

## IIRS Outreach Programme

The IIRS outreach programme, which was started in 2007 with 12 Universities/Institutions has now grown substantially to 3400+. The beneficiaries of the programme may include:

- Central/State/Private Universities & Academic Institutions
- Central & State Government Departments
- Forest Resource Professionals
- State Forest Departments/Forest Training Academies
- Research Institutes
- Geospatial Industries
- NGOs

## 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.

## Forestry and Ecology Department

Forestry and Ecology Department (FED) is the oldest department of IIRS, established in 1966 with the aim of providing training and skill development on the utility of aerial photography for forest mapping, resources inventory, monitoring and resource management for forest managers in particular and scientific community in general. The scope and activities of the Department have evolved and enlarged over the years keeping pace with technological advancements. FED strives to achieve excellence and remain in the forefront for research and capacity building in RS and GIS applications in forestry and ecology. The Department has a history of very strong research group contributing to the methodology development and execution for various nationwide research projects for forestry sector in the country.

## Contact Details

### Course Organisers

**Dr. Hitendra Padalia**

Head, FED

**Dr. Subrata Nandy**

Sci./ Engr. SF, FED

### IIRS DLP Team

**Mr. Janardan Vishwakarma**

Technical Officer

&

**Mr. Ashok Ghildiyal**

Technical Officer

Tel: 0135-2524130

**Indian Institute of Remote Sensing,**

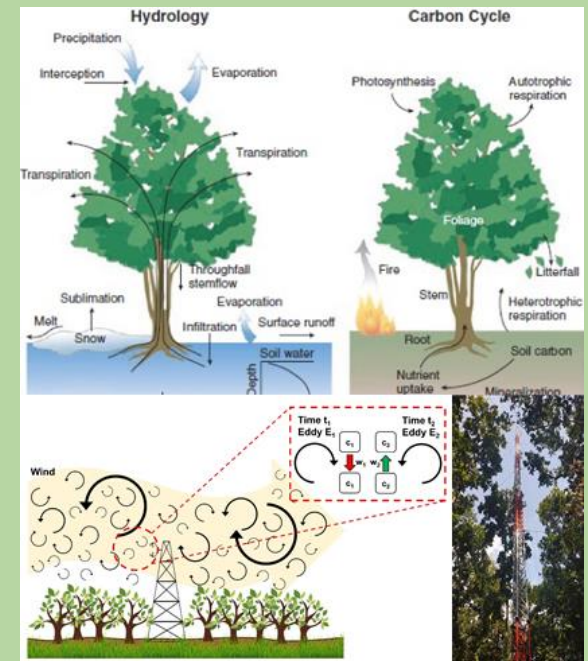
Indian Space Research Organisation

Department of Space, Govt. of India,

4-Kalidas Road, Dehradun

Email: [dip@iirs.gov.in](mailto:dip@iirs.gov.in)

## 140<sup>th</sup> IIRS Outreach Programme



## Forest Carbon and Water Cycle Monitoring and Modelling

**May 13-17, 2024**



**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

Forest carbon and water cycle monitoring and modelling represents a pivotal approach in understanding and managing the intricate dynamics of ecosystems. By harnessing the capabilities of satellite imagery, geographic information system, and remote sensing techniques, forest carbon stocks and water cycle patterns across vast landscapes can be assessed effectively. Through advanced modelling algorithms and data integration methods, one can simulate various scenarios to predict how changes in forest cover and climate might impact carbon sequestration and water availability in different regions.

Furthermore, forest carbon and water cycle monitoring and modelling using geospatial technology play a crucial role in policy formulation and natural resource management. By providing policymakers with accurate, evidence-based information, this approach supports the development of effective strategies for sustainable land use, climate adaptation, and biodiversity conservation. In essence, the integration of geospatial technology into forest carbon and water cycle monitoring and modelling represents a cornerstone in our efforts to understand, protect, and sustainably manage the Earth's vital ecosystems for current and future generations.

Therefore, we extend a warm invitation for you to join us in participating in our upcoming online course titled "Forest Carbon and Water Cycle Monitoring and Modelling." Scheduled to take place from May 13 to 17, 2024, this course will feature comprehensive lectures aimed at deepening your understanding of forest carbon dynamics and the intricacies of water cycle monitoring and modelling.

## Overview of Program

The course is conducted through IIRS outreach facility. IIRS has successfully conducted 139 courses so far through its outreach programme with 5,82,369 participants from 3219+ Institutions/ Universities (as of 31st January, 2023) spread across India.

**Objective of the Course :** To familiarize forest managers, academicians and researchers about the utility of geospatial technology in forest carbon and water cycle monitoring and modelling.

**Content:** Understanding forest carbon and water cycles from climate change perspective, Understanding forest cover and land use dynamics using earth observation data, Monitoring and modelling of forest water fluxes, Carbon and water flux measurements using eddy covariance technique, Forest biomass and productivity estimation using earth observation data and modelling.

## Target Participants

The course is designed for Professionals, researchers and students (at least Graduate) engaged in the field of Forest Management, Conservation, Vegetation Ecology, Environmental Studies, Geospatial Technology and Modelling.

## Registration Fee

There is no registration fee.

## 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

Registered through Nodal centres : Based on 70% attendance, students will be awarded a "Courses Participation Certificate."

Individual Registration: A "Course Participation" certificate will be given to everyone who devotes at least 70% of each session's hours to the course. The course participation certificate will be available for download in ISRO LMS.

## Programme Reception

Individuals Participants can attend the course live via LMS i.e. <https://isrolms.iirs.gov.in> and nodal center participants can attend through the e-class portal of IIRS, Dehradun i.e. <https://eclass.iirs.gov.in>.

## 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 on below link: <https://elearning.iirs.gov.in/edusatregistration/student>

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