

Eleventh Satellite Based Distance Learning Program Schedule



Basic course on

“Remote Sensing, Geographical Information System and Global Navigation Satellite System”



Time Schedule

Module	Name of the Module	Duration	
		From	To
1	Remote Sensing and Digital Image Analysis	05-08-2013	27-08-2013
2	Global Navigation Satellite System	03-09-2013	10-09-2013
3	Geographical Information System	16-09-2013	11-10-2013
4	RS & GIS Applications	14-10-2013	04-11-2013

Conducted by

Indian Institute of Remote Sensing
Indian Space Research Organisation
Department of Space, Government of India
4-Kalidas Road, Dehradun, India

In collaboration with

Consortium for Educational Communication, UGC
Development and Educational Communication Unit (DECU)
Space Application Centre, Ahmedabad
Amrita E Learning Research Lab

Under the aegis of

National Natural Resources Management System

May 2013

MODULE 1: REMOTE SENSING & DIGITAL IMAGE ANALYSIS MODULE
COORDINATOR: Ms. Minakshi Kumar (minakshi@iirs.gov.in) Date: 05
Aug – 27 Aug, 2013

Date	Day	Time	Topic	Speaker
05 Aug 13	Monday	1600-1700 hrs	Basic Principles of Remote Sensing	Ms. Manu Mehta
		1700-1730 hrs	Interactive Session (Query)	
06 Aug 13	Tuesday	1600-1700 hrs	Earth Observation Sensors and Platforms	Shri Vinay Kumar
		1700-1730 hrs	Interactive Session (Query)	
08 Aug 13	Thursday	1600-1700 hrs	Spectral Signatures of Different Land cover Features and Visual Image interpretation	Ms. Hina Pande
		1700-1730 hrs	Interactive Session (Query)	
09 Aug 13	Idu'l Fitr			
10 Aug 13	Saturday			
11 Aug 13	Sunday			
12 Aug 13	Monday	Offline	RS and Image Interpretation (II) Practical	Shri Shashi Kumar
		1600-1700 hrs	Microwave Remote Sensing	
		1700-1730 hrs	Interactive Session (Query)	
13 Aug 13	Tuesday	1600-1700 hrs	Thermal Remote Sensing	Dr. Yogesh Kant
		1700-1730 hrs	Interactive Session (Query)	
14 Aug 13	Wednesday	1600-1700 hrs	Digital Image Processing: Basic Concepts Rectification and Registration	Ms. Minakshi Kumar
		1700-1730 hrs	Interactive Session (Query)	
15 Aug 13	Independence Day			
16 Aug 13	Friday	1600-1700 hrs	Image Enhancement techniques	Ms. Minakshi Kumar
		1700-1730 hrs	Interactive Session (Query)	
17 Aug 13	Saturday			
18 Aug 13	Sunday			
19 Aug 13	Monday	1600-1700 hrs	Image Classification Techniques and Accuracy Assessment	Ms. Poonam S Tiwari
		1700-1730 hrs	Interactive Session (Query)	
20 Aug 13	Tuesday	Offline - as per computer lab availability	Image Processing Hands-on	
22 Aug 13	Thursday	Offline - as per computer lab availability	Image Processing Hands-on and Practical Assignment	Ms. Minakshi Kumar
		1600-1700 hrs	Demonstration: Image Processing	
		1700-1730 hrs	Interactive Session (Query)	
23 Aug 13	Friday	1600-1700 hrs	Hyperspectral Remote Sensing	Ms. Shefali Agrawal / Shri Vinay Kumar
		1700-1730 hrs	Interactive Session (Query)	
24 Aug 13	Saturday			
25 Aug 13	Sunday			
26 Aug 13	Monday	1600-1700 hrs	Overview of Open Source Tools – I	Dr. Harish Karnatak
		1700-1730 hrs	Interactive Session (Query)	
27 Aug 13	Tuesday	1600-1700 hrs	Overview of Open Source Tools – II	Dr. Harish Karnatak
		1700-1730 hrs	Interactive Session (Query)	
29 Aug 13	Thursday	Offline - as per computer lab availability	Practical Assignment submission and evaluation.	

