



Pimpri Chinchwad Education Trust's
**Pimpri Chinchwad College of
Engineering & Research**



Department of Mechanical Engineering

E-MAGAZINE

Academic Year: 2022-2023

Sem-2

DIVE INTO THE TREASURE OF ART AND ACADEMICS.

ABOUT TRUST

Pimpri Chinchwad Education Trust (PCET) was established in 1990 by visionary Late. Shri. Shankarrao B. Patil, Late. Smt. Lilatai Shankarrao Patil, Shri. Dnyaneswar P. Landage, Shri. Vitthal S. Kalbhor, Shri. Shantaram D. Garade, Late. Shri. Bhaijan Kazi with an idea of providing quality education from K.G. to P.G. Its sole mission was aimed at serving society, the industry and all stakeholders through value-inculcating, quality education in the area of schooling, as well as professional tutelage in the fields of engineering, management and computer applications.

PCET has always been committed to its mission by creating, communicating, preserving and applying knowledge, art and academic values.

At the campus at Akurdi, Pune, near 7,200 students are being groomed in specialised courses like Engineering, MBA, MCA & PGDM by professional and passionate instructors. The campuses at Ravet are school to 1,200 would-be graduates at the College of Engineering, around 800 pupils at the Junior College, and approximately 2,500 students at the Public School, all amounting to a total of 11,700-odd students

Our Inspiration:



Late shri. Shankarrao B Patil
Founder President
Pimpri Chincwad Education Trust



Late Smt Lilatai Shankarrao Patil
Ex President
Pimpri Chincwad Education Trust

Board of Trustees:



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Dr. Girish Desai
Executive Director, PCET

Principal's Desk



At the very outset, I extend a very warm welcome to all of you! It is indeed an honor and pleasure as the principal, to introduce you to Pimpri Chinchwad Education Trust's (PCET's) Pimpri Chinchwad College of Engineering & Research (PCCOER). Established in the year 2014, PCCOER has made an incredible progress in academics, research and placements in a very short period of time and has made its presence felt vividly in the educational circles of not only the University but of the entire State. I attribute this remarkable success to the tremendous efforts of faculty, staff and students of the Institute and to the strong and continuous guidance, motivation and support from PCET.

Young friends, India today stands as world's third largest economic power, its economy growing at around 8%. Indian entrepreneurs are emerging as global entrepreneurs. Indians are increasingly appearing in the list of the richest persons in the world. India's knowledge, skills and man-power are making India a preferred destination for outsourcing service needs. India is fast emerging as a hub for world class R&D and Innovation Centers. These are the signs of a brighter tomorrow for India and its citizens. You must, therefore, be highly excited to make your own contributions to the growth and development of your dream India.

As Engineering Institute, we are committed to contribute in the overall growth of the Nation by providing Outcome Based Education (OBE) to our students. We, at PCCOER, endeavor for an overall development in you, while academic excellence remains to be our strong fort. The spectrum of social, cultural, co-curricular and extra-curricular events at PCCOER is as intellectually stimulating, as is overwhelming! We do not turn you into book-worms or scholarly puppets but into competent professionals and genuine humans. At PCCOER, we have a tradition of nurturing leadership qualities, along with, developing abilities to comprehend the state of art technologies. This we do by inspiring you to partake a whole lot of innovative projects, being pursued by the inspired student's community, under the guidance of their faculty mentors. We let you empower yourself with the Wings of Knowledge and Power of Innovation. We imbibe in you a positive attitude and proactive thinking, a caring concern for humanity and nature and above all, an eagerness to serve and excel in your chosen domain. You come here with a passion; we convert that passion into your profession. life in PCCOER and I am sure that you will enhance the pride and prestige of this illustrious Institution by giving your best and achieving your best! And my dear faculty and sta members, we together have to play our role in Nation building by contributing wholeheartedly towards academics, research and innovation, a gigantic task which, I am observing you are succeeding in competently, skillfully and effortlessly.

