

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

# POORNIMA COLLEGE OF ENGINEERING, JAIPUR

ISI-6, RIICO INSTITUTIONAL AREA, SITAPURA, JAIPUR - 302022 302022 www.pce.poornima.org

#### Submitted To

# NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL BANGALORE

January 2023

### 1. EXECUTIVE SUMMARY

#### 1.1 INTRODUCTION

Poornima College of Engineering is one of the premier self-financed institute approved by AICTE and affiliated to Rajasthan Technical University (RTU), Kota, offering Graduate Courses in Engineering. It was established in the year 2000 in Jaipur under the aegis of the Shanti Education Society. Institute has a lush green and sustainable campus spread over 5.73 acre land with more than 3.5 lac sq. feet constructed area at RIICO Institutional Area, Sitapura, Jaipur.

In its magnificent journey of two decades, PCE has effectively contributed to providing Indian industry with young and enthusiastic technocrats. It has achieved 2nd rank under the Quality Index Value (QIV) evaluated by affiliating university RTU, Kota for the last 5 years among all affiliated colleges (govt. and self-financed).

The Institute currently offers Ten specializations [CSE, CSE (Regional language), AI&DS, CSE (AI), CSE (Cyber Security), ECE, EE, ME, CIVIL, and IT] of engineering undergraduate programs with a student strength of more than 2000 students. Various departments of institute as CSE, ECE, EE and ME accredited with NBA from 2009 to 2021 in different time span. **PCE** is the only institute in overall Rajasthan to start an engineering course in regional language thereby promoting and preserving regional language.

The Institute has a strong cluster of well-qualified, experienced, and dedicated teaching and supporting technical staff with good student-teacher ratio. It is the first institute in Rajasthan which has been certified as a Centre of Excellence by the RTU, Kota, in Artificial Intelligence and Data Sciences. The institute has secured the top ranking in placement numbers and package amongst RTU affiliated colleges. Poornima Incubation and Innovation Centre (PIIC) was established in year 2018 and currently rated 3.5 STAR by the Incubation and Innovation Centre of the Ministry of Education (MoE) in the year 2021-22.

PCE believes in providing quality education through faculty development, updating of facilities, and continual improvement to meet the norms laid down by the government, keeping the stakeholders satisfied. With more than 3.5 Lac square feet of built up area, highly qualified faculties, state of the art infrastructure, good placements and industry-led curriculum, PCE is spearheading its outstanding voyage with motto 'Success is not a destination, it's a journey'

#### Vision

Our vision is to create knowledge based society with scientific temper, team spirit and dignity of labour to face global competitive challenges.

#### Mission

Our mission is to evolve and develop skill based systems for effective delivery of knowledge so as to equip young professionals with dedication and commitment to excellence in all spheres of life.

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

#### **Institutional Strength**

- 1. Ranked 2nd in Rajasthan evaluated by the RTU in Quality Index Value for last five year.
- 2. In Times Engineering Survey 2021 ranked 108th in All India Engineering Institute Rankings and 98th in All India Private Engineering Institute Rankings.
- 3. State of Art of Infrastructure for innovative Teaching Pedagogy and ICT based learning.
- 4. First Institute in Rajasthan which has certified Centre of Excellence by the Rajasthan Technical University in Artificial Intelligence and Data Sciences.
- 5. RTU TEQIP III funded activities worth more than 50 lakh Rupees in last two years.
- 6. AICTE funded MODROB, STTP and Conferences worth more than 50 lakh Rupees during last two years.
- 7. Organizing IEEE, ACM, Elsevier and Springer International Conferences every year.
- 8. More than 30 Patents have been published and 5 patents have been granted in last two years.
- 9. Highest placement numbers and the package amongst RTU affiliated colleges.
- 10. More than 200 research papers are published by students and faculty members in last two years in national, international journals and conferences which are UGC, SCOPUS, SCI and ESCI reputed.
- 11. Strong bonding with industries and corporate sector through collaboration and tie-ups.
- 12. Awarded as Advance Partner Institute by Infosys for successfully running campus connect program & outstation performance of students in Infosys placement drives.
- 13. Industry collaborated certification programs under Celebal Technologies, Coding Ninjas, Business Intelligence, IoT and Red Hat Academy.
- 14. The faculty members adopt ICT for teaching, learning and evaluation process.
- 15. Decentralized and transparent governance system.
- 16. Qualitative and inclusive infrastructure with clean, green and environment friendly sustainable campus.

#### **Institutional Weakness**

1. In respect of enhancement in academic and research capabilities, more collaborations with institutes, universities and research laboratories at the national and international level for faculty and student exchange are needed.

- 2. More efforts are needed to promote entrepreneurship among students.
- 3. Excellent numbers of placement in CS and IT but some more efforts are needed to boost placements in core branches.
- 4. More efforts are needed to enhance number of sponsored R&D project.
- 5. More focus is required to enhance quality publication by faculties and students.
- 6. Need to strengthen Poornima innovation and incubation center to enhance number of students patent and startups.
- 7. Seventh pay commission pay grades can't be implemented due to low fee structure decided by the state government for engineering students.

#### **Institutional Opportunity**

- 1. Implementation of New Education Policy in the institute.
- 2. The Covid-19 pandemic scenario bring a revolutionary change in the methods of teaching. Faculties and students are adapted and fluent to the online mode of teaching-learning process using platforms like MS teams, Zoom, Google Meet etc. Thus faculty members are now proficient to develop MOOC course contents.
- 3. Due to efficient policies of Ministry of Education, Tie-up with different institutes of national importance (INI) is very smooth and hassle free. Also same for tie-up with foreign universities.
- 4. To enhance skill development and self-learning capabilities of faculties and students, a wide range of courses are available on SWYAM-NPTEL and similar platforms.
- 5. Scope for interdisciplinary and sponsored projects. As per the curriculum decided by state university, CBCS system and industrial training after completing each year of study generates scope for interdisciplinary subject choices, industrial training and internships for skill development to adjust with rapid changing technological era.
- 6. As institute located in state capital having well connectivity with all mode of transportation, the students having huge opportunities related to placements and entrepreneurships.
- 7. Having a large number of alumnus worldwide accomplishing authorized positions in industries and govt. sectors provides an upper hand in institutional growth and R&D funding opportunities.
- 8. As many govt, and private universities provide flexibility in joining Ph.D. programs, faculties can balance their work life to pursue higher studies. It helps for institution to have higher number of faculties with Doctorate profile.
- 9. Institute provides incentive schemes for publication, consultancy & research, patents, attending and organizing conference/seminar/workshop/training/symposia etc. It will enhance number of collaborative R&D work and value added events by faculties and students.

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- 10. As having a large number of faculties with Ph.D., Institute is planning to open state university approved research center to offer Ph.D. programs in several departments.
- 11. Implementation of New Education Policy in the institute.
- 12. Becoming an autonomous institute shall facilitate flexibility and ease of implementation of NEP.

#### **Institutional Challenge**

- 1. As no role in curriculum modification due to being an affiliated institute, a lot of efforts is required to advanced skill of students according to fast-changing cutting edge technologies. Even though we have already implemented i3 day activities in our institute since 2020-21.
- 2. Introduction of new programs based of recent technologies is a challenge due to dependence on approval of state university authority.
- 3. Institute has tight hand on allocating funds for R&D activities due to lower side fee structure decided by government of Rajasthan.
- 4. Regular skill updating programs are required for faculty members and students due to rapid changes in existing technologies and evolving of new technologies.
- 5. Covid-19 pandemic had a negative effect on many core industries and yet not recovered from it, which reduces number of student placements in the core sectors.
- 6. Less interest of meritorious students in higher studies and research, impacts in quality of educators.
- 7. An unequal competition is arises in student intake due to some private higher educational intuitions and deemed universities providing unethical flexibilities on fee structure.
- 8. Due to recent job opportunities scenario, certain department lake in quality and number of student intake in core branches.

#### 1.3 CRITERIA WISE SUMMARY

#### **Curricular Aspects**

As an affiliated institute with RTU, Kota, PCE follows the prescribed curriculum of the university. Internal Quality Assurance Cell (IQAC) of PCE ensures the effective delivery of the prescribed curriculum through a properly planned and catalogued process. IQAC prepares an institutional academic calendar aligned with the RTU academic calendar. For efficient regular internal assessment, which includes midterm exams, tutorials, assignments, quizzes, presentations, class tests, viva-voce etc., the Examination Cell designs a well-documented evaluation process under the guidance of IQAC. IQAC also instructs Program Assessment Committees (PACs) to prepare the department activity calendar. Under consideration of personalized subject

expertise, academic load is assigned to respective faculties. Subject-wise course files are prepared by the respective faculty, which include the following: Syllabus, ABC analysis, Blown-Up, Deployment, Lecture notes, Zero Lecture, Tutorial and Assignment sheets, COs Statements, and Mapping with POs and PSOs.

Other than curricular courses, the institute organizes a variety of add on certification courses for holistic development of students to enhance the employability. It is mandatory for each students to attend at least one institute level and one department level add course. The Institute has already developed and implemented proper mechanisms related to crosscutting issues like human values, professional ethics, environmental sustainability, and gender sensitization. As per curriculum of RTU, every student have to gone through internship from industries after I, II and III year and have also to prepare a project in the groups of students in the final year but PCE has implemented Non Syllabus Project in each semester.

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

The institute adopts a good teaching learning environment with proper utilization of ICT tools. The institute has well-qualified and experienced faculties recruited through a transparent process under consideration of AICTE norms and regulations of the affiliating university.

The average enrollment percentage is 73.65% for the last five years and is increasing continuously except period of pandemic. Last year, the enrollment percentage was enhanced to a level of 92.38%. As students belong to different backgrounds, the institute provides special attention to academically weak or lateral entry students through revision classes and bridge courses starting from the first year. Beside curricular activities, for the holistic development of students institute has started i3 day activities on all working Saturdays.

The internal assessment of the learning ability of the students is evaluated at the institute with the proper mechanism adopted by the Exam Cell and end term semester examinations are conducted by the affiliating university. All the evaluations are carried out by the faculty members, which include COs-POs attainment, gap identification, and action taken for the fulfilment of the gap. Student feedback and attainment of COs-POs are reviewed by the PAC for any revision in planning and delivery. Considering last five years, the average pass percentage of students is 94.98%.

#### Research, Innovations and Extension

Education and research need to evolve and diversify constantly to match the requirements of profession and the social evolution for a developing country. To promote research so many initiatives are taken by the institute for faculty and students. The Institute inspire faculty members through several incentive schemes related to research paper publications and patent registration etc. Faculty members are also motivated for preparing research proposal for submission to SERB, DST New Delhi, DST Rajasthan and other funding agencies. Poornima Innovation and Incubation Center (PIIC) established to promote research activities in the institute. In the last five years, faculty members have published more than 200 papers in reputed journals and more than 150 papers in different conference proceedings/book chapters. Nineteen books are also authored by institute faculties for different courses with renowned publishers. More than 30 patents have been published and 5 patents have been granted in the last five years. The Institute has received more than Rs. Millions grants from different govt. and industry bodies during the last five years.

To enhance the professional skills and research awareness of students and faculty members, several events are

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organized periodically by different departments of the institute. In the last five years, the institute has organized more than 300 activities like FDPs, webinars, expert lectures, project exhibitions, STTP, workshops, conferences, seminars, industry visits, and Technovation events. Most of these events were sponsored by RTU (ATU) TEQIP III, AICTE, and industry collaboration. During Covid-19 pandemic, the events were conducted online. In the last five years, the Institute has signed 28 Memorandum of Understanding (MoU) with various research, academic and industrial organizations.

Apart from academic and technical aspects, students are also encouraged to participate in several extension activities to convert them into responsible citizens towards the community. The institute organizes different activities, such as village adoption, computer literacy camp, tree plantation, books and cloth donation, blood donation camp etc., in which students and employees willingly engage.

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

PCE was established more than two decades ago with a 5.73-acre wide campus for prosperous future growth in mind. At present, the institute holds 44 classrooms, 17 tutorial rooms, 59 laboratories, 5 seminar halls, and 1 air-conditioned conference hall. The classrooms are equipped with green and white boards, each with an LCD projector and a LAN/Wi-Fi connection for ICT-enabled learning. For ventilation, the rooms have windows with covered curtains, fans, and lights. Laboratories are well-equipped as per the norms of RTU and AICTE with the latest and adequate well-maintained machines, devices, fire safety equipment, and first aid kits for the safe and precise conduction of experiments.

For the smooth conduction of events such as seminars, conferences, FDP, guest lectures, and workshops, the seminar halls are fully equipped with well-equipped whiteboards, speakers, LCD projectors, and LAN/Wi-Fi.

