



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 inference 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

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