Prof. Dr. Harish U. Tiwari,
ME (IITR), PhD. (Mech),
Principal,
PCCOE&R, Ravet, Pune.

HOD's Desk



A hearty welcome to the Department of Mechanical Engineering at Pimpri Chinchwad College of Engineering and Research (PCCOE&R), Ravet, Pune.. The department vision is to be a premier department of Mechanical Engineering and research to serve the need of the society and all the stakeholders. The Department is student centric and focused for overall development of students in the context of new emerging trends in the market and making the students competitive and strongly equipped with the various technical and professional skills. Different programs like Industrial Training program, Aptitude Training Program, SAE BAJA, SUPRA, TIFAN and Go-Cart activities are planned to equip the students to enhance their technical and professional competence and make them more industry oriented and employable.

The placements in the department are one of the best in the PCMC area. The Industry sponsored laboratories, Internships, experts sessions, Industry sponsored projects, communication skills and soft skills sessions, foreign languages, add on and value added courses are designed and executed so that students are not only market ready but also well trained for higher studies, entrepreneurship and startups. The department provides much needed support to the students' projects having potential for innovation and startups as well as

innovations and startups having innovative ideas. We have been able to create quite a good number of startups and entrepreneurs and have been able to build a very good ecosystem. Projects having potential for innovation and startups as well as innovations and startups having innovative ideas. We have been able to create quite a good number of startups and entrepreneurs and have been able to build a very good ecosystem.

The department is a leader in the area of IPR viz. Patents and copyright lling. More than 100 patents and 75 copyrights have been led in the department out of which two patents have also been granted in the department. The department has modern and well-equipped laboratories for practical training to its students. All the faculty members are well quali ed and experienced. We are committed to the pursuit of excellence. It is our goal to address the varying needs of our young students academically, socially, emotionally and by doing so, provide the highest quality educational experience to all and therefore PCCOE&R is one of the best Mechanical engineering colleges.

Department has strong association with different professional bodies like ISTE (The Indian Society for Technical

Education, QCFI(Quality Circle Forum of India) ASME(The American Society Of Mechanical Engineers.),VLSI, SAE Society of Automotive Engineers) and the department also has its own student council named as Mechanical Engineering Student Association (MESA). MESA provides a platform to the departmental students to showcase their technical, social and sports skills in inter-departmental as well as inter-college competitions.

On the closing note, it could be cited that - "Destiny is not a matter of chance, it is a matter of choice; it is not a thing to be waited for, it is a thing to be achieved".

Prof. Dr. Gulab. D. Siraskar
Associate Professor & Head,
Department of Mechanical Engineering,
PCCOER, Ravet, Pune.

About the Department

Mechanical engineering is one of the broadest engineering disciplines. Mechanical engineers design, develop, build and test. They deal with anything that moves, from components to machines to the human body. Mechanical engineering combines creativity, knowledge and analytical tools to complete the difficult tasks of shaping an idea into reality. Mechanical engineers can look for employment in diverse areas, including manufacturing, aerospace, automotive, biomedical, chemical, computer, communications, nanotechnology, power-generation industries, engineering consultancies, energy utilities. government agencies etc.

A Mechanical Engineer can also pursue his/her carrier in the public sector through competitive exams like UPSC, MPSC, IES. They can have placements in various public sector undertakings like Navratna and Maharatna by scoring excellently in GATE. They are having good placement opportunities in National and Multi-National companies by perusing ME/M.Tech/MS in India and abroad. They can also become job providers themselves by turning into entrepreneurs and starting own startups.

The Mechanical Engineering Department at PCCOER has been established in the year 2014 and since then, has progressed steadily towards excellence. The Department works on Outcome Based Philosophy (OBE), wherein the complete focus of the department is to prepare the students in such a way that he/she is oriented towards acquiring knowledge, skills, hands on training and ICT techniques by using various teaching pedagogies, which will lead them toward better placements, higher education and entrepreneurships. The audits of all these initiatives are conducted on regular basis and its execution is checked to ensure that students are getting really benefitted through the process.