The PCE central library contains 50,488 books, 85 printed journals, 13301 e-books (via DELNET, IEEE, and Scopus), and 2,624 project reports. The library has a partially automated system for all of its activities using the Integrated Library Management System (ILMS)-SHARP.

Poornima Innovation & Incubation Cell (PIIC) was established in 2018 to encourage PCE students and faculty members to engage in innovation, entrepreneurship, start-ups, and patent publication. In the 2019-20 academic year, the Institute has developed one center of excellence named "Artificial Intelligence & Big Data," which is recognized by RTU, Kota.

For the physical and mental development of students, the institute facilitates them with proper playground and equipment for outdoor games like volleyball, cricket, football and indoor games like table tennis, badminton, squash, caroms, and chess. The Institute also provides gymnasium and yoga center facilities with both male and female trainers.

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

During the last five years, 9.25 % of total enrolled students benefited through free-ships and scholarships provided by many government, non-government, and institutional schemes such as Tuition Fee Wavier Scheme (TFWS), Prime Minister's Special Scholar Scheme (PMSSS), Social Justice and empowerment, Pragati scholarship Scheme for girls, Saksham scholarship scheme for specially abled students, AICTE Swanath Scolar Scheme Post matric-scholarship for SC & ST minority and matric cum means for minority students etc. The

total waive amount of these schemes during this time span is more than Rs. 40 Millions.

For enhancement of adaptability towards recent technical skills required in industries, several career guidance, training sessions, reasoning and aptitude classes, mock interview interactions, coding tests, soft skills etc. are regularly held in the institute on i3-days and as per extra requirements. The institute also encourages students to enroll in NPTEL and other MOOC certification courses in order to improve their area-specific skills.

The Institute has a strong and vibrant Alumni Society with the objective of bringing together all alumni as a family. Our alumni provide a competitive advantage in their workplaces. They also help us by talking about our institute with their colleagues, mentoring junior students, recruiting PCE's students, and by participating in alumni events. It is through them that we are known in the world around.

Through different cultural and sports clubs and student council various events such as Aadhar (Project exhibition), Aarohan (Sports, cultural, and technical events), Manthan (Debate Competition), and Kalanidhi (Award ceremony), and many more, the institute provides a platform for the students to showcase and refine their talents.

The Institute always supports and organizes various national and international commemorative days, events, and festivals. The Institute celebrates various World Environment Day, Earth Day, International Yoga Day, World Blood Donor Day, International Women's Day, Republic Day, Independence Day, Teacher's Day, Hindi Diwas, Engineer's Day, National Unity Day, Gandhi Jayanti, IEEE Day etc.

To create awareness among female students and staff members, various activities are organized by an institutional club named Women in Science and Engineering (WISE). On teachers' day, faculty members are awarded with their performance incentive, which is a unique feature of the institute. The Institute celebrates various festivals like Viswakarma Jayanti, Janmastmi, Dandia Night, Holi and Diwali Milan Samoroh, Basant Panchmi, and Kite Festival on Makar Sakranti.

#### Governance, Leadership and Management

The Institute believes in providing quality education through faculty development, facility updates, and continual improvement to meet the norms laid down by the government, keeping the stakeholders satisfied. PCE has forged industrial alliances with top MNC's worldwide, which assures high educational standards, up-to-date and forward-thinking curricula, and professional relevance. The Institute has a distinct advantage through exposure to the corporate standard environment through industry-sponsored infrastructure and expert faculty. To enhance employability, three basic skills-cognitive skills, functional skills, and people skills are mainly focused at PCE.

The organizational structure of the institute exhibits the decentralization of responsibilities. All the operations of the institute are governed by Director with the help of IQAC and reviewed once a year by the governing council. DAB and PAC are the department level committees to implement the whole plan, which includes CDP, curricular and extra-curricular activities for the students, keeping in view of their holistic development. Besides, the implementation of all the operations, regular feedback is taken from stockholders for continuous improvement. On the basis of the feedback from the stockholders, actions are taken by the department for further improvement.

The Internal Quality Assurance Cell (IQAC) aims to establish a system for a deliberate, consistent, and catalytic

approach to enhance the academic and administrative performance of the institution. IQAC was established at PCE from March 2021 to ensure quality in the teaching and learning process, specifically for implementing Outcome-based Education. Before the constitution of IQAC, GC, DAB & PAC were in existence for quality assurance.

Considering that faculty members and staff are the backbone of any educational institution, PCE has developed a proper mechanism for supporting the well-being of all employees by offering a wide range of programs and schemes that assist in balancing the personal as well as work life and fulfilling individual commitments. The schemes for the encouragement of staff members include annual faculty & staff excursion; subsidized faculty/staff accommodation; free transport facility and uniform scheme; fee waiver scheme for their near relatives studying in PEC; incentive scheme for research activities; women's welfare cell; employee provident fund; free health check-up camps; group insurance scheme etc. In fact, nearly 60 % of faculty members benefited in the last five years under the financial incentive scheme for research activities. To enhance professional development in staff members, the institute regularly organizes faculty and administrative training programs. Over the last five years, more than 200 training programs and other activities have been organized, with more than 50 % of faculty and staff members participating in various activities

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

Poornima College of Engineering has consistently II QIV ranked among the all RTU affiliated institutions in the Rajasthan. All this has been possible with dedicated input from various administrative bodies and stakeholders, who consistently try to mould the institution towards constant improvement and progress. Institute takes pride in working with integrity and a sense of righteousness to hold itself to consistent moral and ethical standards.

The prime goal of an educational institution like Poornima College of Engineering, under the aegis of management like Shanti Education Society, strives to make the society better in all respects by providing quality education. The institution also tries to instill the values of social service among its students and faculty members by being a part of various social welfare schemes.

PCE has created an inclusive environment within the campus for the stakeholders. The Institute has taken various initiatives to inculcate the values of tolerance, harmony towards cultural diversities, which have a very favorable impact on the collective and cultural thoughts of society. Students from many cast, religions, and regions attend the college without experiencing any discrimination, which is evidence that the institution believes in the equality of all cultures and traditions. In order to keep tolerance and harmony among students, the anti-ragging cell plays a vital role.

The institute conducts a number of social activities throughout the year, like Nukkad Natak, free education to underprivileged children, Swachh Bharat activities, blood donation camps, etc., to stimulate students and employees of the institute to the responsibilities of citizens.

PCE has two best practices for their holistic developments which are Non Syllabus Projects (NSP) every semester and Industry Institute Interaction (i3) day. In order to establish better interaction between technical institutions and industry, the institute intends to keep the academic engagement of students restricted to 5 days/week and keep the 6th day exclusively for industry institute interaction (i3 day). Under this program technical and non-technical courses included to enhance the employability of students and this preparation is initiated from first semester onwards. After implementation of these activities number of placement and

placement package is improved significantly. Another best practice of Poornima College of Engineering is non syllabus project, in which a project is to be prepared by group of students from first semester to seventh semester on specific focus areas of current trends in industry and technologies. This practice has enhanced the creativity of students.

# 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College			
Name	POORNIMA COLLEGE OF ENGINEERING, JAIPUR		
Address	ISI-6, RIICO Institutional Area, Sitapura, Jaipur - 302022		
City	Jaipur		
State	Rajasthan		
Pin	302022		
Website	www.pce.poornima.org		

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Mahesh Bundele	0141-2770790	9829255102	-	principal.pce@poo rnima.org
IQAC / CIQA coordinator	Narayan Lal Jain	0141-2770791	9414728922	-	naac.pce@poornim a.org

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution			
By Gender	Co-education		
By Shift	Regular		

Recognized Minority institution	
If it is a recognized minroity institution	No

<b>Establishment Details</b>	

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State	University name	Document	
Rajasthan	Rajasthan Technical University	<u>View Document</u>	

Details of UGC recognition			
<b>Under Section</b>	Date	View Document	
2f of UGC	11-05-2018	View Document	
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/App roval details Inst itution/Departme nt programme  Recognition/App Day,Month and year(dd-mm- yyyy)  Remarks months					
AICTE	View Document	01-07-2022	12	NA	

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?	Yes
If yes, name of the agency	Rajasthan Technical University Kota
Date of recognition	26-01-2018

Location and Area of Campus					
<b>Campus Type</b>	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.	
Main campus area	ISI-6, RIICO Institutional Area, Sitapura, Jaipur - 302022	Urban	5.73	23011.77	

## 2.2 ACADEMIC INFORMATION

Details of Pro	ogrammes Offe	red by the Col	lege (Give Data	a for Current A	Academic year	)
Programme Level	Name of Pr ogramme/C ourse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BTech,Depar tment Of Computer Engineering	48	12	English	198	194
UG	BTech,Depar tment Of Computer Engineering	48	12	Hindi	66	59
UG	BTech,Depar tment Of Electrical Engineering	48	12	English	33	18
UG	BTech,Depar tment Of Mechanical Engineering	48	12	English	33	18
UG	BTech,Depar tment Of Civil Engineering	48	12	English	66	32
UG	BTech,Depar tment Of Information Technology	48	12	English	66	64
UG	BTech,Depar tment Of Electronics And Commu nication Engineering	48	12	English	33	31
UG	BTech,Depar tment Of Advance Computing	48	12	English	66	62
UG	BTech,Depar tment Of Advance	48	12	English	66	63

	Computing					
UG	BTech,Depar tment Of Advance Computing	48	12	English	66	63

## Position Details of Faculty & Staff in the College

	Teaching Faculty											
	Profe	Professor			Assoc	ciate Pr	ofessor		Assis	Assistant Professor		
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				35				28				116
Recruited	24	11	0	35	18	10	0	28	76	40	0	116
Yet to Recruit				0		'		0				0
Sanctioned by the Management/Soci ety or Other Authorized Bodies				0				0				0
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit		1	1	0		1	1	0		ı	1	0

	Non-Teaching Staff								
	Male	Female	Others	Total					
Sanctioned by the UGC /University State Government				103					
Recruited	81	22	0	103					
Yet to Recruit				0					
Sanctioned by the Management/Society or Other Authorized Bodies				0					
Recruited	0	0	0	0					
Yet to Recruit				0					

Technical Staff								
	Male	Female	Others	Total				
Sanctioned by the UGC /University State Government				34				
Recruited	33	1	0	34				
Yet to Recruit				0				
Sanctioned by the Management/Society or Other Authorized Bodies				0				
Recruited	0	0	0	0				
Yet to Recruit				0				

# Qualification Details of the Teaching Staff

	Permanent Teachers									
Highest Qualificatio n	Professor		Assoc	Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	24	11	0	18	10	0	0	0	0	63
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	76	40	0	116
UG	0	0	0	0	0	0	0	0	0	0

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

				Part Ti	me Teach	ers				
Highest Qualificatio n	Professor		Assoc	Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

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

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	432	78	0	0	510
	Female	98	22	0	0	120
	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	15	15	20	13
	Female	5	2	5	0
	Others	0	0	0	0
ST	Male	15	12	13	11
	Female	1	2	2	1
	Others	0	0	0	0
OBC	Male	126	77	92	74
	Female	14	7	3	8
	Others	0	0	0	0
General	Male	323	237	324	342
	Female	99	53	78	75
	Others	0	0	0	0
Others	Male	3	3	3	0
	Female	0	0	1	0
	Others	0	0	0	0
Total		601	408	541	524

### Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	NEP aims multidisciplinary and interdisciplinary
	education which will help the students in holistic
	developing all capacities like social, intellectual,
	emotional and moral in an integrated manner.

Poornima College of Engineering (PCE) is affiliated to Rajasthan Technical University (RTU), Kota and approved with AICTE and follows guidelines provided by the University and AICTE. Hence, the Institute cannot make any changes in curriculum but University has added electives in each program curriculum which are multidisciplinary/ Interdisciplinary courses to align with the aim of NEP. Institute also runs multidisciplinary add on courses in each semester of the programs.

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

Academic Bank of Credit (ABC) is a scheme of government of India under NEP which provides facility to create digital store house which will store credits earned by the students and also facilitate students multiple entry and exit points during their academic program. To avail this facility PCE is on progress to register in Academic Bank of Credit scheme. Once it has been registered, its implementation will be ensured from next academic session in phases. To make ABC scheme a success PCE is also exploring the possibilities of collaboration with other national and international universities for award of joint degree/ credit transfer. It is equally important to modify the existing curriculum according to the requirement of ABC scheme and offer new multidisciplinary/ interdisciplinary courses/programs in the institute. Due to affiliated institute we are not able to change curriculum but we can offer new multidisciplinary/interdisciplinary add on courses. MoUs with various national and international universities and industries of repute are signed to promote internationalization of education.

