

## IIRS Outreach Programme

The IIRS outreach programme, which started in 2007 with 12 universities/ institutions has now grown substantially.. The beneficiaries of the programme may include:

- Central & State Government Organisations / Departments
- Central/State/Private Universities & Academic Institutions
- Research Institutes
- Geospatial Industries
- Professionals
- NGOs

## Feedback Mechanism

IIRS has conducted workshops and sessions during IIRS User Interaction Meet to take feedback from participating institutions to improve the quality of future courses.



IIRS Outreach programme feedback session during IIRS User Interaction Meet

## Awards

IIRS has received national awards for excellence in training for outreach and e-learning programme during 1<sup>st</sup> National Symposium on Excellence in Training conducted during April 11-12, 2015 in New Delhi by Department of Personnel & Training (DoPT), Govt. of India in collaboration with United Nations Development Programme (UNDP).



## About IIRS

Indian Institute of Remote Sensing (IIRS) under Indian Space Research Organisation (ISRO), Department of Space, Govt. of India is a premier Training and Educational Institute set up for developing trained professionals in the field of Remote Sensing, Geoinformatics and GNSS Technology for Natural Resources, Environmental and Disaster Management. Formerly known as Indian Photo-interpretation Institute (IPI), founded in 1966, the Institute boasts to be the first of its kind in entire South-East Asia. While nurturing its primary endeavour to build capacity among the user community by training mid-career professionals, the Institute has enhanced its capability and evolved many training and education programmes that are tuned to meet the requirements of various target groups, ranging from fresh graduates to policy makers including academia.

IIRS also conducts e-learning programme on Remote Sensing and Geoinformation Science (<http://elearning.iirs.gov.in>).

## Contact Details

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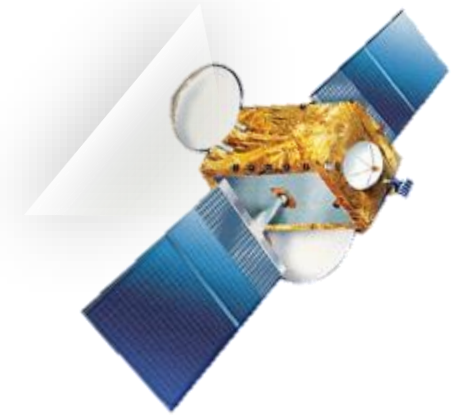
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*Five days Short Course on*



**Machine learning to Deep Learning:  
A journey for remote sensing data  
classification**

**July 5 - 9, 2021**



**Organized by**

**Indian Institute of Remote Sensing**  
Indian Space Research Organisation  
Department of Space, Govt. of India  
Dehradun

[www.iirs.gov.in](http://www.iirs.gov.in)

## About the Course

Main core utilization of remote sensing data is for landuse / landcover map generation. Further it has been tried to increase capability of remote sensing data to extract single class of interest. Also to map different stages within a given class, generate information about specific class of interest in time domain. In today's scenario where various remote sensing sensor's data is available, it gives an opportunity to integrate these multiple sensor data in a given application, to extract specific class level information. So it's important to explore machine/deep learning algorithms to extract specific class level information from multi-sensor temporal remote sensing data sets....

We invite you to attend this five days short course on Machine learning to Deep Learning: A journey for remote sensing data classification. The short course is scheduled from June 1, 2020..

## Course Content and Schedule

### 5<sup>th</sup> July 2021

**(16.00Hrs-17.30Hrs)** - Remote Sensing and its sensors of various resolutions. Radiometry and Geometric corrections and Basic understanding of Image.

### 6<sup>th</sup> July 2021

**(16.00Hrs-17.30Hrs)** - Basic classifier to Machine Learning – A Journey.

### 7<sup>th</sup> July 2021

**(16.00Hrs-17.30Hrs)** - Methods in Machine Learning: Supervised, Unsupervised and Reinforcement.

### 8<sup>th</sup> July 2021

**(16.00Hrs-17.30Hrs)** - Fuzzy based machine learning with application in Temporal data processing.

### 9<sup>th</sup> July 2021

**(16.00Hrs-17.30Hrs)** - Network based Learning algorithms – ANN to CNN/RNN

## Target Participants

This short course is designed for professionals engaged in remote sensing data processing in different applications. Where they are extracting specific class of interest and further want to learn fuzzy machine/deep learning concepts.

## Course Study Material

Course study materials like lecture slides, video recorded lectures, & handouts of demonstrations, etc. will be made available through IIRS ftp link. Video lectures will also be uploaded on YouTube Channel (<http://www.youtube.com/user/edusat2004>).

## Course Fee

There is no course fee for attending this programme.

## Course Registration

Course updates and other details will be available on URL- <http://www.iirs.gov.in/Edusat-News/>. All the participants have to register online through registration page available on above web page.

## Award of Certificate

- All the participants who attend 70% sessions of the course live via eclass portal.
- The participants who attend the course sessions via IIRS youtube channel should mark their attendance via offline session available after 24 hrs.

## Course Funding & Technical Support

The programme is sponsored by IIRS, Indian Space Research Organisation, Department of Space, Government of India, Dehradun.

## Programme Reception

- Individuals can attend the course live via any web browser through the eclass portal of IIRS Dehradun i.e. <https://eclass.iirs.gov.in>
- The participants can also attend the live workshop via the YouTube channel of IIRS i.e. <https://www.youtube.com/user/edusat2004>
- The content of the workshop will be available offline after 24 hours in the eclass portal.

## Pre-requisites:

- Understanding of Basic concepts of Remote Sensing and GIS