

## FOR

# 2<sup>nd</sup> CYCLE OF ACCREDITATION

# JAWAHAR EDUCATION SOCIETYS A. C. PATIL COLLEGE OF ENGINEERING

JAWAHAR EDUCATION SOCIETYS A. C. PATIL COLLEGE OF ENGINEERING, PLOT 17, SECTOR 4, 410210 www.acpce.org

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Submitted To

## NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

## BANGALORE

## April 2024

# **1. EXECUTIVE SUMMARY**

## **1.1 INTRODUCTION**

Sprawled over 2.84-acre, The campus of Jawahar Education Society's A C Patil College of Engineering (ACPCE) has ultra huge infrastructure. It is established in 1992 by the eminent leader, Honorable Shri Rohidasji Chudaman Patil and strategically located at Kharghar, Navi Mumbai. ACPCE is one of the reputed Institutes in Mumbai suburb offering graduate, post graduate and Ph.D. professional degrees in Engineering and Management, which is approved by apex technical bodies, All India Council for Technical Education (AICTE) New Delhi, recognized by Director of Technical Education (DTE) Maharashtra State and affiliated to University of Mumbai (UoM) since last 32 years.

In the campus approximately 1800 undergraduates, post graduate and Ph. D. students are undergoing various professional Engineering and Management courses. The institute running seven undergraduates Engineering courses, one post graduate Management and two Engineering and Technology Ph. D. programs. The institute provides quality undergraduate engineering education in the modern fields of technology such as Electrical Engineering, Mechanical Engineering, Electronics & Telecommunication, Computer Engineering, Artificial Intelligence & Data Science, Information Technology, Computer Science & Engineering (Internet of Things), post graduate education in Masters in Management Studies and Ph.D. in Computer and Electrical Engineering. The institute aims to create skilled professionals and engineers for catering the needs of industries and society. Recently, ACPCE has received educational iCON award as 'Best Engineering College' for Industry Interaction.

The college is situated in the lively city of Navi Mumbai and dedicated to deliver an education that blends knowledge and creativity, focusing on empowering students through research, innovation, and entrepreneurship. Fueled by technology, qualified faculty, industry collaboration, inclusivity, and a growth mindset, the ACPCE is renowned for its exceptional teaching, sports, cultural, and social endeavors. The college provides a top-notch facility to students, a conducive environment for learning, and dedicated educators who guide and lead them towards success. Institute participate in innovative events such as the National Robocon competition, e-yantra of IITB, spoken tutorial of IITB, NPTEL, and guest lectures, as well organize conferences, workshops, STTP, seminars, industrial visits. We also provide counseling, and mentoring to students.

#### Vision

To create skilled professionals and engineers for catering the needs of industries and society

#### Mission

1. To provide qualified faculty and required infrastructure for imparting quality education inculcating continuous learning attitude.

2. To provide platform for the interaction between academia and industry.

3. To inculcate social values and responsible attitude amongst students through cocurricular and extracurricular activities.

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

#### **Institutional Strength**

The college functions with a committed management and world class infrastructure:

1. Spacious, clean and ICT enabled classrooms, smart class rooms, department offices, faculty rooms, institute office, conference room and state of art auditorium.

2. High-end configuration computer labs with 300 Mbps internet facility, and state of art laboratories.

3. Experienced, committed, approachable, sincere and highly qualified faculty members with good number of Ph.D. faculties

4. Class teachers and mentoring is adopted for overall growth of the students.

5. Professional students society's such as CSI, ISTE, IETE and ISHRAE, and local societies MESA, EESA and a student council are functional to improve the personality of the students.

6. The college has a well-established Institution's Innovation Council (IIC) which encourages innovation and entrepreneurial skills among the students and staff.

7. Active NSS unit, Unnat Bharat Abhiyan and Induction program imbibe human values and holistic development of the students.

8. Consistently good performance in National Robocon Competition conducted by IIT, Delhi.

#### Institutional Weakness

- 1. Contribution of alumni toward the development of institute.
- 2. Industry collaborated laboratories.
- 3. Shortage of funded projects.
- 4. Lack of industry collaborated research and consultancy activities.

#### **Institutional Opportunity**

1. As the institute is situated near by the financial capital Mumbai, where students have a lot of opportunities for startups.

2. With the availability of innovative labs and infrastructural facilities, faculty could contribute more towards research and consultancy.

3. The institute has huge opportunities for knowledge exchange, research activities and consultancy with premier institutes and industries.

4. The establishment of IIC and R&D Cell creates opportunities to students become Entrepreneurs

#### Institutional Challenge

- 1. Develop a strong Alumni Network.
- 2. Motivate students for start-up / entrepreneurship.
- 3. Receive grants from Government funded projects and consultancies.
- 4. Motivate faculty members for Research, Innovation and consultancies.
- 5. Motivate students to inculcate changing industry requirements.
- 6. Implementation of NEP 2020.

## **1.3 CRITERIA WISE SUMMARY**

#### **Curricular Aspects**

The institute academic preparation for every semester starts with the academic load distribution, academic calendar preparation as per the guidelines of the University of Mumbai (UoM) followed by the preparation of time table. Faculty members prepare their subject teaching plans, laboratory plan, laboratory manual, course outcomes, COs-POs mapping, which are reviewed by program coordinators. The principal address to all teaching and non-teaching staff and guide them for the smooth and effective conduction of academics. Further regular meetings are conducted by principal with heads and section in charges during the semester to discuss academic progress and facilitate seamless communication and coordination within the institution.

The Institution provide online resources to the teacher's such as IEEE, ASPP, KNIMBUS, DELNET, POP, JGATE etc. along with offline resources to enable faculty enrich the content of teaching. Majority of the classrooms are equipped with LCD projector along with the conventional blackboard to ensure effective delivery of curriculum. The interaction with the research organizations and Industry happens through guest lectures, seminars, industrial visits, tours and internships during vacation. The conferences, workshops, FDPs, STPs, SDPs organized by institute help faculty and students to interact with industry persons and researchers.

Faculty members maintain course file which contains following information: Vision and Mission of Institute and Department, Program Outcomes, Course Outcomes, Academic Calendar, Individual Time table, Syllabus, Teaching Plan, Unit wise notes, Attendance Register, Mid Term Question Papers, Assignment/ Tutorial

questions, PPTs, Result Analysis, Previous University Question Papers and their Solutions. Experimental setups at all the laboratories are tested and maintained to conduct experiments. The student's laboratory performance and evaluation are maintained and recorded. In every semester, two Internal Assessment tests are conducted for continuous assessment of the students. Regular review is carried out on teaching learning process and facilities through the effective feedback system in the institute. Parent Teachers Meetings are scheduled to discuss the performance of students periodically. This systematic planning ensures the effective delivery of curriculum, which provides optimal learning environment to the students. In Pandemic, the institution had adapted online and hybrid mode of teaching to ensure uninterrupted learning.

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

The institution actively fosters student-centered learning, cultivating a vibrant environment that empowers students to develop critical skills like critical thinking, communication, problem-solving, teamwork, and collaboration. To enhance the overall learning experience, mini projects and skill-based labs have been introduced in every semester of the first three years and major project in the last year of program. Additionally, different sub-domain choices for department level and multidisciplinary/interdisciplinary choices for institute-level elective courses, along with sub-domain-based honor and multidisciplinary/interdisciplinary based minor degree programs, contributes to a personalized and diversified learning.

The Institute is affiliated to the University of Mumbai and adheres to their guidelines for internal and external assessments, as well as grievance redressal procedures. Prior to the commencement of every academic year, the Institute, in collaboration with the principal, department heads, and section in-charges, prepares an academic calendar aligned with the university calendar. The schedule of internal assessment and result declaration is planned in the calendar, which is further followed by every department. Whereas the external assessment is looked after by the university but the conduction is carried out at the Institute as per university schedule. At the semester's start, students are introduced to the course-wise assessment methods, university examination regulations, and course grading system.

The institute has implemented Outcome-Based Education (OBE) and for its effectiveness sensitization and understanding, institute has organized the workshops for the faculty, followed by a leadership brainstorming session to adapt OBE in curricula implementation, pedagogical activities and assessment rubrics accordingly. The knowledge, skills and other attributes that students take away at the end of a program are more valuable. AICTE has set Program Outcomes (POs) for the engineering and technical programs and in line with its Mumbai University has set Course Outcomes (COs).

The institute takes a multifaceted approach to ensure students effectively acquire program knowledge and skills. This involves evaluating the attainment of COs, POs, and Program Specific Outcomes (PSOs). Subject teachers design and implement a rigorous assessment process at the end of each course to determine if students have achieved the intended learning objectives. This process utilizes both direct and indirect measures.

#### **Research, Innovations and Extension**

The Institute Innovation Cell (IIC) is established to foster and support students with a penchant for innovation. Under the auspices of the Kalam Program for Intellectual Property Literacy and Awareness (KAPILA) campaign, the Innovation Cell regularly organized an Intellectual Property Rights (IPR) awareness and patent drafting program by professional experts, aiding researchers in navigating the patent application process effectively. Additionally, it conducted an Industrial Expert session on emerging technologies, featuring certification-based training on Ethical Hacking using Quantum learning training methodology endorsed by Microsoft and IBM. Our esteemed faculty members have successfully earned patents and copyrights for their groundbreaking discoveries, showcasing our institution's commitment to fostering a culture of innovation and intellectual property development.

The institution provides an ideal environment for nurturing innovation and incubation through the establishment of Innovative labs within various centers, including the Robotics Centre and the e-Yantra Lab, which is supported by IIT Bombay. Our team has actively participated in DD-ROBOCON events held in 2021 and 2023, organized by IIT Delhi. Institute has also started a research center and Ph.D. programme for encouraging and creating an ecosystem for research and Innovation

We have a very strong NSS team, through which we explain the importance of cleanliness to the residents of nearby villages and also conducting the different activities to create awareness for the healthy social life. We actively participate in a central government scheme named "Swachh Bharat Abhiyan". We also conduct the programs under that scheme and explain the importance of health and other issues like skill development to unemployed residents in nearby villages.

Many more guest lectures have been organized for students and staff, inviting experts to educate them on a variety of social issues, including but not limited to gender equality, drug abuse, traffic regulations, voter responsibilities, anti-ragging initiatives, and cybercrimes.

The institute actively conducting the Tree Plantation and cleanliness Drives, Eye and Blood Donation Camps, Health checkup camps. The institute has received recognition and appreciation for the cleanliness drives from the Panvel Municipal Corporation (PMC) and Tata Memorial Centre for the endeavor as a Blood Donation Camp organizer.

#### Infrastructure and Learning Resources

Adheres to the guidelines set by AICTE, UGC and University, the institute has state-of- art infrastructural facilities, for the academics, co-curricular and extracurricular activities. It comprises of classrooms, smart classrooms, fully equipped laboratories, seminar halls, required computing facilities, online facilitates, automated library, language laboratory, administration office and acoustic A/C auditorium. ICT facilities such as LAN for internet access, LMS, LCD projectors with screen are available in all classrooms and tutorial rooms. The institute has "Vmedulife" LMS portal to facilitates continuous monitoring and evaluation of students and faculties. A spacious girl's common room adds to the sensitivity of the institute towards girl student. The institute provides xerox & printing, medical and canteen facility in the campus, whereas, first aid facility with every department. The campus has the facility of back-up power supply of 125 KVA DG generator. The entire campus is under CCTV surveillance and fire- fighting protection systems to ensure the safety of stakeholders. The institute provide facilities to organize cultural, technical and sports festivals annually named "Rythms", "Vector" and "Kurukshetra" respectively. Whereas, separate area of 92 sq. m. for gymnasium is allotted in the building with required infrastructure.

The fully computerized central library of the institute spread over the area of 630 sq. m. with seating capacity of 300 students facilitates huge collection of print and non-print resources required for technical and management

education. In order to effectively utilize the library facilities, the library working timing is 8.30am to 6.30pm daily from Monday to Friday. The students and faculties are allowed to borrow up to 3 books (for a period of 7 days) and 6 books respectively. The free book bank facility is also available for SC/ST category students.

We do have EPBAX system in the campus. The staff and students have dedicated G-suit Ids. The institute uses centralized biometric attendance system for the employees. The institute promotes the use of free and open-source software's for teaching learning and administration whereas for specialized computing needs mentioned in the curriculum of the university, accounting, Library, ERP and operating certain lab equipment's the college procure some commercial software's.