#### 3. Skill development:

Skill development & vocational trainings are the key goal of NEP 2020. PCE also believes in strengthening various skills including the entrepreneurial competencies, communication, soft skills, critical thinking, problem solving, and decision making abilities of students to enhance the employability. To ensure this, the institute started Industry Institute Interaction (i3) activities on every Saturday. These activities are compulsory for each students from first semester to sixth semester. Whole day (Saturday) is reserved for these activities. RTU also introduced human value and ethics based subject in the curriculum. AICTE also conducted various workshop, seminars and FDP for faculty members for

	human value and engineering ethics based areas. PCE motivate faculty members to attend these activities for the benefit of students.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	PCE is the only institute in overall Rajasthan to start an engineering course in regional language thereby promoting and preserving regional language.  Regional language play a vital role in socio-economic and educational advancement of the country's society as well as shapes one's personality.
5. Focus on Outcome based education (OBE):	The focus on outcomes creates a clear expectation of what needs to be accomplished by the end of the course. Students will understand what is expected of them and teachers will know what they need to teach during the course. PCE has already adopted Outcome Based Education for all the program. Faculties of each department prepared generic Course Outcomes (COs) of all the courses of each program and mapped them with Program Outcomes (POs) with justification and well defined attainment process is also implemented in the Institute. Curricular and extra-curricular activities are also decided as per curriculum gap and attainment gaps. Institute Student wise attainment is calculated to focus on individual students which help in all round development of students. The continuous assessment is followed to ensure the competency achievements of students which also forms the basis of curriculum and pedagogical reforms in the next cycle.
6. Distance education/online education:	During COVID19 pandemic PCE shifted to digital method of teaching process through various app like zoom, Google meet, Google classrooms, MS Teams, etc. Also through online education it has become easier to interact with experts, academicians and students globally.

## **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
2047	2033	2286	2460	2627

File Description	Document
Upload supporting document	View 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: 464

54	File Description	Document
	Upload supporting document	<u>View Document</u>
	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
197	204	196	203	187

### 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
306.83	380.72	480.94	733.24	1078.99

### 4. Quality Indicator Framework(QIF)

### **Criterion 1 - Curricular Aspects**

#### 1.1 Curricular Planning and Implementation

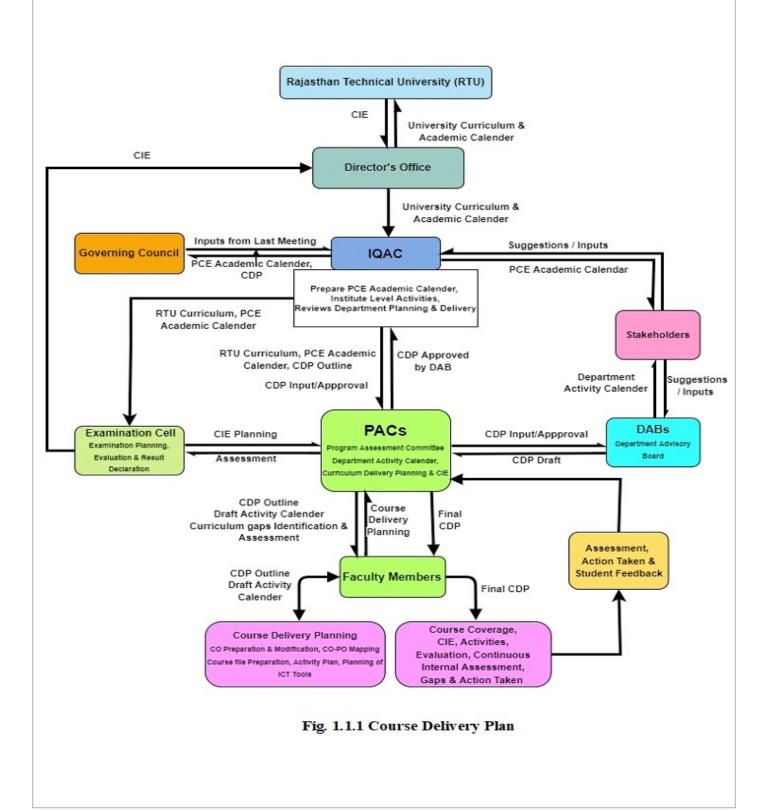
1.1.1 The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

#### **Response:**

Poornima College of Engineering (PCE) is affiliated to Rajasthan Technical University (RTU), Kota and has to follow the prescribed curriculum of the University. The Internal Quality Assurance Cell (IQAC) is constituted to monitor planning and the effective delivery of the curriculum and beyond curriculum contents in each department through a well-planned and documented process. To ensure effective curriculum delivery, a Curriculum Delivery Plan (CDP) is prepared by all Program Assessment Committees (PAC) of the each department. A CDP includes detailed planning of curriculum and beyond curriculum content delivery plan and the activities to be conducted to make the students industry ready. It includes information related to curriculum blown up, deployment, modes of delivery, resources to be used, assessment tools, stage wise checks and counter checks, attainment analysis, examinations etc. There are regular meetings of PAC and IQAC to keep check on effective delivery and ensure timely corrections. As per the directions received from IQAC, the department PAC and the examination cell prepares Continuous Internal Assessment plan. Examination cell follows RTU examination calendar while PAC in consultation with faculty members prepare other assessment. Detail outlines are as follows.

- 1.RTU Kota provides curriculum through university website.
- 2. IQAC receives and forwards curriculum to PAC (Program Assessment Committee) for identifying curriculum gaps and beyond curriculum planning. PAC takes inputs from stakeholders, particularly industry, identify the gaps & redesign CO/Los, their mappings with PO/PSOs and the assessment tools needed. PAC further creates academic calendar based on these inputs and send it to IQAC. IQAC prepares institute academic calendar considering RTU academic calendar, inputs received in last GC meeting and the departmental academic calendar submitted by PAC. PACs then prepares CDPs after consolidating the course specific planning received from the respective faculty members.
- 3.A CDP includes content delivery methods, resources. Trainings, field visits, internships and the activities to bridge curriculum gaps.
- 4. IQAC also reviews the CDPs approved by DABs and gives suggestions/ approvals periodically.
- 5.IQAC meets regularly and monitor content delivery and attainments as per planning. There is student feedback system for continuous assessment and check on effective content delivery.
- 6. Subject wise Course files are prepared by respective faculty, comprising of Syllabus, ABC analysis, Blown-Up, Deployment, Lecture notes, Zero Lecture, Tutorial and Assignment sheets, COs Statements, and Mapping with POs and PSOs, stage wise attainments and gap analysis.
- 7.IQAC conducts regular Internal Academic Audit for the effectiveness of content delivery and ensure effective teaching-learning implementations and suggest necessary actions.
- 8. Continuous Internal Assessment process includes Midterm exam, Tutorials, Assignments, Quizzes, presentation, Class Test, viva-voce, laboratory, seminar, projects etc.

- 9. As per the RTU examination scheme, mid semester examinations are conducted centrally by examination cell as per the planning & academic calendar and other assessments are conducted at departmental level.
- 10. All the attainments are calculated by the faculty members at every stage which include COs, POs PSOs, Gap identification & action to be taken to reduce the gap.
- 11. End term semester examinations are conducted by the RTU, Kota.



File Description	Document
Upload Additional information	<u>View Document</u>

#### 1.2 Academic Flexibility

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

Response: 176

File Description	Document
Upload supporting document	<u>View Document</u>
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:** 94.83

# 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
1951	1935	2168	2328	2479

File Description	Document
Upload supporting document	View Document
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:**

PCE has integrated a proper mechanisms related to crosscutting issues like human values, professional ethics, environmental sustainability, gender sensitization. Affiliating University also includes some of these issues while designing the curriculum of various programs. Besides this, the institute designs certain contents & the activities / clubs to ensure inclusion of all issues and its effectiveness. Clubs organize guest lectures, seminars, webinars and workshops by eminent speakers.

#### Human values

UGC/ AICTE have mandated the Institutes to include Universal Human Values (UHV) in the curriculum and conduct Student Induction Program (SIP) for the first year students. For conduction of these sessions in the institute, AICTE, New Delhi has conducted UHV workshops/FDP for faculty members and most of the faculty members of PCE have successfully completed workshops/FDP on UHV. One course on Human Value is added in first year courses by affiliating University. PCE organizes three weeks SIP every year as per guidelines of AICTE. Apart from this, human values are inculcated through regular monitoring and nurturing the students.

#### **Professional Ethics**

There are worldwide professionally accepted ethical standard which have to be followed by each professionals. There is a course on professional ethics as per RTU curriculum, however, it needs to be observed and corrected/ assessed through certain systems and processes. PCE has laid down certain practices in labs and other activities mapping it to relevant PO and assessment. In order to strengthen understanding of faculty and students about professional ethics, the institute organizes guest lectures, workshops and seminars regularly.

#### **Environment and Sustainability**

Environmental Engineering is interdisciplinary course as per RTU curriculum to create environmental awareness among students. This course include addressing natural resources with emphasis on renewable energy resources, waste water treatment, water purification, noise pollution, and air pollution control to address environment and sustainability issues. Rajasthan Technical University, Kota has also included open elective courses in the seventh and eighth semesters related to environment and sustainability like Environment Impact Assessment, Disaster Management and Environment Engineering and Disaster Management. Apart from these courses there are activities and assessment process laid down for regular nurturing of students about environment and sustainability. There are LOs defined and are assessed through rubrics in laboratory and projects.

#### **Gender Sensitization:**

PCE is co-educational engineering institution, so equal opportunities are given to boys and girls in all curricular & co-curricular activities. There are Women in Science and Engineering (WISE) and Poornima Women Welfare Association (PWWA) cells established for the empowerment of females to handle the challenges smartly and confidently. In PCE, there are many female faculty members, even at director level. There is a separate yoga instructor and gym trainer for girls. International Women's Day and many other events are celebrated every year by PWWA and special seminars / activities are also organized to encourage girls to explore opportunities in science and technology.

File Description	Document
Upload Additional information	<u>View Document</u>

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

Response: 84.9

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

Response: 1738

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:** 69.78

#### 2.1.1.1 Number of students admitted year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
582	374	520	497	560

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

2021-22	2020-21	2019-20	2018-19	2017-18
630	660	780	780	780

File Description	Document
Upload supporting document	<u>View Document</u>
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: 79.1

# 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
173	104	136	98	121

# 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
340	104	136	98	121

File Description	Document
Upload supporting document	View Document
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: 10.39

#### 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:**

The Institute believes in adopting teaching methodologies which will help in improving experiential learning, participative learning and problem solving methodologies.

#### 1. Experiential Learning:

- 1. The Institute has well equipped state of art laboratories where experiments within and beyond curriculum are performed.
- 2. Institute Incubation center motivates the students to put their innovative ideas into the reality.
- 3. Industrial visits and internship are the part of curriculum to enhance their practical knowledge and to make aware of the work culture of the industries.
- 4. MOUs are signed with various industries, national and international level research Institutes with scope of joint academic programs, collaborative research, internships, visits etc. to bridge the gap between curriculum and industry needs.
- 5. The Institute motivates the faculties and students to join MOOC courses.
- 6. As beyond curriculum practice, it is mandatory to develop an innovative project by the groups of students in each semester which is known as Non Syllabus Projects (NSP).
- 7. There is more focus on laboratory leaning and project based learning, implemented under Outcome Based Education process.

#### 2. Participative learning:

1. Institute has spared one day as Industry Institute Interaction (I3) day. Wherein classes are scheduled

- weekly for the students on advanced technologies, tools and concepts and the industry experts conduct interactive sessions.
- 2. The Institute has developed many Technical/Non-Technical clubs run by the students and conducts multiple activities throughout the year.
- 1. Institute organizes Annual Fests and Annual Technical paper and model competition "Technovation" where students participate and exhibit their talent.
- 2. Students organize various programs in-house as well as for outside students.

#### 3. Problem Solving Methodologies:

- 1. Institute has well formulated and established OBE system wherein more focus is given on application based problem solving.
- 2. The Institute follows AICTE model curriculum and model paper pattern for strengthening problem solving abilities among students.
- 3. Additional Tutorial classes are conducted for solving more number of applied problems. Students discuss and solve their numerical problems.
- 4. Students are motivated to prepare for competitive exams like GATE/GRE/CAT and the classes are conducted in the campus.
- 5. In laboratories student design approach and perform the experiments on certain topics of the course.

