context

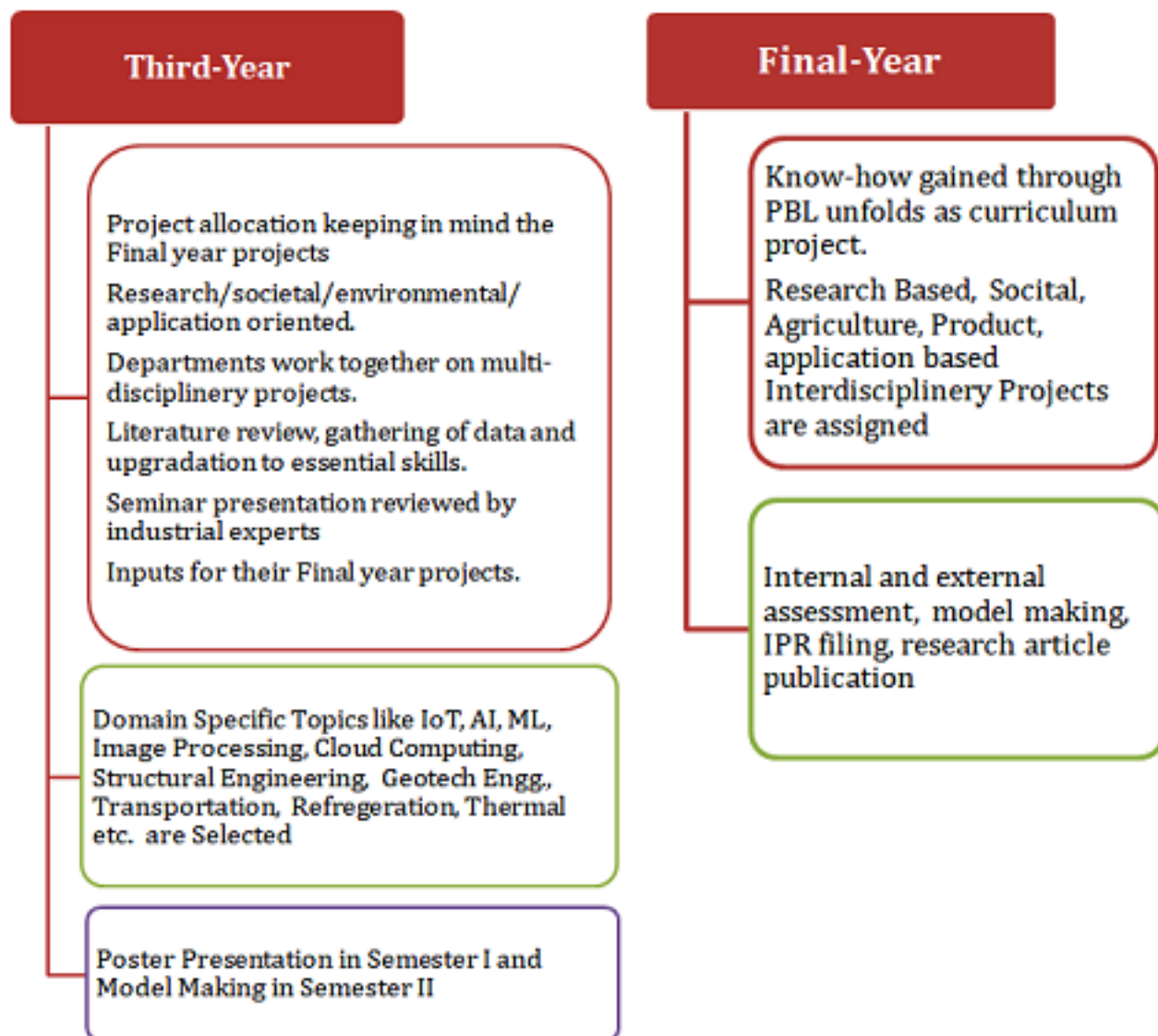
PBL is learning-by-doing a range of multiple skills through projects. Students connect with community to identify real life problems. They develop their projects right from First year to address the aforesaid objectives. PCCOE&R provides financial support and an environment conducive for PBL in the form of R&D, innovation labs and other necessary support. This promotes students' experiences, abilities, learning style and perspective. It also provokes collaborative thinking and investigation. PBL bridges the gap between curriculum and practical needs. Faculty mentors provide insights on various projects, presentation and technical writing skills. Visits to industries, science parks enlighten students on recent trends in technologies and act as content beyond the prescribed syllabus.

