# Technocrats Institute of Technology (Excellence), Bhopal

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# Newsletter

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## About Us

Technocrats Institute of Technology (Excellence) in Bhopal, Madhya Pradesh is a premier educational institution that has been imparting quality and value-based education for the past 17 years. Our vision is to establish ourselves as a center of excellence in engineering education in India, with global standards. Our institute is affiliated with Rajiv Gandhi Proudyogiki Vishwavidyalay, Bhopal, Barkatullah University, Bhopal for its engineering and management program ensuring that our students receive an education that is recognized nationwide. We are located in Anand Nagar on Raisen Road in Bhopal, which makes us easily accessible and convenient for students from all over central India. Our dedicated faculty and staff ensure that our students receive the best education, and we provide them with state-of-the-art facilities and resources that are essential for their academic and personal growth. We also encourage our students to participate in extracurricular activities and provide them with opportunities to develop their skills and talents. At Technocrats Institute of Technology (Excellence), we are committed to shaping the future of our students by providing them with a world-class education that is grounded in values and ethics.



## Vision

To become a "Centre of Excellence" for quality education in the field of engineering, research and management so as to produce globally competent and socially responsible professionals, who can contribute to technological and socio-economic development of the nation as a whole and region in particular.

## Mission

- M.1: To educate students with deep professional knowledge through innovative teaching-learning process and to make them aware of cutting-edge technology so as to become capable of understanding and addressing the issues of society, state and the country.

- M.2: To create in- house facilities for research and innovation to provide solution to the industrial problems.

- M.3: To inculcate right human values and professional ethics, leadership qualities, communication and entrepreneurship skills in students to meet the need of society.

*Technology is a word that describes something that doesn't work yet*

# Kick-off Session for Capgemini Training Program – Batch 2025

Technocrats Institute of Technology (Excellence) proudly celebrated the commencement of the Capgemini Training Program for the 2025 batch, marking the beginning of an exciting professional journey for our students. A total of 56 students from TIT Excellence have been selected by Capgemini, a testament to their dedication and technical acumen.

The kick-off session was designed to equip students with the necessary skills, knowledge, and industry insights to excel in their roles. With expert guidance and hands-on learning, the training program aims to refine their technical and problem-solving abilities, preparing them for the evolving demands of the IT industry.



# NAAC PEER Team Visit at TIT (Excellence) – A Milestone Achievement

Technocrats Institute of Technology (Excellence) recently welcomed the *NAAC PEER Team for an official inspection as part of the accreditation process. The visit, marked by rigorous assessment and valuable interactions, concluded on a high note with TIT (Excellence) being awarded a prestigious B+ grade, reinforcing our commitment to academic excellence and institutional growth.

 To honor the esteemed NAAC PEER Team, a special cultural program was organized, showcasing the vibrant spirit and rich heritage of our institution. Students presented mesmerizing performances, including classical dance, folk music, and theatrical acts, reflecting the diverse cultural ethos of India. The event was a testament to the talent, enthusiasm, and unity of the TIT (Excellence) family.

## Orientation Programme 2024: A Grand Welcome to Future Innovators and Leaders

Technocrats Institute of Technology (Excellence) proudly hosted the Orientation Programme 2024, marking the beginning of an exciting academic journey for its new batch of students. The program featured interactive sessions with distinguished industry experts, inspiring keynote addresses, and engaging activities designed to foster teamwork and innovation.



## Makar Sankranti and Lohri with great enthusiasm and joy

The event was graced by two esteemed guests:

Dr. MK Padmanabhan, Director, Virginia Tech, India Sundar Rajan, Global Knowledge & Sustainability Enterprise Architect, Adbudh Bharat Company (ABC).

Their presence brought valuable insights and inspiration to the celebrations. The campus came alive with vibrant dances, traditional rituals, and festive cheer, creating a perfect blend of culture, knowledge, and joy.