In session 2017-18 ICT tools were used for specific activities like seminars, workshops, FDP, and software learning etc. During the pandemic Covid-19, ICT tools became a universal tool for all the processes. ICT tools used for different processes as follows;

- 1. Institute has a subscription of MS team for conducting online classes and technical activities.
- 2. Faculties share notes, assignments, and solutions of RTU exam papers using MS team.
- 3. Content beyond syllabus experiments are executed with the help of Virtual labs.
- 4. Digital library is used by students to access the e-journals, conference papers for their NSP projects.
- 5. Classrooms and seminar halls are well equipped with projector and Wi-Fi.
- 6. Faculty and students are learning through online certification courses on advanced topics.
- 7. Video clips, presentations, demonstration online are some of the methods used in 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: 99.8

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# 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
197	204	196	203	189

File Description	Document
Upload supporting document	<u>View Document</u>

# 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: 26.85

# 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
62	65	56	45	37

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

#### 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:**

PCE has transparent internal assessment process and its grievance redressal system. Continuous Internal Assessment apart from RTU prescribed mid semester exam is handled by individual faculty member. RTU prescribed mid semester exams are conducted by exam cell of PCE, faculty members shows the copies to the students. External assessment is carried out by affiliating university (RTU, Kota) and assessment mechanism is transparent. Institute organizes a 21 days orientation program for the newly admitted students in which information about the exam, evaluation and grievance process is explained.

#### • Internal Assessment

- 1. In the beginning of semester, every faculty member explains course outcomes and assessment tools used for calculating attainments. Here faculty member informs about the assessment tools those will be beyond RTU examinations.
- 2. Schedule of the RTU prescribed internal examinations is announced well in advance through the Academic Calendar to the students.
- 3. Internal assessment of theory courses of students is carried out through two midterm exams, assignments/tutorials, class tests/quizzes/OBT, etc.
- 4. Internal assessment of lab courses is conducted through two midterm practical exams, day to day performance of all the experiments is assessed which includes performance viva, regularity and lab record submission. Well defined Rubrics is developed for assessment of laboratory performance of individual students. It is also explained to students in lab zero lecture.
- 5. For smooth conduction, all midterm exams are centrally managed and conducted by examination cell.
- 6. Time-table, seating plan and duty chart is prepared and conveyed to respective faculty members well in advance.
- 7. Faculty members are asked to submit the midterm question papers strictly as per RTU end term exam pattern and AICTE examination reform policy. Moderation committee of the department verifies and approves question papers before submission of question papers to examination cell and authorities
- 8. Evaluation of answer sheets is performed by the respective course teacher.
- 9. Evaluated answer sheets are distributed to the students for any unchecked, unmarked and retotaling mistakes and grievances are redressed through revaluation form.
- 10. Students are also free to discuss their grievances with the HoD and examination cell as well.
- 11. Attainments through other activities are assessed by using rubrics.

#### • External Assessment

- 1. External exams are scheduled and conducted as per RTU, Kota academic calendar.
- 2. Students appear for their External Theory exams at the centers provided by RTU, Kota.
- 3. Results are declared in the due course of time by the RTU, Kota.
- 4. If any student has grievances regarding the result then they need to fill a grievance form which has options like rechecking, revaluation, etc. provided by RTU, Kota and submit it in the college within the specified period.
- 5. Grievances are redressed within a specified period of time.
- 6. External examiners from reputed colleges are invited to conduct external laboratory course examinations.

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

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#### institution are stated and displayed on website and attainment of POs and COs are evaluated

#### **Response:**

Poornima College of Engineering envisions creation of knowledge-based society with scientific temper and team-spirit. The institute aims at holistic development of the student to meet global competitive challenges. The institute practices Outcome Based Education for all undergraduate offered programs and this practice starts with defining Course Outcomes (COs) for each course using Bloom's Taxonomy and mapping with Program Outcomes (POs), Program Specific Outcomes (PSOs), finding curriculum gaps and planning beyond curriculum contents & activities.

The Institute and Department Vision & Mission, Program Educational Objectives (PEOs), POs, PSOs and COs are displayed on the institution website (www.pce.poornima.org) and disseminated in the departments via flex, Posters in the department laboratories, lecture theatres, tutorial rooms, notice boards, faculty rooms, HOD cabin, department corridors, library, department newsletters, Institute annual magazine, Institute prospectus, faculty course file and laboratory manuals. These are discussed and finalized through various committees representing various stakeholders.

#### Attainment of POs and COs are evaluated:

#### **CO** Attainment

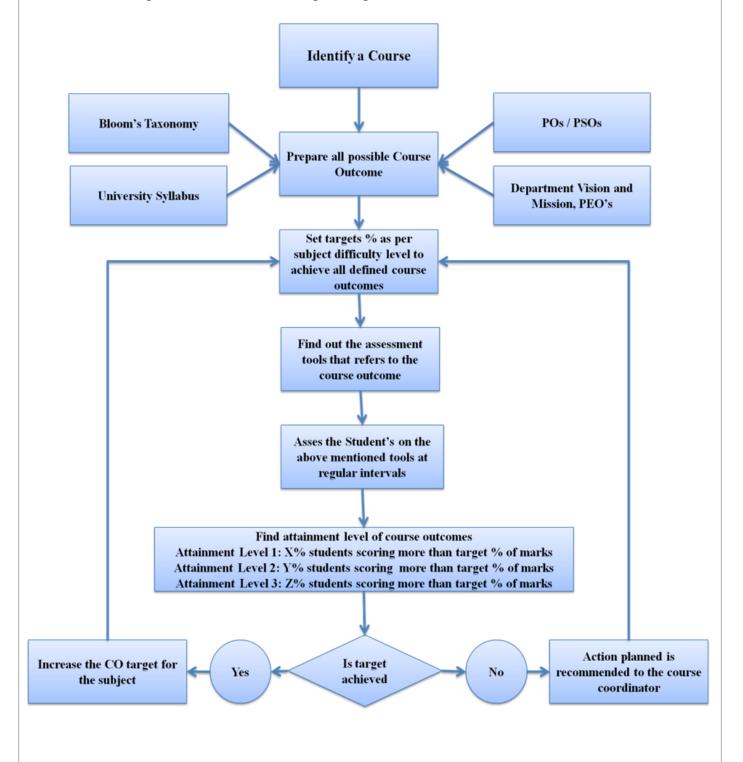
Process of attainment evaluation of COs and POs are continuous, real time and comprehensive at PCE. PCE has laid down unique OBE process in the Institute wherein student wise attainment is evaluated and analyzed continuously. After defining Course Outcomes (COs) of each course, COs are mapped with POs and PSOs on the scale of 1 to 3, where 'I' is used for weak mapping, "3" is used for strong mapping and "-"is used for no mapping. COs are defined in generic form considering whole contents of a course as one unit and targeting attainments of cognitive domain POs. Process of attainment of COs and POs is shown in Figures 2.6.1(a) & Figure 2.6.1(b).

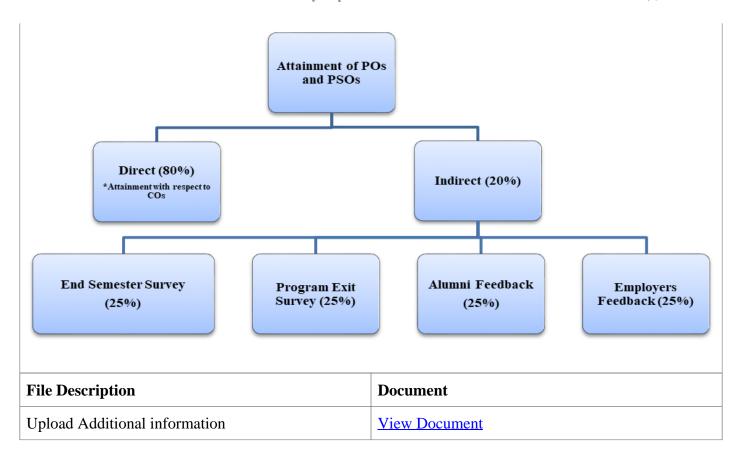
#### **POs and PSOs Attainment**

The attainment of Program Outcome (POs) and Program Specific Outcome (PSOs) is calculated through direct and indirect assessment tools.

- Direct attainment of POs/ PSOs is obtained from attainment of COs and Los. COs are defined for theory courses while Learning Outcome (LO) are defined for laboratory, seminars, projects and activity based learning. COs & LOs altogether maps with all PO (i.e. PO1 to PO12), likewise attainments of all COs & LOs leads to attainments of POs and PSOs.
- The indirect attainment POs/PSOs is calculated through surveys and feedbacks from the stakeholders. The survey form is used to take feedback from stakeholder at the end of the semester/activity. The survey form carries questions from relative PO/PSO and participants asked to fill their responses at a scale of 1 to 5. On the basis of responses received from stakeholders and counting scale values the attainment of PO/PSO is calculated. Overall indirect attainment is calculated by

- taking average of all the activities/feedbacks of individual PO/PSO.
- Overall PO or PSO attainment is calculated by considering 80% weightage from direct and 20% weightage from indirect attainment.
- Further attainments such as performance in competitions, hackathons, placements etc. are linked with POs and PSOs.
- Evaluation process of PO/PSO is unique and precise.





#### 2.6.2 Pass percentage of Students during last five years

**Response:** 96.43

# 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
435	524	605	642	629

# 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
479	535	616	659	651

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: 3.58		
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:** 110.52

# 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
2.86	5.30	36.45	17.35	48.56

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:**

An ecosystem has been created in the institution to promote innovation, transfer of knowledge and entrepreneurship. As part of innovation, as per Ministry of Education (MoE) with collaboration of Institute of Innovation Council (IIC) and AICTE, in the year 2018 launched Poornima Innovation and Incubation Center (PIIC). Poornima Innovation and Incubation Centre (PIIC) is the entrepreneurial development wing of the Poornima College of Engineering with prime focus to nurture and foster students for start-up and innovation. PIIC offers incubation facilities and services to prospective entrepreneurs to convert their innovative ideas into commercially viable products.

Institute has a separate IPR cell for motivation of students and faculty members to publish the patent of their new ideas, concepts and projects. In the last two years, students and faculty of PCE, registered and published 27 patents, out of them 9 has been granted in the Indian patent office.

Faculty members are encouraged to conduct research activities and make publications in the journals of repute for knowledge sharing. Faculty members are encouraged by awarding incentives for publications in peer reviewed / Scopus journals/conferences. The institution has the practice of conducting various workshops and conferences periodically for providing platform to the faculty and students to interact, create and share the knowledge. They are also encouraged to contribute to national and international

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conferences conducted outside the institution. Similarly faculty members also publish technical books and chapters as a part of initiative for knowledge creation and transfer. The faculty delivers guest lectures and expert lectures to other institutions as part of knowledge sharing.

Students are also encouraged to publish papers in reputed conferences and journals for knowledge sharing. NSP (Non Syllabus Project) is an initiative under which students are doing projects every semester and write research papers on the project contributions. Students and faculty members are encouraged to complete MOOC certification courses.

Institute has various professional and local clubs like IEEE Student branch, ACM student chapter, ISTE, Zircon Club, Coding Club, Udaan aero-modelling club, Hyagriva (Automobile) Club, Google Developer student club, coding club etc. which provides platforms for the students to work on innovative and advanced areas. Most of the clubs have separate space and laboratory equipped with latest software and equipment. Udaan aero-modelling club received grant of rupees 10000/- from AICTE and Institute contributed Rs. 4, 00, 000/- for new and advanced equipment. Students associated with these clubs exhibit their projects in various national and state level project exhibitions and contests and awarded many times as first and second prize.

Although there are facilities and provisions to create an ecosystem for innovations and transfer of knowledge, there is space for further improvement and the Institute is continuously improving on these aspects.

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: 44

# 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
16	8	18	1	1

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

# 3.3 Research Publications and Awards

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

**Response:** 0.71

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

2021-22	2020-21	2019-20	2018-19	2017-18
60	60	90	65	54

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: 0.33

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
35	58	22	19	17

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:** 

Extension activities are encouraged to develop a sense of responsibility, accountability, integrity and human values among the students towards achieving the vision and mission of the institution. PCE organize annual techno, sports and cultural fest "AAROHAN" in which students of PCE and other colleges participate in extension of activities. As part of overall development of the students, open elective courses are offered in final year on human values and professional ethics as well as environmental studies. Expert lectures, seminar, webinar and workshops are organized for the students and staff on social issues.

Students of PCE also organize various social activities in nearby villages like creating awareness and motivate girl students for self-defense, self-defense methods, and importance of education in social life. During pandemic COVID-19, PCE distributed food packets, mask and sanitizer and staff and students helped in distribution of these items in the adopted village and hospital area. Expert lecturers, seminars and webinars are conducted in order to raise awareness of social concerns including PCE Female Health Awareness Day, anti-ragging, cyber-crimes, etc. Celebrate Yoga Day, Teachers Day, Engineers Day, National Unity Day, Environment Day, Women's Day etc.