Students are assessed progressively and transparently with rubrics, considering idea of the project, problem solving skills, solutions reached social awareness and team spirit. PBL is a hands-on activity that stands apart from traditional models of instruction.

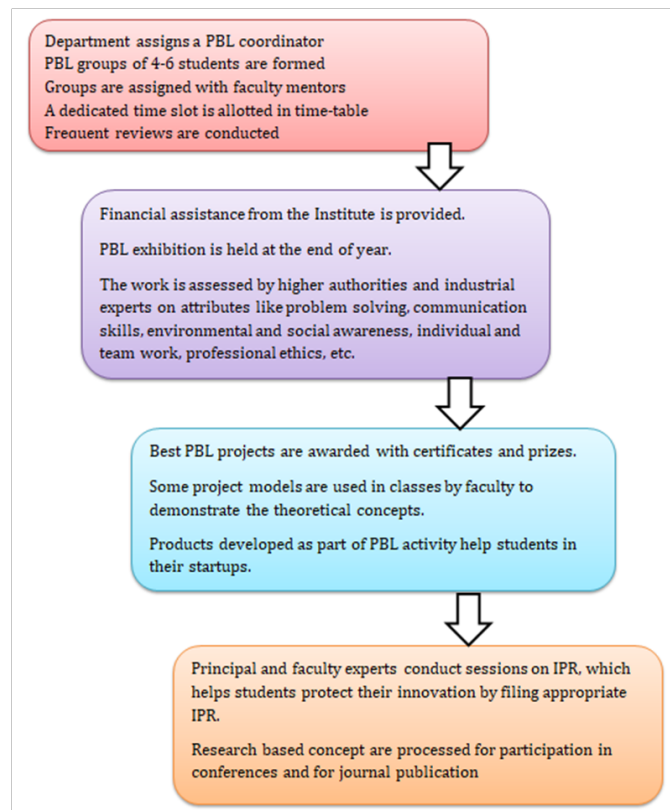
The Practice

There is a well-defined documented process and system that is followed from First year to Final year. The theme behind implementing PBL is to get students ready for industries/research/ entrepreneurship.

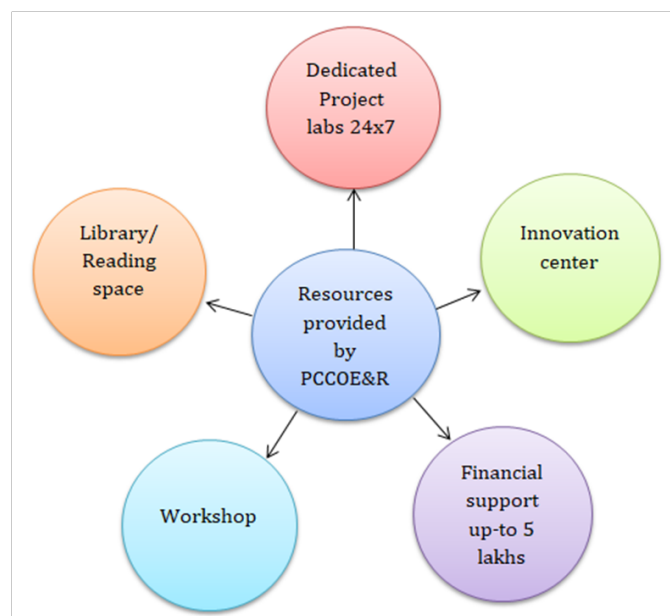




The detailed process is illustrated below;



Various resources provided by PCCOE&R are shown below;



Evidence of Success

PBL background is effectively reflected in the overall quality of Final year projects, in research papers published, awards won, in participating in National level competitions and in overall attainment of POs and PSOs.

The evidences of success are as follows;