## TIT-Atal Marathon 2024 at TIT (Excellence)

On 26th December 2024, TIT Technocrats Group organized the TIT-Atal Marathon in Anand Nagar, BHEL, Bhopal, to honor the legacy of Shri Atal Bihari Vajpayee Ji. The event was graced by Dr. Sanjay Kumar Agarwal, DCP Zone - 2, Bhopal, as the chief guest. Students participated in a spirited 5 KM run, promoting fitness, unity, and community spirit.



## NSS Orientation Program

**Technocrats Institute of Technology (Excellence)** conducted National Service Scheme (NSS) Orientation Program.

The chief guest for the program was Dr. Pawan Mishra, Dean Student Welfare, BU, Bhopal; Guest of Honour was Dr. Anant Kumar Saxena, Program Coordinator, NSS, BU, Bhopal and Mr. Rahul Singh Parihar, Program Officer, Open Unit NSS, BU, Bhopal.

## Faculty Picnic at Chidikho Wildlife Sanctuary

As part of our employee welfare initiatives, the faculty of Technocrats Institute of Technology (Excellence) enjoyed a refreshing picnic at Chidikho Wildlife Sanctuary, Narsingarh. The day was filled with laughter, team bonding, and memorable moments in nature.

This initiative reflects our commitment to fostering a healthy work-life balance and strengthening our academic community. At TIT Technocrats, we believe that a happy and connected faculty creates a vibrant and productive workplace.



## Lensation Photography Workshop in Collaboration with Canon

The world looks better through a lens, and students at Technocrats Institute of Technology (Excellence) experienced this firsthand at the Lensation Photography Workshop on 4th December 2024, in collaboration with Canon.

The workshop was a perfect blend of creativity, learning, and hands-on experience, where students gained professional insights into photography techniques, camera handling, and composition mastery.

Outstanding participants who showcased exceptional talent and passion were rewarded with exciting goodies, making the event both enriching and memorable.



## NSS Unit Organizes Life-Saving Blood Donation Camp

The NSS Unit of Technocrats Institute of Technology (Excellence) successfully organized a Blood Donation Camp on 27th November 2024, in collaboration with Bhopal Memorial Hospital & Research Center and HDFC Bank, Bhopal.

The event saw an overwhelming response, with numerous volunteers stepping forward to donate blood and make a meaningful impact. Their selfless contributions will go a long way in saving lives and spreading hope.



## Observing National Constitution Day at TIT Excellence

Technocrats Institute of Technology (Excellence) proudly commemorated National Constitution Day with a solemn and meaningful Preamble reading session, uniting students and faculty in a tribute to the foundational values of our nation. The event served as a powerful reminder of the principles enshrined in the Indian Constitution,

reinforcing the collective responsibility to uphold justice, equality, liberty, and fraternity.



# Department of Computer Science & Engineering

## Vision of the Department

To produce technically and ethically competent, socially responsible and innovative Computer Science & Engineering professionals through quality education, who can contribute in techno and socio-economic development of the nation as a whole and region in particular.

## Mission of the Department

**M1:** To create an academic ambience for achieving academic excellence by imparting in depth domain knowledge to the students through effective teaching learning, conceptual and practical exposure with latest tools and technologies.

**M2:** To provide an environment & opportunity for students to utilize their potential and technical skills required for overall development through collaborative and professional activities.

**M3:** To inculcate innovative research skills, promote professional ethics & entrepreneurship skills amongst the students to cater the needs of the Society.

## Program Educational Objectives Statements (PEOs)

**PEO1** Graduate will become an established professional in the field of Computer Science & Engineering and related fields.

**PEO2** Graduate will acquire well built foundation to pursue higher studies and research.

**PEO3** Graduate will be able to inculcate effective communication skills, team work, ethics and leadership skills required to become an innovative and successful entrepreneur.

## Program Specific Outcomes(PSOs)

**PSO1** Graduates will develop ability to design and develop computer based applications of moderate complexity in the areas of database system, web technology and machine learning.

**PSO2** Graduates will be able to apply standard software project management practices and methods to deliver quality projects.

**PSO3** Graduates will be able to analyze and develop cost effective algorithms for real time engineering/social applications.

