



**NITTTR  
BHOPAL**

**VB-3/2025-2026**

# Emerging Trends in Engineering Research and Development

**17-11-2025 to 21-11-2025**

**Online**

<https://erp.nitttrbpl.ac.in/poc2025/?id=regVB-3>



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## Rationale

The rapidly evolving landscape of science and technology demands that engineering educators and researchers stay abreast of the latest developments to remain relevant and effective. The training programme on "Emerging Trends in Engineering Research and Development" is designed to expose faculty members and researchers to cutting-edge innovations across various engineering domains, such as artificial intelligence, renewable energy, advanced materials, smart manufacturing, robotics, and sustainable infrastructure. By understanding these emerging trends, participants can align their research with global priorities, foster interdisciplinary collaboration, and inspire innovation in teaching and learning. This programme aims to bridge the gap between academic research and industry needs, enabling participants to contribute meaningfully to national development and global technological progress.

## Programme Outcomes

The participants will be able to

- demonstrate insights into the latest trends and innovations across various engineering disciplines
- get equipped with modern research methodologies and tools, enabling them to undertake impactful, interdisciplinary, and industry-relevant research
- acquire knowledge to integrate emerging technologies into academic curricula, promoting future-ready education.
- explore avenues for collaborative research, consultancy, and technology transfer, bridging the gap between theoretical knowledge and practical application.

## Programme Content

The programme will cover a range of cutting-edge topics across diverse engineering domains. It will explore advanced technologies like semiconductor packaging and fabrication, OSAT processes, artificial intelligence, machine learning, and data analytics, with a focus on their applications in engineering research. Other key areas include renewable energy solutions, such as solar and wind energy technologies, and sustainable engineering practices. Participants will learn about smart manufacturing, Industry 4.0, and the integration of IoT and automation in various engineering systems.

## Target Group

Faculty of Engineering disciplines

## Coordinator & Co-Faculty

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An Online Training Portal of NITTTR Bhopal  
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