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

As an educational institute the students are the main stakeholder of the ACPCE. Institute provides financial support to students through government and non-government scholarship schemes. The Institute conducts various seminars and training sessions to create awareness and prepare the students for the competitive exams such as GATE. The institute frequently organizes seminars, expert talks of education professionals to motivate the students for the higher education in foreign universities. Training and Placement (T&P) cell of ACPCE works consistently towards the overall personality development of the students. The T&P Cell conducts events and programs to guide and inspire the students for achieving the best in their professional career.

Every year ACPCE conduct "RHYTHM " the Cultural fest, "Kurukshetra" Sports events and "Vector" technical fest through student council and departmental students' associations. This help students to develop management, team work, and leadership skill and provide platforms to their hidden skills and hobbies to explore.

The ACPCE have registered Alumni Association from the academic year 2017-18. It regularly conducts alumni meet and organizes regular seminars and workshops with the help of alumni. They share their experiences with the new aspirants of ACPCE so that it gives them an idea of the competitive job arenas and add on required to do to place in industries. They also guide to students for their higher education in abroad

#### Governance, Leadership and Management

The college is dedicated to upholding the vision and mission of the institution by ensuring effective governance and leadership. To ensure the all-round development of students, the college provides a variety of co-curricular, extracurricular, and entrepreneurship skill development opportunities. The institution ensures decentralization and delegates authority at different levels to maintain good governance. The college's governance structure includes several committees such as the Board of Governance (BOG), College Development Committee (CDC), Internal Quality Assurance Cell (IQAC), Internal Complaint Committee, Anti-Ragging Committee, Redressal and Grievance Committee, Women Development Cell, SC/ST Cell, Industry Institute Interaction Cell, and others.

The ACPCE provides a fair and well-structured compensation system, along with additional benefits such as gratuity and provident funds. The institution also hosts short term training program (STTP), workshops, international conference (ICATM) and seminars on various topics including curriculum development, classroom management, technology integration, and leadership skills. The institute supports research initiatives, attracts funding from external sources, and promotes interaction among researchers. The Women Development

Cell provides a space for female members to thrive and advance. Implementing flexible leave policies and other support systems to handle personal and professional commitments promotes work-life balance. The institution offers its teaching and non-teaching staff various leave options, including sick leave, maternity leave, and casual leave.

Financial statements are the responsibility of Managing Committee of the Society. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the financial statements that give a true and fair view and free from material statement. A team of chartered accountants conducts external auditing once in a year. The external auditing involves performing procedures to obtain evidence about the amounts and disclosures in the financial statements.

ACPCE has IQAC which ensures the quality of the education system. The various processes include reviewing teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities. Every year audit is done for academics and resources with the help of auditors for quality improvement.

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

The ACPCE supports gender equity in its administration and education, Inattentive of a caste, gender, color, profession, and status. The institute treats all stakeholders with honor and respect in all rights and opportunities. The institute has formed different committees as per AICTE and UGC guidelines such as women development cell, women grievance cell "Vishakha", Anti-ragging committee, SC/ST committee, Grievance redressal cell and Internal complaint committee. Which are disseminated in the premises and communicated through different media.

The institute organizes and conducts several extracurricular activities to build and promote an inclusive environment for regional, cultural, linguistic and communal socioeconomic and sensitization among the students and staff members. The first-year students start their curriculum with a induction programme that places an important focus on universal human values. The primary objective of this programme is to instill clear human conduct and correct understanding in the students, so that they will fulfill their duties, roles, and responsibilities with commitment and dedication, both as students and citizen.

The institute follows two best practices are Use of Learning Management System (LMS) "vmedulife" for Educational Excellence and Improving Employability through Training and Placement Cell (T&P Cell). Similarly the distinctiveness are Sponsoring Staff for Higher Education, Credit society, Gratuity for staff members and Salary deduction EMI facility.

## **2. PROFILE**

## **2.1 BASIC INFORMATION**

Name and Address of the College	
Name	JAWAHAR EDUCATION SOCIETYS A. C. PATIL COLLEGE OF ENGINEERING
Address	Jawahar Education Societys A. C. Patil College of Engineering, Plot 17, Sector 4,
City	Kharghar Navi Mumbai
State	Maharashtra
Pin	410210
Website	www.acpce.org

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Vijaykumar N. Pawar	022-27745722	9869782468	022-2774573 2	principal@acpce.ac .in
Professor	Sawata R. Deore	-	9969187826	022-2774573 2	srdeore@acpce.ac.i n

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

<b>Recognized Minority institution</b>	
If it is a recognized minroity institution	No

Establishment Details	

State	University name	Document	
Maharashtra	University of Mumbai	View Document	

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

0	nition/approval by stati MCI,DCI,PCI,RCI etc(d	• • •	odies like	
Statutory Regulatory AuthorityRecognition/Appr oval details Instit 				
AICTE	View Document	15-05-2023	12	

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

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Jawahar Education Societys A. C. Patil College of Engineering, Plot 17, Sector 4,	Urban	2.84	16089.66

## **2.2 ACADEMIC INFORMATION**

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Pro gramme/Co urse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Electrical Engineering, Electrical Engineering	48	HSC	English	90	29
UG	BE,Compute r Engineering ,Computer Engineering	48	HSC	English	60	60
UG	BE,Informati on Technolo gy,Informati on Technology	48	HSC	English	60	58
UG	BE,Electroni cs And Telec ommunicatio n Engineerin g,Electronics and Telecom munication	48	HSC	English	60	46
UG	BE,Mechanic al Engineerin g,Mechanical Engineering	48	HSC	English	60	3
UG	BE,Artificial Intelligence And Data Sci ence,Artificia I Intelligence and Data Science	48	HSC	English	60	60
UG	BE,Compute r Science And Enginee ring,Comput er Science and Engineering	48	HSC	English	60	60

PG	MMS,Master Of Management Studies,PG	24	UG	English	60	28
Doctoral (Ph.D)	PhD or DPhil ,Electrical En gineering,Ele ctrical Engineering	36	PG	English	12	0
Doctoral (Ph.D)	PhD or DPhil ,Computer E ngineering,C omputer Engineering	36	PG	English	10	0

### Position Details of Faculty & Staff in the College

	Teaching Faculty											
	Profe	essor			Asso	ciate Pro	ofessor		Assis	stant Pr	ant Professor	
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	8	1			11	1			34			
Recruited	3	0	0	3	0	0	0	0	20	14	0	34
Yet to Recruit	5			11			0					
Sanctioned by the Management/Soci ety or Other Authorized Bodies	2				10				37			
Recruited	2	0	0	2	7	3	0	10	6	31	0	37
Yet to Recruit	0		1	1	0		1	1	0			

	Non-Teaching Staff							
	Male	Female	Others	Total				
Sanctioned by the UGC /University State Government				93				
Recruited	90	3	0	93				
Yet to Recruit				0				
Sanctioned by the Management/Society or Other Authorized Bodies				1				
Recruited	1	0	0	1				
Yet to Recruit				0				

Technical Staff							
	Male	Female	Others	Total			
Sanctioned by the UGC /University State Government				24			
Recruited	24	0	0	24			
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		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.	5	0	0	4	3	0	2	7	0	21
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	3	0	0	24	38	0	65
UG	0	0	0	0	0	0	0	0	0	0

	<b>Temporary Teachers</b>									
Highest Qualificatio n	Professor		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 Time Teachers									
Highest Qualificatio n	Professor		Associate Professor Assis			Assist	ant Profes			
	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?	2	0	0	2	

### 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	345	12	0	0	357
	Female	142	2	0	0	144
	Others	0	0	0	0	0
PG	Male	22	1	0	0	23
	Female	8	0	0	0	8
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0

Category		Year 1	Year 2	Year 3	Year 4
SC	Male	71	85	50	30
	Female	29	36	16	22
	Others	0	0	0	0
ST	Male	10	8	9	2
	Female	2	3	0	4
	Others	0	0	0	0
OBC	Male	95	92	80	60
	Female	39	30	19	26
	Others	0	0	0	0
General	Male	217	262	180	127
	Female	77	83	44	51
	Others	0	0	0	0
Others	Male	64	53	24	27
	Female	11	23	13	5
	Others	0	0	0	0
Total		615	675	435	354

Provide the Following Details of Students admitted to the College During the last four Academic Years

#### Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	Jawahar Education Society's A.C. Patil College of Engineering (ACPCE) is an affiliated college of the University of Mumbai (UoM); the curriculum is designed by the parent university as per the UGC guidelines. As and when the UoM releases curriculum based on NEP, the college will abide by them. The first-year engineering curriculum includes
	the fundamental science, humanities and engineering courses such as Physics, Chemistry, Mathematics, Professional Communication and Ethics, Basic Electrical Engineering, Mechanics, Engineering Graphics and Programming. With appropriate weightage to Science, Technologies, Engineering, and Mathematics (STEM) education strengthens the

pool of scientists, engineers, and mathematicians. For the best learning environment and learner-centric approach, the curriculum of Mumbai University offers many more departmental and institute level optional multidisciplinary / interdisciplinary courses like Cyber Security and Law, Management Information System, Development Engineering, IPR and Patenting, Energy Audit and Management, Project Management, Environment Management, HR Management, Digital Business Management. Students study these subjects along with their core domain to enrich humanity and social connections in the mentioned courses, students learn and engage with the community. As per the university guidelines, institute has encouraged the students for opting honors/minors courses like Cyber security, Block chain and Artificial Intelligence and machine learning. This help them to provide engineering solution effectively. We also recognize the importance of providing knowledge that can motivate learners to be critical thinkers and problem solvers. So, the NPTEL Swayam Local Chapter is established in 2019, through which students are encouraged to enroll in MOOCs and SWAYAM-NPTEL's online credential courses. The institute has established an Institute Innovation cell to systematically foster the culture of Innovation in the institute under the Ministry of Education, Govt. of India. The institute organize an International Conference on Advances in Technology, and Management (ICATM) to promote the multidisciplinary/interdisciplinary participation following the concept of STEM application in the industry and academia. The conference is multidisciplinary covering areas such as Data Sciences, E-Commerce, Agricultural Technologies, Healthcare Technologies, Renewable Energy, Power Systems, Fluid Flow and Heat Transfer in Green Technology, Wireless Communication and Networking, and the Internet of Things (IoT). Extra and Co-Curricular activities including NSS events, Yoga, sports events "Kurukshetra", technical fest "Vector", Robocon, cultural fest "Rhythms" are carried out. To meet NEP 2020 objectives and faculty empowerment, the institute is preparing the suggested multidisciplinary and interdisciplinary approach to education as per the Policy.

2. Academic bank of credits (ABC):

The Academic Bank of Credit (ABC), is a virtual

mechanism that will deal with the credits earned by students of Higher Education Institutes (HEI) in India, which are recognized by the University Grants Commission (UGC). It is a credit facility originally envisioned by the Government of India in the National Education Policy (NEP) 2020. The scheme has the provisions of creating a digital infrastructure that will store the academic credits earned by the students of various HEI within the country. The ABC will be entrusted with the responsibilities such as opening, closing, and verifying the individual academic accounts of students. It will also be responsible to gather the academic credits earned by the students from their respective HEI, verify the credits, store the credits, transfer or redeem such credits, and promote them as and when required among its stakeholders. As per the guidelines circulated from University of Mumbai (UoM), online sessions are attended by the Exam In-charge of our institute. ABC Id is the key feature of NEP 2020. Approximately, 880 students have created ABC ID through the Digi locker portal in the academic year 2022-23. The procedure of creating ABC Id is explained to the students with the help of video, conducting meeting and zoom meeting. Also, the power point presentation is shared among all the students studying currently in academic year 2023-24. As our institute is affiliated to the university of Mumbai, we have to follow the schemes and syllabus guided by the University of Mumbai. University of Mumbai is going to implement NEP 2020 from the academic year 2024-25. We have established NPTEL Chapter in the Institute coordinated by Dr. Dipti Patil. Students can earn the required credits by completing SWYAM NPTEL courses. We also have active NSS wing headed by Prof. Amol G. Patil Our institute is registered under ABC/ NAD. We conduct various sessions to explain the significance of ABC Id. With the help of ABC Id, students can graduate in two different disciplines with minimum efforts. Credits for common subjects can be utilized in another program, if he/she wishes to join.

