



**Online Short Term Course on**

# **AI/ML for 5G and 6G Wireless Communication**

**Course Coordinator** - Prof.Sudhan Majhi

**Minimum Qualification Required**

**BE/B Tech in ECE and relevant discipline  
(4th year BE/B Tech also Eligible)**

**Prerequisite** - Wireless Communication

**Course Schedule**

**2 Dec 2024 To 11 Dec 2024**

**10 Days Daily 07 PM - 10 PM**

**(100% Live online Class along with  
Question answers session by TAs)**



**Course Fee per participant:**

**Student/Project Assistants: INR 5000+18% GST**

**Post-Docs: INR 6000+18% GST**

**Faculty of College/University: INR 10000+18% GST**

**Industry: INR 15000+18% GST**

**Registration Link:** <https://iisc.online/shortterm/home.html>

**Registration Deadline: 29 Nov 2024**



## Course Content:

- **Introduction to Python:** Basic of Python programming
- **Introduction to Machine Learning:** Overview of supervised, semi-supervised and unsupervised, Regression Model, SVM, KNN, CNN, DNN, RNN, LSTM, GANs, Transfer learning, RL.
- **Introduction to Wireless:** Python code on Single carrier system, OFDM, MIMO, OTFS system
- **Wireless Communications:** Source channel coding, channel coding, LDPC code decoding, Modulation classification, channel estimation, Classification of wireless signals Autoencoder (based on 3GPP Standard), CSI compression and feedback (based on 3GPP Standard), Beamforming and beam Management (based on 3GPP Standard), PAPR reduction, Spectrum sensing, successive interference cancellation for NOMA
- **Signal Estimation and Detection:** AL/ML based Parameter estimation, IF estimation, symbol rate estimation, STO and CFO estimation, MIMO/OFDM/OTFS detectors, Denoising signals.

## Contact us

Centre for Continuing Education  
Indian Institute of Science  
Bengaluru 560 012, INDIA.  
Phone: +91 080 2293 2055/2491/2247

Scan Here



More Details <https://cce.iisc.ac.in/self-support-courses/>