

Fifty IIRS Outreach Programme  
On  
Basic of RS, GIS & GNSS

**Course Schedule**

Sl No.	Course Name	Module Name	From	To
1.	Basic of RS, GIS & GNSS	-	19-08-2019	22-11-2019
2.	Remote Sensing & Digital Image Analysis	Module-1	19 Aug	09 Sep
3.	Global Navigation Satellite System	Module-2	12 Sep	24 Sep
4.	Geographical Information System Module	Module-3	25Sep	24 Oct
5.	RS & GIS Applications	Module-4	29 Oct	22 Nov

August, 2019

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

Date	Day	Time	Topic	Speaker
19 Aug 19	Monday	1530-1550 hrs	Course Inauguration	Dr. S.K.Srivastav
19 Aug 19	Monday	1600-1730 hrs	Basic Principles of Remote Sensing	Dr. Manu Mehta
20 Aug 19	Tuesday	1600-1730 hrs	Earth Observation Sensors and Platforms	Mr. Vinay Kumar
21 Aug 19	Wednesday	1600-1730 hrs	Thermal Remote Sensing	Dr. Yogesh Kant
22 Aug 19	Thursday	1600-1730 hrs	Spectral Signatures of Different Land cover Features and Visual Image interpretation	Dr. Hina Pande
23 Aug 19	Friday	1600-1730 hrs	Introduction to RS Data Products	Dr. Hina Pande
<b>24 Aug 19</b>	-	<b>Saturday</b>	-	
<b>25 Aug 19</b>	-	<b>Sunday</b>	-	
26 Aug 19	Monday	Offline	RS and Image Interpretation Practical	By University Coordinator
27 Aug 19	Tuesday	1600-1730 hrs	Digital Image Processing: Basic Concepts Rectification and Registration	Ms. Minakshi Kumar
28 Aug 19	Wednesday	1600-1730 hrs	Image Enhancement techniques- Contrast, Filtering Transformations	Ms. Minakshi Kumar
29 Aug 19	Thursday	1600-1730 hrs	Image Classification Techniques – Unsupervised, Supervised and Separability Analysis	Dr. Poonam S. Tiwari
30 Aug 19	Friday	1600-1730 hrs	Digital Change Detection and Accuracy Assessment	Dr. Poonam S. Tiwari
31 Aug 19		<b>Saturday</b>	-	
01 Sep 19		<b>Sunday</b>	-	
02 Sep 19		<b>Monday</b>	<b>Vinayaka Chaturthi</b>	
03 Sep 19	Tuesday	1600-1730 hrs	Hyperspectral Remote Sensing	Mr. Vinay Kumar
04 Sep 19	Wednesday	1630-1730 hrs	Image Processing hands on using ILWIS	Ms. Minakshi Kumar
05 Sep 19	Thursday	Offline - as per computer lab availability	Image Processing Hands-on and Practical Assignment	By University Coordinator
06 Sep 19	Friday		Digital Data Browsing	Dr. Poonam S . Tiwari
07 Sep 19	-	<b>Saturday</b>	-	
08 Sep 19	-	<b>Sunday</b>	-	
09 Sep 19	Wednesday	1630-1730 hrs	Microwave Remote Sensing	Dr. Shasi Kumar

Module- 2 Global Navigation Satellite System				
Module/ Course Coordinator: Shri Ashutosh Bhardwaj				
12 Sep 19	Thursday	1600-1730 hrs	Introduction to GPS and GNSS	Er. Ashutosh Bhardwaj
13 Sep 19	Friday	1600-1730 hrs	GPS receivers, processing methods, errors and accuracy	Er. Ashutosh Bhardwaj
<b>14 Sep 19</b>	-	-	<b>Saturday</b>	
<b>15 Sep 19</b>	-	-	<b>Sunday</b>	
16 Sep 19	Monday	1600-1730 hrs	Satellites based Augmentation systems & GPS Aided and GEO Augmented Navigation (GAGAN)	Er. Ashutosh Bhardwaj
17 Sep 19	Tuesday	1600-1730 hrs	GPS signal characteristics, Data formats (broadcast, precise ephemeris)	Shri S. Raghavendra
18 Sep 19	Wednesday	1600-1730 hrs	Indian Regional Navigation Satellite System (IRNSS)	Er. Ashutosh Bhardwaj & Shri Kamal Pandey
19 Sep 19	Thursday	1600-1730 hrs	DGPS demonstration (Pre-recorded followed by live query session)	Offline
20 Sep 19	Friday	1600-1730 hrs	Advance GNSS processing	Shri Suresh Kannaujiya
<b>21 Sep 19</b>	-	-	<b>Saturday</b>	
<b>22 Sep 19</b>	-	-	<b>Sunday</b>	
23 Sep 19	Monday	1600-1730 hrs	Mobile Mapping	Dr. Harish Chandra Karnatak
24 Sep 19	Tuesday	1600-1730 hrs	Demonstration on Mobile mapping applications	Sh. Kamal Pandey