Jawahar Education Society's A C Patil College of Engineering (ACPCE) is committed to strengthen vocational education and develop soft skills of the students, through various initiatives and programs,

3. Skill development:

providing ample opportunities for skill enhancement, knowledge acquisition, and overall personality development. In accordance with AICTE guidelines, the institution organizes a Life Skills program, which is conducted through Rubicon NGO sponsored by Barclays under their CSR activities which emphasizes Goal Settings, SWOT Analysis, Public Speaking, Presentation Skills, Group discussion and Interviews Skills etc. NASSCOM foundation, Campus Credentials program conducted on Aptitude Test Preparation and Technical Skills enhancement. In association with IDBI Intech Ltd we conducted "Banking and Banking Technologies, Utkarsh/IDBI Intech workshops on AI -/ ML (Artificial Intelligence and Machine Learning) and Java workshops, Additionally, faculty members conduct regular sessions, integrated into the academic curriculum for all students, focusing on Group Discussion Skills & Personal Interview, leadership, teamwork, adaptability, and flexibility. By integrating these sessions into the curriculum, the institute ensures continuous development of these skills and effectively prepares students for the challenges of the professional world. The institute also provides students with a plethora of opportunities to engage in courses such as Spoken English and Personality Development (SEPD), Spoken Tutorial. QSpider, Masai, Pentagon train our students on various technical skills which are need of our courses, that enables students to enhance their employability. Each department organizes and conducts seminars, webinars, guest lectures, workshops, to strengthen the technical skills of the students. Additionally, students are exposed to skill-based courses such as Data Sciences & Software Programing – Python, Java, SQL. ACPCE being affiliated to University of Mumbai, offers specialized Degree programs in emerging fields such as Artificial Intelligence and Machine Learning (AIML), and Data Science. These programs provide students with specialized knowledge and expertise, giving them a competitive edge. Furthermore, the institute actively participates in community engagement and social responsibility through activities organized by NSS such as Swachhata Abhiyan, Unnat Bharat Abhiyan, Tree Plantation drives, Drug Abuse Awareness campaigns, etc., to promote social and environmental sustainability. ACPCE organizes an annual technical

	festival, 'VECTORS', aimed at promoting Research, Technology, and Innovation, which serves as a platform for students to showcase their technical projects. Students actively engage in national and international competitions, such as SMART INDIA HACKATHON, ROBOCON, Flipkart Grid Competition, National Innovation Contest etc. The Institute organizes Rhythm, an annual cultural festival which provides opportunity to students for showcasing their talent and creativity. Furthermore, ACPCE organizes an annual Sports Week, for demonstrating athletic prowess and competing in various sports events. ACPCE provides a holistic learning environment that fosters personal and professional growth, enhances students' employability and prepares them for the ever- evolving demands of the industry. The institution is committed to empower students and contribute towards betterment of the society.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	The Institution uses English as the medium of instructions as per affiliated authorities but very often teacher's choice to vernacular languages to facilitate understanding of concepts in the mother tongue of the learner. The stake holders including parents and students are invited for Parent Teacher Meeting (PTM) to share student's academic progress and Institute provides feedback form in multilingual. The institute organizes annual cultural and technical events where students enhance the creativity like modeling, analyzing, organizing, interpersonal, acting, singing, dancing, playing instruments and managerial skills etc and in technical events they exhibit their technical skills. The Institute conducts annual one-week NSS Residential Camp in rural areas. During the camp students stay in village, this gives opportunity to understand rural life and Indian culture. The students travel to the local schools and provide presentations and guidance to the students. Every year, the institution plans nationwide industrial visits for students, allowing them to experience and learn about the history, traditions, and way of life of many states. In order to imbibe Indian culture amongst the students and faculty members the institute organizes various events round the year like Independence Day celebration, Republic Day celebration International Women's Day celebration and Yoga Day celebration. Under the initiative 'Ek

	Bharat Shrestha Bharat' Institute visited Odisha. Through this innovative measure, the knowledge of Culture, traditions and practices of both States highlighted and it enhanced understanding and bond between the States, thereby strengthening the Unity and Integrity of India.
5. Focus on Outcome based education (OBE):	The institute has implemented Outcome-Based Education (OBE) and for its effectiveness sensitization and understanding, institute has organized the workshops for the faculty, followed by a leadership brainstorming session to adapt OBE in curricula implementation, pedagogical activities and assessment rubrics accordingly. The knowledge, skills and other attributes that students take away at the end of a program are more valuable. AICTE has set Program Outcomes (POs) for the Engineering and Technical programs and in line with it Mumbai University has set Course Outcomes (COs) for all theory and laboratory course along with mini project and major project. Each department has set its Program Specific Outcomes (PSOs) and Program Education Objectives (PEOs). The COs for each course are established at the beginning of OBE implementation by mapping with POs and PSOs. The CO-PO mapping of each course is done on a scale of 1 to 3, a correlation between COs and POs is determined, with 1 denoting the slight (low), 2 denoting moderate (middle), and 3 denoting considerable (high). The COs are evaluated and assessed at the end of each course to check whether COs have been accomplished or not. Attainment of the COs can be measured directly and indirectly. Direct attainment displays the students' knowledge and skills from their performance. It can be determined from the performance of the students in all the relevant assessment instruments like internal assessments, assignments, lab assignments / experiments, end semester examination, practical semester examination, class / assignment test, or other processes that are relevant and appropriate to the program. Students are asked for feedback on their learning using indirect means such as course exit forms and program exit survey. Once the CO attainment with each course is calculated. The process of program attainment of COs, POs, and PSOs starts from writing appropriate COs for each

	course of the program from first year to fourth year in a four-year engineering degree program. Indirect measurements of POs attainment can reveal how graduates perceive their education and how various stakeholders value this education. Based on current technological trends as well as input from the stakeholders, the course's curricular gap is analyzed and rectified through various methods such as guest lectures, industrial visits, internships, online quizzes, etc. The faculties use or/and modify the Course Outcomes (COs) given in the university syllabus, Program Outcome (PO), Program Specific Outcomes (PSOs), and Program Educational Objectives (PEOs) to determine exactly what students are expected to accomplish post their course or program, respectively. This clarity has brought further reflection on the quality of teaching and delivery across divisions and departments, where faculty adjust their focus more appropriately. Diverse assessments such as group projects and quizzes are required to measure individual learning and its outcomes. We have implemented mapping question papers CO/PO-wise and calculating the attainment of individual outcomes and overall subject outcomes. The faculty at our institute has adopted multiple pedagogical approaches to promote constructive learning and active involvement of learners.
6. Distance education/online education:	The institute understand the importance of online and distant education and encourages the faculty and students to use it effectively. The institute was having the infrastructure for online education prior to COVID-19 pandemic and has strengthened it during pandemic to cater the effective education. The faculty were given training to use various online tools and technologies for effective teaching learning. The NPTEL Swayam Local Chapter is established in 2019, through which students are encouraged to enroll for MOOCs and SWAYAM-NPTEL's online credential courses. This helps the students to learn from the best faculty across India/globe in the chosen domain to enhance the knowledge and skill. The students take placement related online courses. ICT based Virtual Labs are among the most important online learning tools which facilitate to use best experimental facility at remote location. This saves time, money and enhance the learning curve. The departments use ICT based virtual laboratories of

IITs, NITs for some courses to develop advanced laboratory skills. Institute has G-suit from google, every subject teacher creates the google class rooms to share the course material online and also used for conducting online quizzes. Google meet brings more convenience to faculty and students to conduct extra classes online.

#### **Institutional Initiatives for Electoral Literacy**

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	Yes, The motive of ELC is to inculcate the importance of voting and elect the right candidate irrespective of caste, community and religion.
2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	Yes, ELC is functional and headed by Dr. Mohan S. Selokar with two teaching staff members and three non-teaching staff members. Earlier we conducted drive in our campus for our staff members to do voter registration for graduate and teacher constituency. Yes, ELCs are representative in character.
3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.	The ELCs organizes various activities to promote electoral literacy and participation as follows- 1. Voluntary Contribution by Students: ELCs encourages students to actively participate in the electoral process by contributing voluntarily. We conduct awareness program for the students to arrange camp and participate in voter enrollment process. 2.Voter Awareness Campaigns: We celebrate the Voters Day in our institute on 25th January, every year to explain the importance of voting, in democratic country. Through the voter registration drives, some of our faculty members are registered in voter list. 3.Promotion of Ethical Voting: ELCs actively promotes ethical voting practices, emphasizing the unbiased votes. Voters are advised to cast their votes by considering candidate qualification, Ethics and experience. 4. Street Plays: Students take part in various street plays to spread awareness about using the right to vote to build a healthy society.
4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to	ELCs Activities: Voters day was celebrated in our institute on 25/01/2022 in online mode.

advancing democratic values and participation in electoral processes, etc.	
5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.	We are planning to organize the one week camp for our students to get enrolled in voter list.

## **Extended Profile**

## 1 Students

#### 1.1

#### Number of students year wise during the last five years

2022-23	2021-22	2020-21		2019-20	2018-19
1883	1760	1702		1599	1927
File Description I		Document			
Upload Supporting Document		View Document			
Institutional data in prescribed format		View Document			

## **2** Teachers

#### 2.1

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

Response: 195	File Description	Document
	Upload Supporting Document	View Document
Institutional data in prescribed format		View Document

#### 2.2

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

2022-23	2021-22	2020-21	2019-20	2018-19
102	91	82	103	108

## **3** Institution

3.1

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

2022-23	2021-22	2020-21	2019-20	2018-19
531.14	443.03	388.61	542.33	663.85

File Description	Document
Upload Supporting Document	View Document

## 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:**

Jawahar Education Society's A C Patil College of Engineering (ACPCE) is affiliated to University of Mumbai (UoM). The curriculum is prescribed by the Mumbai University, which is framed through the Board of Studies that constitutes senior faculties from affiliated Institutes, representatives from industries and various organizations concerning to academics and research.

Before starting of every semester the head of departments distributes academic load following UoM's teaching scheme in consultation with Principal and specialization of teachers. Further the academic calendar aligned with Mumbai University term plan is prepared in consultation with the principal, all heads, section in charges and student council representatives. Before starting the semester, principal address to all teaching and non-teaching staff, also regular meetings are conducted during the semester to discuss academic progress and facilitate seamless communication and coordination within the institution.

The detailed time-table is prepared for each class with respect to subject, subject teachers, class rooms, laboratories and projects. It is displayed on departmental notice boards, class rooms and laboratory notice boards, and published on the institute website and communicated to students and staff members through social media on class groups. The academic load distribution is prepared well in advance, so the faculty members prepare teaching plans, laboratory plan, laboratory manual, course outcomes, COs-POs mapping, which are reviewed by program coordinators. Faculty members maintain course file which contains following information: Vision and Mission of Institute and Department, Program Outcomes, Course Outcomes, Academic Calendar, Individual Time table, Syllabus, Teaching Plan, Unit wise notes, Attendance Register, Mid Term Question Papers, Assignment/ Tutorial questions, PPTs, Result Analysis, Previous University Question Papers and their Solutions. Experimental set-ups at all the laboratories are tested and maintained to conduct experiments. The student's laboratory performance and evaluation is maintained and recorded. In every semester, two Internal Assessment tests are conducted for continuous assessment of the students. Regular review is carried out on teaching learning process and facilities through the effective feedback system in the institute. Parent Teachers Meetings are scheduled to discuss the performance of students periodically. This systematic planning ensures the effective delivery of curriculum, which provides optimal learning environment to the students. In Pandemic, the institution had adapted online and hybrid mode of teaching to ensure uninterrupted learning.

The Institution also provide online resources to the teacher's such as IEEE, ASPP, KNIMBUS, DELNET, POP, JGATE etc. to enable faculty enrich the content of teaching. Majority of the classrooms are equipped with LCD projector along with the conventional blackboard to ensure effective delivery of curriculum. The interaction with the research organizations and Industry happens through guest lectures, seminars, industrial visits, tours and internships during vacation. Some of these lead to projects for

students in their final year. The conferences, workshops, FDPs, STTPs, SDPs organized by institute help faculty and students to interact with industry persons and researchers.

