



Dr. Vishwanath Karad
**MIT WORLD PEACE
UNIVERSITY** | PUNE
TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS



Polytechnic and Skill Development

Education as it should be
For Mind, Body and Soul

2023 - 24

REACH US @



WORLD'S FIRST UNIVERSITY FOR
LIFE TRANSFORMATION



WE LIVE
IN AN ERA OF
CREATIVE
PROGRESS

MIT-WPU School of Polytechnic and Skill Development

With a rich legacy of 40 years in fostering world-class academic excellence and over 100,000 alumni across the globe, MIT World Peace University is one of the premier centers of higher learning in India.

Polytechnic courses are six year courses opted immediately after completing SSC board exams (10th std). It is an immersive experience for students passionate about the vast and dynamic field of Engineering.

The department of Polytechnic and Skill Development at the School of Engineering and Technology, MIT-WPU offers six integrated B.Tech courses, covering important domains of engineering, namely

- Integrated B. Tech in Computer Science and Engineering
- Integrated B. Tech in Computer Science and Engineering (Artificial Intelligence & Data Science)
- Integrated B. Tech in Mechanical Engineering
- Integrated B. Tech in Mechanical Engineering (Robotics and Automation)
- Integrated B. Tech in Civil Engineering (Smart Infrastructure & Construction)
- Integrated B. Tech in Electronic & Communication Engineering (Artificial Intelligence and Machine Learning)

As the name suggests, the Department of Polytechnic and Skill Development has much more to offer than a regular engineering degree. The courses cover the basics of Mathematics, Physics and Chemistry in the first year of their degree. Students achieve holistic growth through Internships, seminars, webinars, workshops, guest lectures, etc. With a project each in the third and the sixth year and two summer internships, the department stands true to its name, inculcating the technical, practical, and research skills essential for future engineers.

Highlights

- State-of-the-art facilities equipped with the latest tools and advanced technologies for research & practical training
- Guest lectures, seminars, and workshops by industry experts and leaders from multinational companies
- Rural, National, and International Immersion programs
- 6 months industry internships with companies such as Tata Motors, JCB, Volkswagen, John Deere, Sandvik Asia, Force Motors, Bharat Forge, Mercedes Benz, PARI, Alpha Laval, L&T, EATON, Kirloskar Pneumatic Co. Ltd., HAL Nashik, CUMMINS India Ltd. ARAI Pune, and many more.
- MOOCS and interdisciplinary courses included in the curriculum to boost competencies in students
- Active MoUs with Multi-National Corporations such as Tata Technologies, Mercedes Benz, Blue Star, etc.
- Dedicated Centre for Industry-Academia Partnerships to support students get placements in MNCs such as Tata Technologies, Mu Sigma, Cognizant, ZS, Infosys, etc.



Dr. Dinesh Seth

Ph.D, ME, BE
Professor & Dean,
Faculty of Engineering and Technology

Dean's Message

Dear Students and parents,

Having won accolades nationally, evident from our NIRF and TIMES Rankings, we are striving hard to be recognized at the international level as well. In this endeavor, 'Industry-Readiness at The Global Level' and "Research & Innovation" are our key focus areas.

There is a huge demand for industry-ready manpower that is conversant with the latest technologies adopted by the industry. Therefore, it is necessary, as academicians, that we contribute to the growth of our nation by grooming professionals, who are conversant with the current advances and practices in the industry.

Building a strong industry-academia connection is a priority for the Faculty of Engineering and Technology. My team of faculty members is continuously revising the engineering curriculum in consultation with the top industry experts. Keeping the latest technological advancements in mind, we are introducing the following important courses in our B. Tech curriculum for the benefit of all students enrolled in engineering, irrespective of their chosen branch in engineering: Python Programming, Basic IoT Laboratory, Data Science for Engineers, Artificial Intelligence and Machine Learning, and Probability and Statistics.

To add to this significant change in our curriculum, the Faculty of Engineering and Technology has done another path-breaking change in the structure of its engineering education with the introduction of a Minor in Computer Science for all engineering students, except for those already pursuing Computer Science or Computer Engineering. This change has been made in view of the surge in demand for professionals with a background in Computer Engineering along with domain knowledge of other subjects in fields like Civil, Chemical, Mechanical, Polymer, etc.

