

## Course Relevance

Deep Learning has had a profound impact on our lives right from the voice based google search, amazon firetv recommending movies based on our interest to the very own Alexa which simplifies most of our queries however naive they seem. Signal Processing in the deep learning/machine learning era has had a paradigm shift be it Speech, Image and Video Processing.

The focus of this course will be on introducing the broad domain of Deep Learning from Signal Processing point of view especially security related considerations. The course has been envisaged keeping in mind the beginners as well as experts in the broad area of signal processing who need a sneak preview into the domain of Deep Learning. Special emphasis will be given to open source tools like Tensor Flow, Google CoLab, Keras, Jupyter etc.

## Course Objectives

- To present a comprehensive overview and understanding of Deep Learning and the current on-going research directions especially from security point of view.
- To demonstrate tools like Tensor Flow, Keras, Jupyter and Google CoLab so that the participants can get started in this domain.
- To provide useful tips for research paper writing.

### Expert talks

Dr. Partha Pratim Roy, IIT Roorkee

Dr. S. Murala, IIT Ropar

Dr. Sumohana C, IIT Hyderabad

Dr. Vivek Kanhangad, IIT Indore

Dr. K. P. Singh, IIIT Allahabad

Dr. Manish Okade, NIT Rourkela

Dr. Puneet Jain, NIT Rourkela

Dr. S. M. Hiremath, NIT Rourkela

Dr. Dipti Patra, NIT Rourkela

The course will be under twining mode with GEC Bilaspur.

TEQIP-III sponsored

Diamond Jubilee

Workshop on

**“Machine/Deep Learning  
for Image and Video**

**Processing Applications”**

**24<sup>th</sup> -28<sup>th</sup> Feb. 2021**



**Co-ordinator:  
Dr. MANISH OKADE,  
NIT Rourkela**

**Co-coordinator:  
Mr. Umashankar  
Dewangan, GEC Bilaspur**

## ABOUT NIT ROURKELA:

National Institute of Technology (NIT), Rourkela was founded as Regional Engineering College, Rourkela in 1961. It is a prestigious Institute with a reputation for excellence at both undergraduate and postgraduate levels, fostering the spirit of national integration among the students, a close interaction with industry and a strong emphasis on research, both basic and applied. Its been consistently ranked within TOP 20 engineering institutes for 5 consecutive years as per MHRD's NIRF, Govt. of India.

The city of Rourkela is a bustling industrial town, cosmopolitan by nature and is well connected to all parts of the country by road and rail. It is en-route Howrah-Mumbai main line of South-Eastern Railway. Nesting amidst greenery on all sides, NIT campus is approximately 7km from Rourkela railway station. The nearest airports are Jharsguda, Ranchi, Kolkata and Bhubaneswar.



Website: [www.nitrkl.ac.in](http://www.nitrkl.ac.in)

<https://sites.google.com/site/manishokade/>

Registration Details	
Category	Registration fee:
Industry Participants	Rs. 500/-
Faculty/Students	Rs. 300/-

Interested participants can register via the link. Participation in the workshop will be limited to 120 participants. Shortlisted candidates will be given banking details so that they can pay the registration fee via online bank transfer/google pay/phone pay etc.

A mix of industry/faculty/student participants will be given a chance to participate in the workshop to balance all categories.

Queries can be sent to [isllabnitr@gmail.com](mailto:isllabnitr@gmail.com)

## Registration Details

Google form for Expression of Interest to participate in the course.

<https://forms.gle/huQkzzkRozDUE4e29>

Shortlisted participants will be informed via email.

Due to COVID-19 restrictions this course will be fully online. Online certificates will be distributed to the participants who attend all sessions of the workshop. Registration fee is not refundable.

Maximum of 2-3 sessions will be held each day.