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

#### **1.2 Academic Flexibility**

#### 1.2.1

Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

Response: 196

File Description	Document
List of students and the attendance sheet for the above mentioned programs	View Document
Institutional programme brochure/notice for Certificate/Value added programs with course modules and outcomes	View Document
Institutional data in the prescribed format	View Document
Evidence of course completion, like course completion certificate etc. Apart from the above:	View Document

#### 1.2.2

Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

#### Response: 10.1

1.2.2.1 Number of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
572	169	59	9	87

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 in transacting the Curriculum

#### **Response:**

The institute is affiliated to University of Mumbai (UoM), which incorporated few courses in curriculum to develop students with Professional Ethics, Gender Equality, Human Values, Environment and sustainability. Also, the induction programs such as human values, professional ethics, personality development, yoga and physical activities incorporated in first year curriculum helps students to reduce stress, improve self confidence and inculcate leadership qualities. Many faculties have successfully completed UHV-I and UHV-II training programs for the same. The institute offered many interpersonal skill development courses such as Cyber Security and Law, Management Information System, Development Engineering, IPR and Patenting, Energy Audit and Management, Project Management, Environment Management, HR Management, Digital Business Management and Professional Communication & Ethics I and II.

The institute has professional student societies such as CSI, ISTE and local societies MESA, EESA, ISF, SAET, CSESE and a student council, which regularly organize socially relevant cultural and sport events that cater to socio-cultural issues. NSS unit of ACPCE participated in several community-related programs such as Swatchata Abbhiyaan, Unnat Bharat Abhiyaan, Flag Pickup and awareness rally, traffic policing, tree plantation, blood donation camp and street play on the theme of Drugs and their ill effect on society through residential camps at villages "Nangurle" and "Palasdari", and adopted villages "Akurli", "Devad", "Kevale", "Adai" and "Usarli Kh".

ACPCE has organize an International Conference on "Advances in Technology and Management" (ICATM) in which, students and faculties were enlightened by dignitaries related to the National and Global Scenario for Sustainable Development. We encourage our students to volunteer and organize college festivals which develop essential skills such as planning, teamwork, leadership and multi-tasking. "Vector" is an annual inter-collegiate technical festival to promote Research, Technology and Innovation in the institute. It also provides a platform to students for showcasing technical projects, poster presentation and extracurricular skills. The students actively participate in national and international level competitions like SMART INDIA HACKATHON, ROBOCON, Kavach, Aavishkar, and Yukti Innovation Challenge, etc. Every year we organize "Rhythm" a cultural festival and "Kurukshetra" a sport week in the Institute which provides an opportunity for the students to showcase their art and athletic skills respectively.

ACPCE Innovation and Entrepreneurship Development Cell (IEDC) / IIC established to develop an Institutional mechanism to create Entrepreneurial culture to foster the growth of innovation and entrepreneurship.

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

#### 1.3.2

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

**Response:** 87.41

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

Response: 1646

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

**Response:** A. Feedback collected, analysed, action taken& communicated to the relevant bodies and feedback hosted on the institutional website

File Description	Document
Feedback analysis report submitted to appropriate bodies	View Document
At least 4 filled-in feedback form from different stake holders like Students, Teachers, Employers, Alumni etc.	View Document
Action taken report on the feedback analysis	View Document
Link of institution's website where comprehensive feedback, its analytics and action taken report are hosted	View Document

## **Criterion 2 - Teaching-learning and Evaluation**

#### 2.1 Student Enrollment and Profile

### 2.1.1

#### **Enrolment percentage**

Response: 53.21

# 2.1.1.1 Number of seats filled year wise during last five years (Only first year admissions to be considered)

2022-23	2021-22	2020-21	2019-20	2018-19
393	340	189	191	312

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

2022-23	2021-22	2020-21	2019-20	2018-19
520	525	525	532	576

File Description	Document
Institutional data in the prescribed format	View Document
Final admission list as published by the HEI and endorsed by the competent authority	View Document
Document related to sanction of intake from affiliating University/ Government/statutory body for first year's students only.	View Document

#### 2.1.2

Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

#### **Response:** 54

2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years (Exclusive of supernumerary seats)

2022-23	2021-22	2020-21	2019-20	2018-19
184	156	88	92	135

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

2022-23	2021-22	2020-21	2019-20	2018-19
229	247	235	241	261

File Description	Document
Institutional data in the prescribed format	View Document
Final admission list indicating the category as published by the HEI and endorsed by the competent authority.	<u>View Document</u>
Copy of communication issued by state govt. or Central Government indicating the reserved categories(SC,ST,OBC,Divyangjan,etc.) to be considered as per the state rule (Translated copy in English to be provided as applicable)	<u>View Document</u>

#### 2.2 Student Teacher Ratio

2.2.1

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

Response: 18.46

#### 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 and teachers use ICT- enabled tools including online resources for effective teaching and learning process

**Response:** 

The institution actively fosters student-centered learning, cultivating a vibrant environment that empowers students to develop critical skills like critical thinking, communication, problem-solving, teamwork, and collaboration. Aligning with this philosophy, institute affiliated University of Mumbai lastly revised its syllabus, known as "Revision -19," which emphasize experiential and participative learning methods. To enhance the overall learning experience, mini projects and skill-based labs have been introduced in every semester of the first three years and major project in the last year of program. Additionally, different sub-domain choices for department level and multidisciplinary/interdisciplinary choices for institute-level elective courses, along with sub-domain-based honor and multidisciplinary/interdisciplinary based minor degree programs, contributes to a personalized and diversified learning journey.

**Experiential Learning:** The curriculum integrates subject-specific and skill-based labs, offering handson sessions to augment technical proficiency and provide a profound grasp of research processes. Projectbased learning serves as a cornerstone, enabling students to confront real-world challenges, fostering higher-order thinking and yielding tangible outcomes. Actively engaging in these experiences promotes a well-rounded understanding of intricate subjects.

**Participative Learning:** Actively involving students in organizing workshops, seminars, and guest lectures creates a platform for interaction with industry experts and academics. Additional initiatives like industrial visits, internships, and participation in technical quizzes, workshops, paper presentations, and inter-college competitions bridge the gap between theory and practice. This approach encourages collaborative learning and holistic student development.

**Problem-Solving Methodologies**: The institution hosts the annual technical festival "Vector," featuring problem-solving events such as technical quizzes and robotics design challenges. Participation in National-level competitions like "ROBOCON", fostering critical thinking. Literary activities during the cultural festival "Rhythms" (group discussions, debates) further refine problem-solving skills by addressing complex issues. Placement training is an additional avenue that hones critical thinking and creativity.

**ICT enabled tools for Effective Learning:** The pandemic prompted a seamless transition to online learning, utilizing tools such as Google Classroom for audio-video lectures, practical, quizzes, and assignment submissions. Even post-pandemic, faculty members leverage ICT tools such as Learning Management Systems (LMS), PowerPoint presentations, animations, video clips, Pen tablets, and interactive display panels to enhance in-person classroom engagement.

The institution's unwavering commitment to student-centered approaches and adaptability to new technologies ensures a dynamic and effective learning experience that aligns with the demands of contemporary education.

File Description	Document
Upload Additional information	View Document
Provide Link for 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: 92.22

#### 2.4.1.1 Number of sanctioned posts year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
87	96	104	115	125

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts)	View Document

#### 2.4.2

# Percentage of full time teachers with NET/SET/SLET/ Ph. D./D.Sc. / D.Litt./L.L.D. during the last five years (consider only highest degree for count)

#### Response: 13.79

# 2.4.2.1 Number of full time teachers with NET/SET/SLET/Ph. D./ D.Sc. / D.Litt./L.L.D year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
21	9	9	14	14

File Description	Document
List of faculties having Ph. D. / D.Sc. / D.Litt./ L.L.D along with particulars of degree awarding university, subject and the year of award per academic year.	<u>View Document</u>
Institution data in the prescribed format	View Document
Copies of Ph.D./D.Sc / D.Litt./ L.L.D awareded by UGC recognized universities	View Document

#### **2.5 Evaluation Process and Reforms**

#### 2.5.1

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

#### **Response:**

The Institute is affiliated to the University of Mumbai and adheres to their guidelines for internal and external assessments, as well as grievance redressal procedures. Prior to the commencement of every academic year, the Institute, in collaboration with the principal, department heads, and section incharges, prepares an academic calendar aligned with the university calendar. The schedule of internal assessment and result declaration is planned in the calendar, which is further followed by every department. Whereas the external assessment is looked after by the university but the conduction is carried out at the Institute as per university schedule. At the semester's start, students are introduced to the course-wise assessment methods, university examination regulations, and course grading system.

#### **Transparent Internal Assessments:**

Department examination coordinators, in consultation with heads, prepare the internal assessment schedule, supervisor duty chart, seating arrangements (ensuring no more than 30 students per course in the class), paper setting, and assessment panel, all aligned with the academic calendar and adhering to university guidelines. Complete transparency is maintained throughout the process. Evaluated answer sheets are available for student review, followed by marks being posted on notice boards and online. Faculty then discuss model answers and areas for improvement to enhance learning.

Laboratory courses and projects term work assessment considers attendance, assignments, submission timeliness, presentations, and student understanding. Regular attendance updates are displayed promptly on notice boards and online groups. Project work is also assessed through regular progress presentations in which faculties provide feedback on weaknesses and areas for improvement. Students maintain "project weekly reports" for regular faculty evaluation.

#### **Transparent External Assessments:**

The university oversees and administers the end-semester external assessments for theory courses. Orals, practicals, and project evaluations, however, are carried out by the institute, adhering to university guidelines. The appointment of external examiners is done confidentially by the Principal and Heads of Departments, selecting from a panel approved by the university.

#### **Time-Bound and Efficient Grievance Redressal:**

The institute has established mechanisms for addressing examination issues.

- **Internal Assessments:** Examination coordinator handles internal assessments, with faculty setting papers, evaluating, and declaring results. Students can review answer sheets, and faculty promptly address queries.
- University Level: A separate Examination Control Room with computer technology ensures

transparency and security at the university level. End-semester exams adhere to university norms, with errors communicated and addressed as per university guidelines.

- Grievance Redressal: Senior faculty squads monitor exams to prevent malpractice. An effective mechanism addresses grievances related to malpractice through the Unfair Means Committee.
- **Revaluation:** In case of grievances, students can request an answer sheet revaluation. Photocopies are available upon request. If discrepancies are found (e.g., totaling errors, unassessed questions, or unsatisfactory assessments), students can apply for revaluation with the examination section. The institute efficiently follows a time-bound procedure for such grievances. The results of the revaluation are declared within a time-bound manner, adhering to university guidelines.

This transparent and robust assessment system, coupled with an efficient and time bound grievance redressal process, ensures a fair and supportive learning environment.

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

#### 2.6 Student Performance and Learning Outcomes

#### 2.6.1

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

#### **Response:**

The institute takes a deliberate approach to ensure Program Outcomes (POs) adopted from the national body for technical education, and clearly defined Course Outcomes (COs) are communicated, and readily accessible to all stakeholders. This ensures transparency and alignment between program goals, course content delivery.

Approval and Dissemination Process:

Subject teachers define proposed COs for each course. These COs are then reviewed and approved by the Department head. The Head of the department, ensures a comprehensive perspective on course content and aligning COs.

- Website and Notice Boards: POs, as adopted from the AICTE, are prominently displayed on the college website and department notice boards for easy access.
- Online Platforms: COs are communicated through online platforms like Google groups, ensuring convenient access for all students.

- Classroom Discussion: Subject teachers actively discuss COs in class, fostering student understanding of course learning objectives.
- Submission Files: Students are encouraged to include the institute's mission, vision, POs,

By following the comprehensive strategy plan, the institute ensures program and course outcomes are widely publicized and understood by both faculty and students. This transparency fosters a learning environment aligned with the institute's mission and prepares graduates for success in their chosen fields.

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

#### 2.6.2

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

#### Explain with evidence in a maximum of 500 words

#### **Response:**

The institute takes a multifaceted approach to ensure students effectively acquire program knowledge and skills. This involves evaluating the attainment of Course Outcomes (COs), Program Outcomes (POs), and Program Specific Outcomes (PSOs). Subject teachers design and implement a rigorous assessment process at the end of each course to determine if students have achieved the intended learning objectives. This process utilizes both direct and indirect measures.

**Direct Measures:** Subject teachers employ various direct assessments tools to provide a tangible indication of a student's grasp of the course material. These assessments directly reflect the learning objectives outlined for the course. Throughout the semester, students are evaluated through internal exams, assignments, and classwork meticulously mapped to specific COs. For courses with a practical component, subject teachers design laboratory experiments and dedicated practical performance to assess the development of essential practical skills. End-semester exams also play a crucial role, measuring a student's overall understanding and ability to apply acquired knowledge to solve problems. Depending on the specific course content, subject teachers may utilize class tests, quizzes, or other appropriate tools to contribute to the overall evaluation, providing a more comprehensive picture of student learning. By utilizing these diverse direct measures, subject teachers gain valuable insights into student performance and their grasp of key concepts and skills within each course.

