



# ADHI

COLLEGE OF ENGINEERING & TECHNOLOGY

No.6, MunuAdhi Nagar, Sankarapuram, Near Walajabad,  
KanchipuramDist – 631 605. Ph: 044 – 2729 0096

## SHORT TERM ONLINE COURSE BY IIRS



INDIAN INSTITUTE OF REMOTE SENSING  
Indian Space Research Organisation  
ISO 9001:2008



**Course Title:** “Remote Sensing and GIS Applications in Carbon Forestry”

**Date:** February 16 TO March 10, 2017

**Time:** 3.30 PM- 4.30 PM

**Venue:** CAD LAB, ECE BLOCK.

**Organizer:** Dr. Nandhagopal, Prof., EEE

**Coordinators:** Mr.S.V.Devarajan, Asst. Prof., EEE

Mr.D.Raji, Asst. Prof., EEE

Mr.R.Kumareson, Asst. Prof., EEE

**Attending students:** EEE finalyear.

### ABOUT IIRS

Indian Institute of Remote Sensing (IIRS) under Indian Space Research Organization, 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 GPS Technology for Natural Resources, Environmental and Disaster Management.

It functions as a constituent Unit of Indian Space Research Organization (ISRO), Department of Space, Government of India. 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

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training mid-career professionals, the Institute has enhanced its capability and evolved many training & education programs that are tuned to meet the requirements of various target groups, ranging from fresh graduates to policy makers including academia.

The Institute campus also houses the headquarters of the Centre for Space Science and Technology Education in Asia and The Pacific (CSSTEAP), affiliated to the United Nations and first of its kind established in the region in 1995. IIRS provides support to conduct all its remote sensing and GIS training & education programs at postgraduate level. The headquarters of Indian Society of Remote Sensing (ISRS), the largest non-governmental scientific society in the country, is also located in the Institute campus.

### **Nodal Center for E learning course**

Our college has got **Nodal Center** for E learning course approved by Indian Institute of Remote Sensing. IIRS has initiated its interactive distance education based capacity building training under IIRS outreach programme in the year 2007. Through this programme, over 10,000 students and researchers from 112 universities/institutes across the country have been trained in the field of geospatial technology. This was accomplished through ISRO's communication satellites, satellite interactive terminals and **A-View** software.

### **ABOUT THE PROGRAM**

Faculties and students of Electrical and Electronics Engineering has registered Nineteenth IIRS Outreach Programme "**Remote Sensing and GIS Applications in Carbon Forestry**" from 16 February to 10 March, 2017.

### **ABOUT THE COURSE**

Forests cover approximately one third of the Earth's land surface. These have tremendous potential to store and cycle atmospheric carbon and therefore provide an effective way to mitigate climate change. To meet the measuring and monitoring (M&M) requirement of carbon forestry project activities, it is critical to establish repeatable, objective-based and accurate methods for estimating forest carbon pools and fluxes over large areas. Remote sensing technologies are particularly suited for mapping and monitoring of forest cover, deforestation, degradation, regrowth, carbon stock and carbon sequestration. This course will provide an overview of the latest advances in satellite and terrestrial based remote sensing and GIS technologies to support carbon forestry. The course is therefore of special interest for the foresters/professionals/researchers and students interested in learning utility of these modern technologies in the context of forest carbon monitoring.

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## CURRICULUM

- Global carbon cycle & climate change: An overview;
- Forest-based strategies for mitigating climate change;
- Global Earth observation initiatives for carbon forestry;
- Spectral signature of vegetation and factors affecting spectral response;
- Application of satellite remote sensing in mapping and monitoring of forest cover and land use;
- Application of satellite remote sensing in mapping and monitoring of forest carbon degradation;
- Application of satellite data in forest sampling design for biomass/carbon quantification;
- Application of optical remote sensing in forest biomass/carbon estimation;
- Application of high resolution data for forest biomass/carbon inventory;
- Application of LiDAR in mapping of forest structure and biomass/carbon estimation;
- Application of microwave remote sensing in forest biomass/carbon estimation;
- Application of eddy covariance technique in carbon flux measurement and modelling;
- Application of satellite remote sensing in near-real time forest fire assessment and monitoring;
- Application of satellite remote sensing in forest biomass burning and carbon emission monitoring;
- Application of Geo web portals and services in forestry studies.

