

## Registration Form

A Short Term Course on

### MACHINE LEARNING TECHNIQUES FOR SIGNAL & IMAGE PROCESSING APPLICATIONS

17<sup>th</sup> –21<sup>st</sup> December 2018

Name : .....

Sex (M/F): .....

Category: *Student / Faculty / Industry*

Organization name: .....

Highest Academic Qualification: .....

Address for Correspondence: .....

.....

.....

Phone/Mobile: .....

Email:

Accommodation Required: *Yes / No*

Bank Draft Details:

Amount: .....

Draft No: .....

Drawn on: .....

Date:

Place:                      Signature of Participant

## About the Department:

The mission of the Department of **Electronics and Communication Engineering**, NIT Rourkela is to advance and spread knowledge in the area of electronics, communication, instrumentation, signal processing and very large scale integration leading to creation of wealth and welfare of humanity. Vision of this department is to become a nationally acclaimed department of higher learning that will serve as a source of knowledge and expertise for the society and be a preferred destination for undergraduate and graduate studies. In this department, two under graduate and five post graduate courses are running at present. Faculty members of the department are involved with research work in various domains: Communication & Networks, VLSI & Embedded systems, Signal & Image Processing, Microwave & Radar Engineering and Electronics & Instrumentation Engineering. Many research projects are being pursued by faculty members with funding from different organizations like IMPRINT, SERB, ISRO, DST, DRDO and BRFST.

## For further information please contact:

### Coordinator

**Dr. Samit Ari**

Dept. of Electronics & Communication Engineering  
National Institute of Technology Rourkela

Rourkela – 769008, Odisha

Phone: +91-661 246 2464

E-mail: samit@nitrkl.ac.in

### Co-coordinator

**Dr. Lakshi Prosad Roy**

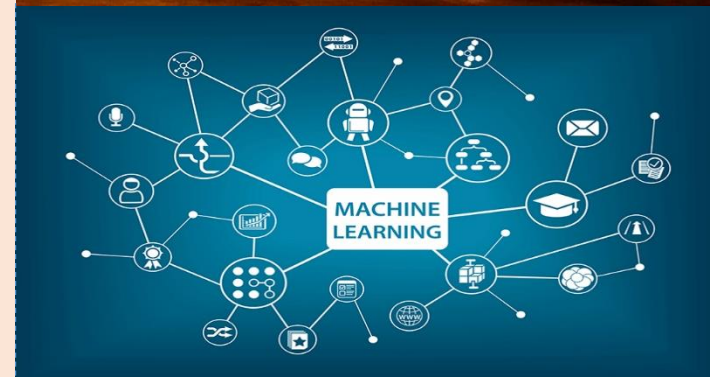
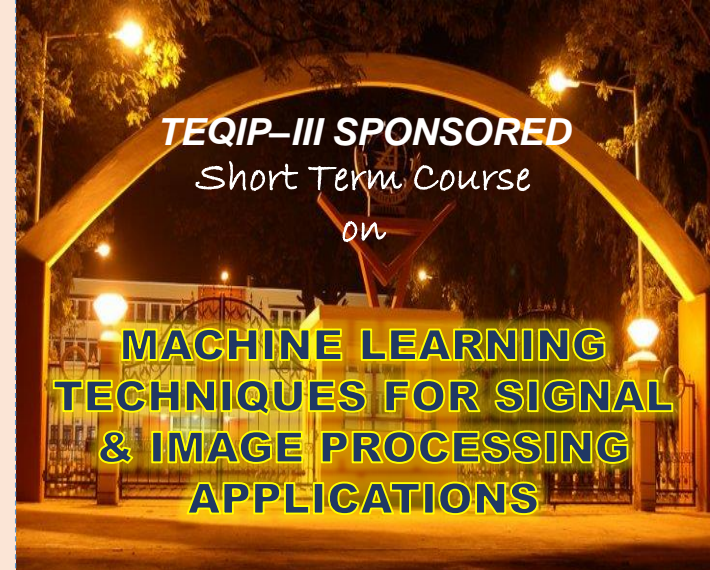
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**For any query please contact to "Pattern Recognition Lab, NIT Rourkela", Phone: +91-661 246 4464, E-mail: prlab.ec.nitr@gmail.com**



Department of Electronics & Communication Engineering  
National Institute of Technology  
Rourkela-769008  
INDIA



## Who should attend?

The short term course will be of immense interest to the under-graduate and post-graduate students, faculty members, Engineers, Researchers, Scientists, Managers and other Executives working on diverse fields in Electronics Engineering, Computer Engineering, Electrical Engineering, Instrumentation Engineering, Biomedical Engineering, Biotechnology, Civil Engineering, and Mechanical Engineering.

***The successful participants who will attend the whole course will be given participation certificate.***



## About the Short Term Course

This short term course is intended to highlight the theoretical and practical aspects of the machine learning techniques in the domain of signal and image processing. Machine Learning is a set of rules that is used to correctly solve the problems. The basic idea is to find patterns in data and then predict the outcome of something that has never seen before. Machine learning algorithms have attained new popularity as artificial intelligence (AI) has grown in prominence. AI is the simulation of human intelligence which is processed by machines, especially by computer systems. It is an effective tool for dealing with control, modeling, and decision making.

## Course Highlights

- ❑ Introduction to Machine learning techniques; Single and Multi-Layer Perceptron-Back propagation algorithm; Radial Basis Function (RBF) Neural Network.
- ❑ Support vector machine (SVM) and its application on signal and image processing.
- ❑ Recent Deep learning techniques: Recurrent Neural Network (RNN); Restricted Boltzmann machine (RBM); Deep Belief network; Auto encoder; Convolutional neural network (CNN).
- ❑ Machine Learning based IoT security techniques; IoT; Hardware security.
- ❑ Application of Machine Learning Techniques on Signal and Image Processing.

## How to Reach

Rourkela is a well developed steel city, surrounded by a range of hills and encircled by rivers. It is situated on the Howrah-Mumbai rail route and well connected with the rest part of India. The nearest airports are Kolkata, Bhubaneswar and Ranchi. Rourkela is connected to all three by convenient trains. There is a regular interstate and intrastate bus service to and from Rourkela. The NIT campus is about 7 km away from Rourkela railway station and 4 km away from the bus stop.



## Registration Fees

Registration Type	Fees
Faculty member	₹ 2000
Scientist from Industry/R&D Organization	₹ 5000
Student	₹ 1500

## Important Dates

Last date of receipt	03/12/2018
<i>Completed application form with Demand Draft</i>	
Confirmation will be intimated	10/12/2018
<i>Through e-mail</i>	
Course Commences on:	17/12/2018

### MODE OF PAYMENT:

Payment (non-refundable) should be done in Demand draft in favour of "Director, NIT Rourkela" payable at **SBI, NIT Campus Branch**. (Code: 2109). The course fee includes **course material, lunch, and refreshment** during the program days.

### MAILING ADDRESS:

#### The Coordinator,

Machine Learning Techniques for Signal & Image Processing Applications, Dept. of Electronics and Comm. Engineering, National Institute of Technology, Rourkela-769008, Odisha, INDIA. Phone: +91-661-2462464 (O), +91-661-2464464, Email: prlab.ec.nitrkl@gmail.com

**NOTE :** Please mention on the envelope "MACHINE LEARNING TECHNIQUES FOR SIGNAL & IMAGE PROCESSING APPLICATIONS-2018"

## Accommodation

Accommodation will be provided up to 40 participants on first come first serve basis in Students' hostel or visitors' hostel of NIT Rourkela.

**\* Room rent for students' hostel or visitors' hostel will be collected as per actual at registration desk.**