**Indirect Measures:** Student feedback, gathered through course exit forms surveys, offers valuable insights into their learning experiences and perceptions of the program's effectiveness in meeting their goals.

**Mapping COs to POs:** Following the direct assessment of CO attainment, subject teachers engage in a CO-PO mapping process. This process involves mapping each course's COs to the program's POs on a scale of 1 to 3. This scale determines the broader correlation between specific course outcomes and program outcomes. A score of 1 indicates a slight (low) correlation, 2 signifies a moderate (middle) correlation, and 3 represents a considerable (high) correlation. This mapping process allows the institute to calculate PO attainment for each course based on student performance in assessments linked to mapped COs. Then the POs attainment level for the program is calculated and analyzed through all curriculum courses. The Learning Management System [LMS] "vmedulife" is used for calculation and analysis. Analyzing these attainment levels provides valuable insights into program effectiveness and identifies areas where curriculum adjustments might be necessary.

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

#### 2.6.3

#### Pass percentage of Students during last five years (excluding backlog students)

#### Response: 91.9

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

2022-23	2021-22	2020-21	2019-20	2018-19
326	442	601	494	566

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

2022-23	2021-22	2020-21	2019-20	2018-19
447	467	615	495	619

File Description	Document
Institutional data in the prescribed format	View Document
Certified report from Controller Examination of the affiliating university indicating pass percentage of students of the final year (final semester) eligible for the degree programwise / year-wise.	<u>View Document</u>
Annual report of controller of Examinations(COE) highlighting the pass percentage of final year students	View Document

# 2.7 Student Satisfaction Survey

#### 2.7.1

#### Online student satisfaction survey regarding teaching learning process

# **Response:**

File Description	Document
Upload database of all students on roll as per data template	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: 68.2

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

2022-23	2021-22	2020-21	2019-20	2018-19
65	0	0	0	3.2
			1	
File Descriptio	n		Document	
F <b>ile Descriptio</b> Upload support			Document       View Document	

#### **3.2 Innovation Ecosystem**

#### 3.2.1

Institution has created an ecosystem for innovations, Indian Knowledge System (IKS), including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident

#### **Response:**

The ACPCE recognizes the multidisciplinary nature of real-world engineering and actively promotes students to acquire domain knowledge in various engineering and management disciplines. The institute overarching goal is to inspire, mentor, assist, and educate new engineering graduates, management post graduates empowering them to transform their ideas into tangible prototypes.

The Institute Innovation Cell (IIC) is established to foster and support students with a penchant for innovation. Under the auspices of the Kalam Program for Intellectual Property Literacy and Awareness (KAPILA) campaign, the Innovation Cell regularly organized an Intellectual Property Rights (IPR) awareness and patent drafting program by professional experts, aiding researchers in navigating the patent application process effectively. Additionally, it conducted an Industrial Expert session on emerging technologies, featuring certification-based training on Ethical Hacking using Quantum learning training methodology endorsed by Microsoft and IBM. These initiatives were orchestrated to empower

students with cutting-edge skills and knowledge. We also offer a platform for both academicians and students to collaborate on innovative research ideas and explore avenues to translate those ideas into tangible outcomes such as products, projects, patents, or other inventive ventures. Our esteemed faculty members have successfully earned patents and copyrights for their groundbreaking discoveries, showcasing our institution's commitment to fostering a culture of innovation and intellectual property development.

The institution provides an ideal environment for nurturing innovation and incubation through the establishment of Innovative labs within various centers, including the Robotics Centre and the e-Yantra Lab, which is supported by IIT Bombay. Our robust ROBOCON team comprises students from diverse engineering backgrounds including Mechanical, Electrical, Telecommunication, IT and Computer Engineering. Our team has actively participated in DD-ROBOCON events held in 2021 and 2023, organized by IIT Delhi.

Institute encourages academic staff and students to submit book chapters and research papers in reputable publications such as Scopus indexed, SCI, and Web of Science. Institute has started a research center and Ph.D. programme for encouraging and creating an ecosystem for research and Innovation. We actively encourage students to undertake projects that address social issues. It provides ample opportunities for both students and faculty to broaden their research exposure through field visits, internships, project engagements, seminars and activities under various MoUs.

Institute provides e-resources through e-library & Internet connected computers. Courses like - Free computer training course, value added courses, participation in Avishkar Research Convention and state level final year project competition to enhance their technical understanding. We have the NPTEL Local Chapter where the students and faculty upgrade themselves by completing courses on latest technologies. Students are also doing internships in the industry which updates them for the latest knowledge and expertise in their field.

File Description	Document
Upload Additional information	View Document
Provide Link for 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: 61

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

	2022-23	2021-22	2020-21		2019-20	2018-19
	33	4	3		6	15
File Description			Docum	ent		
Upload supporting document		View Document				
Iı	Institutional data in the prescribed format			View D	ocument	

#### **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: 0.47

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

2022-23	2021-22	2020-21	2019-20	2018-19
25	29	28	7	2

File Description	Document
Link to the uploaded papers, the first page/full paper(with author and affiliation details)on the institutional website	<u>View Document</u>
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: 0.93

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

2022-23	2021-22	2020-21		2019-20	2018-19	
37	36	55		41	12	
File Description	File Description			Document		
Institutional da	Institutional data in the prescribed format		View Document			
Copy of the Cover page, content page and first page of the publication indicating ISBN number and year of publication for books/chapters			View D	ocument		

#### 3.4 Extension Activities

#### 3.4.1

Outcomes of Extension activities in the neighborhood community in terms of impact and sensitizing the students to social issues for their holistic development during the last five years.

#### **Response:**

Holistic development is a practical approach to a comprehensive learning system where the physical, social, emotional, mind and spiritual growth of students is taken care. This style of education not only focuses on mere learning but also on implementing what is learned. We regularly conduct the cleanliness drive, health checkup and blood donation camp and celebrate "No Vehicle Day".

We have a very strong NSS team, through which we explain the importance of cleanliness to the residents of nearby villages and also conducting the different activities to create awareness for the healthy social life. We actively participate in a central government scheme named "Swachh Bharat Abhiyan". We also conduct the programs under that scheme and explain the importance of health and other issues like skill development to unemployed residents in nearby villages. In this way, we strongly deal with Socio-Economic issues. Institute is very much confident that such activity will make us very special as compared to other nearby colleges

Some of the activities during this academic year are listed below:

- 1. The Institute participated in the Two Days National Conference on Role and Contribution of Students and Youth Movements in Nation Building during Pre- and Post-Independence Era organized by University of Mumbai.
- 2. The Institute participated in 'Smurtigandh' event on zoom meeting for the occasion of the anniversary of honorable Balasaheb Thackeray organized by the Shreeman Balasaheb Thackeray Adhyasan Kendra, University of Mumbai.
- 3. The Institute organized a Blood Donation Camp in association with Tata Cancer Hospital (ACTREC) and one-day free medical camp in association with Dr. G. D. Pol Foundation's Health Center.
- 4. The 73rd Republic Day Celebrated by Planting trees and donating clothes at the slum area of

#### kalamboli.

5. We conducted a "Helmet Awareness Drive" in collaboration with Traffic Police department. They make aware to our students and staff about the daily casualties happening due to unwearied helmets.

Many more guest lectures have been organized for students and staff, inviting experts to educate them on a variety of social issues, including but not limited to gender equality, drug abuse, traffic regulations, voter responsibilities, anti-ragging initiatives, and cybercrimes. These sessions provide valuable insights and awareness to students, empowering them to become informed and responsible members of society.

Every year, our institution hosts the cultural festival "RHYTHM," providing a platform for both students and staff to showcase their talents. RHYTHM features a diverse range of competitions including singing, dance, skits, Rangoli, cooking, painting, and debates, among others. The enthusiasm and motivation of our students are fueled by the recognition and prizes they receive through these activities. Moreover, our students actively participate in competitions organized by the nearby colleges and University of Mumbai.

In addition to RHYTHM, our college organizes a sports festival called "KURUKSHETRA", which provide a dynamic platform for sports enthusiasts to exhibit their skills and compete in various sporting events.

File Description	Document
Provide Link for Additional information	View Document

#### 3.4.2

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

#### **Response:**

Promotion and acknowledgement of the significance of extension initiatives are sparked by awards and recognition. They serve as an outside source of confirmation for an organization's social responsibility and serve as examples of its positive social impact. In addition, prizes serve as a conduit for faculty members and students, which motivate and inspire to pursue excellence by continuing their efforts.

ACPCE has undertaken a number of outreach initiatives in and off campus, in and around Kharghar City. With the assistance of the professors, the students of the institution have completed a range of activities. The institute actively conducting the Tree Plantation and cleanliness Drives, Eye and Blood Donation Camps, Health checkup camps. The institute has received recognition and appreciation for the cleanliness drives from the Panvel Municipal Corporation (PMC) and Tata Memorial Centre for the endeavor as a Blood Donation Camp organizer. We do received appreciation for the support to needy during COVID-19 pandemic.

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

#### 3.4.3

Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community during the last five years.

Response: 126

3.4.3.1 Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC etc., year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
22	28	36	22	18

File Description	Document
Photographs and any other supporting document of relevance should have proper captions and dates.	View Document
Institutional data in the prescribed format	View Document
Detailed report for each extension and outreach program to be made available, with specific mention of number of students participated and the details of the collaborating agency	<u>View Document</u>

#### **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: 15

File Description	Document
Summary of the functional MoUs/linkage/collaboration indicating start date, end date, nature of collaboration etc.	<u>View Document</u>
List of year wise activities and exchange should be provided	View Document
List and Copies of documents indicating the functional MoUs/linkage/collaborations activity- wise and year-wise	View Document
Institutional data in the prescribed format	View Document

# **Criterion 4 - Infrastructure and Learning Resources**

#### 4.1 Physical Facilities

#### 4.1.1

The Institution has adequate infrastructure and other facilities for,

- teaching learning, viz., classrooms, laboratories, computing equipment etc
- ICT enabled facilities such as smart class, LMS etc.

Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc (Describe the adequacy of facilities in maximum of 500 words.)

#### **Response:**

Adheres to the guidelines set by AICTE, UGC and University, the institute has state-of- art infrastructural facilities, which is good enough to supplement the entire need for the academics, cocurricular and extracurricular activities of Higher Education Institute (HEI). It comprises of classrooms, smart classrooms, fully equipped laboratories, seminar halls, required computing facilities, online facilitates, automated library, language laboratory, administration office and acoustic A/C auditorium. Its vicinity is replete with high-tech as well as physical facilities.

All classrooms, tutorial rooms and laboratories are well ventilated, furnished, with huge board required for professional curriculum. ICT facilities such as LAN for internet access, LMS, LCD projectors with screen are available in all classrooms and tutorial rooms. All the rooms are of the size required as per AICTE. Total 24 No. of class rooms, 8 tutorial rooms, 45 Laboratories, 4 seminar halls and 1 auditorium are available in the campus. The seating capacity of auditorium is around 200 seats. The institute has "Vmedulife" LMS portal to facilitates continuous monitoring and evaluation of students and faculties.

A spacious girl's common room adds to the sensitivity of the institute towards girl student. Girl's common room provides sanitary napkin vending machine. The institute provides xerox & printing, medical and canteen facility in the campus, whereas, first aid facility with every department. The institute have tie-ups with OYO campus to provide residential facility for outsider students. The campus has the facility of back-up power supply of 125 KVA DG generator. The entire campus is under CCTV surveillance and fire- fighting protection systems to ensure the safety of stakeholders. We do arrange health checkup and blood donation camps regularly. Spacious staircase, passages, parking and four lifts ensure the free movement of stakeholders in the campus.

The institute provide facilities to organize cultural, technical and sports festivals annually named "Rythms", "Vector" and "Kurukshetra" respectively. Also, every department student's association organizes co-curricular and extracurricular activities for the overall development of the students. The college has spacious playground area of 2200 sq. m for cultural actives and outdoor game. Whereas, for indoor games separate area of 138 sq. m. and 92 sq. m. for gymnasium is allotted in the building with required infrastructure. We also celebrate the national Independence Day, republic day and yoga day and birth anniversaries of our national heroes. We do arrange the "Garba" and celebrate "Ganesh Utsav" to inculcate social and cultural responsibility amongst students.

