

COEP Technological University, Pune
Department of Computer Science & Engineering
Vision, Mission, PO & PSO

Vision

University/ Institute Vision

- To be a Value based Globally Recognized Institution ensuring academic excellence and fostering Research, Innovation and Entrepreneurial Attitude.

Department Vision

- To be one of the best in the country by developing globally competent engineers, motivated entrepreneurs, prospective researchers, and aspiring academicians.

Mission

University/ Institute Mission

- To be a student centric institute imbibing experiential, innovative and lifelong learning skills, addressing societal problems.
- To promote and undertake all-inclusive research and development.
- To inculcate entrepreneurial attitude and values amongst Learners.
- To strengthen National and International, Industrial and institutional collaborations for symbiotic relations.
- To mentor aspiring Institutions to unleash their potential towards nation building.

Department Mission

- To create globally competent students having the ability to design, develop and test world class software, keeping pace with the latest technological developments.
- To promote continuous learning, all-inclusive research in core and emerging areas.
- To inculcate the spirit of inquiry, professionalism, teamwork, innovation and entrepreneurship among the students.
- To exchange expertise with industry, academic and research organizations.
- To imbibe ethical and social values among students.

Program Outcomes

Engineering Graduates will be able to:

1. Computer engineering knowledge: Apply the knowledge of mathematics, science, computer engineering fundamentals, and emerging fields of computer engineering to the solution of complex real-life problems.
2. Problem analysis: Identify, formulate, review research literature, and analyze complex computer engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and computer engineering sciences.
3. Design/development of solutions: Design solutions for complex computer engineering problems and design system components or processes that meet the specified needs considering public health and safety, and the cultural, societal, and environmental considerations.
4. Conduct investigations of complex problems: Use knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern computer engineering and IT tools including FOSS tools.
6. Social responsibility: Apply reasoning informed by the contextual knowledge to assess social, health, safety, legal and cultural issues and the consequent responsibilities.
7. Environment and sustainability: Understand the impact of the professional computer engineering solutions in socio-environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Ethics: Demonstrate knowledge and practice of engineering ethics.
9. Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary, multi-cultural settings.
10. Communication: Communicate effectively with engineering community and with society at large, demonstrating ability to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. Project management and finance: Demonstrate knowledge and understanding of the computer engineering, finance and management principles.
12. Life-long learning: Recognize the need for, and ability to engage in independent and life-long learning.

PSOs: Program Specific Outcomes

PSO1: Demonstrate competence in Programming Technologies.

PSO2: Design, implement, test software solutions in core Computer Engineering areas including Computer Networks, Databases, Systems Software, Computer Architecture, Artificial Intelligence, Software Engineering

PSO3: Acquire and demonstrate skills in emerging area like Information Security, Data Science, Natural Language Processing, Cloud Computing, etc.

Goals

University/ Institute Goals - Goals: COEP @ 2022

- To be a globally recognized Engineering institution in top 500 bracket.
- To attain 25 % growth in terms of intake capacity with UG:PG ratio of 50:50 and 200 % Growth in research leading to Ph.D's
- To accomplish 200 % growth in research outcomes in terms of Quality Publications in Tier-I journals & conferences, Patents, Sponsored R&D Projects, Technology Products, Books & Monographs etc.
- To establish 5 collaborative Finishing Schools to impart high-end technical skills for enhancing employability and 2 industry-partnered Incubation Centers for encouraging entrepreneurship.
- To have a 25 % of Student Population opting to be either the First Generation Entrepreneurs and/or pursuing higher studies at Institutes of repute.
- To be a Multi-faculty Campus, establishing 5 multidisciplinary research centers in diversified areas, and 5 interdisciplinary academic programs.
- To be 100 % self-sustainable campus, wherein accommodation is provided for All students and at least 30% faculty.
- To attract foreign faculty from reputed Universities/Industries to the tune of 5 % of total faculty strength.
- To design and develop Digital Ecosystem, to collaborate, communicate and connect with stakeholders.
- To mentor 10 aspiring institutes with potential to transform, towards an elite status.

Department Goals

- Establish minimum three state of art research laboratories in the contemporary areas such as
 - Natural Language Processing
 - Multimedia and Communication
 - Data Warehousing
 - High Performance Computing
 - Bioinformatics
- Enable all students to pursue their chosen career paths such as higher education, entrepreneurship and placement in reputed organizations.
- To have 80% faculty members with Ph.D. qualification by 2022
- At least 5 publications in reputed international journals/conference every year.
- Execute industry/R&D projects with annual 10% growth rate.
- Introduce a new postgraduate program in a contemporary area by 2022.