



Govt. of India
 Department Space
 Indian Space Research Organization
 Indian Institute of Remote Sensing



Eighty Fifth IIRS Outreach Programme
 On
 Basic of RS, GIS & GNSS

Course Schedule

S. No.	Course Name	Module Name	From	To
1.	Basic of RS, GIS & GNSS	Complete Basic Course	16-08-2021	26-11-2021
2.	Remote Sensing & Digital Image Analysis	Module-1	16-08-2021	10-09-2021
3.	Global Navigation Satellite System	Module-2	13-09-2021	24-09-2021
4.	Geographical Information System Module	Module-3	27-09-2021	22-10-2021
5.	Basics of Geocomputation and Geoweb Services	Module- 4	25-10-2021	02-11-2021
6.	RS & GIS Applications	Module-5	08-11-2021	26-11-2021

Course Name: Remote Sensing & Digital Image Analysis
Course Coordinator: Mrs. Minakshi Kumar

Duration of the Course: 16 August-10 September 2021

Date	Day	Time	Topic	Speaker
16/08/2021	Monday	1530-1600 hrs	Course Inauguration	
		1610-1700 hrs	Inaugural Lecture ISROs Earth Observation missions for Societal benefits	Dr. Prakash Chauhan
17/08/2021	Tuesday	1600-1730 hrs	Basic Principles of Remote Sensing	Ms. Manu Mehta
18/08/2021	Wednesday	1600-1730 hrs	Earth Observation Sensors and Platforms	Mr. Vinay Kumar
19/08/2021	Thursday	1600-1730 hrs	Spectral Signatures of Different Land cover Features and Visual Image interpretation	Dr. Hina Pande
20/08/2021	Friday	-	Holiday - Muharram	-
23/08/2021	Monday	1600-1730 hrs	Digital Image Processing: Basic Concepts Rectification and Registration	Ms. Minakshi Kumar
24/08/2021	Tuesday	Offline	RS and Image Interpretation Practical	
24/08/2021	Tuesday	1600-1730 hrs	Image Enhancement techniques	Dr. Poonam S. Tiwari
25/08/2021	Wednesday	1600-1730 hrs	Image Classification Techniques	Dr. Anil Kumar
26/08/2021	Thursday	1600-1730 hrs	Advanced Classifiers and Accuracy Assessment	Dr. Anil Kumar
27/08/2021	Friday	1600-1730 hrs	Thermal Remote Sensing	Dr. Yogesh Kant
30/08/2021	Monday	Holiday - Janmashtami		
31/08/2021	Tuesday	1600-1730 hrs	Hyperspectral Remote Sensing	Mr. Vinay Kumar
01/09/2021	Wednesday	1600-1730 hrs	Image Processing Hands-on Demo using QGIS	Mr. Prasun Gupta
02/09/2021	Thursday	1600-1730 hrs	Google Earth Engine API: Introduction and case studies	Ms. Supriya Sharma
03/09/2021	Friday	1600-1730 hrs	Open Source Data and International Geoportals for Satellite data download	Dr. Harish Karnatak
06/09/2021	Monday	1600-1730 hrs	Overview of Microwave Remote Sensing	Dr. Shashi Kumar
07/09/2021	Tuesday	1600-1730 hrs	Overview of SAR Data Processing	Mr. Ashish Joshi
08/09/2021	Wednesday	1600-1730 hrs	Overview of UAV Remote Sensing	Mrs. Shefali Agrawal
09/09/2021	Thursday	1600-1730 hrs	Overview of LIDAR Remote Sensing	Dr. Hina Pande
10/09/2021	Friday	1430- 1730 Query Session / Feedback / Valedictory		

Module- 2: Global Navigation Satellite System
Module/ Course Coordinator: Dr. Ashutosh Bhardwaj