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

### 4.1.2

Percentage of expenditure for infrastructure development and augmentation excluding salary during the last five years

Response: 72.83

4.1.2.1 Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
377.89	336.85	312.67	388.85	454.64

File Description	Document
Institutional data in the prescribed format	View Document
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for infrastructure augmentation should be clearly highlighted)	<u>View Document</u>

#### 4.2 Library as a Learning Resource

4.2.1

Library is automated with digital facilities using Integrated Library Management System (ILMS), adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students

#### **Response:**

The central library of the institute spread over the area of 630 sq. m. with seating capacity of 300 students facilitates huge collection of print and non-print resources required for technical and management education. It is fully computerized automation was started in the year 2009 using SOUL 2.0 Integrated Library Management Software (ILMS). In 2022, the ILMS is upgraded to version SOUL 3.0. The various features of this software are acquisition, circulation, cataloguing, serial management, stock verification, barcode generation, reports generation and Online Public Assess Catalogue (OPAC) system.

Later, in 2023 the institute procured Learning Management System (LMS) software "vmedulife" of version 13.04, which has inbuild ILMS system. It has additional features like user entry register and SMS alerts services. The library utilizes all the features of software in its operation.

#### **Physical subscriptions**

The institute provides open access library facility for 40,939 volumes of 12922 titles of books, print base 54 National & International scholarly Journals and 4 technical magazines. It also provides open access to multimedia, reference and referral services.

#### **E-resources subscription**

To access e-resources like IEEE, Knimbus, DELNET, NDLI and NPTEL-SWAYAM, library has 10 computers with multimedia and internet facility. The institute also provides plagiarism check software "CheckForPlag" in the library.

The institution has subscription for the e-resources as follows

Sr No	Description	2018-19	2019-20	2020-21	2021-22	2022-23
1	E-Journals	Yes	Yes	Yes	Yes	Yes
2	E-Shodhshind	No	No	No	No	No
	hu					
3	E-Books	Yes	Yes	Yes	Yes	Yes
4	Database	Yes	Yes	Yes	No	No
5	Remote	Yes	Yes	Yes	Yes	Yes
	Access to E	_				
	Resources					

Expenses for purchase of books/e-books and subscription to journals/e- journals

Sr. No.	Title	Year	Nos	Exp.in Rs
1	IEEE ASPP+POP	2018-2019	149	8,25,687.00
	J-GATE			70,800.00
	ASME			2,09,903.00
	Knimbus Science		3756	85,000.00
	and Technology (E-			
	Books)			
	DELNET			13,570.00
2	IEEE ASPP+ POP	2019-2020	149	8,14,592.00
	ASME			2,15,856.00
	J-GATE			72,216.00
	Knimbus Science		3756	95,580.00
	and Technology (E-			
	Books)			
	DELNET			13,570.00
3	IEEE ASPP	2020-2021	197	5,49,655.00

4	IEEE ASPP 2021-2022		4,91,775.00
	Knimbus Science	4166	1,04,076.00
	and Technology (E-		
	Books)		
	DELNET		19,470.00
5	IEEE ASPP 2022-2023	197	5,15,909.00
	Knimbus Science	4586	1,09,504.00
	and Technology (E-		
	Books)		
	DELNET		13,570.00
6	IEEE ASPP 2023-2024	197	5,56,174.00
	Knimbus Science		
	and Technology (E-		
	Books)		
	DELNET		

In order to effectively utilize the above facilities, the library working timing is 8.30am to 6.30pm daily from Monday to Friday. The students and faculties are allowed to borrow up to 3 books (for a period of 7 days) and 6 books respectively. The free book bank facility is also available for SC/ST category students. The collection of end semester examination old question papers and all syllabus schemes are maintained offline in library and online on institute website.

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

#### **4.3 IT Infrastructure**

#### 4.3.1

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

Describe IT facilities including Wi-Fi with date and nature of updation, available internet bandwidth within a maximum of 500 words

#### **Response:**

The institute provides well-furnished 626 computers, 45 printers and 41 LCD projectors exclusively for

students teaching learning and administrative work. Most of the computers are enabled with Internet and computing facilities for day-to-day needs of academics and administration. Institute maintain **3:1** student to computer ratio. The computers available have up to i7 processors, with a 1 TB HDD and 16 GB RAM. The computers in each laboratory are networked over a LAN using CAT 6 cable. The network covers the laboratories, classrooms, administrative offices, library, examination section classrooms, auditorium, CCTV system and LED display of the College. We do have EPBAX system in the campus. The staff and students have dedicated G-suit Ids. The institute uses centralized biometric attendance system for the employees.

To ensure reliable connectivity, the server room provide internet connection to distribution switch through armored CAT 6 cable at every floor. Wherein the distribution switch meets the requirement of internet connectivity of the floor.

#### **Internet Availability**

In the campus, internet is available at the speed of 300 MBPS

#### Wi-Fi

The campus is wi-fi enabled with the speed of 300 MBPS.

#### **Proprietary Software**

The institute promotes the use of free and open-source software's for teaching learning and administration such as ubuntu, Linux, Scilab, LT spice and Live wire etc. For specialized computing needs mentioned in the curriculum of the university, accounting, Library, ERP and operating certain lab equipment's the college procure some commercial software's listed below

MATLAB

ETNL

AutoCAD 2008

CREO design software

MSDN Academic Alliance (Microsoft DreamSpark)

SOUL 2.0 Library Software

**Examination Software** 

Vmedulife

Tally ERP9 Gold Tally ERP9 Silver

Following are the strategies for deploying and upgrading IT infrastructure and associated facilities.

Computers are upgraded periodically.

Licensed copy of software packages is purchased and upgraded as per the requirement.

Firewall and Anti-virus software are upgraded regularly.

Internet connection is also upgraded for better internet usage as follows

Academic Year Service Provider		Internet bandwidth	Total Internet Bandwidth	
2012-13	Tata Communications	10 MBPS	20 MBPS	
	Vodafone	10 MBPS		
2013-14	Tata Communications	10 MBPS	20 MBPS	
	Vodafone	10 MBPS	-	
2014-15	Tata Communications	10 MBPS	20 MBPS	
	Vodafone	20 MBPS		
2015-16	Airtel	25 MBPS	40 MBPS	
	Vodafone	Upgrades 10 MBPS to 15		
		MBPS		
2016-17	Vodafone	Upgrades 15 MBPS to 50	50 MBPS	
		MBPS		
2017-18	Vodafone	50 MBPS	50 MBPS	
2019-20	Vodafone	50 MBPS	50 MBPS	
2020-21	Vodafone	50 MBPS	50 MBPS	
2021-22	Vodafone	50 MBPS	50 MBPS	
2022-23	Vodafone	50 MBPS	50 MBPS	
2023-24	Vodafone	300 MBPS	300 MBPS	

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

#### 4.3.2

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

Response: 3.01

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

Response: 626

File Description	Document
Purchased Bills/Copies highlighting the number of computers purchased	View Document
Extracts stock register/ highlighting the computers issued to respective departments for student's usage.	View Document

#### 4.4 Maintenance of Campus Infrastructure

#### 4.4.1

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

Response: 27.06

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)

2022-23	2021-22	2020-21	2019-20	2018-19
153.25	106.18	72.95	153.48	209.23

File Description	Document
Institutional data in the prescribed format	View Document
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for maintenance of infrastructure should be clearly highlighted)	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 institution, government and non-government bodies, industries, individuals, philanthropists during the last five years

Response: 74.69

5.1.1.1 Number of students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1373	1285	1271	1218	1479

File Description	Document
Year-wise list of beneficiary students in each scheme duly signed by the competent authority.	View Document
Upload Sanction letter of scholarship and free ships (along with English translated version if it is in regional language).	<u>View Document</u>
Upload policy document of the HEI for award of scholarship and freeships.	View Document
Institutional data in the prescribed format	View Document

#### 5.1.2

Following capacity development and skills enhancement activities are organised for improving students' capability

Soft skills
 Language and communication skills
 Life skills (Yoga, physical fitness, health and hygiene)
 ICT/computing skills

Response: A. All of the above

File Description	Document
Report with photographs on Programmes /activities conducted to enhance soft skills, Language and communication skills, and Life skills (Yoga, physical fitness, health and hygiene, self- employment and entrepreneurial skills)	<u>View Document</u>
Report with photographs on ICT/computing skills enhancement programs	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: 10.15

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

2022-23	2021-22	2020-21	2019-20	2018-19
383	322	0	17	178

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

#### 5.1.4

The institution adopts the following for 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
Proof w.r.t Organisation wide awareness and undertakings on policies with zero tolerance	View Document
Proof related to Mechanisms for submission of online/offline students' grievances	View Document
Proof for Implementation of guidelines of statutory/regulatory bodies	View Document
Details of statutory/regulatory Committees (to be notified in institutional website also)	View Document
Annual report of the committee motioning the activities and number of grievances redressed to prove timely redressal of the grievances	View Document

#### **5.2 Student Progression**

5.2.1

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

Response: 29.15

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

2022-23	2021-22	2020-21	2019-20	2018-19
179	170	147	86	126

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

2018-19	2019-20	2020-21	2021-22	2022-23
566	494	601	442	326
566	494	601	442	326

File Description	Document
Number and List of students placed along with placement details such as name of the company, compensation, etc and links to Placement order(the above list should be available on institutional website)	<u>View Document</u>
List of students progressing for Higher Education, with details of program and institution that they are/have enrolled along with links to proof of continuation in higher education.(the above list should be available on institutional website)	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

#### Response: 2.03

# 5.2.2.1 Number of students qualifying in state/ national/ international level examinations year wise during last five years (eg: IIT/JAM/NET/SLET/GATE/GMAT/GPAT/CLAT/CAT/ GRE/TOEFL/ IELTS/Civil Services/State government examinations etc.)

2022-23	2021-22	2020-21	2019-20	2018-19
10	13	6	1	5

File Description	Document
List of students qualified year wise under each category and links to Qualifying Certificates of the students taking the examination	View Document
Institutional data in the prescribed format	View Document

#### **5.3 Student Participation and Activities**

#### 5.3.1

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

#### **Response:** 4

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

2022-23	2021-22	2020-21	2019-20	2018-19
3	1	0	0	0

File Description	Document
Upload supporting document	View Document
list and links to e-copies of award letters and certificates	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: 32.4

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

2022-23	2021-22	2020-21	2019-20	2018-19
61	37	0	41	23

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:**

The ACPCE have registered Alumni Association from the academic year 2017-18. The objective of it is to acts as a link between the alumni, current students and the institution, which help to the overall development of students and the institution. The association conduct regular meeting for event planning, audit and review.

Regular Alumni meet is arranged in the institute to gather together with current students and the staff to interact. They share their experiences and give suggestion to the current students and institute, which help to conduct various add-on courses, industrial visits, guest lectures and workshops in the individual department to develop the students as per industry requirement and make them employable.

#### ACPCOE Alumni Association notably contributes in the highlighted areas:

#### 1. Financial Support:

The alumni support to alumni association through their registration as a member. Whereas, the funds use to conduct alumni meets. The association regularly conduct the audit of all financial transactions.

#### 1. Other Support:

**Career Guidance & Counseling:** The Alumni counsel the students giving them proper guidance towards achieving their aims and goals during alumni meet. Alumni share their experience which motivates students for their career development in various domains.

**Placements:** Alumni share their experience which creates awareness among the students and gives them an opportunity in their organization and help students to get placed in other companies.

**Internship Programs & expert guidance from Industry:** Alumni helps in providing Internship to meritorious students in their organization and also guide them through the industry experts.

Alumni Seminar & Workshop: Regular seminars and workshops are conducted by the Alumni Association of ACPCE in various technical areas.

**Entrepreneurship Awareness Program:** Some Alumni choose to become entrepreneurs and come up with their own start-ups or firms and excel as successful entrepreneurs. They share their life skills, experience, success stories and the challenges with the student, which motivates and creates awareness among them to set their goals to flourish in their entrepreneurship skills.

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

# **Criterion 6 - Governance, Leadership and Management**

#### 6.1 Institutional Vision and Leadership

#### 6.1.1

The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.

#### **Response:**

The college is dedicated to upholding the vision and mission of the institution by ensuring effective governance and leadership. To ensure the all-round development of students, the college provides a variety of co-curricular, extracurricular, and entrepreneurship skill development opportunities. The institution ensures decentralization and delegates authority at different levels to maintain good governance. The college's governance structure includes several committees such as the Board of Governance (BOG), College Development Committee (CDC), Internal Quality Assurance Cell (IQAC), Internal Complaint Committee, Anti-Ragging Committee, Redressal and Grievance Committee, Women Development Cell, SC/ST Cell, Industry Institute Interaction Cell, and others. Each of these committee requirements. Each functionary has specific roles and responsibilities. The Management is responsible for overseeing the institution's administration and operations, securing financial resources and strategic direction of the organization.