MODULE 2: GLOBAL NAVIGATION SATELLITE SYSTEM
MODULE COORDINATOR: Shri Ashutosh Bhardwaj (ashutosh@iirs.gov.in)
Date: 03 Sep – 10 Sep, 2013

Date	Day	Time	Topic	Speaker
02 Sep 13	Monday	1600-1700 hrs	Introduction to GPS and GNSS	Er. Ashutosh Bhardwaj
		1700-1730 hrs	Interactive Session (Query)	
03 Sep 13	Tuesday	1600-1700 hrs	GPS receivers, processing methods, errors and accuracy	Er. Ashutosh Bhardwaj
		1700-1730 hrs	Interactive Session (Query)	
05 Sep 13	Thursday	1600-1700 hrs	Satellites based Augmentation systems	Er. Ashutosh Bhardwaj
		1700-1730 hrs	Interactive Session (Query)	
06 Sep 13	Friday	1600-1700 hrs	GPS signal characteristics, Data formats (broadcast, precise ephemeris)	Er. Ashutosh Bhardwaj
		1700-1730 hrs	Interactive Session (Query)	
07 Sep 13	Saturday			
08 Sep 13	Sunday			
09 Sep 13	Monday	Exam – Module 1 (Morning Session)		
09 Sep 13	Monday	1600-1700 hrs	Demonstration on Data collection using Geodetic receivers (recorded)	Er. Ashutosh Bhardwaj
		1700-1730 hrs	Interactive Session (Query)	
10 Sep 13	Tuesday	1600-1700 hrs	Mobile Mapping	Dr. B.D. Bharath
		1700-1730 hrs	Interactive Session (Query)	Dr. B.D. Bharath/ Er. Ashutosh Bhardwaj/ Er. P.L.N.Raju

MODULE 3: GEOGRAPHICAL INFORMATION SYSTEM

MODULE COORDINATOR: Shri P.L.N. Raju (raju@iirs.gov.in)

Date: 16 Sept – 11 Oct, 2013

Date	Day	Time	Topic	Speaker
16 Sep 13	Monday	1600-1700 hrs	Introduction to GIS	P L N Raju
		1700-1730 hrs	Interactive Session (Query)	
17 Sept 13	Tuesday	1600-1700 hrs	Geographic Phenomena, Concepts and examples	P L N Raju
		1700-1730 hrs	Interactive Session (Query)	
19 Sept 13	Thursday	Exam – Module 2 (Morning Session)		
19 Sept 13	Thursday	1600-1700 hrs	Map Projection Concepts & Use in RS & GS	P L N Raju
		1700-1730 hrs	Interactive Session (Query)	
20 Sept 13	Friday	1600-1700 hrs	Non-Spatial Data Models	Dr. Harish Karnatak
		1700-1730 hrs	Interactive Session (Query)	
21 Sep 13	Saturday			
22 Sep 13	Sunday			
23 Sep 13	Monday	1600-1700 hrs	Database concepts and Spatial Data Models Data formats and structures	Dr. Sameer Saran
		1700-1730 hrs	Interactive Session (Query)	
24 Sept 13	Tuesday	1600-1700 hrs	Demo of GIS S/W 1: <ul style="list-style-type: none"> • Introduction of Open source GIS s/w • Opening Vector and Raster Data • Attribute table • Symbology • Map Layout 	Kapil Oberai
		1700-1730 hrs	Interactive Session (Query)	
26 Sept 13	Thursday	1600-1700 hrs	Demo of GIS S/W 2: <ul style="list-style-type: none"> • Digitization • Setting digitizing environment • Adding attributes to layer • Editing digitized layer 	Kapil Oberai
		1700-1730 hrs	Interactive Session (Query)	
27 Sept 13	Friday	1600-1700 hrs	Demo of GIS S/W 3: Warping and Geo-referencing (ILWIS)	P K Gupta
		1700-1730 hrs	Interactive Session (Query)	
28 Sep 13	Saturday			
29 Sep 13	Sunday			
30 Sept 13	Monday	1600-1700 hrs	Spatial Analysis- Introductory Concepts and Overview	Vandita Srivastava
		1700-1730 hrs	Interactive Session (Query)	
01 Oct 13	Tuesday	1600-1700 hrs	Spatial Analysis- Functionality and Tools	Vandita Srivastava
		1700-1730 hrs	Interactive Session (Query)	
03 Oct 13	Thursday	1600-1700 hrs	Demo of GIS S/W 4: Querying and Spatial Analysis	P K Gupta
		1700-1730 hrs	Interactive Session (Query)	
04 Oct 13	Friday	1600-1700 hrs	PostGRE/ PostGIS & Acquainting PostGIS through a mock experience	Kapil Oberai
		1700-1730 hrs	Interactive Session (Query)	
05 Oct 13	Saturday			
06 Oct 13	Sunday			
07 Oct 13	Monday	1600-1700 hrs	Geoserver Essentials- Open layers, Web Services & mock Demo	Dr. Harish Karnatak
		1700-1730 hrs	Interactive Session (Query)	
08 Oct 13	Tuesday	1600-1700 hrs	Catalogue Services- Geonetwork and mock demo	Dr. Sameer Saran
		1700-1730 hrs	Interactive Session (Query)	
09 Oct 13	Wednesday	1600-1700 hrs	Cartography and Visualization	Dr. Yogesh Kant
		1700-1730 hrs	Interactive Session (Query)	
10 Oct 13	Thursday	1600-1700 hrs	Open Source GIS- Transparent Governance (Case Study)	Dr. Harish Karnatak
		1700-1730 hrs	Interactive Session (Query)	
11 Oct 13	Friday	1600-1700 hrs	Data Quality & Policies OGC, NSDI & GSDI initiatives. Discussion on Internet resources	P L N Raju
		1700-1730 hrs	Interactive Session (Query)	
12 Oct 13	Saturday			
13 Oct 13	Sunday			