I firmly believe that our nation needs research-oriented education that pushes our young minds toward innovation that can provide solutions to real-life problems. This will truly make the dream of Atma Nirbhar Bharat a reality.

As the Dean of the Faculty of Engineering and Technology, providing infrastructural support and encouragement to my team of faculty members, along with their bright young engineering students, is a priority for me. It gives me immense pleasure to inform you that this team is currently working on a number of innovative, interdisciplinary projects across various domains.

With the above-mentioned impactful changes that align us further with the industry and with innovative practices, I am confident that the Faculty of Engineering and Technology at MIT-WPU will produce global professionals, leaders and lifelong learners with holistic personalities, who will contribute to the well-being of mankind.



Dr. Rohini Kale

Associate Dean and Professor,
Department of Polytechnic &
Skill Development

Associate Dean's Message

As in all worthy enterprises, our strength, at MIT school of Polytechnic, comes from our people. Our distinguished faculty, students and committed staff all contribute to make our Institute a fulcrum of success and great pride. Our founder, Prof. Dr. Vishwanath D. Karad, a professional engineer par excellence and a pioneering advocate of combining spirituality with education, inspires the entire team. Well planned laboratories built around a modular concept that simulates a near industry setting, provides the students with an inspiring environment.

A well-stocked library has a vast collection of books, journals, magazines, CD's, and handbooks on Computer related subjects. To keep the students updated with the latest technological development across the globe, Internet access is available to the students 24 hours a day. Indeed, MIT School of Polytechnic strives very hard to ensure that the students are among the best placed professionals in the industry, practicing the best of human values and contributing to the process of creating a vibrant and stronger India through engineering knowledge.





Dr. Sunil S. Karad

Head of School & Professor



Head of School's Message

Dear all,

Warm Greetings!

It is my pleasure to welcome you to MIT-WPU School of Polytechnic Pune, Maharashtra, India. Our school has initiated a three year diploma. The school provides much needed practical exposure to various programs like Computer, Mechanical, Civil and Electronics and Telecommunication. MIT-WPU School of Polytechnic is dedicated to the task of committed technical, technological and leadership qualities of students.

MIT-WPU School of Polytechnic believes in value based education, focused on holistic development of students and gives a complete academic experience with experimental learning, incorporated project activities, Peace studies, National Tour and Rural Immersion, along with exposure to global technological innovations and continuously updated education across disciplines.

Our MIT-WPU School of Polytechnic is keen on developing young mind setup to develop our society at large. I am sure you will join MIT-WPU School of Polytechnic and be an active machinery for nation building.



COURSES



Integrated B. Tech in Computer Science and Engineering

The B. Tech in Computer Science and Engineering at MIT-WPU trains students in the fundamentals of hardware and software, the analysis of algorithms, and the knowledge of mathematics and sciences. The program equips the students with strong theoretical and practical knowledge of programming and engineering and develops research and innovation abilities in computer engineering. The course opens up career opportunities as Software Developer, Testing Engineer, System Analyst, Technical Support Engineer, IT Technical Content Developer, System Database Administrator, etc.

The programme offers the following majors-

- Data Science
- Software Design & Development
- Multimedia & Computer Vision
- Information & Cyber Security