Course Duration: 13 September-24 September 2021

Date	Day	Time	Topic	Speaker
13/09/2021	Monday	1600-1700 hrs	Introduction to GPS and GNSS	Dr. Ashutosh Bhardwaj
		1700-1730 hrs	Interactive Session	
14/09/2021	Tuesday	1600-1700 hrs	GPS receivers, processing methods, errors and accuracy	Dr. Ashutosh Bhardwaj
		1700-1730 hrs	Interactive Session	
15/09/2021	Wednesday	No Lecture		
16/09/2021	Thursday	1600-1700 hrs	Satellites based Augmentation systems & GPS Aided and GEO Augmented Navigation (GAGAN)	Dr. Ashutosh Bhardwaj
		1700-1730 hrs	Interactive Session	
17/09/2021	Friday	1600-1700 hrs	GPS signal characteristics, Data formats (broadcast, precise ephemeris)	Dr. Ashutosh Bhardwaj & Shri Ashish Joshi
		1700-1730 hrs	Interactive Session	
18/09/2021	SATURDAY			
19/09/2021	SUNDAY			
20/09/2021	Monday	1600-1700 hrs	Indian Regional Navigation Satellite System (IRNSS)	Dr. Ashutosh Bhardwaj & Shri Kamal Pandey
		1700-1730 hrs	Interactive Session	
21/09/2021	Tuesday	1600-1700 hrs	DGPS demonstration (Pre-recorded followed by live query session)	O ffline
		1700-1730 hrs	Interactive Session	Dr. Ashutosh Bhardwaj
22/09/2021	Wednesday			
23/09/2021	Thursday	1600-1700 hrs	Advance GNSS processing	Shri Suresh Kannaujiya
		1700-1730 hrs	Interactive Session	
24/09/2021	Friday		Paned Discussion	

Module- 3: Geographical Information System
Module/ Course Module/Course Coordinator: Shri. Prabhakar Alok Verma
Course Duration: 27 September-22 October 2021

Date	Day	Time	Topic	Speaker
27/09/2021	Monday	1600-1730 hrs	Introduction to GIS	Dr. Sameer Saran
28/09/2021	Tuesday	1600-1730 hrs	Geographic Phenomena, Concepts and examples	Mr. Prasun Kumar Gupta
29/09/2021	Wednesday	1600-1730 hrs	GIS Data Models (Spatial and Non spatial)	Mr. Ashutosh Kumar Jha
30/9/2021	Thursday	1600-1730 hrs	Data Inputting and Editing in GIS	Mr. K. Shiva Reddy
01/10/2021	Friday	1600-1730 hrs	Spatial Analysis – Introduction	Mr. Prabhakar Alok Verma
02/10/2021	Saturday			
03/10/2021	Sunday			
05/10/2021	Tuesday	1600-1730 hrs	Map Projection Concepts & Use in RS & GIS	Dr. Ashutosh
06/10/2021	Wednesday	1600-1730 hrs	Spatial Analysis (Vector & Raster)	Mr. Kapil Oberai
07/10/2021	Thursday	1600-1730 hrs	Open Source Software Technology & Tools	Mr. Prasun Kumar Gupta
08/10/2021	Friday	1600-1730 hrs	Overview of Spatial Data Quality	Mr. Prabhakar Alok Verma
09/10/2021	Saturday			
10/10/2021	Sunday			
11/10/2021	Monday	1600-1730 hrs	Uncertainty in GIS and Error Propagation	Mr. Prabhakar Alok Verma
12/10/2021	Tuesday	1600-1730 hrs	Map visualisation	Mr. Ashutosh Kumar Jha
13/10/2021	Wednesday	1600-1730 hrs	Demo visualisation	Mr. Ashutosh Kumar Jha
14/10/2021	Thursday	1600-1730 hrs	Network Analysis	Mr. Ashutosh Kumar Jha
15/10/2021	Friday	Holiday (Dussehra)		
16/10/2021	Saturday			
17/10/2021	Sunday			
18/10/2021	Monday	1600-1730 hrs	Overview of Machine Learning for GIS	Mr. Prabhakar Alok Verma
19/10/2021	Tuesday	Holiday (Milad-Un-Nabi)		
20/10/2021	Wednesday	1600-1730 hrs	Overview of Big Data Analytics	Mr. Kapil Oberai
21/10/2021	Thursday	1600-1730 hrs	Recent Trends in Geoinformatics	Dr. Sameer Saran
22/10/2021	Friday	1600-1730 hrs	Panel Discussion	

Module Name-4 Basics of Geocomputation and Geoweb Services

Module/ Course Module/Course Coordinator: Shri. Kamal Pandey

Course Duration: 25 October -02 November 2021

Note: Detailed schedule of the Course will be updated soon.

Module/Course Name-5 : RS & GIS Applications

Module/ Course Coordinator: Shri C.M. Bhatt

Course Duration: 08 November- 26 November 2021

Note: Detailed schedule of the Course will be updated soon.

Note: Details about the course, examination and latest schedule will be updated on below link;

<https://www.iirs.gov.in/> or <https://www.iirs.gov.in/EDUSAT-News>