The department runs a UG programme in Mechanical Engineering, which is a 4 years, 8 semester's full time programme. Department has adequate number of faculty members and supporting staff, who are well qualified, experienced and dedicated. The department has well equipped 16 no. of state-of-the-art laboratories, spacious classrooms, drawing hall, project and innovation center. The department provides the students with a strong fundamental, scientific and technical knowledge-base, multidisciplinary approach and critical

thinking skills which serve as the foundation for lifelong learning in Mechanical Engineering. The department motivates and supports the students for Industry Sponsored Projects and Industrial Training so that they are well acquainted with the industrial problems and its solutions to be better prepared for the industries. The department also emphasizes on inculcating, professionalism, ethics and true attitude in the students. It also puts more efforts on strengthening communication skills, team work and social awareness among the students.

Magazine Coordinators:



Prof. Deepak Biradar
Faculty Co-ordinator



Sumeet Gaware
Student Editor



Omkar Shejwal
Student Editor

★ Vision of the Department:

To be a Premier Department of Mechanical Engineering and research to serve the needs of the society and all the stakeholders.

★ Mission of the Department:

M1: To provide state of art facilities to impart quality education.

M2: To undertake various value added and add on courses to make students technically sound and thorough professionals.

M3: To collaborate with the industries and academia and strive to transform the research and innovative aptitude in the students and faculties.

M4: To inculcate high moral, ethical values and national pride in students and faculties.

★ Programme Educational Objectives of the Department

PEO1: To develop well sound students in academic fundamentals to understand, analyze and solve problems related to Mechanical Engineering.

PEO2: To meet the employer's requirements at large and prepare them towards quality higher education and entrepreneurship

PEO3: To build up student's ability to enhance their competence in research and innovation to design product and process

PEO4: To create awareness amid the students about professional ethics, managerial skills, social commitment and lifelong learning.

★ Programme Specific Outcomes of the Department

PSO1: Develop the knowledge and skills relevant to the field of robotics and automation by undergoing hands-on training.

PSO2: Develop and implement new ideas on product design and development with the help of modern computer aided tools, while ensuring best manufacturing practices.

Industrial Visits

Industrial visit arranged for CIM subject at Bangalore Industrial Visit at Freshlinkcold storage, Khed Shivapur 18/10/2022.



E-Square Pimpri 14/09/2022

Technical Event

SUPRA: *Team Eminent Racing*



Shot on OnePlus
By Atharva

Team Eminent Racing has been established in June 2021 with the aim of designing a Formula Student car. The team have registered for SAE SUPRA 2022.

Achievements:

- Team Eminent Racing has secured AIR 6 in overall event and 1st prize in CAE Event at SAE SUPRA 2023 (Indian Edition).
- Achieved All India Rank 2 In CAE in design.
- Overall, All India Rank 8 Was Achieved.
- The only debutant team to Reach top ten.
- Cleared all dynamic events.

TIFAN: Team Sonic diggers

The real objective of TIFAN's competition is to provide a platform for Agricultural product innovation by generating a talent pool for the off-highway industry. It provides a platform for connecting the bright and prosperous agricultural and engineering talent available in the country with the real-life challenges of the farmer community. This competition will also provide undergraduate students with hands-on experience in the agricultural/off-highway product development process. Eventually, such endeavors will help society by enabling the small and marginal farmers with farm mechanization for yield and productivity improvement.



SAEINDIA TIFAN-2022



SEASON ACHIEVEMENTS



BEST PRODUCTIVITY AWARD



BAJA: Team Nashorns:

Heartiest Congratulations to "TEAM NASHORNS PCCOER" for securing Overall First Position in ATVC Championship at Talegaon, also for securing following ranks

Event name: SAE BAJA 2023 Venue: Natrax Pithampur, Indore. ATV Name: BHISHMA 1.0

ATV No: 60

Name of captain: Mr. Nishit Subhedar

Faculty: Prof. Anant Kurhade, Prof. Sukhdip Chougule.

