



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



Sixty Fourth IIRS Outreach Programme
On
Basic of RS, GIS & GNSS

Tentative Course Schedule

S. No.	Course Name	Module Name	From	To
1.	Basic of RS, GIS & GNSS	Complete Basic Course	17-08-2020	20-11-2020
2.	Remote Sensing & Digital Image Analysis	Module-1	17-08-2020	11-09-2020
3.	Global Navigation Satellite System	Module-2	14-09-2020	25-09-2020
4.	Geographical Information System Module	Module-3	28-09-2020	16-10-2020
5.	Basics of Geocomputation and Geoweb Services	Module- 4	19-10-2020	29-10-2020
6.	RS & GIS Applications	Module-5	02-11-2020	20-11-2020

Module-1 Completed
Module-2 in progress
Module-3 in progress

Module 1: Remote Sensing & Digital Image Analysis
Module/ Course Coordinator: Mrs. Minakshi Kumar

Duration of the Course: 17 August-11 September 2020

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

17 August-11 September

Date	Day	Time	Topic	Speaker
17/08/2020	Monday	1600-1730 hrs	Course Inauguration and Introductory Lecture , Indian Space Programme	Dr. Prakash Chauhan
18/08/2020	Tuesday	1600-1700 hrs	Basic Principles of Remote Sensing	Ms. Manu Mehta
		1700-1730 hrs	Interactive Session	
19/08/2020	Wednesday	1600-1700 hrs	Earth Observation Sensors and Platforms	Mr. Vinay Kumar
		1700-1730 hrs	Interactive Session	
24/08/2020	Monday	1500-1545 hrs	Spectral Signatures of Different Land cover Features and Visual Image interpretation	Dr. Hina Pande
		1545-1600 hrs	Interactive Session	
24/08/2020	Monday	1605-1700 hrs	Digital Image Processing: Basic Concepts Rectification and Registration	Ms. Minakshi Kumar
		1700-1730 hrs	Interactive Session	
25/08/2020	Tuesday	1500-1545 hrs	Enhancement techniques Image	Dr. Poonam S. Tiwari
		1545-1600 hrs	Interactive Session	
25/08/2020	Tuesday	Offline Session	RS and Image Interpretation Practical	Self-Practice by participants / Assignment
26/08/2020	Wednesday	1500-1545 hrs	Image Classification Techniques and Accuracy Assessment Part 1	Dr. Poonam S. Tiwari
		1545-1600 hrs	Interactive Session	
26/08/2020	Wednesday	1605-1700 hrs	Thermal Remote Sensing	Dr. Yogesh Kant
		1700-1730 hrs		
27/08/2020	Thursday	1600-1700 hrs	Image Classification Techniques and Accuracy Assessment Part 2	Dr. Poonam S. Tiwari
		1700-1730 hrs	Interactive Session	
28/08/2020	Friday	1600-1700 hrs	Digital Change Detection	Ms. Minakshi Kumar
		1700-1730 hrs	Interactive Session	
31/08/2020	Monday		Onam Festival	

Date	Day	Time	Topic	Speaker
01/09/2020	Tuesday	1600-1730 Hrs	GEE Application Programming Interface: Introduction and Case Studies Demo	Ms. Supriya sharma
02/09/2020	Wednesday	1600-1700 hrs 1700-1730 hrs	Hyperspectral Remote Sensing Interactive Session	Mr. Vinay Kumar
03/09/2020	Thursday	1600-1700 hrs 1700-1730 hrs	Demonstration: Image Processing Software Interactive Session	Ms. Minakshi Kumar
04/09/2020	Friday	1600-1700 hrs 1700-1730 hrs	Basics of SAR Remote Sensing Interactive Session	Mr. Shashi Kumar
07/09/2020	Monday	1600-1700 hrs 1700-1730 hrs	Basics of SAR Data Processing Interactive Session	Ashish Joshi
08/09/2020	Tuesday	1600-1700 hrs 1700-1730 hrs	Basics of LIDAR Remote Sensing Interactive Session	Dr. Hina Pande
04/09/2020 07/09/2020 08/09/2020	Friday , Monday & Tuesday	Offline Session	Image Processing Hands-on practice	Self-Practice by participants / Assignment
10/09/2020	Thursday	1600-1700 hrs 1700-1730 hrs	Basics of UAV Remote Sensing Interactive Session	Mrs. Shefali Agrawal
11/09/2020	Friday	1600-1730 hrs	Panel Discussion/Query Session	All the faculty

