

FACULTY DEVELOPMENT PROGRAM

on

"Machine Learning & its Applications"

Organised By

Electronics & ICT Academy

IIT Roorkee



Feb 01, 2018 - Feb 05, 2018

Experts from Academia/Industry

Dr. Amioy Kumar (Intel, Bangalore)
Industry Expert

Dr. Balasubramanian Raman
Department of CSE, IITR
Academia Expert

Dr. Partha Pratim Roy
Department of CSE, IITR
Academia Expert

Supported by

Ministry of Electronics & Information Technology
Government of India



Venue

IIT Roorkee

Objective of the Course

- To familiarize the participants with basic learning algorithms, techniques & their applications, as well as general questions related to analyzing and handling big data sets.
- Several software libraries and data sets publicly available will be used to illustrate the application of these algorithms.
- The emphasis will be thus given on Machine Learning algorithms and applications.
- Knowledge and hands-on training of various software for Machine Learning and applications.
- Introduction of real-life applications of the Machine Learning.
- Training with the recent developments in Machine Learning in industries.

Benefits and Outcomes of the Course

- The program would help the participants to understand the key concepts behind Machine Learning.
- Participants would also acquire the skills needed to work with the problems of feature extraction methods, regression classification techniques such as supervised, unsupervised and reinforcement.
- Demonstrations of popular software will be done by the expert from the industry.
- Hands-on experience in working with different software will be provided in Machine Learning.
- Interaction with industry person(s) will be established with possible collaborations.

Focus Areas

- Basic Machine Learning concepts and examples.
- Nearest-neighbor algorithms.
- Support vector machines.
- Kernel methods.
- Decision trees.
- Ensemble methods (Boosting, Bagging).
- Logistic regression.
- Multi-class classification (conditional maxent models, binary classifiers and error-correction codes).
- Regression (linear regression, kernel ridge regression, lasso, neural networks).
- Clustering (K-means, DT clustering).
- Dimensionality reduction (PCA, KPCA).
- Introduction to reinforcement learning.
- An insight on deep learning algorithms.
- Various applications in imaging and video analytics.

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.

Coordinators

Dr. Sanjeev Manhas (PI, E&ICT Academy,
ECE Dept, IITR)

Dr. Balasubramanian Raman
(Local coordinator, CSE, IITR)

Dr. Partha Pratim Roy
(Local coordinator, CSE, IITR)

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: ₹2500/-

Research scholars: ₹2500/-

Persons from Industry: ₹3000/-

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:
29th Jan 2018**

**Last Date For Receiving
Application: 30th Jan. 2018**



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.

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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

Electronics and ICT Academy, IIT Roorkee

Roorkee - 247667, (Uttarakhand) INDIA



Ph. +91-1332-28 6457, +91-7078627392



Email: eict@iitr.ac.in, eictiitr@gmail.com



Website: <http://eict.iitr.ac.in>



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