PCE adopted a village named Vidhani in year 2018 as per the initiative of AICTE with an aim to connect institutions of higher education, with local communities to address the development challenges through appropriate technologies and improve the villagers' quality of life by addressing their educational and social needs. Many activities are conducted for the benefit of villagers. Students' Council of PCE take up responsibilities for social services, by conducting the event of shared birthday under which the Helping Hands club organized Covid Drive, Blanket Drive, Drive Against Hunger, Old age home visit, and Vastra-Daan, to create a sense of camaraderie and enthusiasm for the community, afflicted people and the poor.

**Blood Donation:** PCE has a tradition of organizing blood donation camp every year on September 5 and some other occasions. Blood Donation is the noble step of humanity. Students, faculty members and staff donate blood voluntarily.

**Swachh Bharat Abhiyan:** College campus is maintained clean on daily basis and Swachh Bharat Abhiyan is held on every 2nd October in a year. As the part of Swatch Bharat activities, our students actively participates in cleaning the campus and its surroundings.

**Tree plantation:** Tree plantation is organized on 15 August, 26 January and 5 June. Amrit Earthen pots are placed around the Jaipur city to save birds in summer season.

**Nukkad Natak:** Street plays for giving message to society are organized by Joshiley Drama Club of Students' Council.

PCE, Jaipur donated a Bus of Swaraj Mazda with the seating capacity of around 40 persons to CITTA Foundation, Jaisalmer.

All these activities and processes has helped students to develop social linkage, working affinity in society for their needs, communication and ethics as a part of their holistic development.

File Description	Document
Upload Additional information	<u>View Document</u>

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

### **Response:**

Extension activities are encouraged to develop a sense of responsibility, accountability, integrity and human values among the students towards achieving the vision and mission of the institution. PCE organizes an annual techno, sports and cultural fest "AAROHAN" in which students of PCE and other colleges participate. As part of overall development of the students, open elective courses are offered in the final year on human values and professional ethics as well as on environmental studies. Expert lectures, seminars, webinars and workshops are organized to the students and staff on social issues.

PCE adopted a village named Vidhani in 2018 as per the initiative of AICTE with an aim to connect institutions of higher education with local communities to address the development challenges through appropriate technologies and improve the villagers' quality of life by addressing their educational and social needs, s

Students of PCE also organize various social activities in nearby villages like creating awareness and motivating girl students for self-defense, self-defense methods, and importance of education in social life. During pandemic COVID-19, PCE distributed food packets, masks and sanitizer and staff and students helped in distribution of these items in the adopted village and hospital area. This effort of PCE was appreciated by government officials.

Poornima College of Engineering is ranked second position by the RTU, Kota in QIV for 5 consecutive years (2017 to 2021). Poornima College of Engineering was ranked 98TH position in All India Private Engineering Institute RANKING 2021 BY Times Engineering Survey.

In lieu of NEP (National Education Policy) Poornima College of Engineering was recognized for increasing additional intake in regional language program among 14 colleges from all over India. Poornima Incubation and Innovation Center (PIIC) was established in 2018 to promote start-ups and innovative ideas of the students and faculty members. PIIC has been recognized as a 3.5 star rating Innovation Cell by the MHRD in the year 2021-22, 3 Star rating in the session 2019-20 and 2 Star rating in the session 2018-19.

Poornima College of Engineering was awarded gold rating by CII (Confederation of Indian Industry) for the five consecutive years (2017 to 2021). Poornima College of Engineering is awarded as Advance Partner Institute by Infosys for successfully running campus connect program and outstanding performance of students in Infosys placement drives.

Department of Electrical Engineering was granted accreditation by NBA (National Board of Accreditation) for 2 Years in 2019-20 and 2017-18. Department of Computer Engineering and Department of Electronics & Communication Engineering also granted accreditation by NBA (National Board of Accreditation) for 2 Years in 2018-19 and 2017-18. Poornima College of Engineering was recognized under Section 2(f) of the UGC Act. 1956 in Year 2017-18.

Poornima College of Engineering was also recognized as one and only Institute in Rajasthan as a certified Center of Excellence by the Rajasthan Technical University, Kota in Artificial Intelligence and Data Sciences in the year 2019.

File Description	Document
Upload Additional information	<u>View Document</u>

3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organised in collaboration with industry, community and NGOs) during the last five years

Response: 37

# 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
9	7	4	10	7

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

# 3.5 Collaboration

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

**Response:** 28

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:**

Poornima College of Engineering has good infrastructure which includes properly ventilated spacious classrooms, well equipped laboratories, tutorial rooms, seminar halls, playground, canteen, and ecofriendly environment. PCE has rain water harvesting system of storage capacity of 2 lac liter, RO plant of capacity 1500 liter per hour, STP plant of capacity of 30 kl per day, water chiller and water cooler of capacity 2000 liter per hour and solar power plant of capacity 250 kW. Wi-Fi enabled campus with current internet bandwidth of 2 Gbps.

#### **Classrooms and Tutorial Room**

The Institute has classrooms (44) and tutorial rooms (17) with proper resources and ventilation. Each class room has green and white boards with LCD projector and LAN/Wi-Fi connection for ICT enabled learning. Classrooms have windows with covered curtains for ventilation, fans and lights.

# Laboratories/Workshop

The Institute has well-equipped laboratories (59) as per the norms of RTU and AICTE. Laboratories are equipped with latest and adequate well-maintained machines, devices, fire safety equipment, first aid kits, and open source & proprietary software for experiential learning.

#### **Seminar Halls**

The Institute has 5 seminar halls and 1 air conditioned conference hall for the conduction of seminars, conferences, FDP, guest lectures, and workshops. All seminar halls have sufficient seating space and equipped with whiteboard, speakers, LCD projectors, and LAN/Wi-Fi facility.

#### **Center of Excellence**

Institute has one Centre of Excellence namely "Artificial Intelligence & Big Data" recognized by RTU in the session 2019-20 for the students and faculty in and around PCE. Institute has also applied to RTU for recognition of two more center of excellence in the field of advance manufacturing and advance wireless communication.

## Library

PCE Library is well connected with the other AICTE approved institutions, located all over India, through DELNET for resource sharing. E-publications (Books, Journals and other reading materials) and it can be accessed through DELNET by all the users of PCE Library. PCE library is having 50,488 books, 85 printed journals, 13301 e-books through (DELNET, IEEE, and Scopus), and 2,624 project reports. PCE faculty and students can also access IEEE and Scopus Journals.

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# **Computing Facility**

The institute has sufficient number of computers according to AICTE Guidelines. In every department computer laboratories are established for the purpose of conduction of within curriculum and beyond curriculum experimentations and project works. The laboratories have all required software with internet connectivity. Faculty members have separate desktop with LAN/WIFI connectivity.

# Sports, Gymnasium, Yoga Center and Cultural Activities

PCE encourage students to participate in various games & sports, as we believe that it plays vital role for the physical and mental development of students. The Institute has playground for outdoor games like Volley Ball, Badminton, Cricket and Football. Institute has facility for indoor games like Table tennis, squash, Caroms, and Chess. Institute also have gymnasium and yoga center for the students. In gym and yoga center male and female trainers are available for guiding the students.

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: 12.09

# 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
153.38	35.32	61.63	70.41	39.77

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 eresources, amount spent on purchase of books, journals and per day usage of library

### **Response:**

The central library of PCE is partially automated since 2001. All of its activities are managed using the Integrated Library Management System (ILMS)-SHARP. KOHA LMS including web Online Public Access Catalogue (OPAC) is implemented to upgrade the existing library automation system since 2021. The OPAC can be accessed through intranet for searching records available in the KOHA database. The central library uses in-house bar code technology for computerized circulation system. Every document in the library bears a bar code and every authorized user has a patron card, facilitating their identification in the circulation process. The details of ILMS software are mentioned as below:

	of I	LMSVersion	Year of Automation	Nature	of
Software				(Fully/Partially	<del>ÿ</del> )
SHARP		2.1.639	2001	Fully	
KOHA ILN	ИS	http://20.0.122.209:8000	2021	Fully	

These ILMS software are used for;

- Cataloguing
- Acquisition
- Serial Control
- OPAC
- Circulation
- Patron Management
- Report

PCE Central Library system consist of 9 department learning resource centre. It collectively support the teaching, well developed barcoded resources and having all services computerized. PCE Library is well connected with the other AICTE approved institutions, located all over India, through DELNET for resource sharing. E-publications (Books, Journals and other reading materials) can be accessed through DELNET by all users of PCE Libraries.

- **Reference Services:** Reference resources are available in the library are:
- Encyclopedia
- Atlas
- Archival Collection
- Thesis and Dissertations
- Dictionaries
- Employment News
- Online Resources & Database Services: Library provides following online resources and database services to students and faculty members.
- Online Journals
- E-Books
- IEEE Papers
- J-Gate

- DELNET Database
- NDLI and Open Access Resources
- Institutional Digital Repository
- Video Viewing and Tutorials
- OPAC
- University Papers/Mid Term Papers
- E-News Clippings
- NPTEL Videos

# Document Selection and Collection Development Service

PCE Central library organizes annual exhibition of books. Reputed publishers display their latest publications in the exhibition. The faculty and students give recommendation of the books to be purchased by the library.

#### • NDLI Club & Awareness Service

PCE Central Library organizes various awareness and learning activities under the NDLI Club like user awareness sessions, expert lectures, career oriented sessions, writing and speaking events etc.

#### • MOOCs

PCE Central Library is SWAYAM-NPTEL local chapter with library playing an instrumental role as the librarian is the SPOC from the institute. The library continuously motivates its users for pursuing MOOCs courses.

# • E-Library Section

PCE Central library has created a separate section named as "E-library/Personal Books Reading Section" particularly for the users with visual impairments. Screen reader software installed in the computers available in digital library helps the visually impaired in reading. In reading section, student can come up with their personal books for study.

Website for PCE central library:

• About 250 students and faculty members regularly visit the library for issuing of books and learning through books, Journals, magazines and e –sources.

File Description	Document
Upload Additional information	View Document

### 4.3 IT Infrastructure

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

## **Response:**

In the age of information and communication, IT plays a vital role for smooth functioning of any institution. Therefore, in order to cater the requirements of stakeholders, the institute regularly updates internet bandwidth and upgrades its IT facilities.

#### • Internet and Wi-Fi:

Internet services are provided to students, faculty, staff and guests through Wi-Fi and LAN with around 75 total Wi-Fi access points. We have upgraded internet bandwidth of 1 Gbps to 2 Gbps from Tata Communications Limited on 01-08-2022.

# • Servers, Computers and Projectors:

- 1.Total 6 servers have been installed in the entire PCE campus, out of which recently we have purchased a GPU based server named "Dell-PowerEdge R750" server costing Rs. 19,48,521 /-.
- 2. In the past, 1047 computer systems were installed in the campus which has been increased recently by purchasing 50 computer systems and the up gradation of PCs is in process.

S. No.	Up gradation	Quantity	Date	
1.	Computer Systems	02 Nos.	31-03-2022	
	(Intel-Core I7-10700 F with accessories)			
2.	Computer Systems	50 Nos.	19-07-2022	
	(HP Pro-Desk-i5- 6th Gen with accessories)			
3.	Computer Systems	100 Nos.	22-07-2022	
	(HP Pro-Desk-i5- 6th Gen with accessories)			

1. The institute has 34 projectors, out of which 25 projectors were purchased on 20-07-2019. Wherein, 27 are exclusively mounted in lecture theatres, laboratories, seminar halls and conference hall and 7 are kept mobile.

S. No.	Up gradation	Quantity	Date	
1.	Projector Casio xj-v1	25 Nos.	20-07-2019	

# • Application Software:

- 1. The institute has upgraded its security software by purchasing "EPS Business Standard Upgrade" for an amount of Rs. 4, 88,520 /- on 19-09-2019.
- 2.PCE has been using "Turnitin" software for plagiarism checking of every project report, seminar report and research papers submitted by the student or the faculty member.
- 3. Our institution has used Google platform (Google Meet, Classroom, etc.) and Zoom Cloud Meeting

- during covid-19. Now we have upgraded to Microsoft Teams to enhance the teaching learning process in online mode from session 2020-21.
- 4.PCE-Central library was automated by Integrated Library Management System (ILMS)-SHARP software from 2001. It was upgraded to KOHA LMS which further includes web Online Public Access Catalogue (OPAC) to the existing library automation system in 2021.

