



# Electronics & ICT Academy

(Under Ministry of Electronics and Information Technology (MeitY), Govt. of India)

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## Online Faculty Development Programme on "Machine Learning and its Application for Electrical Systems"

Date: 22-29 June 2020

Date	Time	Topic
22-Jun-20	10:00 am - 12:00 pm	Introduction to machine learning (supervised and unsupervised learning), python (pandas and numpy)
	12:00 pm - 01:00 pm	Query Handling
	01:00 pm - 03:00 pm	Break
	03:00 pm - 05:00 pm	Hands-on Practice
23-Jun-20	10:00 am - 12:00 pm	Exploratory data analysis and data visualization
	12:00 pm - 01:00 pm	Query Handling and Evaluation
	01:00 pm - 03:00 pm	Break
	03:00 pm - 05:00 pm	Hands-on Practice
24-Jun-20	10:00 am - 12:00 pm	Unsupervised learning technique – clustering by KMeans
	12:00 pm - 01:00 pm	Query Handling and Evaluation
	01:00 pm - 03:00 pm	Break
	03:00 pm - 05:00 pm	Hands-on Practice
25-Jun-20	10:00 am - 12:00 pm	Supervised learning technique – Regression – simple and multiple linear regression
	12:00 pm - 01:00 pm	Query Handling and Evaluation
	01:00 pm - 03:00 pm	Break
	03:00 pm - 05:00 pm	Hands-on Practice
26-Jun-20	10:00 am - 12:00 pm	Classification introduction – Logistic regression – metrics for classification – confusion matrix
	12:00 pm - 01:00 pm	Query Handling and Evaluation
	01:00 pm - 03:00 pm	Break
	03:00 pm - 05:00 pm	Hands-on Practice
27-Jun-20	10:00 am - 12:00 pm	Decision trees and random forest – over fitting – under fitting
	12:00 pm - 01:00 pm	Query Handling and Evaluation
	01:00 pm - 03:00 pm	Break
	03:00 pm - 05:00 pm	Hands-on Practice
28-Jun-20	10:00 am - 12:00 pm	Boosting techniques
	12:00 pm - 01:00 pm	Query Handling and Evaluation
	01:00 pm - 03:00 pm	Break
	03:00 pm - 05:00 pm	Hands-on Practice
29-Jun-20	10:00 am – 01:00 pm	Project Work on application of concepts learnt on one of the projects: 1. Hourly Energy Consumption 2. Daily Power Production of Solar Panels 3. Prediction likelihood of Graduate Admission
	01:00 pm – 03:00 pm	Break
	03:00 pm – 04:00 pm	Project Work Submission
	04:30 pm	Valedictory

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