MODULE 4: RS & GIS APPLICATION
MODULE COORDINATOR: Shri P.L.N.Raju (raju@iirs.gov.in)
Date: 14 Oct – 04 Nov, 2013

Date	Day	Time	Topic	Speaker
14 Oct 13	Monday	1600-1700 hrs	Operational Remote Sensing Dissemination and societal benefits	Dr. Y.V.N Krishnamurthy Director, IIRS
		1700-1730 hrs	Interactive Session (Query)	
15 Oct 13	Tuesday	1600-1700 hrs	Coastal Zone Management	Dr. D. Mitra
		1700-1730 hrs	Interactive Session (Query)	
17 Oct 13	Thursday	1600-1700 hrs	Remote Sensing and GIS Applications in Soil Resource Management	Dr. Suresh Kumar
		1700-1730 hrs	Interactive Session (Query)	
18 Oct 13	Friday	1600-1700 hrs	RS & GIS Applications in Forestry and Ecology	Dr. Sarnam Singh
		1700-1730 hrs	Interactive Session (Query)	
19 Oct 13	Saturday			
20 Oct 13	Sunday			
21 Oct 13	Monday	1600-1700 hrs	Biodiversity	Dr. Sarnam Singh
		1700-1730 hrs	Interactive Session (Query)	
22 Oct 13	Tuesday	1600-1700 hrs	Geology and Geomorphology	Dr. R.S Chatterjee
		1700-1730 hrs	Interactive Session (Query)	
23 Oct 13	Wednesday Exam – Module 3 (Morning Session)			
24 Oct 13	Thursday	1600-1700 hrs	Engineering Geology with emphasis on landslide studies.	Dr. P.K.C.Ray
		1700-1730 hrs	Interactive Session (Query)	
25 Oct 13	Friday	1600-1700 hrs	Remote Sensing an GIS Applications in Inventory & Crop Yield Forecasting	Dr. S K Saha
		1700-1730 hrs	Interactive Session (Query)	
26 Oct 13	Saturday			
27 Oct 13	Sunday			
28 Oct 13	Tuesday	1600-1700 hrs	Marine & Atmospheric Application	Dr. A.K Mishra
		1700-1730 hrs	Interactive Session (Query)	
29 Oct 13	Wednesday	1600-1700 hrs	RS & GIS Applications to Water Resources Management	Dr. S.P Aggarwal
		1700-1730 hrs	Interactive Session (Query)	
31 Oct 13	Thursday	1600-1700 hrs	Hydrogeology/ Ground Water	Dr. S.K. Srivastav
		1700-1730 hrs	Interactive Session (Query)	
01 Nov 13	Friday	1600-1700 hrs	Human Settlement Analysis High resolution satellite data analysis	Dr. Sandeep Maithani
		1700-1730 hrs	Interactive Session (Query)	
02 Nov 13	Saturday			
03 Nov 13	Sunday			
04 Nov 13	Monday	1600-1700 hrs	Disaster Management	Dr. S.K Srivastav
		1700-1730 hrs	Interactive Session (Query)	
		Exam - Module 4 (1500-1730 hrs)		