Name of ILMS Software	Version	Year of Automat	ion
SHARP	2.1.639	2001	
KOHA ILMS	http://20.0.122.209:8000	2021	

#### • Surveillance:

- 1. The entire PCE campus has CCTV surveillance including lecture theatres, laboratories, hostels, canteen, corridors, etc.
- 2. In the past years, the institution was installed with 150 VGA cameras and 11 NVR's / DVR's which was upgraded to 150 HD cameras with same DVR's in session 2017-18.
- 3. The institute has upgraded it by installing additional 60 IP CCTV cameras and 2 NVR's / DVR's in session 2018-19 making a total of 210 CCTV cameras and 13 NVR's / DVR's with a storage capacity of 1 TB for each NVR / DVR.

File Description	Document
Upload Additional information	<u>View Document</u>

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

Response: 2.79

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

Response: 734

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: 69.73

# 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
686.17	575.69	347.83	248.38	220.43

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: 9.25

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
219	148	184	261	247

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 counseling offered by the Institution during the last five years

Response: 65.9

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
1538	835	1606	1669	1899

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	<u>View Document</u>	

# **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: 65.5

# 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
348	353	407	427	417

# 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
487	536	620	672	665

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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: 68.07

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
21	14	15	13	18

# 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
26	21	24	20	28

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

# 5.3 Student Participation and Activities

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

Response: 185

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

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# 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
21	21	17	37	89

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: 66.4

# 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
91	62	39	60	80

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:**

Poornima College Alumni Society (PCAS) is a Registered Society at district Jaipur under the Rajasthan Societies Registration Act, 1958 (Rajasthan Act No. 28, 1958). Poornima College Alumni Society (PCAS), *formerly known as Poornima Alumni Association (PAA)*, was formed in the year 2005 with its 1st meeting in October 2006. The Poornima College Alumni Society (PCAS) is an organization, composed by PCE alumni, and student coordinators organized across the world, with a view to carry forward the fine traditions of Poornima and strengthen the connection between the alumni and institution. About 24 alumni

sessions were conducted in last five years. More than hundred students were placed with help of alumnus in last five year.

#### **Mission of PCAS:**

- 1. To develop and maintain a relationship with Alumni, Current students and PCE.
- 2. To support and encourage Alumni groups in their endeavors.
- 3. To foster networking and communication through re-unions, functions, projects, publications, jobs and career development activities
- 4. To maintain close cooperation and fellowship among Alumni.

## **Objectives of PCAS (formerly PAA):**

- 1. To involve alumni in conduction of placement drives, seminars, trainings, interactions, career guidance, and motivational sessions.
- 2. To encourage the alumni of PCE to work for improvement in awareness towards technical education in the society
- 3. To bring together all the alumni of PCE and providing a forum for professional networking amongst the alumni, with present students and professors; including employment network for new graduates or alumni looking for career upgrade/ change.
- 4. To organize and establish scholarship funds for the help of the needy and deserving students
- 5. To encourage the alumni to take an active and abiding interest in the work and progress of the institute so as to contribute towards enhancement of the social utility of their Alma Mater
- 6. To inculcate the knowledge of and help the passing out students in the fields of employment and motivate them towards entrepreneurship.
- 7. To institute prizes for outstanding project work, research papers or other professional activities by the students of the institute.
- 8. To undertake to organize activities of civil and charitable nature
- 9. To extend academic support to the institute through various networks such as "visiting faculty network", "curriculum development network", "industry-academia relationship building", "distance learning network" and "academic endowment network" for enhancing technological and practical knowledge of students
- 10. To help the students by providing any/all learning materials required for their knowledge upgrade.
- 11.To acquire/ purchase/ own/ take on lease/ hire anywhere in India/ abroad, temporarily or permanently any movable/ immovable property necessary/ convenient for the furtherance of the object of the PCAS.

#### **Outlines of Activities Conducted:**

- 1. Guest lectures on technical, personality development and employability enhancement by renowned academic and industry professionals to provide guidance to the students.
- 2. Department and Campus level Alumni interactions with special emphasis on Innovations, Entrepreneurships, Research, Industry exposure, and other professions for engineering personals.
- 3. Organize educational and industrial visits for the students.
- 4. Information sharing about employment opportunities available in industry.

	File Description	Document
	Upload 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:**

Development of knowledge based society to face the global challenges is one of the key parameters in the Institute Vision which can be accomplished by effective delivery of knowledge as mentioned in the Mission statement of the Institute. Institute governance and leadership works in line with the Institute Vision and Mission statements, which can be visualized through decentralization process.

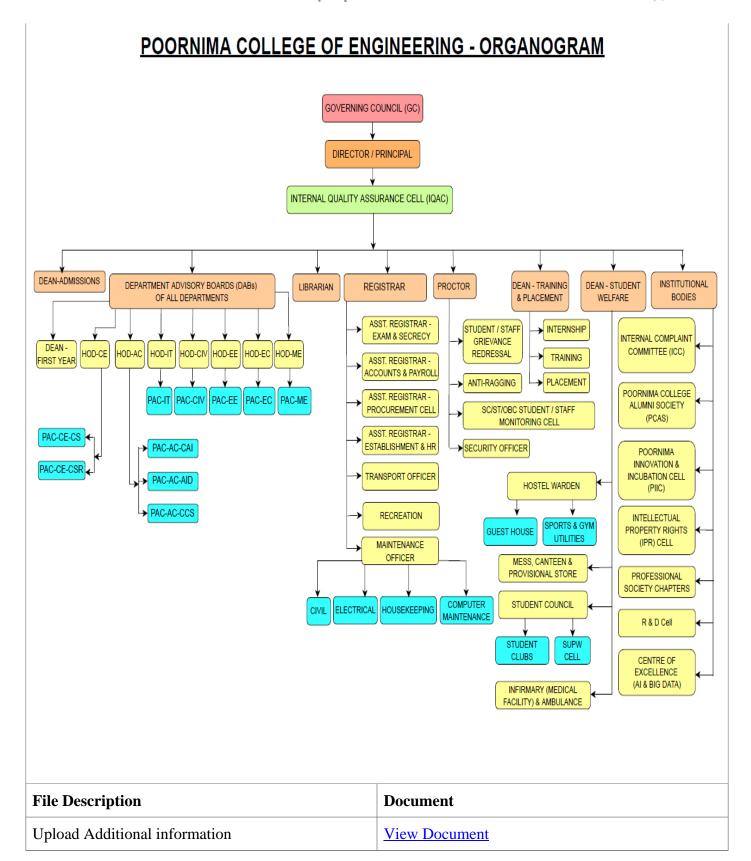
Organogram of the institute shows the participation of various leaderships and decentralization of responsibilities. All the operations of institute are governed by Director with the help of IQAC and reviewed once in a year by the governing council. DAB and PAC are the department level committees to implement the whole planning which include CDP, curricular, co-curricular and extra-curricular activities for the students keeping in view of their holistic development. Besides, implementation of all the operations, regular feedbacks are taken from various stakeholders for continuous improvement. On the basis of feedback of the stakeholders actions are taken by the departments for further improvement.

Institute adopts participative management at strategic level, functional level and operational level. At Strategic level Director/principal, Vice principal, Registrar, HoDs and IQAC members together frame and define policies, regulations, procedures and rules and regulations related to academics, examination, admissions. Committees at various levels decide the strategy to achieve the goals in tune with the mission and vision statements of the Institute.

At functional level faculty members who are also the members of various committees ensure proper sharing of knowledge among the students and also ensure effective curriculum delivery which is the mission of the institute. Effective curriculum delivery process is established through organizing and ensuring participation in co-curricular and extracurricular activities. Various committees formed by Principal, HoD and faculty members organize workshop, seminars, conferences and expert lectures by eminent speakers from industries and academic institutes, etc which helps in developing knowledge based engineers and develop team spirit among the students.

At operational level the Governing Council (GC), the highest decision making body of the institute issue advisory, monitors, reviews planning and execution of processes and systems for new academic session. The Principal of the Institute is the member secretary of GC. Principal in consultation with faculty members of different committees participate for planning and implementation of policies and goals set by the GC to achieve the mission and vision of the Institute.

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# **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:**

The Academic & Administrative bodies of Poornima College of Engineering, Jaipur provide regular inputs in terms of directions and indicators for enhancing the effectiveness and performance and overall satisfaction to all the stakeholders.

**Governing Council** is the highest institutional body where all policies/ procedures and systems are framed related to technical/ professional education and reorientation of approaches / practices adopted for the efficient management of the institution. The committee meets once in a year to review the performance and provides suggestions in the areas of improvements.

**Internal Quality Assurance Cell (IQAC)** aims to establish systems for consistent and catalytic approach to enhance the academic and administrative performance of the institution. IQAC works for creating an environment of scientific temper and team spirit thereby ensuring quality in conduction of different abridging activities. In order to meet quality expectations of stakeholders, IQAC facilitates and supervises faculty development initiatives, and providing appropriate infrastructure for achieving academic excellence.

# **Director/Principal:**

The Director/Principal ensures proper functioning and coordination of all the officers of the institution. He is responsible for overall planning, propositions, getting approval from GC and executing all the activities as planned and advised.

### **Department Advisory Board (DAB)**

Department Advisory Board (DAB) of all Departments are formed to provide necessary suggestions for developing a structured approach for continuous improvement in the curriculum delivery, planning and incorporation of Curricular, Extra and Co-Curricular activities to abridge the pre-identified curriculum gaps.

#### **Head of Departments:**

Responsible for planning, propositions and execution of effective teaching learning process successfully & ensure discipline among students and faculty members. Analyze the feedbacks from all stakeholders to take appropriate corrective/preventive actions for improvement. He is responsible for continuous monitoring and execution of suggestions given by GC and DAB.

# **Program Assessment Committee**

The primary objective of Program Assessment Committee (PAC) is to identify, bridge and assess the gaps in Program's Curriculum received from University through attainment calculation and responsible to prepare Curriculum Delivery Plan.

**Tutor & Feedback System**: Tutor performs the combined role of a friend, philosopher, and guide for a group of students under his or her tutorship. The responsibility of a tutor includes helping, guiding, admonishing as well as caressing for a student in studies, a person whom you can confide your problem of any type. Throughout the semester, feedback from students is collected through interactions with them in order to continuously enhance the teaching and learning process.

**Appointment and Service Rule:** A proper selection process is followed to appoint a faculty and other staff members. Their minimum qualification and salary are as per AICTE norms. A Document "Academic Manual' containing the guidelines regarding the service rule, discipline and code of conduct for all employees of PCE is followed. This manual also contain all academic rules and regulations for efficient implementation of all the institutional strategic/ perspective/development plans.

File Description	Document
Upload Additional information	<u>View Document</u>

## 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:**

Poornima College of Engineering has developed a proper mechanism for supporting the well-being of all the employees by offering a wide range of programs and schemes that assists for balancing the personal as well as work life and fulfill the individual commitments. Following are some of the welfare measures taken at PCE:

- 1. **Annual Faculty & Staff Excursion**: All the faculty and staff members are taken to excursion every year in order to reduce attrition and improve the quality of work.
- 2. **Gym Facility**: Keeping in view the mental & physical growth of faculty and staff members, multi facility gym in the hostel campus has been provided by the institution.
- 3. **Subsidized Faculty / Staff Accommodation**: To encourage faculty & staff members to stay in Poornima hostels & quarters, the management offers affordable accommodation at subsidized rates are as follows:

S. N.	Gross Salary (Basic + DA + VP + PLVP)	Accommodation Charges	
1	<= INR 20000	INR 3999 / Month	
2	>= INR 20001	INR 4999 / Month	

- 1. Free Transport Facility: PCE provide free transport facility to all the faculties and staff members with one time registration fee of Rupees 100 per year.
- 2. Free Uniform Scheme: PCE provide free uniform to all the faculty and staff members.
- 3. Fee waiver Scheme: Scholarship Scheme to self or near relatives of staff member studying in Poornima &/or exemption from depositing college caution money by staff member studying in Poornima.
- 4. **Employees Provident Fund**: Since every employee is always concerned about financial support after retirement, Provident Fund acts as a primary source in this regard. Hence, a certain amount is deducted from the employer's salary plus an amount is paid by the college for employee's Provident Fund.
- 5. **Group Insurance:** Every faculty and staff member that are on roll (regularly updated) and are in age group of 18-65 years are covered under group personal accident Insurance policy. The faculty/staff is insured for 100000 against risk of accidental death, dismemberment, permanent total disability and permanent partial disability.
- 6. Performance Appraisal System: Academic Performance/ Research Publication/ Patent Incentive Scheme: A well-defined incentive scheme is implemented from the inception of institute. To appreciate & recognize efforts made by faculty members for betterment of academics, research and consultancy, faculty members are awarded with incentives for the same. The For the purpose of identifying the growing potentials and areas of improvement of the Teaching and non-teaching staff that could lead to their better progress and growth in coming future. The performance is assessed as per Performance Appraisal System (PAS) for teaching and non-teaching staff.