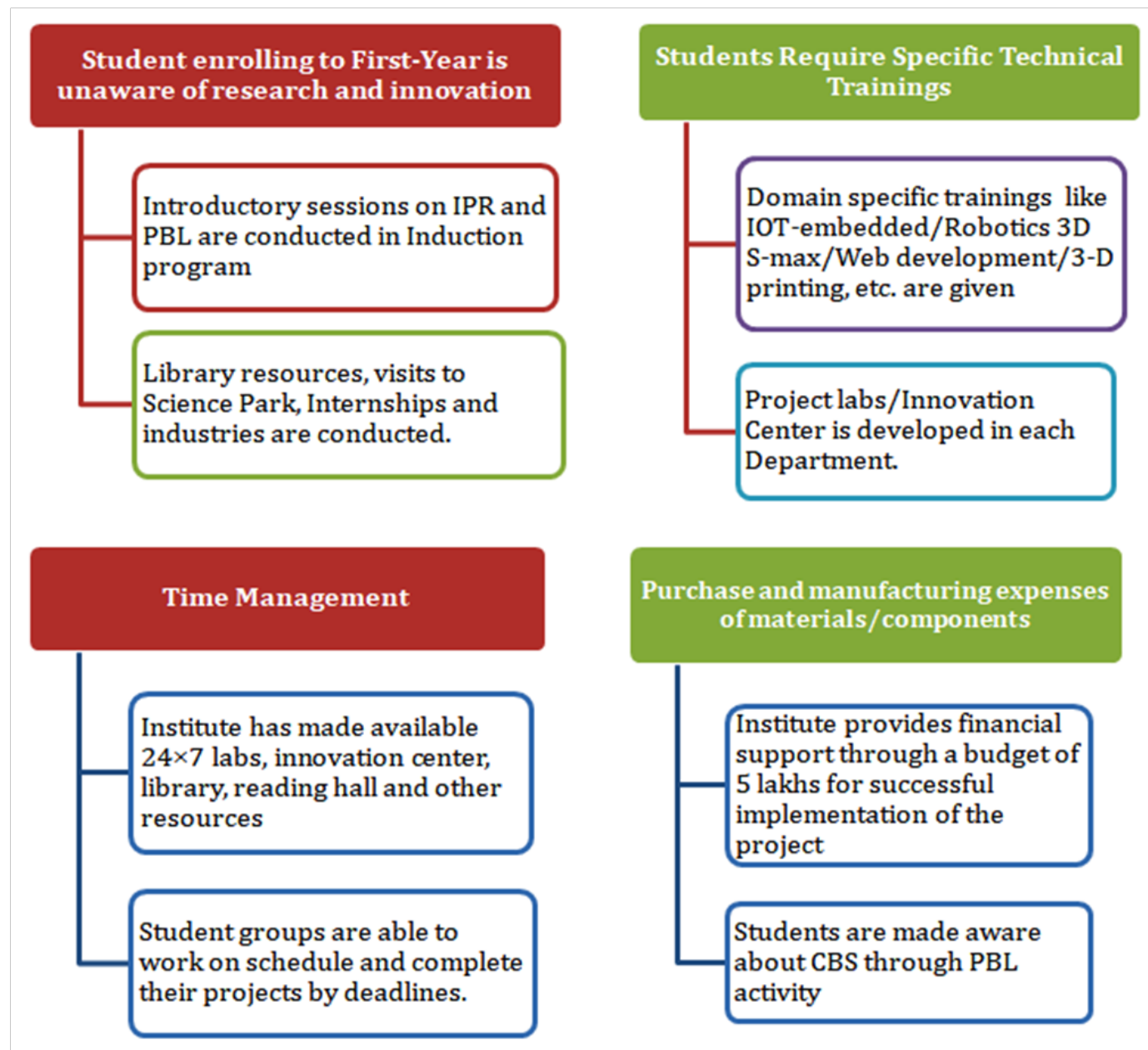
Table: Evidences of success

Description	A.Y.2021-22	A.Y.2020-21	A.Y.2019-20	A.Y.2018-19	A.Y.2017-18
Number of Students Participated in PBL	683	660	601	619	142
Number of best/quality BE projects	18	19	20	17	14
Number of Research papers published by students	65	60	62	47	46
Number of Institute Sponsored project	28	30	19	25	13
Percentage of Industry sponsored projects	31.04%	21.43%	25.03%	30.47%	27.94%
Percentage of Projects addressing sustainability and environmental concerns	47.39%	47.90%	43.93%	40.99%	44.65%

Description	Number
Number of Products developed	64
Number of Copyrights filed	206
Number of Patents filed	333

Problems encountered and resource required

Following illustration shows step-by-step, the challenges faced and actions taken by the Institute;



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

7.3 Institutional Distinctiveness

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

Response:

Introduction to Institute Distinctiveness: Intellectual Property Rights (IPR) Culture

The very name of the Institute carries the word 'Research', the same naturally appears in the Vision and Mission of the Institute. The thrust area of the Institute, besides strong academics, has always been Research, Innovation, Publications, Patents, Copyrights, in general, Intellectual Property (IP). The aim of PCCOE&R is to evolve as a Research and Innovation Institute; with major focus on publications, IP and technology transfer. The Institute is taking exhaustive efforts to cultivate research and innovation culture among staff, faculty, students and even outsiders.

