IIRS Outreach Programme
The IIRS outreach programme, which was started in 2007 with 12 universities/institutions has now grown substantially. Currently, 880 universities/institutions spread across India covering 30 States and 2 Union Territories are networked with IIRS. The beneficiaries of the programme may include:
- Central/State/Private Universities & Academic Institutions
- Central & State Government Departments
- Professionals
- Research Institutes
- Geospatial 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 Academia Meet (IAM) at IIRS Dehradun.

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 Geoinformatics Science (https://elearning.iirs.gov.in).

Contact Details
Dr. Harish Karnatak
Head, GIT & DL Dept.
Tel: 0135-2524332
harish@iirs.gov.in

Dr. Poonam S Tiwari
Tel: 0135-2524334
poonam@iirs.gov.in

IIRS DLP Team
Mr. Janardan Vishvakarma
Mr. Ashok Ghildiyal
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

Digital Photogrammetry based 3D Modelling
July 29 - August 02, 2019

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

In recent years it has been possible to collect vast quantities of 3D data using new technology, and to interpret and visualize the data in new ways. The third dimension has become an integral part of geospatial information. Different methods and techniques are adopted to acquire 3D data from space borne, airborne and terrestrial sensors. 3D technology is finding huge utility in resource monitoring, facilities management, urban planning, defense and internal security and has not only revolutionized the surveying and mapping applications but it has emerged as a powerful tool for planning, monitoring and evaluation of developmental activities, informed decision making in governance. With the prevalence of smartphones and drones, photogrammetry is now widely present as an effective and cost-efficient method to easily recreate 3D models of large areas and specific objects or buildings. In fact, some drones have utilized smartphones within their systems to deploy photogrammetry data collection. Smartphones and devices have come to replace common loading cameras and older photogrammetric equipment within drones due to their cost effectiveness and increased smartphone resolution and accuracy.

A few potential users of the technique are administrators, decision makers, engineers, researchers in medical profession, city planners, natural resource scientists, entertainment industry. Photogrammetry has dealt with the 3D reconstruction of objects from images. It provides low cost, accurate, photo-realistic object models using digital images and allows a virtual first-person experience of the real world.

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 Internet connectivity of 2Mbps or better. Following hardware and software set-up is required at user end:

Hardware Requirements:
- High-end Computer/Laptop (Windows OS);
- Good quality web camera;
- Headphone with Microphone;
- Speakers;
- Large Display Screen (Projector or TV).

Software and Internet Requirements:
- IIRS Learning Management System.

Connectivity & Other Configurations:
- NKN or any other high speed internet facility (preferably without firewall, with minimum of 2 Mbps bandwidth)
- Network requirements: Port 80 and RTMP (port 1935) protocol should be unblocked from user's computer and firewall.

Note: Institutions/ universities have to bear total expenses for establishment of the classroom facility

Award of Certificate

Working Professionals: Based on 70% attendance and submission of assignments.

Students: Based on 70% attendance and scoring 40% marks in online examination.

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. Applications of participants have to be duly sponsored by university/institute and forwarded through coordinators from respective centres.

Course Study Material

Course study materials like lecture slides, video recorded lectures, open source software & handouts of demonstrations, etc. will be made available through IIRS ftp link. 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.

Curriculum

The course structure is spread into following broad topics of teaching on:
- Overview of Photogrammetry
- Aerial Photogrammetry
- Satellite Photogrammetry
- Terrestrial Photogrammetry
- Applications of Photogrammetry
- DEM and its derivatives
- Issues Challenges and current trends in Photogrammetry