



Atal Bihari Vajpayee-Indian Institute of Information Technology and Management, Gwalior

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

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Self Sponsored Workshop (Hybrid mode)

Hands-on on Machine Learning for Communication & Networking

JULY 8-14, 2024

About the Institute

Atal Bihari Vajpayee-Indian Institute of Information Technology and Management, Gwalior, is a premier institution for higher education and research in the fields of information technology and management. Established by the Government of India, it focuses on grooming professionals with a blend of technical expertise and managerial skills. The institute offers undergraduate, postgraduate, and doctoral programs, fostering innovation and entrepreneurship among its students. With state-of-the-art facilities, experienced faculty, and industry collaborations, ABV-IIITM Gwalior aims to produce leaders capable of addressing contemporary challenges in technology and management domains.

About the Department

The Department of Electrical and Electronics Engineering, established in 2022, is dedicated to fulfilling the institute's mission. Engaged in teaching and research, it focuses on various areas including VLSI, SoC design, AI Chip design, IoT, wireless communication, and power systems. Currently offering M.Tech. in VLSI and Embedded Systems, and Ph.D. programs in diverse fields such as signal processing and wireless communication. Faculty members actively participate in outreach activities, organizing workshops, conferences, and collaborations. The department is involved in numerous government-sponsored research projects, contributing significantly to the advancement of technology.

About the workshop

The current era has witnessed the rapid growth of wireless technology applications in various sectors of society, including smart healthcare, connected cars, and the Internet of Things (IoT). This surge in wireless applications has resulted in a significant number of connected devices. 5G technology was developed to provide connectivity for this vast array of wireless technologies. However, even with 5G advancements, billions of devices remain disconnected due to a lack of convergence in technologies that offer robust and reliable internet connectivity solutions.

This workshop aims to address these challenges by focusing on recent developments in 6G technologies and the use of machine learning (ML). We will cover several key technologies like energy harvesting, intelligent reflecting surfaces (IRS), machine learning, and cognitive radio networks. The primary focus of this workshop is to equip students, researchers, and industry professionals with the fundamentals of these emerging wireless technologies for use in 6G and beyond 6G networks.

Topic to be covered

- Fundamentals of Wireless Communication
- 6G architecture and standard
- Fundamentals of Machine Learning
- Machine Learning applications in Wireless Communication
- Cognitive Radio Network
- IRS assisted Wireless Communication
- Deep Learning for Channel Estimation
- Deep Reinforcement Learning for IRS Communication

Who Can Apply?

This is a program designed for students, research scholars, professionals, faculty members, and others with an interest in wireless communication and application of machine learning in communication. The applicants are also welcome but not limited to B.E./B.Tech. (Final Year), M.Sc., M.E./M.Tech., Ph.D., working professionals from start-ups, MSMEs, and others.

Resource Persons

Faculty members from IITs, IIITs, NITs and Industry experts shall deliver lectures and hands-on.

Course Detail

Mode of the course:
Online/Hybrid

Timing: From 8th July to 14th July
Session 1: 11:00 AM – 12:30 PM
Session 2: 2:30 PM – 4:00 PM

E-Certificate will be provided to all the participants

Chief Patron:

Prof. Sri Niwas Singh
Director, ABV-IIITM Gwalior

Course Coordinators:

Dr. Binod Prasad,
Dr. Vinal Patel,
Dr. I. A. Ansari.
ABV-IIITM Gwalior

Course Co-coordinator:

Dr. Pragya Swami
ABV-IIITM Gwalior

Registration Link:

<https://forms.gle/qVzDKSemXRoLZutw7>

Category	Registration fee (online mode)	Registration fee (offline mode)
Research Scholars / UG / PG Students	₹ 500/-	₹ 5000/- (Including Accommodation & Food)
Faculties from Institute / University / Colleges	₹ 800/-	
Industry Person	₹ 1500/-	

Bank Account Details

Account Name: ABV-IIITM FDP Account
Account Number: 945210110009380
Name of the Bank: Bank of India
IFSC Code: BKID0009462
Bank address and Branch: IIITM branch, Gwalior



Scan to Register

Contact us:

Email: binod@iiitm.ac.in, vp@iiitm.ac.in, iaansari@iiitm.ac.in
Phone No.: +91-7001940890, +91-9586288218, +91-9109106995