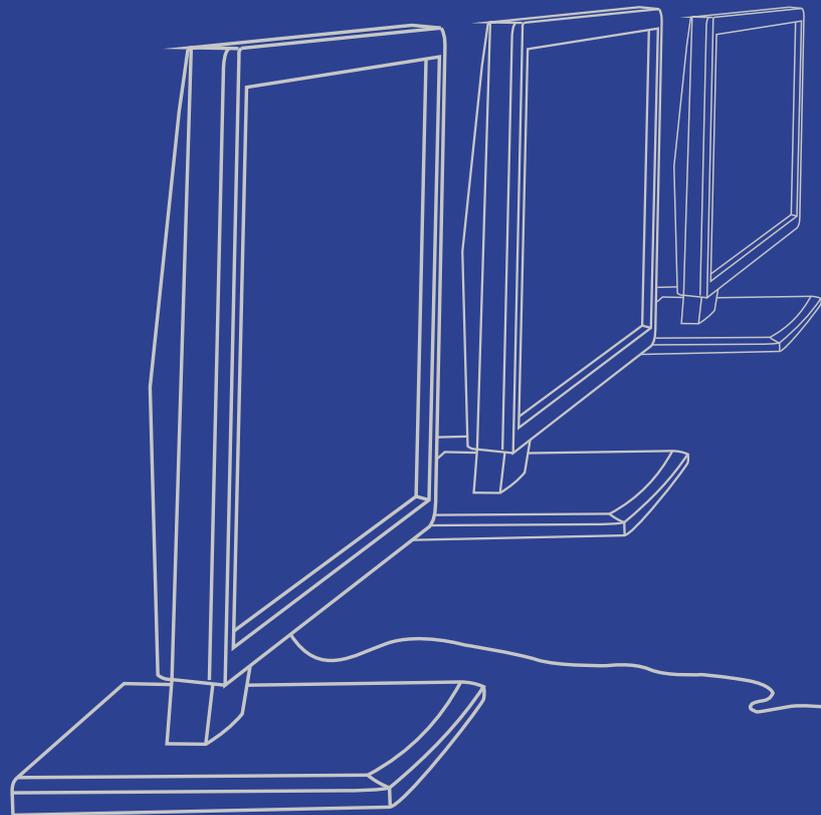


Integrated B. Tech in Computer Science and Engineering (Artificial Intelligence & Data Science)

Big data solutions have changed the way businesses function and grow. Intelligent business solutions based on big data and artificial intelligence help businesses expand beyond traditional realms. This has led to a steady rise in the need for computer engineers who can effectively collect, process, organize and utilise big data using the proper tools, techniques, and systems to help in effective decision-making for businesses. The Integrated B. Tech in Computer Science and Engineering (Artificial Intelligence & Data Science) at MIT-WPU equips future engineers with the skills and knowledge of the fields along with practical hands-on experience to tackle computational problems and be an asset to organizations. The students can become AI architects, Data Scientists, Business Analysts, ML engineers, Product Analysts, etc.

The programme offers the following majors-

- Business Intelligence, Edge AI
- Bio-Inspired Computing, Medical Image Processing
- Human Computer Interface, Augmented Reality & Virtual Reality
- Time Series Analysis & forecasting, Quantum Computing