Results:

Overall - AIR 11

Maneuverability - AIR 4

Overall physical dynamics - AIR 5

Best 4wd - AIR 7

Sled pull - AIR 8

Suspension & Traction - AIR 9

CAE - AIR 11



Event name: ARAVALLI TERRAIN VEHICLE CHAMPIONSHIP (ATVC) 2023

Venue: Talegaon, Pune, Maharashtra.

ATV Name: BHISHMA 1.0

ATV No: 39

Results:

Overall - AIR 1

Endurance - AIR 1

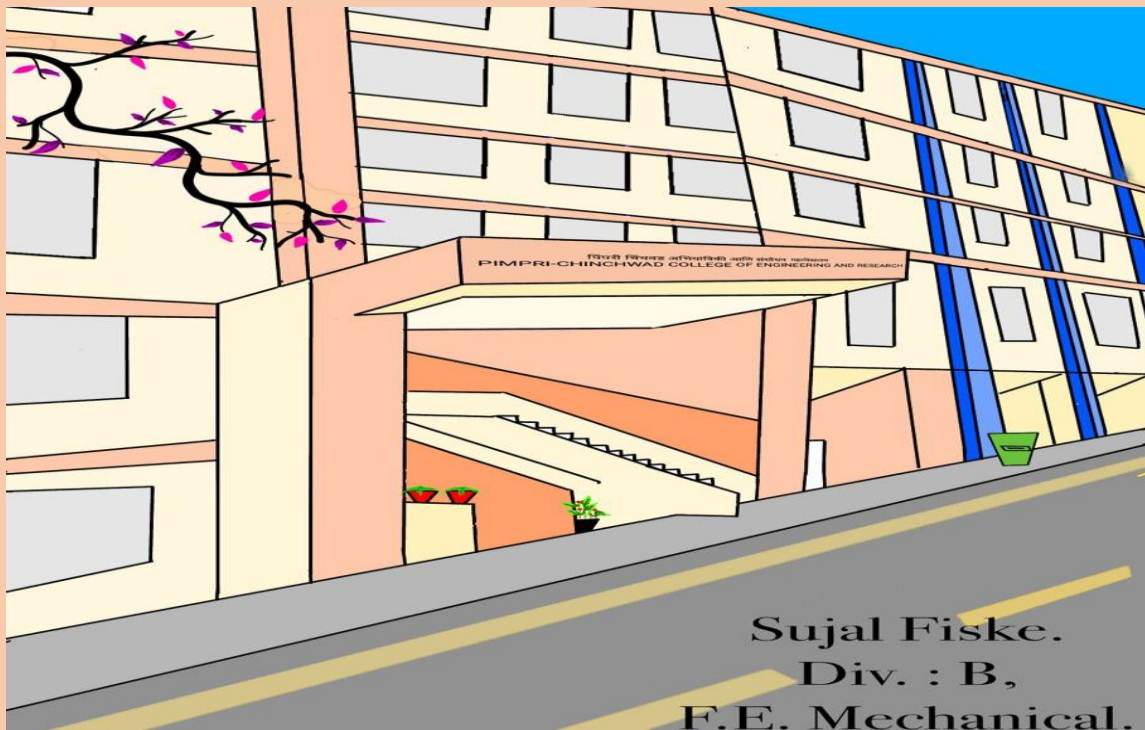
Maneuverability - AIR 1

Sled pull - AIR 1

Suspension & Traction - AIR 3

Design Evaluation - AIR 2

Paintings & Sketches:





Aaditya Telharkar, Shlok Ashtekar

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Department of Mechanical Engineering,

Pimpri Chinchwad College of Engineering and Research,

Plot B, Survey No. 110(P), Laxmi Nagar, Ravet, Pune – 412 101.

Phone: +91-20-69338080, Website: www.pccoer.com