

IIRS Outreach Programme

The IIRS outreach programme, which was started in 2007 with 12 universities/ institutions has now grown substantially. Currently, 2200+ universities / institutions spread across India covering 29 States and 7 Union Territories are networked with IIRS. The beneficiaries of the programme may include:

- Central/State/Private Universities & Academic Institutions
- Central & State Disaster Management Centers
- State Remote Sensing Departments
- Research Institutes
- Earthquake engineering/ geotechnical Industries
- NGOs

Feedback Mechanism

The participants can submit their feedback through online portal. Feedbacks are critically analyzed and implemented in next courses. For one to one feedback the participants and participating organizations are invited to attend annual IIRS User Interactive Meet (IUIM) at IIRS Dehradun.



IIRS Outreach programme 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 Geoinformation Science (<https://elearning.iirs.gov.in>).

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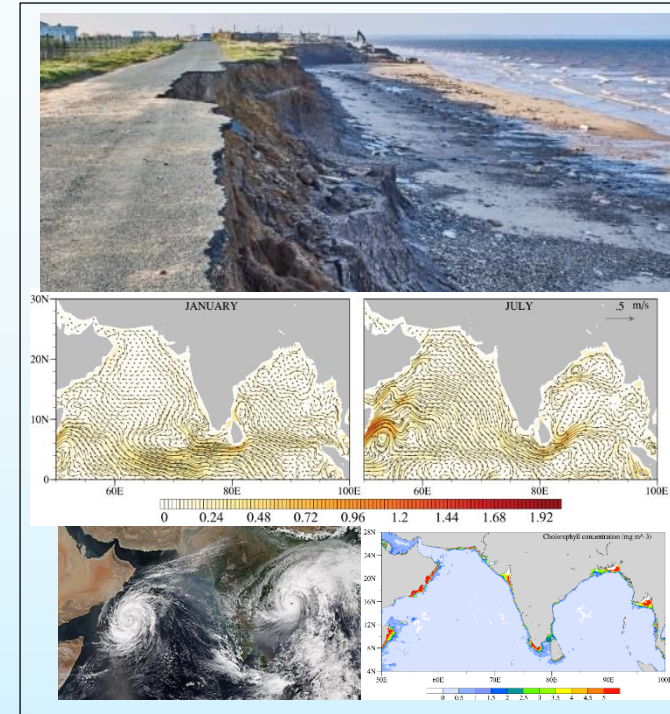
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67th IIRS Outreach Programme



Understanding of coastal ocean processes using remote sensing and numerical modelling

September 21-25, 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

The coastal oceans are highly dynamic and extremely important marine environment. They connect the continents to the open ocean and serve as a link for transporting organic and inorganic, natural and anthropogenic material from land to sea. The coastal zones are the most biologically productive part of the ocean, the most fished, and the most subject to anthropogenic modifications and extreme events. The coastal oceans play a pivotal role in the societal and economic well-being of countries around the world. The geometry of the coastal regions varies from simple to complex and are also influenced by local and remote forcing from both atmosphere and oceans. The fluid motions in the coastal area are characterized by a wide range of length scales with high spatial and temporal variability. Some of the important coastal features and characteristics include waves, tides, coastal circulation and currents, oceanic eddies, stratification, turbulence, and mixing etc. The coastal zones also support a vast variety of ecosystems such as coral reefs, mangroves, salt marshes, sea grass etc. This diversity and complexity make the coastal ocean processes quite challenging for the research and prediction purposes.

The advent of satellite remote sensing provided a huge platform for better observing the coastal ocean processes and understanding its dynamics. Satellite ocean color remote sensing is very cost-effective technique for large scale quantification of primary productivity in the ocean worldwide. The numerical general circulation as well as coupled models also serve as a great tool for testing various hypothesis and the understanding and prediction of different coastal ocean phenomena. This course will provide an overview on the various important coastal ocean processes, understanding of coastal dynamics through geoinformatics, monitoring of ocean primary production using the remote sensing data, basics of numerical ocean modelling and its application to study the coastal ocean circulation and biogeochemistry. The course is therefore of special interest for the professionals, researchers and students interested in learning utility of satellite observations and numerical modeling in coastal ocean processes studies.

Curriculum

The course will cover the following broad topics.

- Understanding of coastal ocean processes through geoinformatics.
- An introduction to numerical ocean modeling.
- Application of numerical modelling to study the ocean circulation and marine biogeochemistry.

- Modelling of ocean productivity through remote sensing data.
- Role of ocean for tropical cyclone tracking using NWP model.

Target Participants

The candidates who want to participate in the course should be a student of final year undergraduate course or postgraduate course (any year). Technical/ Scientific Staff of Central/ State Government/Faculty/researchers at university/institutions are also eligible to apply for this course.

The course is designed for professionals, students/researchers from various Central/State Govt./Universities/Private Organizations/NGO engaged in marine science/oceanography research/studies.

Course Study Material

Course study materials like lecture slides, video recorded lectures, open source software & handouts of demonstrations, etc. will be made available through <https://eclass.iirs.gov.in>. Video lectures will also be uploaded on YouTube Channel (<http://www.youtube.com/user/edusat2004>).

Course Fee

The Course is free of cost.

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 organizations/ universities/ departments/ Institutes has to identify a coordinator at their end. The identified coordinator will register online his/her Institute as nodal center in IIRS website.
- All the participants has to register online through registration page by selecting his/her organization as nodal center.
- If his/her organization is not already registered under IIRS outreach network, then either the organization may register for the same or the participant may enter organization name as IIRS while completing the registration.

- **As there are limited number of seats, registration will be done on a first come, first served basis.**

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 is class room following computer hardware will be required

- Desktop computer with web camera microphone & output speaker or laptop with microphone camera and output speaker
- Large display screen /projector/TV

Important Links

- Course 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 the 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 organisation as nodal centre. <https://elearning.iirs.gov.in/edusatregistration/student>

Award of Certificate

Working Professionals and Students: Based on 70% attendance and online examination.