IIRS Outreach Programme

The IIRS outreach programme, which was started in 2007 with 12 universities/institutions, has now grown substantially to 1800 network institutes. The beneficiaries of the programme may include:

- Central/State/Private Universities & Academic Institutions
- Central & State Government Departments
- ICAR Universities/Institutes Professionals
- Agriculturists
- Research Institutes
- Geospatial Industries
- 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.

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 Geo-information Science (http://elearning.iirs.gov.in).

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Remote Sensing Applications in Agricultural Water Management
August 03 – August 07, 2020

Organised by
Indian Institute of Remote Sensing
Indian Space Research Organisation
Department of Space, Govt. of India
Dehradun
www.iirs.gov.in
About the Course
Agriculture has been a vital sector and backbone of Indian rural economy. In agriculture, water is a scarce and indispensable resource for the achieving food security, sustainable ecosystems as well as maintained hydrological cycle. The changes in land use have accelerated in recent years. The estimation of water for agricultural use needs to be updated frequently, which is time-consuming and cost-ineffective with traditional field based techniques.

In present context, Earth Observation (EO) satellites operated in optical/thermal and microwave domains with frequent revisit and improved spatial resolution providing periodic monitoring of crop information such as irrigated crop area, crop condition, phenology, evapotranspiration, water stress and soil moisture for informed decision making on water management. Furthermore, availability of new airborne sensors and unmanned aerial vehicle (UAV) supported earth observation and their combination with process based models/ground based instrumentation i.e. eddy flux tower, large aperture scintillometer, lysimeter, Bowen ratio energy balance etc. are facilitating the development of new data processing techniques as well as their integration to develop precision irrigation systems and geospatial crop water accounting.

Course Contents
- Concept and fundamentals of agricultural water management & role of EO in water management
- Remote sensing of irrigated crop area mapping and irrigation crop water requirement
- Remote sensing of regional crop evapotranspiration estimation
- Satellite remote sensing of soil moisture and global products
- UAV and advanced remote sensing for agricultural water management

Target Participants
- This course is designed for professionals from Central / State Govt. / Private Organizations / NGO/ students & researchers engaged in water management aspects of agriculture.
- The course participants have to be duly sponsored by their university/ institution and application should be forwarded through coordinators from respective Organisations/ Centres. Users attending programmes under CEC-UGC / CIET / other networks can also participate. Institutions on high speed National Knowledge Network (NKN) can also participate.

Course Study Material
Course study materials like lecture slides, video recorded lectures, open source software & handouts of demonstrations, etc. will be made available through e-class. Video lectures will also be uploaded on e-class (https://www.eclass.iirs.gov.in/login).

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/
- To participate in this programme the interested organisations/universities/departments/institutes have to identify coordinator at their end. The identified coordinator will register online his/her institute as nodal Centre in IIRS website (https://elearning.iirs.gov.in/edusatregistration/coordinator) All the participants have to register online through registration page by selecting his/her organization as nodal Centre.
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Course Funding & 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.

Programme Reception
Programme can be received through e-class platform of IIRS-ISRO using internet connectivity. No specific hardware/software required. However, it is recommended good internet connectivity at user end. To run the programme in class room, following hardware will be required:
- Desktop computer with web camera microphone and output speakers or laptop with microphone camera and output speaker.
- Large display screen/projector/TV.

Important links
Courses updates and other details will be available on URL – https://www.iirs.gov.in/EDUSAT-News
To participate in this programme the interested organisations/universities/departments/institutes have to identify coordinator at their end. The identified coordinator will register online his/her institute as nodal Centre in IIRS website (https://elearning.iirs.gov.in/edusatregistration/coordinator) All the participants have to register online through registration page by selecting his/her organization as nodal Centre.
https://elearning.iirs.gov.in/edusatregistration/student

Award of Certificate
Working Professionals and Students: Based on 70% attendance and 40% in the online examination

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