It is the vision of Government of India to become a \$5 trillion economy soon. Generation of wealth through innovation and Intellectual Property Right (IPR) plays an important role to achieve this goal. Countries like China, USA, South Korea have improved their economy by amassing wealth through IP. The philosophy and workings of PCCOE&R are in-line with the Vision of the Government and it is making its own humble contribution in the Mission of our Nation.

Special attention and efforts/activities are taken in PCCOE&R to inculcate IP culture, some of which are enlisted below;

- Session on Intellectual Property (IP) is conducted during Induction Programme for First Year and Direct Second Year lateral entry students.
- A programme titled *Vidya to Laxmi* (Creation of Wealth through Intellect) is conducted to educate attendees about IPR.
- In-house expert faculty and Principal take training sessions on IPR for faculty and staff.
- Students continuously receive inputs from faculty regarding innovation and IPR during lecture/tutorial/practical.
- All students are motivated to learn about IPR and its processing.
- To inculcate the zeal for research and innovation, students are trained using Project Based Learning (PBL) from First Year to last year.
- Students are encouraged to take up innovation based and live projects.
- Quality and potential concepts of PBL are promoted to be applied as patents.
- Filing an IP is an important criterion in annual appraisal of an employee.
- Institute provides financial sponsorship for filing IPR like patent, copyright, etc.

Objectives of IPR Cell:

The main objective of IPR Cell is to create an environment conducive to innovation, convert innovation into IPR and finally bridge the gap between inventor and investor in view of technology transfer. The objectives may be summarized as; to

- Create awareness about IP and IPR among students, faculty, staff and society.
- Motivate research and innovation among students and to create innovative attitude, skills and mindset.
- Teach students about IP details like prior art.
- Promote start-ups and entrepreneurship in students and faculty.
- Help in providing technological solutions to real life societal problems.
- Provide IP related services and to become a center of technology transfer.
- Improve overall quality of teaching-learning and education.
- Provide solution to realistic problems using technology transfer.

Institute Policies and Support to Promote IP:

Institute has an independent Innovation Cell having representation of all Departments including FE, through which students and faculty are encouraged to file a copyright/patent/trademark on the concept/product/design/software developed. Exhaustive technical and financial support is given to file that IP. To instill the IP culture, the Institute has formulated several policies. Students are encouraged to identify societal problems, fetch sponsored projects and propose an innovative solution for the same. Emphasis is given on inter-disciplinary innovative projects. Students have 24×7 access to the laboratories, concept rooms and innovation cell to work on projects. They are given financial support to purchase necessary material, equipment, software and also for training, traveling, etc. A plagiarism check is mandatory for the project reports submitted by the students.

Special sessions conducted by IP experts are organized for faculty and students to understand intricacies in patents, copyrights, startups. The attendees of these sessions gain following knowhow;

How to

- Identify a problem.
- Think innovatively.
- Convert an idea into a concept/product.
- Carry out prior art.
- File an IP, design patent or copyright.
- Explore funding opportunities.
- Initiate the technology transfer.

Every year, PCCOE&R organizes a one-of-its-kind National Conference called Conference on IP, Patents, Copyrights, Innovations and Startups (CIPCIS) with the objective to bring inventors and investors on a common platform for exchange of ideas and commercialization of IPs. CIPCIS was organized last two consecutive years in online-offline hybrid mode. CIPCIS2019 was blessed by the Hon'ble Governor of Maharashtra His Highness Mr. Bhagatsingh Koshyari as Chief Guest and Hon'ble Dr. Jayant Naralikar. The conferences showcased presentation of more than 600 patents, 200 copyrights and 20 startups, which were assessed by more than 200 industrialists.

PCCOE&R has its own Incubation Center. Students are encouraged to initiate their own startup. They are provided with computational facilities, space, finance and guidance. This support continues even after the student has graduated from the Institute.

Principal and Faculty members of PCCOE&R act as Resource Persons for IP related Conferences/Seminars and disseminate their know-how. Institute offers IP consultancy services and assists in commercialization of the invention.