For teaching staff, performance is assessed on the scales of following:

- 1. Teaching, Learning and Evaluation related activities
- 2. Significant contributions and important achievements
- 3. Important aims & tasks for session Accomplishments

For non-teaching staff the performance is assessed under various fields such as Abilities, character, Reliability, coordination with respective department colleagues, efficient organization of document and technical abilities (in case of staff). On satisfactory performance, all employees are granted promotions.

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:** 7.8

# 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
21	6	12	16	22

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: 33.15

# 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
54	65	131	55	65

### 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
6	20	37	17	49

File Description	Document
Upload supporting document	<u>View Document</u>
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:**

Being a self-finance institute, tuition fee is the main source of funds apart from the other sources as mentioned below:-

- 1. Development fee
- 2. Interest in corpus fund
- 3. Scholarships
- 4. Consultancy Fee
- 5. Grants from Govt. / Private agencies
- 6. The accreditation Fee

Budget is prepared to keep in mind the developmental activities of the institute. The budget for the departments is prepared by concerned HODs, in consultation with the department laboratory in-charges and other faculty. The departmental budget is discussed in the IQAC meeting and then sent to the management for final approval.

Funds are spent on payment of salary of teaching and non-teaching staff, setup of new infrastructure required for teaching-learning, computers, furniture, library books, maintenance expenses such as electricity, water, telephone, Wi-Fi, Internet & Networking, Laboratory Equipment and Consumables, Affiliation and Renewals, Events, etc.

Funds received from government agencies like DST, AICTE, Industries, RTU, and MHRD are utilized in scheme specific tasks such as; to upgrade laboratories (MODROBS), conferences, workshops, seminars,

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training programs, FDPs/STTPs, refresher courses, research projects as per the sponsorship approval.

The fund is utilized to meet day-to-day operational and administrative expenses and maintenance of the infrastructure of the institute. Funds are also utilized for the academic and infrastructural development of the institute. The fund is kept safe for miscellaneous expenses and for certain emergency requirements.

The institutional internal and external audits are being conducted by the end of each financial year. The Chartered Accountant of the institute conducts regular accounts audit and certifies its Annual Financial Statements. All Utilization Certificates to various grant-giving agencies are also countersigned by the CA. All Financial Statements up to 2021-22 have been certified by the CA.

The institute has its own internal audit mechanism, and it is conducted by an internal auditor. This is an ongoing continuous process to monitor the entire income and expenditure of the institute. Internally, there are periodic reviews of the cash flows to avoid any wasteful expenditure on superfluous activities that may not add value to the existing system and contribute to making it robust for the benefit of the students and teaching and non-teaching fraternity. This audit includes examining internal controls around accounting, financial reporting, and IT general controls. The audit team examines the validity and reliability of financial, accounting, and other data and reports any deviations. The Team completes the audit as per the scope and reports its findings.

The External Auditors who have been appointed by the institution as per the statutory requirement. The Auditor conducts audits in compliance with the standards of auditing issued by the ICAI. Another objective is to confirm that the accounting records follow standard practices. An external audit also reviews financial statements, such as balance sheets to certify that they present the entities of finances accurately.

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)

#### PRIMARY OBJECTIVE

Internal Quality Assurance Cell (IQAC) of Poornima College of Engineering, Jaipur aims to establish a system for deliberate, consistent and catalytic approach to enhance the academic and administrative performance of the institution. IQAC was established at PCE in April 2021 for improving the system of continuous monitoring, although improved Outcome based Education system has been implemented from

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2018. Before the constitution of IQAC, Director Office used to take care of these roles and responsibilities.

#### **ROLES & RESPONSIBILITIES**

- 1. Development and application of PCE Academic Calendar and quality benchmarks/parameters.
- 2. Seeking approvals for DAC and CDP from Governing Council thereby ensuring the suggestions made by GC members to be incorporated in planning and execution of the activities.
- 3. Acting as a nodal agency of the institution for quality-related activities
- 4. Preparation of the Annual Quality Assurance Report (AQAR) to be submitted to NAAC based on the quality parameters.

#### **STRATEGIES**

IQAC evolve mechanisms and procedures for:

- 1. Ensuring timely, efficient and progressive performance of academic, administrative and financial tasks
- 2. The relevance and quality of academic and research programs.
- 3. Equitable access to and affordability of academic programs for various sections of society.
- 4. Optimization and integration of modern methods of teaching and learning.
- 5. The credibility of evaluation procedures.
- 6. Ensuring the adequacy, maintenance and functioning of the support structure and services.
- 7. Research sharing and networking with other institutions in India and abroad.

# **COMPOSITION and MEETING FREQUENCY**

S.	Category	No. of Members	Nominated by	Designation
No.				
1	Chairman, IQAC	1	Chairman, Governing Council	Principal &
2	Coordinator, IQAC	1	Chairman, IQAC	Vice Princip
3	Department Faculty representative	6		Senior Facul respective D
4	Management Representative	1		Dean, I Year
5	Administrative Officer	2		Registrar, Po
6	Local Society Representative	1		As per availa
7	Alumni Representative	1		
8	Student Representative	1		
9	Employer / Industry Representative	1		
10	Parents Representative	1		

Self Study Report of POORNIMA	COLLEGE OF	F ENGINEERING,	<b>JAIPUF</b>
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# MEETING FREQUENCY & OBJECTIVES

>

Meeting	Meeting	Meeting	Meeting Objective	
No.	Code	Month-Week		
1.	IQAC-1	July, II Week	<ul> <li>Approval of Department Activity Calend Delivery Plans from DAB</li> <li>Preparation of PCE Academic Calendar</li> </ul>	

			by GC for inputs/approval	
2.	IQAC-2	October, I Week	Revision of Final drafts of	
			a) Department Activity Calendars from DAB	
			b) Curriculum Delivery Plans from DAB	
			c) PCE Academic Calendar along with plar activities approved by GC	nning
			Assessment of attainment until current	seme
3	IQAC-3	December, II Week	<ul> <li>Review / Approve Drafts of DAC, CDI including attainment.</li> </ul>	P, Sei
			<ul> <li>Preparing ATR-1 of GC suggestions ba conducted so far</li> </ul>	ased o
4.	IQAC-4	April Last Week / May First		
		Week	• Previous session closure with gaps and	
			<ul> <li>Completion of ATR-2 for current seme sessions and compiling it with ATR-1</li> </ul>	ester t
			<u> </u>	

# 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

**Document** 

**View Document** 

**View Document** 

- $\textbf{2.} Collaborative \ quality \ initiatives \ with \ other \ institution (s)/\ membership \ of \ international \ networks$
- 3. Participation in NIRF

**File Description** 

**Upload Additional information** 

Provide Link for Additional information

4.any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA, ISO Certification etc

# **Response:** B. Any 3 of the above

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

# **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:**

Poornima College of Engineering (PCE) follows high ethical standards in its all the operations. PCE also ensures safety, security and gender equity for students, faculty and staff members. Institute provides equal opportunities for personal as well as professional development irrespective of their gender, caste, language, religion, color and origin etc. Institute offers equal opportunity in the recruitments of staff, admission of students, participations in various curriculum and extra curriculum activities and placements. Following initiatives are taken by the institute for promotion of gender equity.

- 1. Same uniform for girl and boy students
- 2. Common rooms for both girls and boys students
- 3. Appointment of female and male Guard in the institute
- 4. Adequate ratio of female faculty/ staff to male faculty / staff
- 5. Common mess and canteen for all stakeholders
- 6. On campus residential facility for faculty and staff members
- 7. On campus hostel facility for boys and girl students

Institute always support and organize various national and international commemorative days, events and festivals. Institute organize World Environment day, Earth Day, International Yoga Day, World Blood Donor Day, International Women's Day as international commemorative days. Institute established Women In Science and Engineering (WISE) club for women which organize various activities to create awareness among girls students and female faculty and staff.

Institute also organize national level days like Republic Day, Independence Day, Teacher's Day, Hindi Diwas, Engineer's Day, National Unity Day, Gandhi Jayanti and IEEE Day. Institute organize an event Kalanidhi on Gandhi and Shashtri Jayanti in which outstanding students are awarded and Swachh Poornima Abhiyan is also organized on this day. On teachers day faculty members are awarded with their performance incentive which is unique feature of the institute.

Institute organize various events at institute and department level like Aadhar (Project exhibition), Aarohan (Sports, cultural and technical events), Manthan (Debate Competition) and Kalnidhi (Award ceremony) and department day. Institute celebrate various festivals like Viswakarma Jayanti, Janmastmi, Dandia Night, Holi and Diwali Milan Samoroh, Basant Panchmi and Kite festival on Makar Sakranti.

Duration of COVID-19, celebration of the various events, days and festivals were either not conducted or conducted in online mode due to state or national government guidelines. Institute also have various clubs which organize various activities and events. Institute also have Poornima Innovation and Incubation Cell which also have responsibility to organize technical events on these days.

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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	<u>View Document</u>

# 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	<u>View Document</u>

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

### **Response:**

Poornima College of Engineering has been created inclusive environment within the campus for each stakeholder. Institute has taken various initiative for inculcating the values of tolerance, harmony towards cultural diversities which create very favorable impact on the collective and cultural thoughts of society.

Students from many caste, religions, and regions attend the college without experiencing any discrimination, which is evidence that the institution believes in the equality of all cultures and traditions. In order to keep tolerance and harmony among students, the anti-ragging cell plays a vital role. In order to maintain unity in the college, a grievances redressal cell was also established, however there haven't been any major complaints yet. Students from many caste, religions, and regions attend the college without experiencing any discrimination, which is evidence that the institution believes in the equality of all cultures and traditions.

The institute has a uniform for all the students with the intention of unitizing students under the banner of the institute, regardless of socioeconomic background. Every year, at the beginning of a new academic session, the Institute keeps up an extensive "Induction Program" based on Universal Human Values for incoming students.

Institute organize various curricular and extra-curricular activities like seminars and workshop and expert talks on human values and professional ethics. Institute also organize national level days like Republic Day, Independence Day, Teacher's Day, Hindi Diwas, Engineer's Day, National Unity Day, Gandhi Jayanti and IEEE Day. Institute organize an event Kalanidhi on Gandhi and Shashtri Jayanti in which outstanding students are awarded and Swachh Poornima Abhiyan is also organized on this day. On teachers day faculty members are awarded with their performance incentive which is unique feature of the institute.

Institute organize various events at institute and department level like Aadhar (Project exhibition), Aarohan (Sports, cultural and technical events), Manthan (Debate Competition) and Kalnidhi (Award ceremony) and department day. Institute celebrate various festivals like Viswakarma Jayanti, Janmastmi, Dandia Night, Holi and Diwali Milan Samoroh, Basant Panchmi and Kite festival on Makar Sakranti.

We believe in giving holistic all round education to the students & sensitizing students on our constitutional rights, values, duties and responsibilities is one of the primary education given at the institute through various means.

The institute celebrates Republic Day, Independence Day, Rastra Bhasha Divash, Gandhi Jayanti Teachers day and Engineers Day, Vishwakarma Puja every year with great honor and respect. Greater life, love, honesty, brotherhood, and patriotism are fostered in the minds of the students through these college-sponsored programs. The institute conducts a number of social activities throughout the year like Nukkad natak, free education to under-privileged children etc. to sensitize students and employees of the institute to the responsibilities of citizens.

File Description	Document
Upload Additional information	<u>View Document</u>

#### 7.2 Best Practices

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

#### **Response:**

#### **Title of the Practice**

- **a. Practice 1:** Non Syllabus Project (NSP) to be done by every student either in group or individually every semester in any one of the focus areas of the department those relates to current thrust areas as per industry needs.
- **b. Practice 2:** Introduction of Industry Institute Interaction (I3) Day as training on beyond curriculum contents, technologies and practices for skill upgradation in line with industry needs with student's choice.

#### 2. Objectives of the Practice:

### **Objectives of Practice 1 (NSP)**;

- To upgrade practical skills of the students
- To make the students learn usage and implementation of new technology and tools.
- To make students competent in real time application problem solving
- To bridge the gap between curriculum and industry needs

# Objectives of Practice 2 (I3 Day);

- To make the students industry ready
- To bridge curriculum gaps
- To provide knowledge and practice of concepts, technologies and tools desired by the industries but are not covered in the curriculum
- To upgrade professional and communication skills of the students

# **The Context:**

Context Practice 1(NSP): Non syllabus project is a concept wherein the students need to work on certain real life problem or an idea or an application, design and implement the solution certain engineering problem. However, as it is beyond RTU curriculum and do not have Weightage of marks in the mark sheets, students were neglecting or avoiding seriously working on the project.