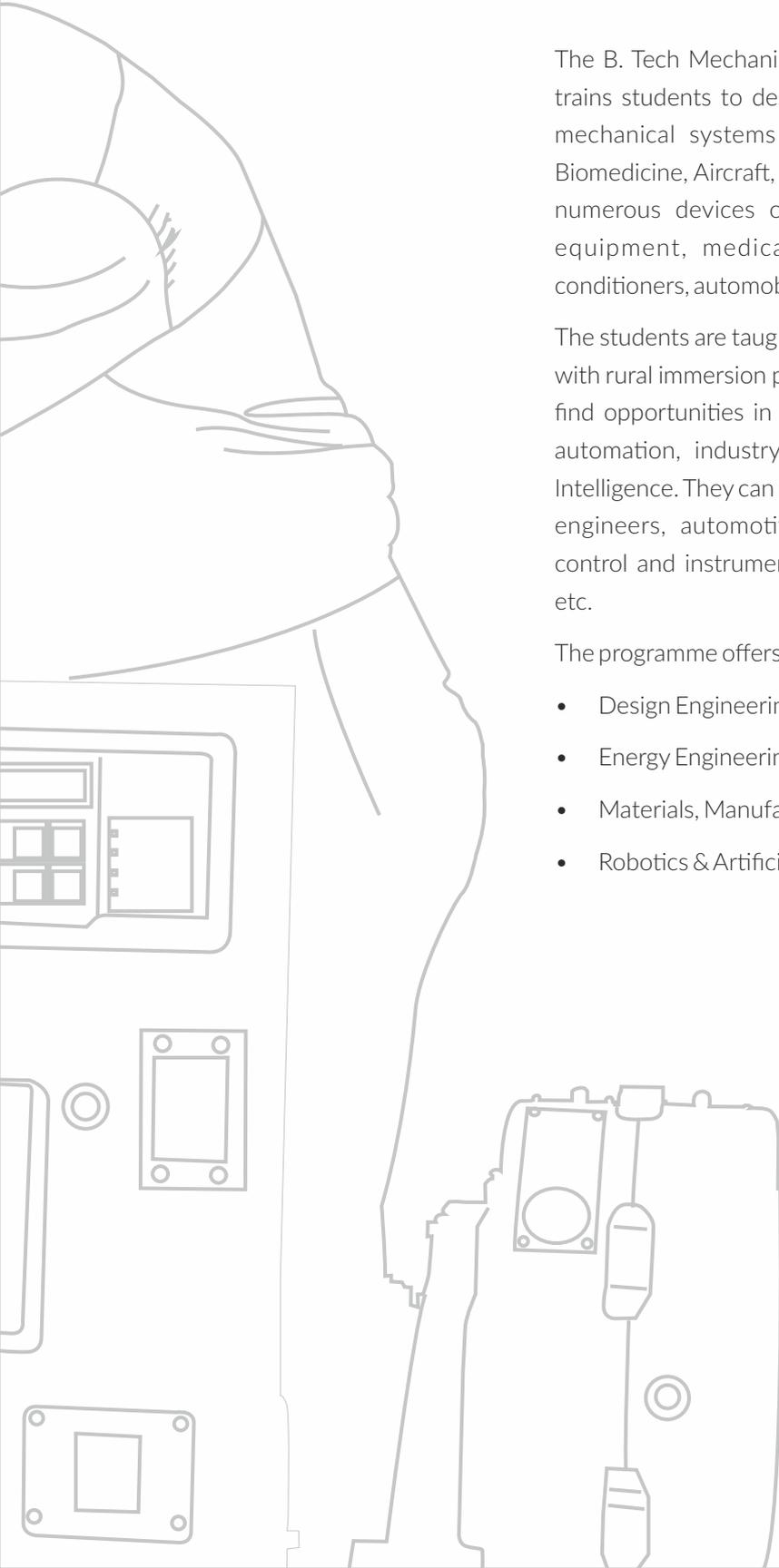
Integrated B. Tech in Mechanical Engineering

The B. Tech Mechanical Engineering programme at MIT-WPU trains students to design, manufacture and maintain complex mechanical systems in a variety of fields like E-mobility, Biomedicine, Aircraft, Energy, etc. Mechanical engineers design numerous devices of everyday use like batteries, athletic equipment, medical devices, personal computers, air conditioners, automobile engines, and electric power plants.

The students are taught via research and industry projects along with rural immersion programmes and industrial tours. They can find opportunities in a variety of domains like manufacturing, automation, industry, the Internet of Things, and Artificial Intelligence. They can make flourishing careers as manufacturing engineers, automotive engineers, maintenance engineers, control and instrumentation engineers, mechanical engineers, etc.

The programme offers the following majors-

- Design Engineering
- Energy Engineering
- Materials, Manufacturing & Automation
- Robotics & Artificial Intelligence



Integrated B. Tech in Mechanical Engineering (Robotics and Automation)

The B.Tech Mechanical Engineering Program in Robotics and Automation is a specially designed interdisciplinary program that cumulates the domain knowledge of mechanical, electronics, and computer science. The program trains the students in the design and development of robots to integrate with intelligent control systems, encompassing the principles of electromechanical and computer engineering. The program equips the students to work in varied domains like industrial automation, manufacturing, mining, aerospace, healthcare, defense, etc.

The programme offers the following majors-

- Mechanical Design & Simulation
- Control Engineering
- Materials, Manufacturing & Automation
- IOT and Artificial Intelligence
- Robot System Building





IBM Lotus
Have one simple



EMPLOYMENT



Integrated B. Tech in Civil Engineering

(Smart Infrastructure & Construction)



The B. Tech Civil Engineering program in Smart Infrastructure & Construction trains the students to identify the gaps in the application of smart technologies for infrastructure systems and to adopt new roles in the development of smart infrastructure and construction management. Smart technologies include sensors and citizen science, actuators, data transmission, the Internet of Things, big data analytics, data visualization, and blockchain, which can be used for infrastructure management. The course curriculum includes the latest digital and emerging technologies, Artificial Intelligence and Machine Learning (AI&ML), data science, dimensional building modeling and simulation, drone technology, etc.

