

# FACULTY DEVELOPMENT PROGRAM

On

## "Machine Learning & Deep Learning"

Organised By

**Electronics & ICT Academy  
IIT Roorkee**



In Association with

**G. L. Bajaj Institute of Technology  
& Management**



**Nov 21, 2017 - Nov 22, 2017  
Experts from Industry**

(ATIVITI)

Industry Expert

**Guest Lecture from Academia**

**Dr. Biplab Banerjee**  
CSE Dept.  
IIT Roorkee

Supported by

Ministry of Electronics & Information Technology  
Government of India



**Venue**

**G. L. Bajaj Institute of Technology &  
Management Greater Noida, U.P.**

## Objective of the Course

- Identify potential areas of applications of machine learning
- Basic ideas and techniques in the design of intelligent computer systems
- Statistical and decision-theoretic modelling paradigm
- Apply regression, classification, clustering, retrieval, recommender systems, and deep learning.
- Introduction to Deep learning

## Focus Areas

- Intro to learning theory
- Idea of super-vised, unsupervised and semi supervised, zero-shot learning
- Refresher for probability
- Supervised learning: nearest neighbor, support vector machines, neural network
- Unsupervised learning: k-means, mean-shift, graph based clustering, Idea of zero-shot learning

## Program Features

- The program is split into lectures and labs sessions.
- Hands-on experience on basic & advanced-level topics.
- Interaction & learning with experts from academia & industry.
- Certificates to the participants by E&ICT Academy IITR.



## Benefits and Outcomes of the Course

- The program would help the participants to understand the key concepts behind machine learning
- Participants would be able to learn how to build machine learning that is adaptable to any environment in real life.

At the end of the program, participants will be able to understand:

- Broad and basic introduction to machine learning
- Regression: Multinomial
- Clustering: K-Means
- Foundation Algorithm - Introduction to Neural Networks
- Image classification using CNN

## Coordinators

**Dr. Sanjeev Manhas, PI,**  
E&ICT Academy,  
IIT Roorkee

**Dr. Biplab Banerjee**  
CSE Dept.  
IIT Roorkee

## Who Can Attend ?

Program is open to faculty members/research scholars/PG students from colleges/universities, and industry personnel working in the concerned/allied discipline.

## Registration Fee

Faculty members/Research scholars: ₹750/-  
Persons from Industry: ₹1000/-  
(without food & accommodation)

## Payment Details

DD in favor of "Dean SRIC IIT Roorkee" payable at Roorkee  
"OR"

Make Online Payment by NEFT/RTGS on given detail

Account Name: Research Project, IIT Roorkee  
Account Number: 33012172097  
IFSC code: SBIN0001069

## How to Apply

Step 1: Make Payment

Step 2: Participants may fill registration form through Academy website (<http://eict.iitr.ac.in>).  
OR

Step 2: Send a duly filled-in registration form along with Demand Draft to Academy address.

Mr. Prateek Sharma, EICT Academy, ECE Department, IIT Roorkee-247667

## Important Dates



**Last Date For Online  
Registration:  
18th Nov 2017**

**Last Date For Receiving  
Application: 19th Nov 2017**



## EICT Academy IITR

Electronics and ICT Academy (E&ICT) at IIT Roorkee (funded by Ministry of Electronics and Information Technology) aims to enrich and upgrade teaching and research competences of engineering faculties of institutes/colleges by conducting courses and workshops in fundamentals as well as emerging areas of E&ICT and enabled areas. The programs are conducted by well-known industry partners, resource persons from leading academia and experts from renowned R&D organizations.



## Activities of the Academy

- Specialized training on basic and advanced level topics with hands-on experience in the emerging areas of Electronics & ICT.
- Setup the activity centers to conduct FDPs locally at institutes/colleges.
- Curriculum development for the industry.
- Continuing Education Programme for students/working professionals.
- Design, develop and delivery of specialized modules for specific research areas in industry.

## Faculty Development Program

on

## " Machine Learning & Deep Learning "

Nov 21, 2017 - Nov 22, 2017



## REGISTRATION FORM

Applicant Name \_\_\_\_\_

Gender: \_\_\_\_\_

Category (GEN/OBC/SC/ST): \_\_\_\_\_

Designation: \_\_\_\_\_

Name and Address of the  
Organizatio/Institute: \_\_\_\_\_

City/Town: \_\_\_\_\_

Email: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Do you need Accommodation?  
(Yes/No): \_\_\_\_\_

DD Number: \_\_\_\_\_

Date: \_\_\_\_\_

Issuing Bank: \_\_\_\_\_

Payable at: \_\_\_\_\_

Signature of the Applicant

## Contact Us

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