

## Course Objective

Course Objective is to make the participants aware of Basic machine learning techniques and the programming behind the machine learning techniques.

To understand how to implement the machine learning techniques in the electricity domain. The participants will garner knowledge on intuition behind basic machine learning concepts and applications.

## Course Outcome

This programme aims towards helping participants understand the following-

- Introduction to machine learning (supervised and unsupervised learning), python (pandas and numpy)
- Exploratory data analysis and data visualization
- Unsupervised learning technique – clustering by KMeans
- Supervised learning technique – Regression – simple and multiple linear regression
- Classification introduction – Logistic regression – metrics for classification – confusion matrix
- Decision trees and random forest – over fitting – under fitting
- Boosting techniques

## Activities & Project

1. Assignments will be of the following type:

- MCQ based questionnaire.
- Programming Assignments (Problem statement will be provided).

2. At the end of the course “Project” will be assigned to the participants which will be based on the Practical Case Studies.

## Contact Details

**Project Manager,**

**E&ICT Academy, IIT Guwahati**

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**Website:** <http://eict.iitg.ac.in/>



**Contact Hours for the Course**

**40 Hrs (Theory, Activities, Practices Session & Evaluation)**

## Course Coordinators from Academy

- **Prof. Ratnajit Bhattacharjee**, *Principal Investigator, E&ICT Academy, IIT Guwahati.*
- **Dr. Gaurav Trivedi**, *Co-Principal Investigator, E&ICT Academy, IIT Guwahati.*

## Organizing Committee from BCE

**Patron**

- **Prof. Achintya**, Principal, BCE Bhagalpur  
**Coordinators**

- **Mr. Amitesh Prakash**

*Ph: 9570947830, Email: [amitesh.nitjsr1@gmail.com](mailto:amitesh.nitjsr1@gmail.com)*

- **Mr. Anish Kumar**

*Ph: 9162466349, Email: [anishjsr.ak@gmail.com](mailto:anishjsr.ak@gmail.com)*

## Who Can Attend?

- Faculty and PhD Research Scholar

## Pre-requisites

- Prior Knowledge of programming (java/C/C++/python), basics of statistics and probability.
- Installation of Anaconda 3.7 Software.
- Installation of Google Chrome.
- Min 8GB RAM, 60 GB hard drive free space, 64 bit OS, Windows 7/8/10
- Good Speed Internet connection for hands-on sessions.

## How to Apply?

Online – The participants may log on to the E&ICT Academy, IIT Guwahati website:

[http://eict.iitg.ac.in/faculty\\_development.html](http://eict.iitg.ac.in/faculty_development.html) and fill up the google doc application form.

## Registration Fee

- **Rs. 1250/- (Inclusive of GST) for Faculty, PhD Research Scholar**

**Mode of Payment: Online Only (NEFT/RTGS)**

## For Online Transfer

**Bank Name: State Bank of India**

**Account Name: IIT Guwahati R and D E and ICT Academy**

**Account No.: 36071160089**

**IFSC Code: SBIN0014262**

**Bank Name: State Bank of India**

**Bank Address: IIT Guwahati, GHY- 39.**



सत्यमेव जयते

**An Initiative of Ministry of Electronics & Information Technology (MeitY), Government of India**



**Electronics & ICT Academy  
IIT Guwahati, Assam**



**Online**

**01 Week Faculty Development Programme**

**Machine Learning and its Application for  
Electrical Systems  
(22 - 29 June, 2020)**



**Organized in Association with**

**Bhagalpur College of Engineering (BCE),  
Bhagalpur**



**&**

**Support from  
Techvictus**



**Course Date: 22 - 29 June, 2020**

**Last Date of Registration: 15 June 2020**

**(Online Registration Link will be open from 04/06/2020)**

**Per Day Timing: 10:00 am - 01:00 pm & 03:00 pm – 05:00 pm**