The programme offers the following majors-

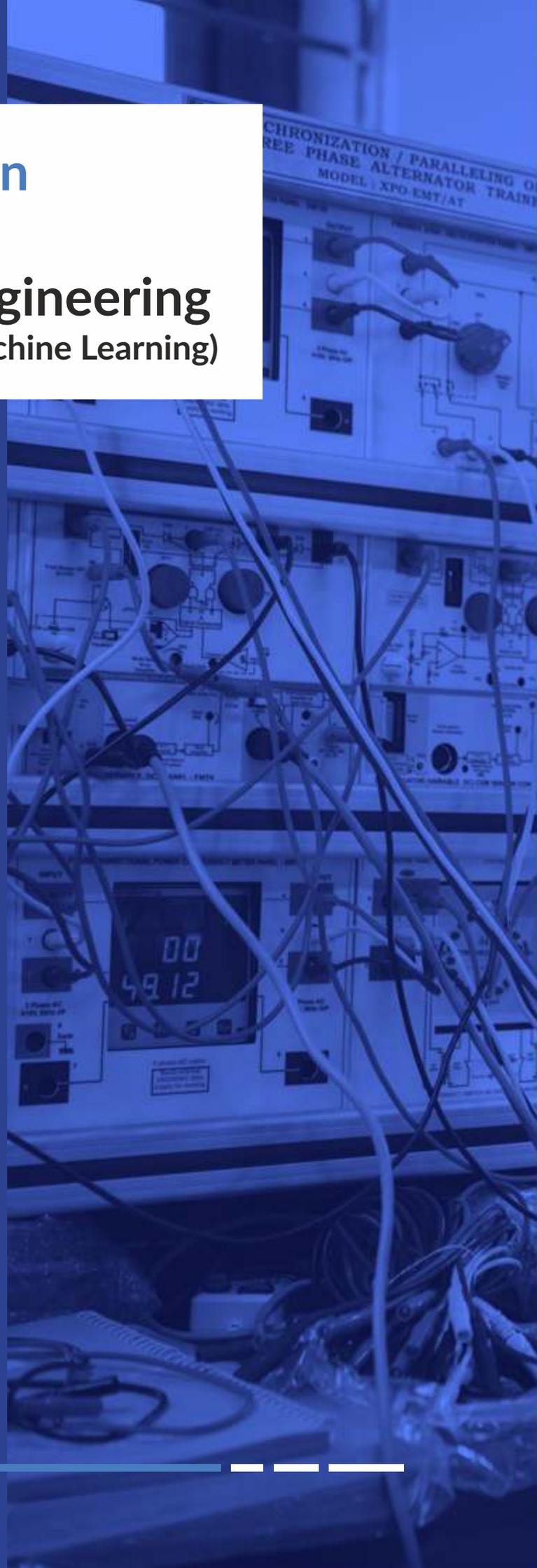
- Intelligent Transport System
- Sustainable Construction Materials & Management
- Intelligent Irrigation Technologies
- Robotics & Automation in Civil Construction