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

Date	Day	Time	Topic	Speaker
14/09/2020	Monday	1600-1700 hrs	Introduction to GPS and GNSS	Dr. Ashutosh Bhardwaj
		1700-1730 hrs	Interactive Session	
15/09/2020	Tuesday	1600-1700 hrs	GPS receivers, processing methods, errors and accuracy	Dr. Ashutosh Bhardwaj
		1700-1730 hrs	Interactive Session	
17/09/2020	Thursdays	1600-1700 hrs	Satellites based Augmentation systems & GPS Aided and GEO Augmented Navigation (GAGAN)	Dr. Ashutosh Bhardwaj
		1700-1730 hrs	Interactive Session	
18/09/2020	Friday	1600-1700 hrs	GPS signal characteristics, Data formats (broadcast, precise ephemeris)	Dr. Ashutosh Bhardwaj & Shri Ashish Joshi
		1700-1730 hrs	Interactive Session	
21/09/2020	Monday	1600-1700 hrs	Indian Regional Navigation Satellite System (IRNSS)	Dr. Ashutosh Bhardwaj & Shri Kamal Pandey
		1700-1730 hrs	Interactive Session	
22/09/2020	Tuesday	1600-1700 hrs	DGPS demonstration (Pre-recorded followed by live query session)	Offline
		1700-1730 hrs	Interactive Session	
24/09/2020	Thursdays	1600-1700 hrs	Advance GNSS processing	Dr. Ashutosh Bhardwaj Shri Suresh Kannaujiya
		1700-1730 hrs	Interactive Session	
25/09/2020	Friday	Paneld Discussion		

Module- 3: Geographical Information System
Module/ Course Module/Course Coordinator: Shri. Prabakar Alok Verma

Date	Day	Time	Topic	Speaker
28/09/2020	Monday	1600-1705 hrs 1705-1730 hrs	Introduction to GIS Interactive Session	Dr. Sameer Saran
29/09/2020	Tuesday	1600-1640 hrs 1645-1705 hrs 1705-1730 hrs	Geographic Phenomena, Concepts and examples Practical/Image/Video based Demonstrations Interactive Session	Shri Prasun Kumar Gupta
30/09/2020	Wednesday	1600-1640 hrs 1645-1705 hrs 1705-1730 hrs	Data Inputting and Editing in GIS Practical/Image/Video based Demonstrations Interactive Session	Shri K. Shiva Reddy
01/10/2020	Thursday	1600-1640 hrs 1645-1705 hrs 1705-1730 hrs	GIS Data Models (Spatial and Non spatial) Practical/Image/Video based Demonstrations Interactive Session	Shri Ashutosh Kumar Jha
05/10/2020	Monday	1600-1640 hrs 1645-1705 hrs 1705-1730 hrs	Map Projection Concepts & Use in RS & GIS Practical/Image/Video based Demonstrations Interactive Session	Dr. Ashutosh Srivastav
06/10/2020	Tuesday	1600-1640 hrs 1645-1705 hrs 1705-1730 hrs	Spatial Analysis - Introductory Concepts and Overview Practical/Image/Video based Demonstrations Interactive Session	Shri Prabhakar Alok Verma
07/10/2020	Wednesday	1600-1640 hrs 1645-1705 hrs 1705-1730 hrs	Spatial Analysis - Functionality and Tools Practical/Image/Video based Demonstrations Interactive Session	Shri Kapil Oberai
08/10/2020	Thursday	1600-1730 hrs	Open Source Software Technology & Tools	Shri Prasun Kumar Gupta
09/10/2020	Friday	1600-1640 hrs 1645-1705 hrs 1705-1730 hrs	Uncertainty in GIS and Error Propagation Practical/Image/Video based Demonstrations Interactive Session	Shri Prabhakar Alok Verma
12/10/2020	Monday	1600-1640 hrs 1645-1705 hrs 1705-1730 hrs	Advanced Geospatial Modeling Practical/Image/Video based Demonstrations Interactive Session	Shri Ashutosh Kumar Jha
13/10/2020	Tuesday	1600-1640 hrs 1645-1730 hrs	Overview of Big Data Analytics Overview of Machine Learning for GIS	Shri Kapil Oberai Shri Prabhakar Alok Verma
14/10/2020	Wednesday	1600-1730 hrs	Recent Trends in Geoinformatics	Dr. Sameer Saran
15/10/2020	Thursday	1600-1730 hrs	Panel Discussion of Module 3	All Module -3 Faculty