## Expert Session on Career Readiness

TIT (Excellence) had the privilege of hosting Ms. Megha Agrawal, who shared invaluable insights on research, continuous upskilling, and industry expectations. She provided practical guidance on what companies like TCS look for in candidates and offered key strategies for campus placement success.

## Insightful Orientation Session with Mr. Ashish Bhalla at TIT (Excellence)

Technocrats Institute of Technology (Excellence) had the privilege of hosting Mr. Ashish Bhalla, former Director-HR at HCLTech, for an engaging and insightful orientation session for first-year students.



With his vast corporate experience, Mr. Bhalla provided students with a deeper understanding of the essential skills and mindset required to excel in today's rapidly evolving industries. His session focused on key aspects leadership, adaptability, and the significance of strong interpersonal skills in the workplace.

## Department of CSE (Artificial Intelligence & Machine Learning)

### Vision of the Department

To be recognized as department of repute as in the field of Artificial Intelligence & Machine Learning to address the need of industry and society.

### Mission of the Department

**M1:** To develop skilled professionals in the area of Artificial Intelligence & Machine Learning application.

**M2:** To bring out the competent and industry ready students by practicing theoretical aspects with experientialLearning.

**M3:** To prepare the students with holistic and ethical personality by providing conducing learn ecosystem for enhancing real world problem solving skill.

## Program Educational Objectives (PEO$_s$)

**PEO1:** Graduate will become an established professional in their career path.

**PEO2:** Graduate will acquire knowledgeable to plan, analyze, design, develop and test AI and ML based solutions for real world problems.

**PEO3:** Graduate will adhere to professional ethics, Leadership quality and become socially responsible

## Program Specific Outcomes(PSO$_s$)

**PSO1:** Ability to analyse and apply the knowledge of human cognition, Artificial Intelligence & Machine Learning to meet the changing challenges of the future.

**PSO2:** To apply mathematical principles in computational tasks to build software based projects

**PSO3:** Ability of project development in the areas of Deep Learning, Machine learning, Artificial Intelligence.

## Inspiring Guest Session

Inspiring session by distinguished speakers who enriched our students with their insights and experiences.

Dr. MK Padmanabhan, Director at Virginia Tech, India, delivered an insightful session on the role of research and development in bridging academia and industry. He emphasized the impact of AI and ML in shaping the future and the need for continuous innovation.

Sundar Rajan, Global Knowledge & Sustainability Enterprise Architect at Adbudh Bharat Company (ABC), inspired students with his motivational talk on dream visualization and having a mission in life. His interactive session encouraged students to pursue competence, motivation, and long-term goals.

# Enriching Session on IBM SkillsBuild at TIT Technocrats

Hosted an **informative session on IBM Skills Build**, providing students with an opportunity to explore a diverse range of courses available on the platform. **Mr. Brijesh and Mr. Mahendra** from Reacha, representing IBM Skills Build, guided students through the platform, highlighting its benefits for skill development.

Students actively participated in the session, registered for the **"Effective Communication"** course, completed it, and proudly earned their certificates.



# Department of CSE (Artificial Intelligence)

## Vision of the Department

To become a premier institute in Artificial Intelligence education.

## Mission of the Department

**M1:** To impart knowledge in Artificial Intelligence technologies in par with current industrial standards.

**M2:** To uplift innovative research and development in Artificial Intelligence in order to serve the needs of society in Collaboration with industries and allied organizations.

**M3:** To equip graduates with a specialization in Artificial Intelligence with personal and professional, ethical responsibilities and commitment to lifelong learning.

# Program Educational Objectives (PEO$_s$)

**PEO 1**: Graduates will have the ability to adapt, contribute and innovate new technologies and systems in the key domains of Artificial Intelligence.

**PEO 2**: Graduates will have the ability to explore research areas and produce outstanding contribution in various areas of Artificial Intelligence.

**PEO 3**: Graduates will be ethically and socially responsible solution providers and entrepreneurs in the field of Artificial Intelligence and Machine Learning.