Context Practice 2(I3 Day): Looking to the need for training students in various advanced and current technologies as per industry needs, a full day in week has been spared for organizing these trainings through industry experts. It has been planned and executed without cost on the part of students, so initially students were reluctant and were enjoying holiday instead of trainings.

#### The Practice for NSP:

• Every department has finalized certain focus areas which are in line with current industry trends

- and these areas are modified as per requirement.
- In the beginning of every semester students are notified to form a group of 2-3 and opt for any one focus area of the department. For each focus area there are 2-3 or more faculty members are assigned who are selected as guide for these groups.
- One hour slot is kept twice week in the time table wherein the students groups meet with their guides, discuss and shows progress of the project.
- For finalization of problem statement every student in a group need to refer at least 5 latest research papers from journal/conference and do literature review.
- Faculty guides and monitor complete process, starting from registration to completion of the project.
- The uniqueness of this practice is that every student mandatorily works on 5-7 projects during four year span on different concepts, problem solving, practical implementation, technical and communication skill upgradation which otherwise is done once in four year span.

# The Practice I3 Day:

- Beyond curriculum requirements is being prepared through inputs from various stakeholders.
- Institute wide a common curriculum containing varying learning options students is prepared starting from 1st Semester to 7th Semester and the options for specific learning is taken from every student, every semester.
- Industry experts are invited and a full day training schedule if prepared for I3 Day.
- Every student as per choice attending the classes, labs, hands on practice throughout the semester and learning new concept during first to seventh semester.
- Being it without cost to students and one full day, it was challenging in the beginning to make the students regularly attending and learning.

#### **Evidence of Success:**

Evidence of success in both the practices can be shown as cumulative effect in terms of student placements, their package and the results.

These two practices majorly contributed towards our goal of making students employable through upgradation their technical, professional and communication skills. Following has been achieved during last five years.

- There has been continuous increase in university results except first year during 2017-18, 2018-19 due to change in curriculum and examination pattern making difficulty level higher. During 2019-20 it could reach to 98 percent while in 2020-21 it was 62 percent against previous lower results of around 40 percent. Overall results of all other semesters have also been increasing with certain cases going down. Final year results have increased from 96 to 98 %.
- Placement plays major role as indicator for the achievement of success and it is also increasing from 62 to 70 % of total number students. Not only the placement number but the highest package has been increased from 12 lacs to 44 lacs during last five years.

# • Problems Encountered and Resources Required:

**Practice 1 (NSP):** While implementing this practice there has been un-acceptability mainly from students, although everybody wants highest possible package. Secondly, it was difficult to make the provision in time table & assign certain incentive marks for these projects so that students take it seriously. Thirdly, faculty members were put to additional responsibility of guiding students. But all these could be set right during last five years time.

Resources required were faculty, extra lab hours and faculty time, some advanced equipments and facilities etc.

**Practice 2 (I3 Day):** This required critical planning and execution of complete process as a curriculum for the whole campus. Motivating students, creating awareness regarding importance of this concept was main issue. Sparing one full day, bringing industry experts to the campus, creating laboratory infrastructure and space has been various issues encountered.

#### **Notes:**

Being a non-autonomous institution dependent upon affiliating university rules/ regulations and curriculum, these two practices could play vital role in bridging the gaps between curriculum and industry needs. If seriously adopted by the organization and accepted by the students, these two practices can help any such institution to grow faster and make their 100 percent students employable.

Not only these two but there can be a concept of mandatory working on industry problems through MoU, mandatory internships, implementation of OBE in real sense, promoting establishing entrepreneurial and startup creation centers etc. can contribute towards success of any institution / university.

File Description	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:**

**Priority and Thrust**: To prepare Industry ready Engineers with social and moral ethics.

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PCE practices to develop skill based Industry ready engineers and inculcate social and moral ethics in them thereby performing its duties towards the society as well. Institute believes in providing an environment which not only helps in imparting quality knowledge but also believes in developing sense of social responsibility and moral ethics among the students in alignment with the mission and vision of the Institute.

Institute believes that by creating an ecosystem where students can create and explore new innovative ideas, it will help the students to develop real world problem based projects for the wellbeing of society which will further help in upliftment of life of human mankind.

Institute works meticulously to develop Industry ready engineers by instilling creative and innovative thinking among the students. Some of the steps taken by the institute to approach towards the thrust area are:

- 1. Since its inception from 2000, PCE has firmly believed that to develop industry ready engineers academics play major role. Institute is affiliated to Rajasthan Technical University, Kota and hence has to follow the curriculum prescribed by the university. To enhance employability skills of students prescribed curriculum is not sufficient and hence additional course activities beyond the curriculum are planned. These activities include add-on courses, I3 day activities, CRT activities soft skill, etc. Also to enhance the learning skills of the students' Non Syllabus Projects are allotted to the students in groups every year which provides a platform for the students to work in team and put their innovative ideas together to develop a project for the wellbeing of the society.
- 1. Extracurricular and co-curricular activities are organized in the institute to bridge the gap between Industry and Institute. These activities include expert lectures, conferences, seminars, project competitions, establishing technical and non-technical clubs like zircon club Coding Club, Udaan aero-modelling club, Hyagriva (Automobile) Club, Google Developer student club, industrial visits are organized, etc. These activities not only develop innovative thinking of the students but also develops team spirit among the students. Annual fest is organized where students are able to showcase their talents other than curricular which will help in grooming their overall personality.
- 1.PCE focuses on developing research and innovation skills of students and faculties. To develop these qualities faculties and students are motivated to register in various certification courses of MOOCS with SWYAM and NPTEL, etc which will help them to develop the ability of self-learning and update themselves with the latest developing technologies. National and International conferences are organized on latest developing technologies which provides a platform for the faculty members and students from various institutes to present their innovative and research based ideas. Faculty members are encouraged to publish their research work in national and international Journals of repute and incentives are given to them as an appreciation for their work which will motivate them to publish their research there by promoting good research in the Institute.

- 1.IPR cell is established in the Institute with aim to motivate the faculty member and students to publish the patents of new innovations, ideas and research work. Till now 31 patents have been registered out of which 9 patents have been granted. In 2018, Institute launched Poornima Innovation and Incubation Center (PIIC) with a motto to motivate the faculty members and students to develop startups and innovative projects as per the guideline of Institute of Innovation Council (IIC) an initiative the Ministry of Education (MoE) in collaboration with AICTE. PIIC facilitates to convert their enterpreneual and innovative idea into commercially viable product.
- 1. To develop social and moral ethics among the students various extension activities are organized in the institute. PCE has a tradition of organizing blood donation camp every year on international blood donor day. Blood Donation is the noblest step of humanity. Students, faculty members and staff donate blood voluntarily. The team from the Monark Blood Bank, Jaipur, Janana Hospital, Jaipur offered their valuable services. Social group Kanchan Devi Memorial Trust and Jain Social Group also appreciated the efforts of PCE Blood Donation Team. With an aim to connect institutions of higher education, with local communities to address the development challenges through appropriate technologies PCE adopted a village named Vidhani as per the initiative of AICTE. PCE has Helping Hand Club which consist of group of such engineering students who actively participate in social welfare activities. Various activities like COVID drive, Vastra Daan, Feed-O-Habit, Old Age Home Visit, Communal Harmony week, Blanket Donation Drive, etc. which helped to develop a sense of responsibility among the students for the development of village. Students of PCE also organize various social activities in nearby villages like creating awareness and motivate girl students for self-defense, self-defense methods, and importance of education in social life. During pandemic COVID-19, PCE distributed food packets, mask and sanitizer and staff and students help in distribution of these items in the adopted village and hospital area. This effort of PCE was appreciated by government officials.
- 1. To develop industry ready engineers it is necessary to instill leadership skill and team spirit within the students. To develop these quality various events like induction program, annual fest, and industrial visits are organized in which students are in the organizing committee. By organizing these events students develop a sense of responsibility and ownership which is a required trait for the industry. Also projects are allotted in groups so that they work together in a team and develop projects for the benefit of the society. By working in these directions PCE is able to progress towards its priority thrust i.e.to prepare Industry ready engineers with social and moral ethics.

File Description	Document
Appropriate web in the Institutional website	<u>View Document</u>

# 5. CONCLUSION

# **Additional Information:**

Although we are trying to bridge the gap between RTU curriculum and the industry needs, the Institution is keenly interested in getting academic autonomy so that the curriculum can be designed and implemented for real implementation of the OBE process. Many new concepts of NEP can be implemented after getting autonomy. Continuous hiring of good faculty has been regular process, however, faculty retention is a challenge. Faculty is being motivated to pursue higher education such as PhD as per mandatory requirement of AICTE to have all faculty as PhD qualified. The Mechanical department has Center of Excellence in Integrated Manufacturing while Electronics & Communication department has a COE in Advanced Communication, likewise the Institution is aiming to have a COE in each department. There is Center of Excellence setup by Celebal Technology, Vividian Technology, and many more are in process to establish their COE in campus. Teaching theory courses in the laboratory has been started so that there are more hands on desired technologies / tools using course concepts. More efforts are being made to promote research, varied COE's and industry involvements shall increase quality of research, innovation and patenting. PIIC is being strengthened to include entrepreneurial and startup activities. Institute has developed its own ERP system, modified from time to time but has limitations, tried one proprietary cloud ERP but could not continue, recently finalized a deal with TCSiON for ERP and it is in process of implementation. Institute is working for social works and has adopted one village but the response from village authorities was slower, but are in process of adopting few more to serve in this direction. Planning to develop a PoDcast for social causes. Developing laboratory infrastructure for more innovations and startup delivery. Apart from two best practices, the institution has been adopting many innovative practices since beginning such as self-help groups, mentor- mentee in hostels, opening of varied clubs and society chapters etc. Currently we have a tutor system which is working very well in all respects. Institute has been working towards the concept of a green campus and continuously improving in this aspect.

# **Concluding Remarks:**

At the conclusion it can be said that the institute since its inception in the year 2000, has been progressing continuously trying to achieve excellence in all spheres as per its vision and mission statements. There has been growing engineering demand and decays few times during 23 years. There has been varying needs of skills of engineering graduates from time to time as per changes in technologies and their requirements and applications. Inspite of all these ups and downs, the institute has always tried to excel only through changing policies, processes, systems, developing infrastructure, strengthening faculty and resources. Some of the highlights are as under;

- · Implemented Outcome Based Education
- Ranked 2nd in Rajasthan by the RTU in Quality Index Value since 2017.
- Ranked 98th in All India Private Engineering Institute Rankings 2021 by Times Engineering Survey
- Recognized Center of Excellence by the RTU in Artificial Intelligence and Data Sciences
- RTU TEQIP III funded activities worth more than 50 lakh Rupees and AICTE funded MOBDRO, STTP, and Conferences worth more than 70 lakh Rupees during the previous three years.

- · Collaborations with Industry & academic institutions / universities of National and International level.
- · Organizing IEEE, ACM, Elsevier, and Springer International Conferences every year.
- · More than 200 research papers, more than 28 Patents in the last three years.
- PIIC established in 2018 to promote the spirit of start-ups and it is a 3.5 STAR Rating by the MoE.
- · Collaboration with IIT Bombay, IIT Madras, and IIT Kharagpur to implement MHRD missions on the quality enhancement of engineering education.
- · Collaboration with Bennett University under Newton Bhabha UK Project in AI and Deep Learning Applications for healthcare and agriculture.
- · Professional Society Chapters such as IEEE, ACM, IETE, ISLE, ISTE, IEI, IETE, CSI, ISHRAE, IGBC, ASHRAE, SAE, etc. for promoting student driven activities.
- PCE IETE Students Forum is recognized as Most Active ISF by IETE Rajasthan Centre, Jaipur.
- Networking with AIESEC and Global Reach to study International Internships and work abroad.
- · Digital library with IEEE, Scopus, J-Gate, DELNET including turnitin..

# **6.ANNEXURE**

#### 1.Metrics Level Deviations

Metric ID Sub Questions and Answers before and after DVV Verification

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
90	60	40	20	27

Answer After DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
35	58	22	19	17

Remark: DVV has made the changes as per excluded ISSN No in this metric.

- 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
  - 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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
12	10	5	11	7

Answer After DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
9	7	4	10	7

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
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130	150	84	69	130	191
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# Answer After DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
91	62	39	60	80

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

### 2. Extended Profile Deviations

Z.Extended Proffie Deviations	
	Extended Profile Deviations
	No Deviations