Module Name- Basics of Geocomputation and Geoweb Services
Module/ Course Module/Course Coordinator: Shri. Kamal Pandey

Date	Day	Time	Topic	Speaker
19/10/2020	Monday	1600-1700hrs 1700-1730 hrs	Introduction to Geocomputation- Technology and applications Interactive Session	Dr. Harish C. Karnatak
20/10/2020	Tuesday	1600-1700hrs 1700-1730 hrs	Introduction to online GIS and Geo-web services Interactive Session	Dr. Harish C. Karnatak
21/10/2020	Wednesday	1600-1700hrs 1700-1730 hrs	Open Geodata Repositories & ISRO Geoweb Services for thematic applications Interactive Session	Shri Kamal Pandey
22/10/2020	Thursdays	1600-1700hrs 1700-1730 hrs	Programming concepts for Geo-computation- Introduction to Python and R Interactive Session	Shri Ravi Bhandari
23/10/2020	Friday	1600-1700hrs 1700-1730 hrs	Overview on concept of DBMS, RDBMS and SDBMS for geo-data handling Interactive Session	Shri Dharmendra Kumar
26/10/2020	Monday	1600-1700hrs 1700-1730 hrs	Basics of cyber infrastructure requirement for GIS, computing, storage, archive, network and firewall infrastructure in GIS lab Interactive Session	Shri Dharmendra Kumar
27/10/2020	Tuesday	1600-1700hrs 1700-1730 hrs	Crowdsourcing and participatory GIS using online tools & technologies Interactive Session	Shri Kamal Pandey
28/10/2020	Wednesday	1600-1700hrs 1700-1730 hrs	Practical Demonstration on: Virtual reality, 2D and 3D geo-visualizations in web platforms Interactive Session	Dr. Harish C. Karnatak
29/10/2020	Thursdays	1600-1700hrs 1700-1730 hrs	Practical Demonstration on Introduction to Cloud GIS Interactive Session	Shri Ravi Bhandari

Module/Course Name- RS & GIS Applications
Module/ Course Coordinator: Shri C.M. Bhatt

Date	Day	Time	Topic	Speaker
02/11/2020	Monday	1600-1730 hrs	Applications of Remote Sensing & other Geospatial Technologies in Natural Resources Management, Development & Governance	Dr. S. K Srivastav
03/11/2020	Tuesday	1600-1730 hrs	Remote Sensing and GIS applications for Crop Resource Assessment and Monitoring	Dr. N.R. Patel
05/11/2020	Thursday	1600-1730 hrs	RS & GIS for Coastal Zone Management	Dr. D. Mitra
06/11/2020	Friday	1600-1730 hrs	Remote Sensing Applications for Geological studies	Dr. R.S. Chatterjee
09/11/2020	Monday	1600-1730 hrs	Space-enabled Products & Services for Disaster Management :Indian Initiatives	Dr. P.K.C.Ray
10/11/2020	Tuesday	1600-1730 hrs	RS & GIS Application in Urban & Regional Planning	Shri. Pramod Kumar
11/11/2020	Wednesday	1600-1730 hrs	Remote Sensing Application to Atmospheric & Marine Environment	Dr. A.K Mishra
12/11/2020	Thursday	1600-1730 hrs	RS & GIS Applications in Forestry and Ecology	Dr. Hitendra Padalia
17/11/2020	Tuesday	1600-1730 hrs	RS & GIS Applications to Water Resources Management	Dr. S.P Aggarwal
18/11/2020	Wednesday	1600-1730 hrs	Geospatial Technology for climate change studies	Dr. Arijit Roy
19/11/2020	Thursday	1600-1730 hrs	RS and GIS Applications in Soil Resource Management	Dr. Suresh Kumar
20/11/2020	Friday	1600-1730 hrs	Panel Discussion Module-3	All speakers

- Note: Last Updated on 03 Nov 2020

