



ABV-Indian Institute of Information Technology and Management Gwalior

(An Institute of National Importance, Ministry of Education, Govt. of India)

विश्वजीवनमृतं ज्ञानम्

One-Week Faculty Development Program (FDP)

HYBRID MODE

on

FEBRUARY 03 - 09, 2025

“AI/ML Applications for Next-Generation Wireless Communication”

Organized by the Department of EEE

ABOUT THE INSTITUTE AND THE DEPARTMENT

Atal Bihari Vajpayee - Indian Institute of Information Technology & Management Gwalior (ABV-IIITM Gwalior) is India's premier Institute incepted by Ministry of Human Resource and Development (MHRD), Government of India in the year 1997 as a center of excellence in the field of Information Technology and Management. The Department of EEE is one of the major departments being created in 2022 to achieve the mission and vision of the institute. The Department is currently in its development phase and engaged in teaching, research and development in the areas of VLSI, RF and Microwave Communication, Signal Processing, and Control and Automation. Currently, the department offers B.Tech in EEE, M.Tech. in IC Design and Technology, and Ph.D. program in different areas. The faculty members of the department are also engaged in outreach activities by organizing workshops, faculty development programs, conferences, and academic and industry collaborations. Many government-sponsored research projects are also being undertaken by the faculty members of the department from SERB, DST, DBT, TTDF, MeitY, DSIR, TEQIP, and institute sponsored projects.

FDP OBJECTIVE

This FDP aims to provide participants with comprehensive knowledge and hands-on expertise in applying AI/ML techniques to address modern wireless communication and sensing challenges, with a focus on applications in intelligent autonomous systems, smart cities, and advanced vehicular networks. It emphasizes practical implementation of AI/ML models for critical tasks such as channel estimation, channel equalization, localization, and solutions for mitigating the channel impairments and nonlinear hardware impairments. Participants will explore state-of-the-art technologies such as millimeter-wave, terahertz, visible light communications (VLC), orthogonal time frequency space (OTFS) modulation, integrated sensing and communication (ISAC), and reconfigurable intelligent surfaces (RIS) using real-world datasets and advanced simulation tools.



WHO CAN PARTICIPATE

The applicants are welcome but not limited to B.E./B.Tech., M.E./M.Tech., Ph.D., Research Scholars, Faculty Members, and Industry Personnel.

FDP COORDINATORS

Coordinator

Dr. Sandesh Jain, Assistant Professor, ABV-IIITM Gwalior (sandesh@iiitm.ac.in) (Contact no.: +91-9713814789)

Co-Coordinator(s)

Dr. Somesh Kumar, Assistant Professor, ABV-IIITM Gwalior (somesh@iiitm.ac.in) (Contact no.: +91-9569955745)

Dr. Pinku Ranjan, Assistant Professor, ABV-IIITM Gwalior (pinkuranjan@iiitm.ac.in) (Contact no.: +91-7991101270)

BANK DETAILS

Account Name: ABV IIITM FDP Account

Account Number: 945210110009380

IFSC Code: BKID0009462

Bank name, address, and Branch: BOI, IIITM Branch, Gwalior

REGISTRATION FEE

Category	Online	Offline	Offline (Including Accommodation and Food)
Research Scholars /PG/UG Students	Rs. 1000/-	Rs. 2000	
Faculty from Institutes/Universities	Rs. 1500/-	Rs. 2500	Rs. 5000/- (Including Accommodation and Food)
Engineers from Industry and R&D Organizations	Rs. 2000/-	Rs. 3000	

REGISTRATION LINK



Register using any one of the following:

1. Use the link below:

<https://forms.gle/n5oTYPYudE9mv96a6>

2. Scan the QR code



FDP COURSE CONTENTS

- From RF to THz: Road-map to Beyond 5G Wireless Communication
- Hands-on Live Project for Channel Estimation in mmWave Communication
- Terahertz Communication: Simulation and Deep Learning Solutions
- Visible Light Communication: Hands-on Precoder & Post-Distortion Solution
- Integrated Sensing and Communication
- Hands-on Deep Learning Deployment on Embedded Targets using MATLAB
- Hands-on Live Project on Antenna Optimization Using ML Approaches
- Reconfigurable Intelligent Surfaces



CHIEF PATRON

Prof. S. N. Singh,
Director, ABV-IIITM Gwalior



PATRON

Prof. Manisha Pattanaik,
HoD (EEE), ABV-IIITM Gwalior

RESOURCE PERSONS

ACADEMIA

Dr. Surendra Pal, Academy Professor,
Former Vice-Chancellor DIAT, Pune

Prof. Vimal Bhatia, IIT Indore

Dr. Kuntal Deka, IIT Guwahati

Prof. Sudhan Majhi, IISc Bangalore

Dr. Sanjeev Sharma, IIT (BHU) Varanasi

Dr. Anand Sharma, MNNIT Allahabad

Dr. Anshul Gupta, NIT Raipur

Dr. Rahul Kala, ABV-IIITM Gwalior

Dr. Pinku Ranjan, ABV-IIITM Gwalior

Dr. Praveen Singya, ABV-IIITM Gwalior

Dr. Sandesh Jain, ABV-IIITM Gwalior

INDUSTRY

Mr. Saket Porwal,
Senior Engineer, Mathworks

Mr. Ravikanti Vinay Kumar,
Senior Engineer Qualcomm