IIRS Outreach Programme

The IIRS outreach programme, which was started in 2007 with 12 universities/institutions has now grown substantially to more than 3300. The beneficiary of the programme may include:

Graduates and post graduates in Agricultural and Allied sciences including Agronomy, Agricultural Physics, Agricultural meteorology/ Soil Sci./ Entomology/ Pathology/ Agronomy/ Plant Physiol./ Hort./ Agri. Botany/ Soil Conservation & Water Management/ Climate Change Adaptation/ Environmental science/ M.Sc./M.Tech. in Remote Sensing and GIS/ Geoinformatics/ Geomatics or its equivalent with specialization in Agricultural applications in Central/State/Private universities & Academic institutions, Central & State Govt. Dept, Research Institutes, Geospatial industries and NGO's.

About IIRS

Indian Institute of Remote Sensing (IIRS) a unit of Indian Space Research Organisation (ISRO) is a premier institute with a primary aim to build capacity in Remote Sensing and Geoinformatics technologies and their applications through training & education, research and outreach programmes.

IIRS is one of the most sought after institutes for conducting specially designed courses for the officers from the Ministries of the Government of India and State Governments for effective use of Earth Observation (EO) data from satellites for the benefit of society. Space Science & Technology Education in the Asia and Pacific (CSSTEAP), affiliated to the United Nations, and conducts its training and education courses in RS & GIS
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Agriculture and Soils Department

Agriculture and Soils Department is one of the oldest department of the Institute, is involved in training, education, research and operational projects in the fields of remote sensing and GIS applications in Agriculture. The applications of remote sensing in agriculture are many and versatile that includes crop-identification, condition assessment, Crop yield forecasting by linking remote sensing derived bio-physical and agro- meteorological inputs with crop growth simulation models, Satellite agro-meteorology - Remote sensing of energy, water vapor and CO_2 exchange processes, Monitoring and assessment of agro-hazard (drought, land degradation and pests & diseases), High spatial resolution satellite data in inventory of soils, land use and degraded lands for micro-watershed planning, Hyperspectral remote sensing in crop stress monitoring, soil quality and land degradation , Microwave Remote Sensing in crops and soil studies.

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Indian Institute of Remote Sensing

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One day Workshop on Remote sensing based data analytics in Agriculture

Oct 26, 2023

Organised by

Indian Institute of Remote Sensing
Indian Space Research Organization
Department of Space, Government of India
Dehradun-248001, Uttarakhand

About the course

The duration of the course will be for 1 full day consisting of lectures and demonstration exercise covering of broad overview on current global and Indian sensors, data-analytics in Agriculture including soil resources.

Data analytics in Agriculture particularly has drawn considerable attention for agriculture application in fast few decades. Remote sensing, as one of the sources for big data, is generating earth-observation data and analysis results daily from the platforms of satellites, manned/unmanned aircrafts, and ground-based structures. Agricultural remote sensing is one of the backbone technologies for precision agriculture, which considers within-field variability for site-specific management instead of uniform management as in traditional agriculture. The key of agricultural remote sensing is, with global positioning data and geographic information, to produce spatially-varied data for subsequent precision agricultural operations. Agricultural remote sensing data, as general remote sensing data, have all characteristics of big data. The acquisition, processing, storage, analysis and visualization of agricultural remote sensing big data are critical to the success of precision agriculture.

The topics will cover
Geospatial data analytics in Agriculture including machine learning tools., soil mapping and modelling erosion, analytics of microwave Remote sensing and geospatial water Analytics.

Overview of Program

The course is conducted through IIRS outreach facility. IIRS has successfully conducted 164 courses so far through its outreach programme with 5,82,369 participants from about 3220 institutions/universities spread across India.

Objective of the course: to familarise Agricultural researchers and administrators with application of geospatial technology and Agri analytics in crop and soil management.

Content

Geospatial data analytics in Agriculture: an overview, Machine learning driven RS for Agriculture, Predictive soil mapping and modelling soil erosion, Advanced analytics of microwave Remote sensing in Agriculture, geospatial crop water analytics

Target participants

This course is primarily meant to train working professional from govt. organizations, non-govt. organizations, Universities and Educational Institutions, entrepreneurs, researchers, in the area of remote sensing.

Registration fee:

There is no registration fee

Course registration

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

There are limited number of seats. Registration will be done on first come first serve basis.

Award of certificates

All participants who attend the programme through e-class portal will get an e-certificate for participation.

Programme reception

Individual can attend the course live via any web browser through the eclass portal of IIRS, Dehradun i.e. http://eclass.iirs.gov.in

Important links

Course updates and other details will be available on URL **http:/www.iirs.gov.in/Edusat-News**

To participate in this programme the interested organizations/universities/departments/institutes have to identify co-ordinator at their end. The identified co-ordinator will register online the institute as nodal centre in IIRS website. https://elearning.iirs.gov.in/edusatregistration/coordinator

All participants have to register online through registration page by selecting his/her organization as nodal centre on below link. https://elearning.iirs.gov.in/edusatregistration/student