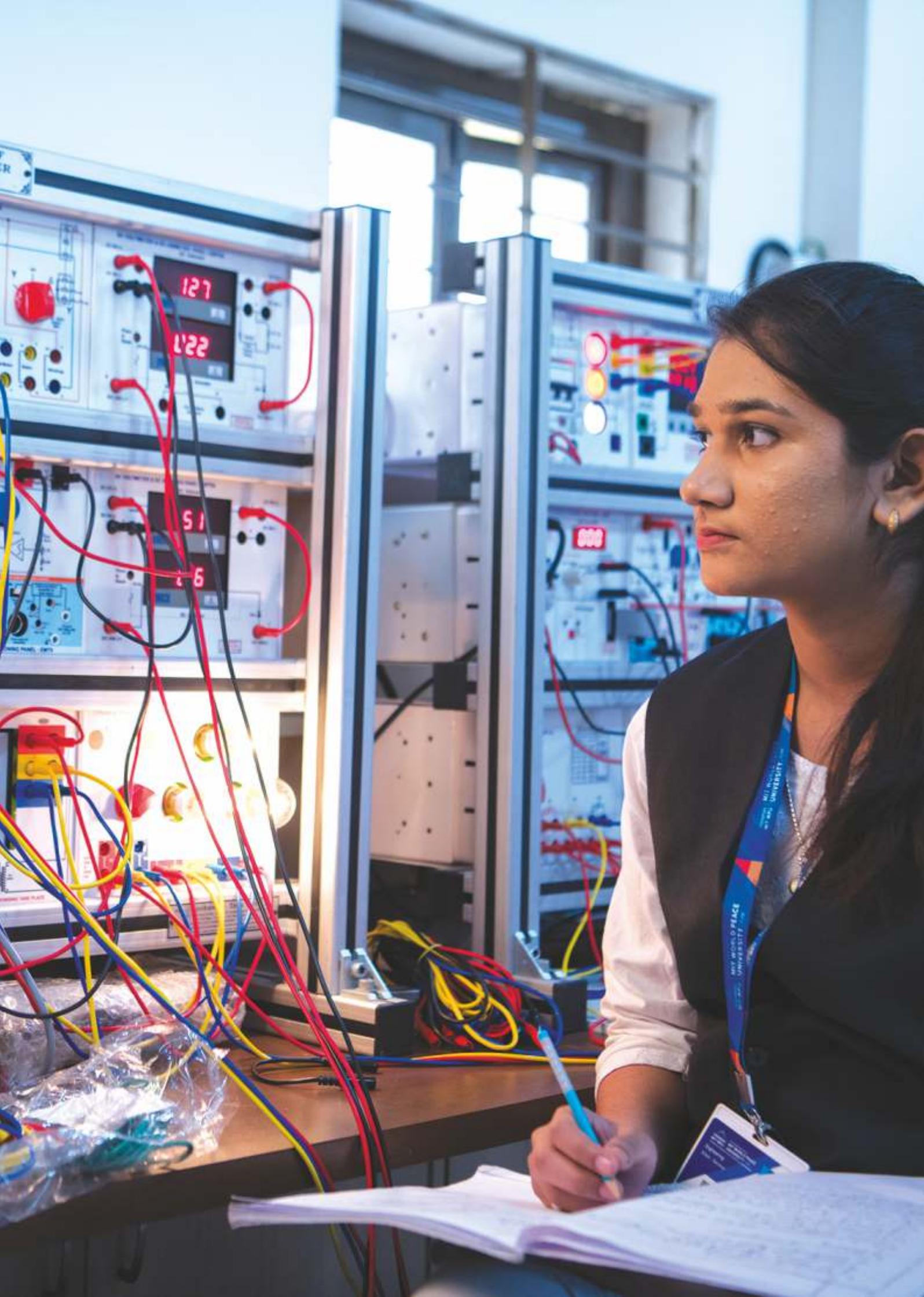
Integrated B. Tech in Electronic & Communication Engineering (Artificial Intelligence and Machine Learning)

The B. Tech Electronics & Communication Engineering (Artificial Intelligence and Machine Learning) programme provides comprehensive knowledge of electronics and communication and the AI-ML domain to match the current and future needs of the industry. The students learn to identify, formulate and design intelligent solutions catering to various fields like computer vision, robotics, automotive electronics, biomedical signal processing, health care, human-computer interface, and business solutions, etc. Industry experts will train students in the use of various tools and technologies for a hands-on experience to make them ready to face the challenges of tomorrow. The students can become AI architects, Data Scientists, Business Analysts, ML engineers, Product Analysts, etc.

The programme offers the following majors-

- Edge Intelligence
- AI in Healthcare
- AI Computing Platform
- Deep Learning Architectures
- Augmented and Virtual Reality





The Subsea Lab

It is estimated that the energy demand in developing nations will rise by 65 percent between 2010 and 2040. Oil will remain the primary global fuel, while natural gas will overtake coal for the second spot. A large country like India needs energy and one of the potential sources is subsea reserves.