# Program Specific Outcomes(PSO$_s$)

**PSO 1**: Apply the concepts of Artificial Intelligence in Data Structure, Database Management System, Operating System, Networking and Intelligence System applications.

**PSO 2**: Develop AI based automated solutions for real world problems.

**PSO 3**: Evolve AI based efficient domain specific processes for effective decision making.

# Techno Storm Quiz Tournament: A Battle of Wits

One of the most exhilarating quiz competitions of the year – the TechnoStorm Quiz Tournament – exclusively for III semester students.

The tournament unfolded in two challenging stages: a Screening Round and the Grand Finale. Over 100 teams enthusiastically participated in the qualifier round, which featured MCQs modeled after the recruitment patterns of leading companies like Accenture, Capgemini, and Wipro, along with questions inspired by Pan India-level coding contests conducted by top multinational corporations.

After a fierce battle of intellect and strategy, Team Tech Hunters emerged as the undefeated champions, securing their place at the top.

# Department of CSE (Cyber Security)

## Vision of the Department

To become an institute of repute in preparing technically and ethically sound cyber security professional.

## Mission of the Department

**M1.** To create a conducive cyber security ecosystem that nurtures innovation and entrepreneurship.

**M2**. To inculcate innovative research capabilities amongst the students to cater the needs of society.

**M3**. To create conducive environment that makes people use of best cyber practices which keeps their resources safe.

## Program Educational Objectives (PEO$_s$)

**PEO 1**: To make the Graduates able to apply a range of cybersecurity principles and techniques to protect computer systems, networks, and data from malicious attacks. They will demonstrate proficiency in using cybersecurity tools and methodologies to identify, assess, and mitigate security risks.

**PEO 2**: To develop the graduate's capabilities for designing, implementing, and maintaining secure computer systems and networks. They will be able to develop and implement security controls, conduct vulnerability assessments, and implement incident response plans.

**PEO 3**: To make the graduates be able to communicate complex cybersecurity concepts to both technical and non-technical audiences. They will be able to write clear and concise reports, present findings effectively, and advocate for cybersecurity best practices within organizations.

## Program Specific Outcomes(PSO$_s$)

**PSO 1**: Graduates will be able to design and implement secure computer systems and networks, protecting them from cyber threat

**PSO 2**: Graduates will be able to conduct vulnerability assessments, penetration testing, and risk assessments to identify and mitigate security risks.

**PSO 3**: Graduates will be able to demonstrate design thinking skills, and resolve ethical issues related to computing as demanded by the society.

# Battle of the Brains: English Edition 2024 - Grand Finale

The Corporate Training Department proudly hosted the Grand Finale of the highly anticipated Battle of the Brains: English Edition 2024, a thrilling event designed to enhance essential language skills for campus placements.

The finale featured five exhilarating rounds that kept participants and spectators on the edge of their seats. Beyond being a competition, the event was a learning journey, where students not only showcased their language skills but also had a fantastic time.



# Department of Electronics & Communication

## Visit of Ms. Sita Raiter, Public Diplomacy Officer, US Consulate General

Technocrats Institute of Technology (Excellence) had the honor of hosting **Ms. Sita Raiter, Public Diplomacy Officer at the US Consulate General**, whose visit marked a significant step in strengthening US-India collaborations, particularly in the realm of education.

During her insightful address, **Ms. Raiter highlighted the transformative role of education** in shaping the next generation of innovators and leaders. She engaged in meaningful discussions with students, offering valuable perspectives on global educational opportunities and the power of learning in fostering international partnerships.

# Department of Electrical & Electronics Department

## Vision of the Department

To impart quality education in various fields of engineering, technology & management and to develop the institute into a center of academic excellence.

## Mission of the Department

To mold the students into competent technocrats to become professionally skilled, intellectually adept and socially responsible, to contribute to society through quality teaching and providing the conducive learning environment.

## Program Educational Objectives {PEOs)

**PEO 1**: Graduates will become established professionals in the field of Electrical & Electronics Engineering and related fields with sound ethical values.

**PEO 2**: Graduates will demonstrate all necessary engineering and scientific competence to become an entrepreneur in the field of Electrical & Electronics Engineering and allied fields considering social and environmental issues.