The principal's role is crucial in shaping the educational environment, fostering academic excellence, and promoting the overall growth and development of the institution. The CDC collaborates with college management, faculty, and other stakeholders to plan and implement initiatives that enhance the college's infrastructure, resources, and academic programs. The college holds regular interactions with stakeholders through alumni meets (alumni-committee) and parent teacher meetings and employer feedback to consider their viewpoints. Based on the suggestions given by stakeholders through feedback, guest lectures and training programs are arranged to bridge the gap between academics and industry.

The college has a well-structured process in place for implementing necessary changes, taking into account various factors such as academic results, placements, research publications, and funded projects from the previous year. This process involves delegating powers to the Heads of Departments (HODs) for faculty work distribution and setting departmental objectives. The Class coordinators are responsible for monitoring and guiding students with their academic needs, and they report the status periodically to the HOD. The HOD, in turn, reports to the principal for any necessary action. The college has an established Outcome-Based Education (OBE) system through "vmedulife" ERP software that aligns with its vision and mission. This system includes program outcomes, course outcomes, and attainment methodologies that are developed with the participation of all course teachers. The system is implemented to achieve the defined program outcomes through effective delivery. The institute has also introduced a mentor-mentee interaction system to address the academic and personal issues of students. Each faculty member is assigned a batch of students for mentoring. The college encourages leadership qualities in students by organizing various programs such as Rhythm (cultural event), Vectors (technical event), Kurukshetra (Sport event), etc., through the institute student council, and professional student

councils like CSI, ISF, MESA, and ESSA. In addition, the National Service Scheme (NSS) plays a crucial role in promoting social responsibility and community service among students, which aligns with the college's vision. Therefore, the college promotes a culture of decentralization and participation in institutional governance to achieve its vision.

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

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

#### 6.2.1

The institutional perspective plan is effectively deployed and functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc

#### **Response:**

Institutional bodies play a crucial role in the effective and efficient functioning of organizations, these bodies are responsible for establishing policies, defining administrative structures, developing appointment and service rules, implementing procedures, and deploying strategic and development plans.

**1. Policies**: Institutional bodies formulate policies that outline the principles guideline and objectives of the particular bodies. These policies provide a framework for decision-making, establish standards and procedures, and ensure consistency in operations. Well-defined policies enable streamlined processes, promote transparency, and help to achieve organizational goals efficiently.

**2.** Administrative setup: A well-designed administrative setup of the institute ensures the role and responsibility of different authorities and their accountability. Which facilitates effective communication, and efficient coordination among different departments and sections.

**3. Appointment and service rules**: Institutional bodies establish rules and procedures for the recruitment, appointment, promotion, and performance evaluation of employees. These rules aim to ensure transparency, fairness, and meritocracy in the selection process. By hiring qualified individuals based on their skills and expertise, and providing opportunities for career growth, institutions build a competent workforce that contributes effectively to the development of organization.

**4. Procedures:** Institutions develop standardized procedures to guide day-to-day operations and decisionmaking processes. Clear and well-documented procedures eliminate ambiguity, reduce the likelihood of errors or misunderstandings, and enhance efficiency. By establishing streamlined workflows and providing guidelines for different tasks, institutional bodies enable employees to carry out their responsibilities in a consistent and efficient manner. To enhance the effectiveness of an organization, institutional bodies develop strategic, perspective, and development plans that outline goals, priorities, and strategies for growth and improvement. By aligning the efforts of employees from different departments and sections with these plans, institutions can optimize resource allocation, focus their resources on key objectives, and enhance overall effectiveness. Our well-defined policies, a sound administrative setup, transparent appointment and service rules, streamlined procedures, and the deployment of strategic plans and their effectively implementation help to operate organization in a cohesive and productive manner for achieving their objectives with optimum utilization of resources.

Furthermore, strengthening collaborations with industries through MoUs aligning academic curricula with industry requirements. Actively engaging in training, internships and projects with companies enhance students' practical skills and expose them to real-world challenges. In addition to technical proficiency, different activities are conducted for soft skills development such as communication, teamwork, problem-solving, and adaptability. Offering incubation centers, start-up support programs, and mentorship opportunities can empower students to develop their ideas, launch ventures, and contribute to economic growth. Promoting student exchange programs through AICTE "Ek Bharat Shreshth Bharat" provide students with diverse perspectives and cross-cultural experiences. To meet future demand engineers who are not only technically competent but also socially responsible, we conduct different activities on ethics, sustainability and conduct social awareness.

File Description	Document
Upload Additional information	View Document
Institutional perspective Plan and deployment documents on the website	View Document
Provide Link for Additional information	View Document

#### 6.2.2

Institution implements e-governance in its operations

Administration
 Finance and Accounts
 Student Admission and Support
 Examination

**Response:** A. All of the above

File Description	Document
Screen shots of user interfaces of each module reflecting the name of the HEI	View Document
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	View Document
Annual e-governance report approved by the Governing Council/ Board of Management/ Syndicate Policy document on e-governance	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 6.3 <u>Faculty Empowerment Strategies</u>

#### 6.3.1

# The institution has performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression

#### **Response:**

The ACPCE provides a fair and well-structured compensation system, along with additional benefits such as gratuity and provident funds. The institution also hosts short term training program (STTP), workshops, international conference (ICATM) and seminars on various topics including curriculum development, classroom management, technology integration, and leadership skills. These events provide opportunities for staff members to participate and learn from experts in their respective fields. These activities offer valuable opportunities for professional development and allow academics and professionals from different organizations to share research, discuss cutting-edge topics, and exchange ideas. The institute supports research initiatives, attracts funding from external sources, and promotes interaction among researchers. It also provides financial assistance for conference attendance and paper presentations in India and abroad. Presenting research findings at conferences or publishing them in journals can enhance professional reputation and advance the field of education. Faculty members are encouraged to participate in training programs, seminars, workshops, coffee-table conferences, and panel discussions held at other institutions. The counselor encourages faculty members to foster a healthy work environment, which not only improves work-life balance but also boosts productivity and employee morale. The Women Development Cell provides a space for female members to thrive and advance. Implementing flexible leave policies and other support systems to handle personal and professional commitments promotes work-life balance. The institution offers its teaching and non-teaching staff various leave options, including sick leave, maternity leave, and casual leave. Sick leave is granted to employees unable to work due to medical reasons, while maternity leave is provided to female employees, expectant mothers, or those who have recently given birth.

Paid maternity leave is offered in full or in part. Employees can avail casual leaves for personal reasons. Every year, class IV employees receive uniforms and shoes. The institute has established standards for

the professional growth of the teaching and non-teaching staff and provides support for their pursuit of higher education. The management makes sure that all of the festivals are celebrated jointly because the campus of the college has a cosmopolitan atmosphere. The institution arranges training to improve the talents and multitasking abilities of non-teaching personnel and encourage them to improve their educational qualification. Sufficient food centers have been created on and around the campus, and personnel can utilize them during regular business hours as well as after hours. Staff members have access to internet services in campus. An appraisal system developed by the institute includes all aspects of the performance of staff members' such as leaves earned, participation in different institute and university level regular activities, teaching feedback, publications etc.

File Description	Document
Upload Additional information	View Document
Provide Link for 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: 22.22

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

2022-23	2021-22	2020-21	2019-20	2018-19
33	0	17	33	25

File Description	Document
Policy document on providing financial support to teachers	View Document
Institutional data in the prescribed format	View Document
Audited statement of account highlighting the financial support to teachers to attend conferences / workshop s and towards membership fee for professional bodies	<u>View Document</u>

#### 6.3.3

Percentage of teaching and non-teaching staff participating in Faculty development Programmes

# (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years

Response: 40.13

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

2022-23	2021-22	2020-21	2019-20	2018-19
129	111	62	150	40

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

2022-23	2021-22	2020-21	2019-20	2018-19
126	133	152	162	167

File Description	Document
Refresher course/Faculty Orientation or other programmes as per UGC/AICTE stipulated periods, as participated by teachers year-wise.	<u>View Document</u>
Institutional data in the prescribed format	View Document
Copy of the certificates of the program attended by teachers.	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:**

Financial statements are the responsibility of Managing Committee of the Society. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the financial statements that give a true and fair view and free from material statement. A team of chartered accountants conducts external auditing once in a year. The external auditing involves performing procedures to obtain evidence about the amounts and disclosures in the financial statements.

The procedures selected depend on the auditor judgement, including the assessment of the risks of material statement. In making the risk statement the auditor considers internal control relevant to the society preparation and fair presentation of the financial statement in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management as well as evaluating the overall presentation of the financial statements. The auditing will be usually carried for three to four days involves the complete bank statements analysis, cash vouchers, purchase bills, fixed asset bills and other expenditure bills. It also involves verification of bank loan papers, TDS submitted from the employees and other suppliers to the Income tax department. The plans for infrastructural development are given top priority as the institute knows the correlation between adequate infrastructure and effective teaching-learning.

The strategies adopted for ensuring adequate infrastructure are as follows:

1. At the beginning of the academic year assessment, for Replacement/upgradation/addition of the existing infrastructure is carried out based on the suggestions from, heads of the departments, lab Incharges and lab technicians. They review the course requirements, computer- student ratio, budget constraints, working condition of the existing equipment and also student grievances.

2. Optimal deployment of infrastructure is ensured through conducting workshops/awareness programs/training programs for faculty on the use of new technology.

3. Renewal of AMC is done at the beginning of the academic year for the deployed Software applications, UPS and Generators.

Maintenance of Campus Facilities

1. The college has Maintenance Committee that oversees the maintenance of buildings, classrooms and laboratories.

2. The Maintenance committee is headed by the Estate Officer who in turn monitors the work of the Maintenance Supervisor at the next level.

3. The Maintenance Supervisor is accountable to the Estate Officer and functions as the coordinator who efficiently organizes the maintenance activities, workforce of manpower, maintaining duty files containing details about their individual floor-wise responsibilities, timings, leave etc.

4. The maintenance Supervisor conducts periodic checks to ensure the efficiency /working condition of the infrastructure.

5. Adequate staff is employed to meticulously maintain hygiene, cleanliness and infrastructure on the campus so as to provide a congenial learning environment. Classrooms, Staff rooms, Seminar halls and Laboratories, etc are cleaned and maintained regularly by non-teaching staff assigned for each floor.

6. Wash rooms and rest rooms are well maintained. Dustbins are placed in every floor. The Green Cover of the campus is well maintained by a full-time gardener.

7. Optimum working condition of all properties/ equipment on the campus is ensured through annual maintenance contracts (AMC).

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

ACPCE has IQAC which ensures the quality of the education system. The various processes include reviewing teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities. Every year audit is done for academics and resources with the help of auditors for quality improvement.

The objectives of the IQAC are:

- Ensure continual improvement throughout all Institutional functions.
- To assure all stakeholders involved in education, such as parents, teachers, staff, employers, funding organizations, and society, of its own quality and integrity.
- To encourage actions that will push institutional operation in the direction of best practices Institutionalization and quality enhancement.

#### **IQAC** Functions

- Establishing and implementing quality standards for the institution's numerous academic and administrative activities.
- Make arrangements for students, parents, and other stakeholders to provide input on the institution's quality-related operational procedures.
- Information on many quality characteristics of higher education is disseminated.
- Documentation of numerous programs/activities that contribute to quality improvement.
- Workshops and lectures on quality-related topics are organized, and quality circles are promoted.
- The process of preparing the Annual Quality Assurance Report (AQAR) that will be submitted to, NAAC based on the quality standards.

Strategies of IQAC

1. Ensuring the completion of academic, administrative, and financial tasks in a timely, effective, and progressive manner.

2. The value and standard of educational and research courses.

3. Affordable and equitable access to academic programmes for all societal groups.

4. Improving and incorporating contemporary teaching and learning techniques.

5. The validity of the evaluation methods

6. Ensuring the support system and services are adequate, maintained, and functional.

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

6.5.2

Quality assurance initiatives of the institution include:

- **1. Regular meeting of Internal Quality Assurance Cell (IQAC); quality improvement initiatives identified and implemented**
- 2. Academic and Administrative Audit (AAA) and follow-up action taken
- **3.** Collaborative quality initiatives with other institution(s)
- 4. Participation in NIRF and other recognized rankings
- 5. Any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA etc.