Globally, Subsea Oil and Gas development has seen steady growth in the last few decades. This growth is expected to continue. Like with other engineering industries, the availability of skilled resources to manage the growth is a challenge. There is a need for skilled personnel in India to explore the local and international markets

Aker Solutions has embarked on an education initiative with MIT to introduce subsea engineering as a subject and support the development of subsea knowledge and skills.

Subsea Technology consists of advanced systems to extract oil and gas from the depths of the ocean. While a huge repository of these fuels occurs in the seas and oceans, the possibility and risk of human intervention are very high. Hence, advanced mechanisms are employed in the entire process, right from fabrication, logistics, installation, and commission to the supply chain.

Subsea Engineering Laboratory at MIT Pune:

Aker solutions and MIT-WPU have jointly established the Subsea Engineering Laboratory at the Faculty of Engineering. This state-of-the-art prototype demonstrates and conducts deep-water offshore production operations.

Aker Solutions has supported MIT-WPU on this project from concept to completion including the laboratory's design, procurement, fabrication, installations, assembly, and equipment testing. Aker Solutions is also actively involved in the commissioning of the project and its working modules. A combined group of MIT-WPU faculty members, students, and Aker Solutions engineers have conceptualized the laboratory's experiments on well performance and remote operating



The Center for Subsea Engineering Research (CSER) serves as an extension to academic knowledge on various domains of petroleum engineering and encourages research, innovation, and entrepreneurship in the various fields of engineering.

The extent of scope and utilization of the Subsea Engineering laboratory facility:

- Demonstration and performance of laboratory experiments of academic importance for UG and PG students of petroleum engineering
- Industrial Safety and Health Engineering (ISHE) and subsea engineering workshops and professional training programs jointly with the industry.
- Subsea engineering awareness programs and walk-in tours for industry professionals, and college and school students.
- Training on drilling and well control simulation facilities and experiments to be performed using a real-time drilling and well control system for delivering hands-on training.

Interdisciplinary Research Opportunities:

The Subsea laboratory facilitates interdisciplinary research in various domains of engineering including

- Vibration Analysis
- Robotics, ROVs in Subsea Engineering
- Fluid Dynamics
- Subsurface Production and Reservoir Engineering
- Surface Production Facilities Engineering
- Underwater Electronics and Fabrication
- Fluid Machineries
- Enhanced Oil Recovery
- Advanced Instrumentation and Process Control
- Flow Assurance
- Drilling and Well Control
- Pipeline Transportation
- Data Science and Analytics





Eligibility

- 60% & above aggregate score in 10th Grade Examination with compulsory 60 above marks in science and mathematics individually. (at least 55 % marks, in case of Backward class categories candidates belonging to Maharashtra State only)
- 60% & above aggregate score in MIT-WPU CET plus Personal Interview.

Internships

Experiential learning is an integral component of learning at MIT-WPU. The students of B.Tech pursue a six-month mandatory internship with renowned companies in their field. This internship aims to provide a platform to integrate classroom knowledge with related practical applications and skills in a professional ecosystem. The students get a chance to access real-world practical learning that instill critical perspectives for rewarding future career pathways.

Scholarship

Merit scholarships are proposed to reward and motivate meritorious students with financial assistance based on their academic performance, performance in requisite National Level Tests, and in MIT-WPU internal test- MIT-WPU CET for the AY 2023-24. These scholarships are applicable for the entire duration of the programme.

The categories of Merit Scholarships are detailed below

- Dr. Vishwanath Karad Merit Scholarship AY 2023-24
- MIT-WPU Merit Scholarship AY 2023-24
- Scholarships to Elite Sports person AY 2023-24
- Scholarship Awarded to Wards of MIT-WPU/MAEER's Staff Members

For more information visit

<https://admissions.mitwpu.edu.in/scholarship/>

Placements

The Training and Placement Cell at MIT-WPU plays a crucial role in locating job opportunities for students by inviting reputed firms and industrial establishments for opportunities. MIT-WPU has been successful in maintaining high placement statistics over the years. The Placement Cell organizes career guidance programmes for all the students. The cell also arranges training programmes like Mock Interviews, Group Discussions, Communication Skills Workshop etc.