**PEO 3**: Graduates will possess a solid foundation in the field of Electrical & Electronics Engineering to be applied in their higher studies and research.

## Program Specific Outcomes (PSOs)

**PSO 1**: Graduates will show ability to analyze, design, and implement electrical machines, power electronics, instrumentation, control systems for the overall electrical power system.

**PSO 2**: Graduates will show the ability to apply appropriate techniques and modern engineering hardware and software tools in power systems and power electronics in the field of Electrical & Electronics Engineering.

**PSO 3**: Graduates will show ability to

## Electrical Students Shine at 11th Bhopal Science Fair

Students from the Electrical & Electronics Engineering Department of Technocrats Institute of Technology (Excellence) showcased their innovative skills at the 11th Bhopal Science Fair, held in association with Vigyan Bharti and Madhya Pradesh Council of Science & Technology (MPCST), Bhopal.

Harsh Lodhi and Sachin Harinkhede, students of 3rd semester, participated in the event with their model presentation, demonstrating their technical acumen and creativity.



## Training Program on Industrial Automation for Electrical & Electronics Students

Students from the Electrical & Electronics Engineering Department at Technocrats Institute of Technology (Excellence) participated in a specialized training program on Industrial Automation in August 2024. The program focused on Instrumentation and Automation Technologies, equipping students with industry-relevant skills. Led by expert trainers, the session covered advanced automation systems, process control, and real-time applications in the industrial sector. Students gained hands-on experience with PLC programming, SCADA systems, and sensor integration, enhancing their practical knowledge and technical expertise.

# Department of Mechanical Engineering

## Vision of the Department

To become a center of excellence in the field of Mechanical Engineering by enabling students to attain domain knowledge, lifelong learning skills and ethical values to serve the nation.

## Mission of the Department

**Ml:** To create an academic ambience through competent faculty and encouraging multidisciplinary interaction.

**M2:** To establish state of the art infrastructure facilities that will pave the dissemination of technical knowledge in the field of Mechanical Engineering.

**M3:** Exposing students to new tools and technologies of Mechanical Engineering.

**M4:** Providing an environment to actively participate in enhancing problem solving and leadership qualities and team spirit.

## Program Educational Objectives {PEOs)

**PEO 1:** Graduates will become an established professional in the field of Mechanical Engineering and related fields with sound ethical values.

**PEO 2:** Graduates will demonstrate all necessary engineering and scientific competence to become an entrepreneur in the field of Mechanical Engineering and allied fields considering social and environmental issues.

**PEO 3:** Graduates will possess a solid foundation in the field of Mechanical Engineering to be applied in their higher studies and researches.

## Program Specific Outcomes (PSOs)

**PSOl:** Graduates will be able to apply knowledge of Mechanical Engineering for analyzing and designing projects in the fields of Thermal, Industrial and Production engineering.

**PS02:** Graduate will design and develop Mechanical Engineering projects concerning environment, energy conservation and safety.

**PS03:** Graduates will be able to plan and execute Mechanical Engineering projects applying relevant codes of practice materials and techniques.

## Expert Lecture on "Thermal Engineering and Its Applications" by Dr. Satish Pal Singh Rajput

Dr. Satish Pal Singh Rajput, a distinguished professor from MANIT Bhopal, for an insightful session on "Thermal Engineering and Its Applications." Dr. Rajput, who currently leads Institutional Development & International Relations at MANIT Bhopal, provided an in-depth understanding of key concepts in Refrigeration & Air-Conditioning, highlighting their real-world applications in engineering.



## Distinguished Lecture by Prof. Raman Singh from Monash University, Australia

Technocrats Institute of Technology (TIT) had the honor of hosting Prof. Raman Singh, a renowned academician from the Department of Chemical and Biological Engineering and the Department of Mechanical and

Aerospace Engineering, Monash University, Australia.

Prof. Singh delivered an enriching session, sharing his expertise on advancements in engineering, research, and innovation. His insights provided a deeper understanding of emerging trends in the field, leaving a lasting impact on both students and faculty.