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

File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period.	View Document
List of Collaborative quality initiatives with other institution(s) along with brochures and geo-tagged photos with caption and date.	View Document
Link to Minute of IQAC meetings, hosted on HEI website	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

# **Criterion 7 - Institutional Values and Best Practices**

#### 7.1 Institutional Values and Social Responsibilities

#### 7.1.1

Institution has initiated the Gender Audit and measures for the promotion of gender equity during the last five years.

Describe the gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words

#### **Response:**

The ACPCE supports gender equity in its administration and education, Inattentive of a caste, gender, color, profession, and status. The institute treats all stakeholders with honor and respect in all rights and opportunities.

The institute has formed different committees as per AICTE and UGC guidelines such as women development cell, women grievance cell "Vishakha", Anti-ragging committee, SC/ST committee, Grievance redressal cell and Internal complaint committee. Which are disseminated in the premises and communicated through different media. They addressing several important aspects like gender equality, grievance, safety and security. The campus is under 24X7 CCTV surveillance system for effective monitoring which include each floor passages and all rooms.

The Institute has NSS unit comprises of all genders which helps in developing discipline, sense of duty, professional skills, social sense for both genders through various activities. The women development cell organizes gender-sensitive programs and self-defense training sessions to empower women and male. These activities promote inclusivity and foster respect for gender equality, encouraging all to work together.

Girl's and Boy's common rooms with all facilities are available in the institute. Differently abled (Divyangjan) person is provided with ramp at entrance, and washrooms of both genders. are available in the college building. The institute is having 4 lifts for common use of all stakeholders.

The institute is affiliated to university of Mumbai and the admission process is handled by DTE Maharashtra. So, the gender equality in admitting students as per the policies of state or central government is maintained. Similarly, the institute is located in Mumbai suburban, where all stakeholders belong to diverse culture. So, we are not bound to monolingual.

The institute offers equal rights and opportunities in its regular functioning without discrimination of gender. It reflects through the different gender employees working in the institute.

File Description	Document
Upload Additional information	View Document
Provide Link for 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
Geo-tagged photographs/videos of the facilities.	View Document
Circulars and report of activities for the implementation of the initiatives document	View Document
Bills for the purchase of equipment's for the facilities created under this metric	View Document

#### 7.1.3

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

Green audit / Environment audit
 Energy audit
 Clean and green campus initiatives
 Beyond the campus environmental promotion activities

Response: B. Any 3 of the above

File Description	Document
Report on Environmental Promotional activities conducted beyond the campus with geo tagged photographs with caption and date	<u>View Document</u>
Policy document on environment and energy usage Certificate from the auditing agency	View Document
Green audit/environmental audit report from recognized bodies	View Document

#### 7.1.4

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

#### **Response:**

The Jawahar Education Society's A. C. Patil College of Engineering organizes and conducts several extracurricular activities to build and promote an inclusive environment for regional, cultural, linguistic and communal socioeconomic and sensitization among the students and staff members.

The first-year students start their curriculum with a induction programme that places an important focus on universal human values. The primary objective of this programme is to instill clear human conduct and correct understanding in the students, so that they will fulfill their duties, roles, and responsibilities with commitment and dedication, both as students and citizen.

The institute is affiliated to university of Mumbai and approved by AICTE so develops different policies by taking care of core values as per the state and central government guidelines. Based on these guiding principles, a code of conduct for all the stakeholders is created, aiding in the smooth operation of all activities with defined procedures and discipline inside the institution. By holding an annual election/selection for the student council, the institute provides equal platform to students to develop their leadership abilities. With assistance from the staff, the student's council assure responsibility for planning and execution of college activities. The newly elected student council swears an oath to uphold the regulations and duties.

The Institute's National Service Scheme (NSS) unit, under the guidance of the NSS faculty coordinator, runs initiatives to cultivate civic virtue in students. The NSS plans and executes awareness campaigns including the Tree Plantation, Blood Donation, Cleanliness drive, Swatchta Legal Rally, Beach Cleaning Drive, Health checkup camp, Orphanage visit, Pan-card campaign, NSS residential campaign, NSS Orientation program, poster making competition, Anti-Drug Pledge, Road Safety activity in collaboration with Traffic police etc. Which create awareness among students and staff about their duties and responsibility as a citizen.

To develop the emotional and religious feelings among the students and the staff, commemorative days

are celebrated in the campus with the initiative and support of the management for not only recreation and amusement but also to generate the feeling of oneness and social harmony. The Institute celebrate the cultural and regional festivals, like independence day, republic day, Fresher Party, teacher's and engineers day, different orientation programs and farewell program, Induction program, Youth day, Women's day, Yoga day, festivals like Ganesh Utsav, Navratri celebration, etc.

The Institute's annual cultural festival, "Rhythm", Technical fest "Vectors", Annual sports events "Kurukshrstra", acts as a platform for showcasing hidden talents of students to learn interpersonal skills. Thus, the institute put many more efforts / initiatives in providing inclusive environment for overall development of students.

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

#### 7.2 Best Practices

7.2.1

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

**Response:** 

**BEST PRACTICE 1** 

Title of the practice: Use of Learning Management System (LMS) "vmedulife" for Educational Excellence.

**1. Objective:** To utilize "vmedulife" software as an efficient Learning Management System (LMS) for streamline educational processes, enhance learning outcomes, and facilitate seamless interaction between faculties and students.

**2.** Context: As an educational institution, we aim to leverage "vmedulife" software as our primary Learning Management System (LMS) to centralize administration and teaching learning activities, which provide collaborative environment for students and staff.

**3. Practice:** Implementing regular training sessions for staff and students on utilizing "vmedulife" effectively, encouraging consistent use of its features for course management, content delivery, and assessment, thereby maximizing the benefits of the LMS within our educational framework.

**4. Evidence of success could include:** Increased student satisfaction and engagement, as evidenced by surveys or feedback indicating positive experiences with LMS. Improved academic performance, such as higher grades or completion rates, correlating with the implementation of it. Enhanced efficiency in

course management and content delivery, demonstrated by reduced administrative workload and streamlined communication between staff and students. Successful adoption of "vmedulife" across various departments within the institution, indicating widespread acceptance and integration into the educational workflow.

#### **Problems Encountered and Resources Required:**

Initial resistance to change over LMS "vmedulife" by the staff members, necessitating comprehensive training and support. Technical challenges, such as compatibility issues for seamless integration of vmedulife. User experience issues reported by students or faculties, including difficulties navigating the platform or accessing certain features. Training programs and workshops to familiarize staff and students with vmedulife's functionalities and best practices for effective utilization. Dedicated technical support or helpdesk to address user inquiries, troubleshoot issues, and provide timely assistance.

#### **BEST PRACTICE 2**

**Title of the practice:** Improving Employability through Training and Placement Cell (T&P Cell)

#### **Objectives:**

- To enhance and empower students to meet the challenges of industry and society through preplacement training.
- To equip students for campus interviews by providing training in aptitude, group discussions, technical, and HR interviews facilitated by professional trainers.
- To ensure students are prepared for the industry by conducting mock interview sessions with alumni.
- To promote career counseling through guest lectures delivered by senior corporate mentors.

#### **Context:**

The Training and Placement Cell plays a crucial role in bridging the gap between academia and industry demands. By identifying industry requirements and aligning student preparation accordingly, it ensures that students are well-equipped to meet the challenges of the professional world. The Cell focuses on personality development, conducting sessions and training programs to enhance students' confidence, self-esteem, and interview skills. Through these initiatives, students are empowered to navigate the complexities of the workplace with resilience and competence. Ultimately, the Training and Placement Cell prepares students to emerge as capable individuals ready to make meaningful contributions to the industry.

#### **The Practice:**

Students are consistently encouraged through counseling sessions to understand the significance of maintaining a strong academic record, as this factor significantly influences recruitment decisions. The institute is dedicated to enhancing students' capabilities through tailored training modules aimed at imparting technical, logical, analytical, behavioral, and managerial skills. Additionally, students undergo assessments via various tests to ensure their alignment with suitable career profiles.

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

**1. Knowledge Enhancement Programs:** The Training and Placement Cell has conducted a series of sessions aimed at enhancing students' skills, leading to increased employability opportunities. Over the past five years, the Cell has organized 30 training programs to hone students' soft skills, including communication, teamwork, confidence, and presentation abilities in academic and professional contexts. Additionally, aptitude skill training has been provided to enhance reasoning, data interpretation, logical, and analytical abilities. Furthermore, technical skill training has been offered, focusing on advanced programming languages such as C/C++, Java, Python, and recent technologies in core fields. This concerted effort has contributed to the overall development of students and their readiness for the workforce.

**2. Mock Job Interviews:** Through alumni and industry expert-led sessions, the Training and Placement Cell arranges mock interviews, offering students a platform to refine their verbal and non-verbal communication skills while gaining confidence.

**3. Inspirational Talks:** Various motivational lectures are organized by the Training and Placement Cell, providing students with inspiration and confidence to pursue their desired goals effectively.

**4. Job Placement Data:** Continuous enhancement is observed in the placement statistics, showcasing a growing number of students securing positions across diverse organizations.

**Problems encountered and Resources Required:** To effectively conduct pre-placement training, there is a continual need for competent faculty possessing updated soft skills and technical expertise. Additionally, addressing students' lack of commitment and focus requires close monitoring and mentoring by faculty members. Recognizing that students from rural backgrounds may excel in technical skills but often lack communication and other essential abilities, specialized training programs are implemented to enhance their confidence levels and equip them to tackle real-world challenges.

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

#### **Empowering Excellence: Distinct Initiatives of Institute**

#### **Sponsoring Staff for Higher Education**

The institute stands out by sponsoring faculty for higher education like M.E., M.Tech, and Ph.D. This commitment boosts skills, fosters a learning culture, and enriches our college community. It shows our dedication to academic excellence and innovation, keeping us ahead in research and technology. Sponsoring staff advancement promotes loyalty, satisfaction, and attracts top talent. Moreover, it strengthens our research capabilities, fostering collaborations and enhancing our academic reputation. In essence, this initiative distinguishes us, making us a preferred choice for students, faculty, and staff. It reflects our commitment to growth, innovation, and success in higher education.

#### Credit society

The college's credit society for staff members is a standout feature that enhances the institution in many ways. It creates a supportive community by offering financial help tailored to their needs, showing the college's commitment beyond just academics. This society empowers staff by providing fair credit for personal needs like education or healthcare. It also teaches responsible money management through workshops and counseling. By working together to manage the society, staff feel valued and supported. Plus, by including everyone, regardless of income, the college promotes fairness and social responsibility. Overall, it shows the college cares about its staff's well-being and fosters a supportive community.

#### Gratuity for staff members

Paying gratuity to staff at our college marks a big step towards excellence. It shows we value their hard work and aim to create a supportive environment. By giving gratuity, we show that we appreciate their role in our college's success. This boosts, staff morale and makes them feel valued and loyal. It also helps to attract and retain talented people due to their financial security. Importantly, it also shows we treat everyone fairly, no matter how long they've been with us. Overall, it's part of our goal to keep staff happy and supported, making our college a great place to work.

#### Salary deduction EMI facility

Implementing a salary deduction EMI facility for home loans and personal loan is a great move in our college. It shows we care about our staff's financial security and well-being. Offering this benefit sets us apart as an employer of choice, attracting top talent and keeping experienced staff happy. It builds loyalty and boosts morale when employees feel supported in achieving homeownership. By taking the lead in helping our staff navigate home financing, we make life easier for them. Overall, this initiative benefits everyone and makes our college a better place to work.

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

# **5. CONCLUSION**

# **Additional Information :**

ACPCE is one of the old and growing educational institute in Navi Mumbai, Maharashtra which is continuously improving in education and innovation to meet national benchmark. The objective of the institute is to create professionals for 'industry ready', researchers and entrepreneurs. Who can effectively contribute toward the development of nation upon completion of their program. Our efficient progress through creating huge infrastructure, providing qualified faculties and sprawling campus with green cover is a landmark in Kharghar city of Navi Mumbai. Our further focus is on Research, Technology & Innovation.

# **Concluding Remarks :**

ACPCE is committed to deliver, moral and ethical value-based education over a last 32 years in engineering and technology. Where academicians, industry, entrepreneurs, alumni and students bridge the gap between industry and academics. We foster the culture of research for the holistic development of an individual and nation.