## AWARD OF CERTIFICATE

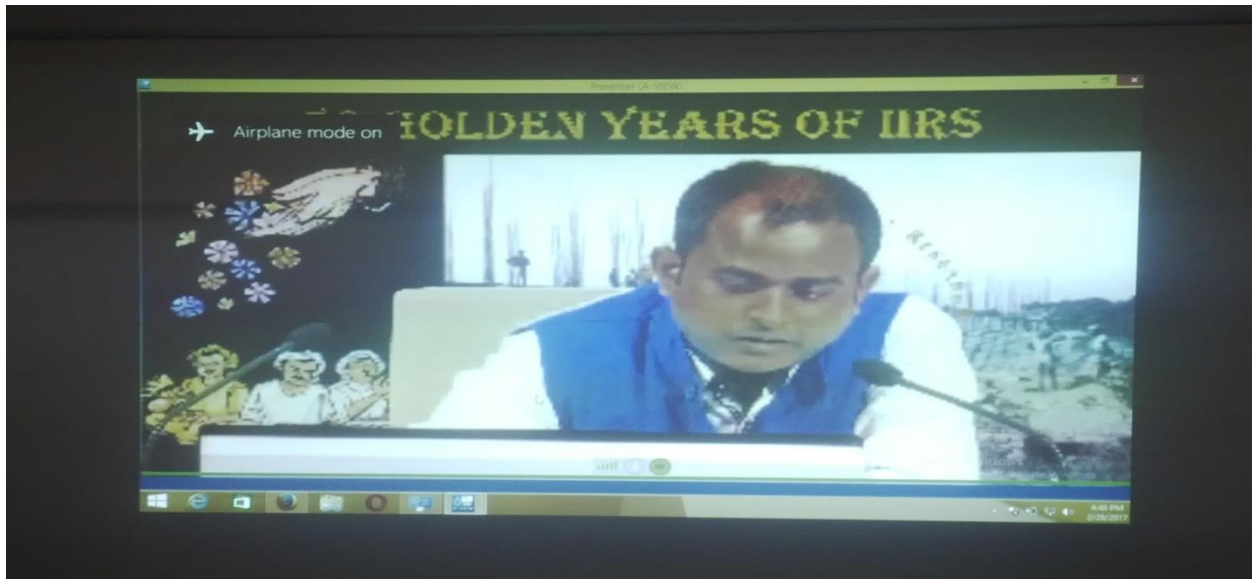
At the end of the course, the certificate will be awarded to the participants by IIRS for fulfilling the following norms.

**Working Professionals:** Based on 70% attendance and submission of assignments.

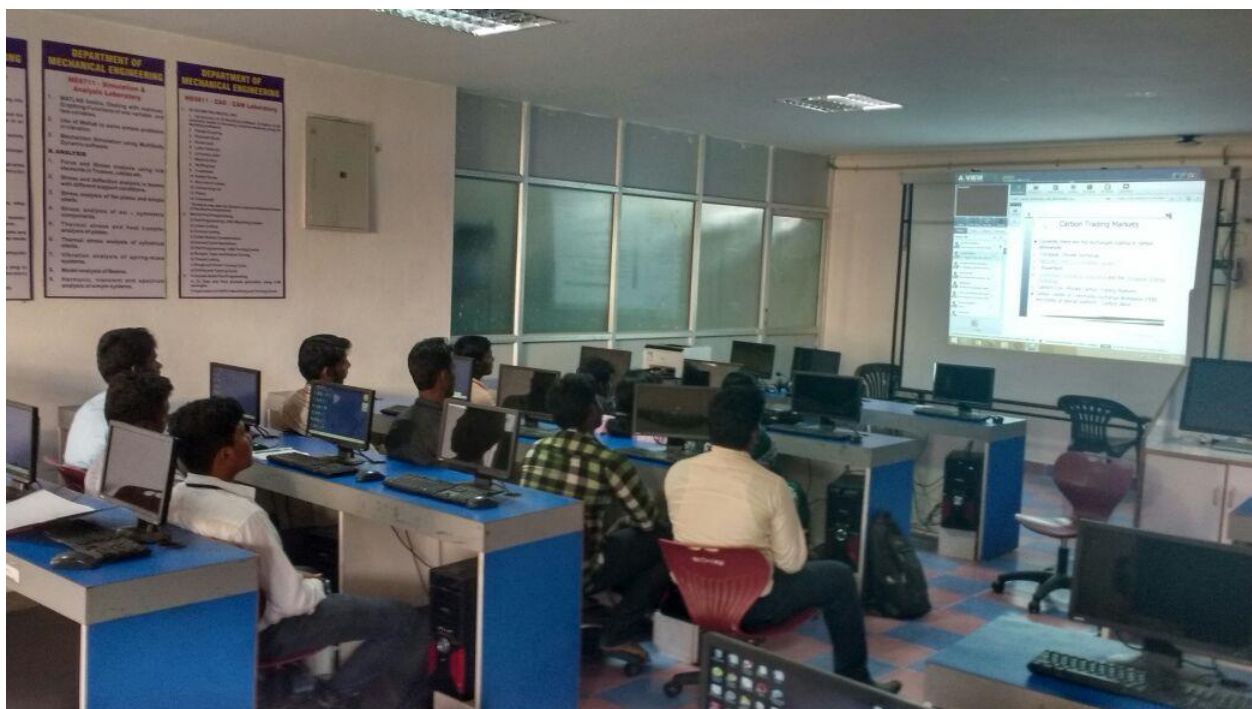
**Students:** Based 70% attendance and online examination.

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## PHOTO GALLERY



Online lecture delivered by ISRO scientist



Students are listening the lecture with interest

