

IIRS Outreach Programme

The IIRS outreach programme, which was started in 2007 with 12 universities/ institutions has now grown substantially to 2800 . The beneficiaries of the programme may include:

- Water Resource Professionals
- State Water Resources / Irrigation Departments / Training Academies
- Central/State/Private Universities & Academic Institutions
- Central & State Government Departments
- 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.



Feedback session during IIRS Academia Meet (IAM)-2020

Awards of Appreciation

IIRS has received national awards for excellence in training for outreach and e-learning programme during 1st National Symposium on Excellence in Training conducted during 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 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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IIRS Outreach Programme

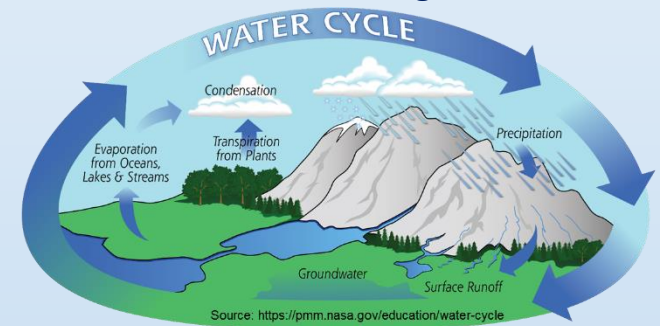
Mr. Janardan Vishwakarma

Mr. Ashok Ghildiyal

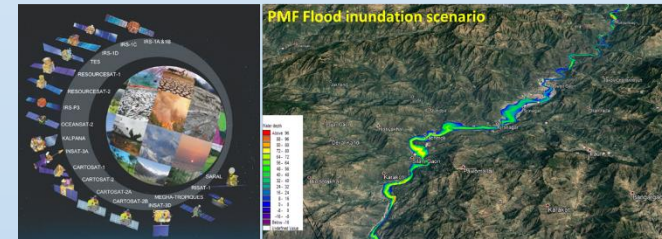
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IIRS Outreach Programme



Source: <https://pmm.nasa.gov/education/water-cycle>



Geospatial Technology for Hydrological Modelling

July 19-30, 2021



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

Hydrological modeling is an effective and essential tool for assessment, prediction and management of water resources, hydrological parameters and water movement/demand/use scenarios. The advancements in geospatial technology and data have opened a new avenues of research and operational applications of hydrological modelling. The hydrological models requires basic geo-referenced data such as, land use land cover (LULC), soil maps, and digital elevation models etc., for capturing the spatio-temporal variations of these thematic layers. Most of these datasets can be easily derived from remote sensing images and limited ground truth. The hydro-meteorological data such as precipitation, air and land surface temperature, solar radiation, evapotranspiration, soil moisture, river and lakes water levels, river discharge, and terrestrial water storage can be also be derived from remote sensing as well as from point based ground instruments. The GIS based platforms, both commercial and open source, provides an excellent interface for integration of all such geospatial and hydro-meteorological data to accomplish the hydrological modeling. Such modeling studies can be done at various spatio-temporal scales, ranging from city, watershed to basin level and at time scale of few hours to daily/annual time steps.

Detailed lectures on overview and sources of various satellite based hydrological parameters; integration of geo-spatial data in various hydrological models; practical applicability and basic knowledge of widely used hydrological models; would be a part of this training

Pre-requisites:

- Graduate Degree in Science/Technology
- Understanding of Basic concepts of Remote Sensing, GIS and Hydrology

Curriculum

- Geospatial technology applications for Water Resources: An Overview
- Type of hydrological models and Spatial, Non-spatial Data Inputs for Hydrological Modelling
- Digital Elevation Model and its Derivatives for hydrological Modelling
- Rainfall-Runoff Modelling
- Snow/Glacier melt-Runoff Modelling
- Soil Erosion and Sediment Yield Modelling
- Flood peak Estimation using Hydrological Modelling
- River Flow Modelling using 1D Hydrodynamic
- Impact Climate Change on Hydrological Regime

Target Participants

- The course is designed for professionals from Central / Sate Govt. / Private Organizations / NGO engaged in water resources management and planning, regional and national water resources projects; students and researchers aligned to research in water resources.

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.

Course Registration

- Course updates and other details will be available on URL- <http://www.iirs.gov.in/Edusat-News/>.
- All the participants has to register online through registration page available on above web page

Course Funding & Technical Support

The programme is sponsored by IIRS, Indian Space Research Organisation, Department of Space, Government of India, Dehradun

Programme Reception

- Individuals can attend the course live via any web browser through the e-lass portal of IIRS Dehradun i.e. <https://eclass.iirs.gov.in>
- The participants can also attend the live workshop via the YouTube channel of IIRS i.e. <https://www.youtube.com/user/edusat2004>
- The content of the workshop will be available offline after 24 hours in the e-class portal.

Award of Certificate

- All the participants who attend 70% sessions of the course live via e-class portal.
- The participants who attend the course sessions via IIRS youtube channel should mark their attendance via offline session available after 24 hrs.