Testimonials



"MIT-WPU has given me great opportunities in many fields. It gives the best curriculum for the students. It believes in the round Development of the student. For personal development, the Peace curriculum is the best thing happening at MIT-WPU. I feel privileged to be under the guidance of the best faculty. MIT-WPU gives the best education we can only dream of."

Saurabh Dharmadhikari, (School Representative) T. Y. Mech. Integrated B.Tech



"MIT-WPU has given me the exposure to visiting different areas in the field of computers. The faculty is amazing and very helpful to all the students. The trimester pattern helps us to learn many subjects in a short period of time."

Rudra Chopade, T. Y. Computer Integrated B.Tech



"The MIT-WPU has been a foundation and a building step to my personality and knowledge. And also the staff has always been planting seeds of wisdom into us students with their love and support."

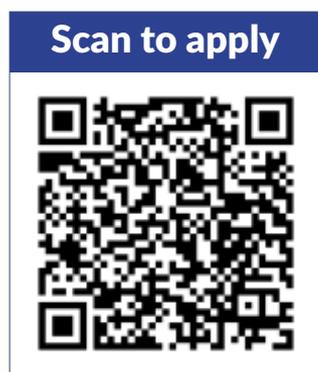
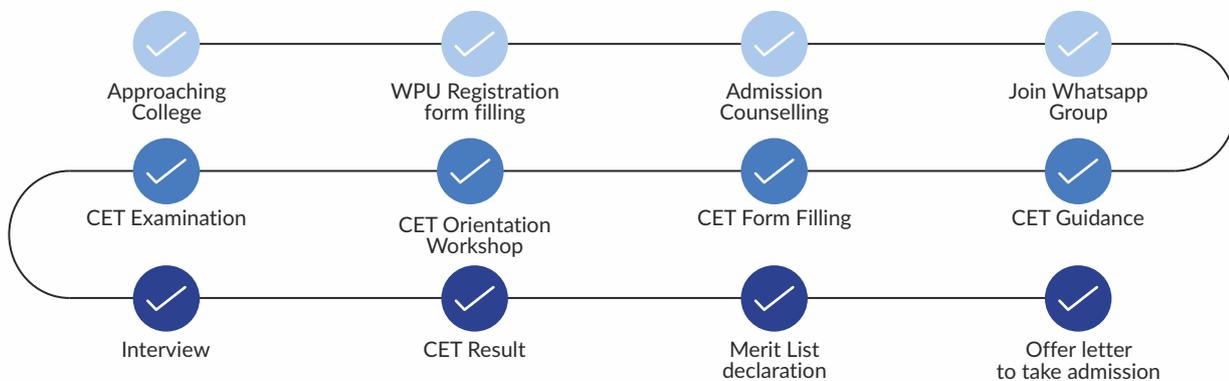
Madhura Tembe, T. Y. Mech Integrated B.Tech



"MIT WPU helps us to excavate our talents through various events taking place. The curriculum too became very interactive through the helpful teaching environment. On top of that the college gives a very healthy and full oxygen boost every day to breathe in through its beautiful and peaceful evergreen campus."

Aarohi Mritunjay Singh, S. Y. B.Tech

Admission Process



Dr. Vishwanath Karad
MIT WORLD PEACE UNIVERSITY | PUNE
TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS

Call +91-20-71177104
WhatsApp-only +91-9881492848
Email admissions@mitwpu.edu.in
Website admissions.mitwpu.edu.in
Address MIT-WPU, Kothrud, Pune

Disclaimer : The information published in this booklet is true to our knowledge and is correct at the time of publishing. Also the pictures, photographs, illustrations, facts and figures, quotations, etc. appearing in this booklet have been collected from various sources and should not be used for any commercial purposes or reproduced in any form without prior permission. The given information in brochure is Indicative and subject to change for betterment of the programme. Subject to Pune jurisdiction only.