# Department of Civil Engineering

## Vision of the Department

To develop technically competent and socially responsible Civil Engineering professionals with up-to-date knowledge and innovative ideas for contributing in techno and socio-economic development of the country as a whole and region in particular.

## Mission of the Department

**M 1**: To achieve academic excellence in Civil Engineering by imparting in-depth technical knowledge to the students through conceptual and practical exposure on latest tools and technologies.

**M2:** To provide an environment & opportunity for students to grow and bring out their inherent talents for their overall development through collaborative and professional activities and prepare them for lifelong learning in global perspectives.

## Program Educational Objectives {PEOs)

**PEO 1**: Graduate will become an established professional in the field of Civil Engineering and related fields with proven teamwork and leadership records in their workspace and the society.

**PEO 2**: Graduate will continue to develop professionally through lifelong learning, higher studies and research expertise in multidisciplinary areas to meet the expectations of their organization and the society.

**PEO 3:** Graduate will possess all necessary engineering and scientific competence to become an innovative entrepreneur in the fields related to Civil Engineering and allied disciplines, with due consideration to social and environmental issues.

## Program Specific Outcomes (PSOs)

**PSO 1:** Graduates will be able to apply the knowledge of analysis and design to cater the infrastructural need of the society in Structural, Hydraulic, Transportation and Irrigation related fields.

**PSO 2:** Graduates will be able to execute quality construction work within the stipulated period of time and resources with due consideration of energy conservation and surrounding ecology.

**PSO 3:** Graduates will be able to plan and execute civil engineering projects applying relevant codes of practice for materials and techniques.

## Expert Talk on Building Information Modelling (BIM) by Mr. Sanjay Agrawal

Technocrats Institute of Technology (Excellence) had the privilege of hosting an expert talk on Building Information Modelling (BIM) by Mr. Sanjay Agrawal, Technical Head, NITDP, Bhopal. The session provided valuable insights into the significance, applications, and advancements in BIM, a transformative technology in the field of architecture, engineering, and construction.

Mr. Agrawal elaborated on how BIM enhances project efficiency, reduces errors, and improves collaboration among stakeholders. He also discussed its growing relevance in modern infrastructure development and how students can leverage BIM skills for career opportunities in the industry.

## Industrial Visit to CSIR-AMPRI, Bhopal: A Valuable Learning Experience for Civil Engineering Students

The Civil Engineering Department of Technocrats Institute of Technology (Excellence) organized an industrial visit to CSIR – Advanced Materials and Processes Research Institute (AMPRI), Bhopal, providing students with a firsthand experience of cutting-edge research and technological advancements in materials science and engineering.

During the visit, students explored various research divisions focusing on advanced materials, sustainable construction technologies, and innovative structural solutions. The experts at CSIR-AMPRI provided in-depth explanations on lightweight composites, nanomaterials, and eco-friendly building materials, showcasing their significance in modern civil engineering applications.



## Alumni Talk by Mr. Imtiyaz Khan: Insights into Billing & Contracts in Civil Engineering

The Civil Engineering Department of Technocrats Institute of Technology (Excellence) had the privilege of hosting an Alumni Talk by Mr. Imtiyaz Khan, Regional Billing & Contract Head, Ashoka Buildcon Ltd., Delhi.

Mr. Khan, an esteemed alumnus, shared his valuable industry experiences and insights into the field of billing, contracts, and project management in civil engineering. He provided students with a practical understanding of cost estimation, contract negotiation, and financial management in large-scale infrastructure projects.



## Program Outcomes

- **PO 1** Engineering Knowledge
- **PO 2** Problem Analysis
- **PO 3** Design/Development of Solutions
- **PO 4** Conduct Investigations of Complex Problems
- **PO 5** Modem Tool Usage
- **PO 6** The Engineer and Society
- **PO 7** Environment and Sustainability
- **PO 8** Ethics
- **PO 9** Individual and Team Work
- **PO10** Communication
- **PO 11** Project Management and Finance
- **PO 12** Life-long Learning.

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