

## IIRS Outreach Programme

The IIRS Outreach Programme, which started in 2007 with 12 universities / institutions, has now grown substantially. Currently, 222 universities/ institutions spread across India covering 29 States and 2 union territories are networked with IIRS. The beneficiaries of the programme include:

- Central/State/Private Universities & Academic Institutions
- Central & State Government Organisations/Departments
- Research Institutes
- Geospatial Industries
- NGOs
- Individuals with good internet connectivity

## Feedback Mechanism

IIRS has conducted six workshops in 2007, 2009, 2010, 2013, 2014 and 2015 to take feedback from participating institutions to improve the quality of future courses.



Participants of sixth Outreach feedback session during IIRS User Interaction Meet (IUIM)-2015

## Awards

Received National Awards for excellence in training for IIRS Outreach Programme and e-learning Programme during 1st National Symposium on Excellence in Training conducted on 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 GPS 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 & education programmes that are tuned to meet the requirements of various target groups, ranging from fresh graduates to policy makers including academia.

IIRS outreach program is popular across India. So far, 14 programmes have been conducted benefiting 19,000 participants.

IIRS also conducts e-learning Programme (<http://elearning.iirs.gov.in>) on Remote Sensing and Geoinformation Science. First course is in progress and over 2,000 participant have registered for the course.

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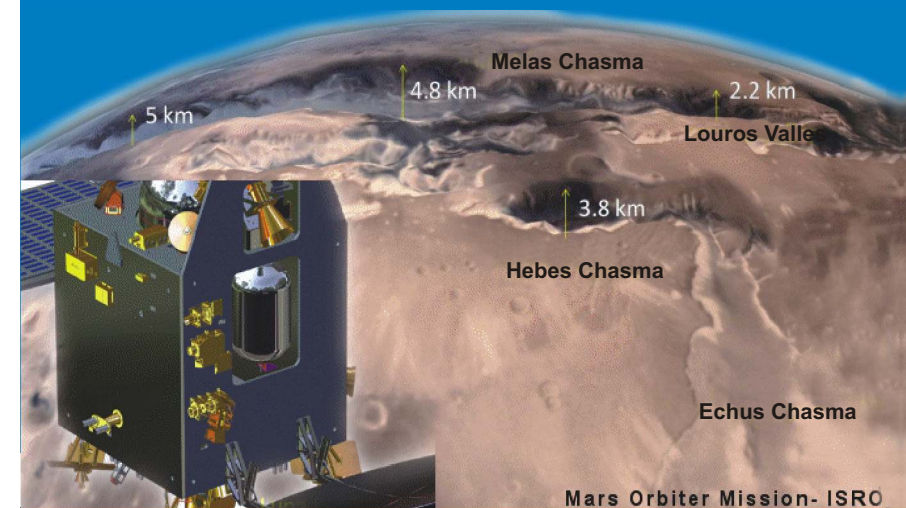
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## Fifteenth IIRS Outreach Programme



## Basics of Remote Sensing, Geographical Information System & Global Navigation Satellite System

August 10 – November 27, 2015

Sponsored by  
National Natural Resources Management System  
(NNRMS)



Organised 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

The use of Remote Sensing, Geographical Information System, Global Navigation Satellite System and associated geospatial technologies is increasing rapidly, creating an urgent demand for trained manpower. IIRS utilizes the Ku-Band facility of INSAT-4CR, an ISRO Satellite and Internet, for conducting Distance Learning Programme to primarily complement the educational programmes of the Indian Universities. The target group includes students at undergraduate/postgraduate level and faculty/researchers at different universities/institutions. Under its Outreach Programme, IIRS has established its own Teaching end studio and uplinking facility in the campus under national beam coverage of ISRO satellites, connecting numerous classroom end users. Internet bandwidth is also used as an alternative option. IIRS has successfully conducted 14 such courses so far with participation of over 19,000 students from 222 institutions. This programme can be received live using either one of the options i.e. (i) A-VIEW e-learning tool developed by Amrita University in internet environment with login permission, (ii) Satellite Interactive Terminal (SIT) classroom facility at university with LMS S/W tool (i.e. TrainNet). Course participation has increased with the option of A-VIEW software as it has also enabled participation of many who do not have the SIT facility.

## Curriculum

The course is divided into 4 modules:

- Remote Sensing and Digital Image Analysis
- Global Navigation Satellite System
- Geographical Information System
- RS and GIS Applications

The topics include

- Basic Principles of Remote Sensing, Earth Observation Sensors and Platforms, Spectral Signature of different land cover features, Image interpretation
- Thermal & Microwave Remote Sensing
- Digital Image Processing: Basic Concepts of Rectification and Registration, Enhancement, Classification and accuracy assessment techniques
- Introduction to GPS and GNSS, receivers, processing methods, errors and accuracy

- GIS, data bases, topology, spatial analysis and open source software's.
- RS & GIS Applications: Agriculture and Soil, Forestry and Ecology, Geoscience and Geohazards, Marine and Atmospheric Sciences, Urban and Regional Studies and Water Resources

Course study materials like lecture pdf, lecture video, lecture notes, open source software, practical data & handouts of practical lecture etc. will be made available through IIRS ftp site and lecture videos are uploaded in YouTube Channel (<http://www.youtube.com/user/edusat2004>)

## Target Participants

- Student of undergraduate course/ Postgraduate course (any year).
- Technical/ Scientific Staff of Central/ State Government Departments
- Faculty / researchers at university / institutions are also eligible to participate in this course.
- Individuals, who have good internet bandwidth facility may also participate.

Applications of participants have to be duly sponsored by their university/institution and forwarded through coordinators from respective centres. Users receiving programmes under CEC-UGC/ CIET / other networks can also participate. Institutions on high speed National Knowledge Network (NKN) can also participate using A-VIEW software.

## Course Fee

The Course is free of cost.

## Course Registration

Online registration is open through URL: <http://iirs.gov.in/Edusat-News/>, the online registration is mandatory. No hard copy application will be accepted.

## Sponsors & Technical Support

The programme is sponsored by National Natural Resources Management System – Standing Committee on Training and Education (SC-T), Indian Space Research Organisation, Department of Space, Government of India and is conducted with due technical help from Satellite Communications & Navigation Programme (SCNP), ISRO;

Development and Educational Communication Unit (DECU), ISRO and A-VIEW, Amrita University, National Mission on Education through Information and Communication Technology

## Programme Receptions

NKN/ NMEICT Institutions/ other Institutions / Universities may participate in IIRS Outreach Programme by using any one of the following setups:

### Option-I: A-VIEW Internet based streaming

#### Hardware Requirements :

- High end Computer/Laptop (Windows OS)
- Good quality web camera
- Headphone with Microphone
- Speakers
- Large Display Screen (Projector or TV)

#### Software and Internet Requirements

- Desktop based- A-VIEW software (free to download from [www.aview.in](http://www.aview.in) or IIRS ftp link: <ftp://ftp.iirs.gov.in>)
- Web based- <https://live.aview.in>
- National Knowledge Network or any other high speed internet facility (Preferably without firewall, bandwidth (2 mbps minimum))
- Network requirements Port 80 and RTMP (port 1935) protocol should be unblocked from users' computer

### Option-II: Satellite Based (SIT/ ROT users can receive if hub is operational at CIET-NCERT)

- 1.2 m Satellite Interactive Terminal (SIT) Antenna
- Indoor unit (IDU) i.e. set top box
- PC with software for LMS
- LCD Projector
- Classroom

**Note Only existing users with SIT/ ROTs established under CEC-UGC/ CIET-NCERT/ AICTE/ IGNOU/ Vigyan Prasar may participate**