

One Week Self-Sponsored Faculty Development Programme (FDP)

On

AI and IoT for Cross-Sectoral Innovation: Bridging Agriculture, Finance, and Healthcare

The FDP aims to foster a deeper understanding of how AI and IoT technologies can be effectively applied to enhance productivity, efficiency, and decision-making in diverse sectors. Participants will explore real-world case studies, tools, and frameworks that enable data-driven innovation. The program also encourages collaborative research and solution development to address sector-specific and societal challenges. Through expert sessions and hands-on activities, it seeks to bridge technological gaps and promote sustainable, scalable innovations.

Who can attend: Suitable for faculty from colleges, universities, and technical and professional institutes can attend. PhD Research Scholars, PG/UG student and Industry personnel also can attend this FDP.

About ABV-IIITM Gwalior



Atal Bihari Vajpayee Indian Institute of Information Technology and Management (ABV-IIITM) Gwalior, established in 1997, is a premier autonomous institute recognized as an Institute of National Importance by the Government of India. Situated on a 160-acre campus near Gwalior Fort, it offers undergraduate, postgraduate, and doctoral programs in areas like Electrical and Electronics Engineering, VLSI, Computer Science, Information Technology, Management, and Engineering Sciences. The institute emphasizes interdisciplinary learning, integrating IT and management education, and is known for its cutting-edge research and strong industry connections.

About the ES and EEE Department

The Department of Engineering Sciences, originally established as the Department of Applied Sciences in July 2022 and renamed in June 2023, has been contributing to teaching and research at the institute since 2006. It offers B.Tech. in Mathematics and Scientific Computing and Ph.D. programs in Engineering Sciences (Physics & Mathematics). The department comprises distinguished researchers engaged in nationally and internationally funded projects, with well-equipped UG, PG, and research labs. It maintains global research collaborations and has a strong publication record in reputed international journals.

The Department of Electrical and Electronics Engineering is one of the major departments being created in 2022 to achieve the mission and vision of the institute. Previous to this, this department was the part of Information Technology and Electronics department that was established in the year 1997. The Department is currently in its development phase and engaged in teaching, research, and development in the areas of VLSI, SoC design, VLSI interconnects, AI Chip design, IoT devices, Real-time embedded systems, Wireless communication, multimedia signal processing, power system and control and high-frequency devices and communication systems. Bright students from all parts of the country for quality education in EEE at undergraduate, postgraduate, and doctoral levels are attracted. The department has highly qualified and competent faculty members and adequate facilities to support teaching and learning activities. This department has various labs such as the Advanced Material Research (AMR) Lab, SOC Lab, VLSI design lab, interconnect focus lab, and High-frequency simulation lab.

Important Dates:

Last Date of Online Registration: 10th August 2025

FDP Dates: 25-31 August 2025

Registration Link:

<https://forms.gle/4RUj4oEDYf9ip27g6>

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AI and IoT for Cross-Sectoral Innovation: Bridging Agriculture, Finance, and Healthcare

Jointly Organized by
Engineering Science (ES) Department



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and

Electrical & Electronics Engineering (EEE)
Department, ABV-IIITM Gwalior

CHIEF PATRON

Prof. S. N. Singh,

Director, ABV-IIITM Gwalior

PATRON

Prof. Manisha Pattanaik, HOD, EEED

Prof. Ajay Kumar, HOD, ES Department,
ABV-IIITM Gwalior

EVENT ORGANISERS

1. Prof. Pankaj Srivastava, Professor, ES Department, ABV-IIITM Gwalior, India
2. Dr. Somesh Kumar, Assistant Professor, NanoR Group, EEED, ABV-IIITM Gwalior, India.
Ph. No. 7009594389; somesh@iiitm.ac.in

Faculty Development Programme On

AI and IoT for Cross-Sectoral Innovation: Bridging Agriculture, Finance, and Healthcare

Date: 25-31 August 2025 (Hybrid mode)

Resource Persons*

Faculty Members across the globe will provide lectures and hands-on sessions.

- Dr. Sandesh Jain, ABV-IIITM Gwalior, India
- Dr. Sunil Kumar, ABV-IIITM Gwalior, India
- Dr. Somesh Kumar, ABV-IIITM Gwalior, India
- Prof. Pankaj Srivastava, ABV-IIITM Gwalior
- Dr. Prasenjit Chanak, IIT Bhu, Varanasi, India
- Dr. Vishal Vyas, ABV-IIITM Gwalior, India
- Dr. Biswabandhu Jana, ABV-IIITM Gwalior, India
- Dr. Vijaypal Singh Rathor, ABV-IIITM Gwalior
- Dr. Amandeep Kaur, ABV-IIITM Gwalior

*This is a tentative list and can be modified.

Technical Industry Partners

- M/S Vidhilekha Soft Sol. Pvt. Ltd., Gurgaon, India

Coordinators

1. **Prof. Pankaj Srivastava**, Professor, ES Department, ABV-IIITM Gwalior, India
2. **Dr. Somesh Kumar**, Assistant Professor, NanoR Group, EEED, ABV-IIITM Gwalior, India.
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Course Contents

- Overview of agriculture, finance, and healthcare ecosystems with challenges and opportunities for cross-sectoral innovation.
- Introduction to Artificial Intelligence (AI), Machine Learning (ML), and Internet of Things (IoT) with focus on real-world applications.
- IoT architecture, sensor networks, and data acquisition for smart and scalable solutions.
- Precision agriculture using AI/IoT for crop health monitoring, yield prediction, and disease detection.
- Applications of AI and IoT in digital healthcare: telemedicine, wearable devices, health analytics, and early diagnosis systems.
- Financial innovations: AI-driven credit scoring, crop insurance models, and IoT-based agri-finance tracking.
- Data management, privacy, cybersecurity, Intelligent Transport Systems, and ethical considerations in integrated AI-IoT systems.
- Hands-on sessions and group projects to develop cross-domain prototype models using platforms like ThingSpeak, Node-RED, and TensorFlow Lite.

Programme Features

- Interdisciplinary Focus with Real-World Relevance: Bridges agriculture, healthcare, and finance through AI and IoT to address rural and societal challenges.
- Expert-led sessions and Practical Exposure: Delivered by renowned academicians and industry professionals, with hands-on experience using machine learning.
- Policy, Ethics, and Startup Insights: Covers data privacy, regulatory frameworks, and innovation opportunities in emerging AgriTech, HealthTech, and FinTech sectors.

- Certification and Networking: Offers participation certificates and opportunities for collaboration among researchers, educators, and innovators.

Registration Details

- Registration link – Please fill out registration using the following link:

<https://forms.gle/4RUj4oEDYf9ip27g6>



- **Registration fee:**
 1. **Students:** 1000/- INR for offline participation and 500/ for online participation
 2. **Faculty/Professionals:** 1500/- INR for offline participation and 1000/ for online participation
- **Last Date for Registration:** 10th August 2025
- Seats are Limited to **100** only (On a first come-first serve basis)

Online Payment Details

Beneficiary Name	ABV-IIITM FDP ACCOUNT
Bank Name	Bank of India
A/C No.	945210110009380
IFSC Code	BKID0009462

- **UPI ID:** boi-945263969380@boi
- **QR Code:**

