

Workshop 1: AI Workshop for Wireless Applications

Artificial intelligence (AI) is rapidly becoming a critical component in many engineering systems and disciplines today. In the field of wireless technology, AI is being utilized to design and develop smarter methods for modeling physical layers, optimizing the performance of wireless systems and networks, and addressing new 6G design challenges. In this hands-on workshop, you will write and run code entirely in the browser using MATLAB® Online™. You will learn how to apply AI principles (including machine learning, deep learning, and domain-specific processing) to wireless communication workflows.

This interactive session will include:

- Familiarizing yourself with MATLAB Online and AI tools.
- Creating and evaluating necessary components for successful AI modeling by implementing an example of Modulation Classification.
- Diving deep into an advanced, domain-specific application that showcases a complete workflow for accomplishing 5G Channel Estimation.

Speaker:



Abderrahim Belissaoui

Application Engineer

CES – MATLAB in the Middle East

Abderrahim Belissaoui is an Application Engineer with over 8 years of experience in the R&D sector and Applications Engineering. He has expertise in Signal Processing, Control Systems, RADAR, Communications, Embedded Systems, and Artificial Intelligence. His major industry experience includes Aerospace & Defense, Communications, Mining, Automation & Machinery, and Oil & Gas. He holds a Master's Degree in Electrical and Electronics Engineering.

Workshop 2: AI in Research Design and Methodology Workshop

This workshop on “Research Design and Methods Using AI” will explore the transformative impact of artificial intelligence on contemporary research practices. It will provide an overview of how AI-driven tools and techniques can enhance the design, execution, and analysis phases of research across diverse fields. Participants will learn about the integration of AI in developing research questions, automating data collection, improving data analysis through advanced algorithms, and ensuring robust interpretation of results. Attendees will gain practical insights and strategies for incorporating AI into their research methodologies to achieve more efficient, accurate, and innovative outcomes.

Objectives:

- Explore AI integration in formulating research questions, literature reviews and designing methodologies.
- Demonstrate AI-driven automation of data collection for improved efficiency.
- Familiarize participants with AI tools for advanced data analysis.
- Equip researchers with strategies for incorporating AI into diverse research practices.

Speakers:



Dr. Archana Pandita

Assistant Professor and Faculty Fellow
Amity University Dubai



Dr. Ved Prakash Mishra

Associate Professor, Head - Center of
Excellence (AI Data Science & Future
Intelligent Systems)
Amity University, Dubai