Impacts & Achievements:

Following impacts/achievements of the consistent efforts about IP related initiatives are observed (thorough details given in attached documents);

- Number of Copyrights filed: 206.
- Number of Patents filed: 333.
- Quality of projects is improved which has led to CO-PO attainment.
- Institute is recognized as Maximum-IP-Filing-Institute in the vicinity.
- World record of filing 38 patents in a single day by lady faculty members.
- World record of filing 149 copyrights in a single day by faculty and staff members.
- World record of filing 14 patents in a single day by Principal.
- World record of filing 75 patents in a single day by faculty, students and staff members of the Institute to honor and celebrate the Azadi Ka Amrut Mahotsav.
- 10 inventors have been counseled by PCCOE&R for filing IP.
- Culture of IP is so thoroughly percolated in PCCOE&R that many non-teaching staff members and a group of house-keeping staff have filed patents.

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

5. CONCLUSION

Additional Information :

- Pimpri Chinchwad College of Engineering & Research (PCCOE&R) was established in 2014 under the aegis of Pimpri Chinchwad Education Trust (PCET). It runs Undergraduate (UG) programmes for four disciplines, viz. Civil Engineering, Computer Engineering, Electronics & Telecommunication Engineering and Mechanical Engineering. PCCOE&R works on a four Pillar Philosophy; the four pillars being Academic Excellence, Research & Innovation, Professional Competence and Social Commitment.
- PCCOE&R is aiming to become a Centre for Technology Transfer at National level.
- PCCOE&R hosts several University events like competitions, FDPs in its campus.
- The annual budget for students' development is Rs. 40 lacs, which is utilised for students' participation in competitions like BAJA, SUPRA, TIFAN, Smart India Hackathon, etc.
- So far 27000 students have been placed in on-campus and off-campus drives.
- The building and other infrastructure being relatively new and in good condition, the expenditure on maintenance is less.
- As the Institute does not have Postgraduate (PG) programme, the Publications number is relatively small. Also, as the first batch passed out 2017-18, the publications on Final year Projects started 2017-18 onwards.
- Institute has the Policy of promoting internal candidates and hence recruitment is usually done at Assistant Professor Cadre with M. Tech qualification. Presently the Institute has 18 PhD completed faculty members and 40 faculty members have registered for PhD.
- PCET and PCCOE&R have come up with a Community Radio named PCET's Infinity 90.4 FM with the catchphrase "Reflecting You!" The radio aims at giving expression to the issues faced by the populace around the Institute and to find solutions for those issues. The radio works on the axiom "Of the Community, By the Community, For the Community". The contents for the radio programmes are created by the faculty, staff and students of PCCOE&R and other Institutes governed by PCET.

Concluding Remarks :

Pimpri Chinchwad Education Trust (PCET) in last 28 years has grown from one Polytechnic College to eight Institutions offering education from KG to PhD. Around 35,000 students have already been educated under the guardianship of PCET. PCCOE&R is the youngest among the PCET group Institutes and benefits from experience of other Institutes.

PCCOE&R is ISO9001-2015 and its all four programmes are NBA accredited, recognized as Performer by ARIIA and achieved Platinum Grade in CII-AICTE Ranking. All the major processes are governed and monitored by ISO.

PCCOE&R is affiliated to SPPU and syllabus and external examination scheme are governed by SPPU. Internal assessment is done transparently using ISO processes.

Following reflects the steady improvement in PCCOE&R over last 8 years;

- SPPU results from 22nd to 4th rank.

- Enrollment merit range from 8000-9000 to 3000-4000.
- Number of classrooms from 4 to 20.
- Number of laboratories from 6 to 48.
- Number of staff from 14 to 78.
- Number of Doctorate faculty from 4 to 18.
- Annual budget from 2 crore to 14.5 crore.
- Salary budget from 1 crore to 8.5 crore.
- Average salary package in campus placement from 2.1 lacs to 4.5 lacs.
- Total placement 70% for last four passed-out batches.
- Actual expenditure always more than 90% of the budgeted amount.

Stringent academic processes and monitoring as defined in ISO are practiced and adherence is ensured at various levels. Teaching, learning and evaluation are as per PDCA cycle.

The Institute has the necessary infrastructure and resources to achieve its Vision and Mission.

Organizational structure and flow of authority is well defined with the responsibilities and powers assigned at different levels of management.

PCCOE&R has many best practices like internship, PBL, Career enhancement programme and a focus on research, innovation, IP filing, incubation, product development, which is unique and distinct.

Strong training and placement activities, tutelage in ethics, professionalism and social awareness are the high-spots in the Institute's working methodology.

With a good grade in NAAC, PCCOE&R would go for Autonomy, so as to have curriculum to evolve as a premier Technological Institute.