**Module- 3 Geographical Information System Module/ Course Coordinator: Shri Prasun Kumar Gupta**

25 Sep 19	Wednesday	1600-1730 hrs	Introduction to GIS	Dr. Sameer Saran
26 Sep 19	Thursday	1600-1730 hrs	Geographic Phenomena, Concepts and examples	Shri Prasun Kumar Gupta
27 Sep 19	Friday	1600-1730 hrs	Data Inputting and Editing in GIS	Shri K. Shiva Reddy
28 Sep 19		Saturday		
29 Sep 19		Sunday		
30 Sep 19	Monday	1600-1730 hrs	GIS Data Models (Spatial and Non spatial)	Shri Ashutosh Kumar Jha
01 Oct 19	Tuesday	1600-1730 hrs	Map Projection Concepts & Use in RS & GIS	Dr. Ashutosh Srivastav
02 Oct 19			Mahatma Gandhi	
03 Oct 19	Thursday	1600-1730 hrs	Spatial Analysis - Introductory Concepts and Overview	Shri Prabhhar Alok Verma
04 Oct 19	Friday	1600-1730 hrs	Spatial Analysis - Functionality and Tools	Shri Kapil Oberai
05 Oct 19	<b>Saturday</b>			
06 Oct 19	<b>Sunday</b>			
07 Oct 19	Monday		Dussehra (Maha Navmi)	
08 Oct 19	Tuesday		Dussehra (Vijay Dushmi)	
09 Oct 19	Wednesday		Festival Break	
10 Oct 19	Thursday		Festival Break	
11 Oct 19	Friday	1600-1730 hrs	Demo of QGIS Software – Session 01: Adding GIS Data, Attribute table & Identity tool Change symbology, Create map composers Manage plugins, CRS & EPSG Geo-referencing & Tie-points, RMSE & Rectification	Recorded Lecture
12 Oct 19	<b>Saturday</b>	-	-	-
13 Oct 19	<b>Sunday</b>		-	-
14 Oct 19	Monday	1600-1730 hrs	Demo of QGIS Software – Session 02: (Data Creation/Vector Generation) Digitization, Setting digitizing environment Adding attributes, Editing digitized layer Attribute Queries, Spatial Queries Linking spatial & non-spatial data	Recorded Lecture
15 Oct 19	Tuesday	1600-1730 hrs	<b>Extra Lecture – DEMO on QGIS 03</b>	<b>Shri Prasun Kumar Gupta</b>
16 Oct 19	<b>Wednesday</b>	1530-1555hrs 1600-1730 hrs	Interactive Session of Demo of QGIS Software – Session 01 & Session 02 & 03 Open Source Software Technology & Tools	Shri Prasun Kumar Gupta
17 Oct 19	Thursday	1600-1730 hrs	Data Quality & Policies OGC, NSDI & GSDI initiatives. Discussion on Internet resources	Dr. Harish Karnatak
18 Oct 19	Friday	1600-1730 hrs	Advanced Geospatial Modeling	Shri Ashutosh Kumar Jha
19 Oct 19	<b>Saturday</b>	-	-	
20 Oct 19	<b>Sunday</b>	-	-	

21 Oct 19	Monday	1600-1730 hrs	Uncertainty in GIS and Error Propagation	Shri Hari Shankar
22Oct 19	Tuesday	1600-1730 hrs	3D GIS, City Models and Applications	Dr. Sameer Saran
23 Oct 19	<b>Wednesday</b>	1600-1730 hrs	Recent Trends in Geoinformatics	Dr. Sameer Saran
24Oct 19	Thursday	1600-1730 hrs	Panel Discussion	All Faculty
25 Oct 19	Friday	-	<b>Dipwali Festival Break</b>	
26 Oct 19	<b>Saturday</b>	-	-	
27 Oct 19	<b>Sunday</b>	-	Deepavali	
28 Oct 19	Monday	1600-1730 hrs	Festival Break	

**Module-4 RS & GIS Applications**  
**Module/ Course Coordinator: Dr. C M Bhatt**

<b>Date</b>	<b>Day</b>	<b>Time</b>	<b>Topic</b>	<b>Speaker</b>
29 Oct 19	Tuesday	1600-1730 hrs	Space Technology & its applications in governance	Dr. S. K Srivastav
30 Oct 19	Wednesday	1600-1730 hrs	Remote Sensing and GIS Applications in Soil Resource Assessment	Dr. Suresh Kumar
31 Oct 19	Thursday	1600-1730 hrs	Remote Sensing Applications in Agriculture- Crop Inventory & Yield Forecasting	Dr. N.R. Patel
01 Nov 19	Friday	1600-1730 hrs	RS & GIS Applications in Forestry and Ecology	Dr. Hitendra Padalia
<b>02 Nov 19</b>	<b>Saturday</b>	-	<b>Break</b>	
<b>03 Nov 19</b>	<b>Sunday</b>	-	<b>Break</b>	
04 Nov 19	Monday	1600-1730 hrs	RS & GIS Applications to Water Resources Management	Dr. S.P Aggarwal
05 Nov 19	Tuesday	1600-1730 hrs	Geology and Geomorphology	Dr. R.S. Chatterjee
06 Nov 19	Wednesday	<b>1600-1730 hrs</b>	<b>Break</b>	
07 Nov 19	Thursday	1600-1730 hrs	Space-enabled Products & Services for Disaster Management :Indian Initiatives	Dr. P.K.C.Ray
08 Nov 19	Friday	1600-1730 hrs	RS & GIS Application in Urban & Regional Planning	Shri. Pramod Kumar
<b>09 Nov 19</b>		<b>Saturday</b>		
<b>10 Nov 19</b>		<b>Sunday</b>		
11 Nov 19	Monday	1600-1730 hrs	<b>Break</b>	
<b>12 Nov 19</b>			<b>Break</b>	
13 Nov 19	Tuesday	1600-1730 hrs	RS applications for Planetary Studies	Dr. Prakash Chauhan
14 Nov 19	Thursday	1530-1630 hrs	RS & GIS for Coastal Zone Management	Dr. D. Mitra
15 Nov 19	Thursday	1630 – 1730 hrs	Remote Sensing Application to Atmospheric & Marine Environment	Dr. A.K Mishra
16 Nov 19	<b>Saturday</b>	-		
17 Nov 19	<b>Sunday</b>	-		
18 Nov 19	Monday	1600-1730 hrs	Engineering Geology with emphasis on landslide studies	Dr. Shovan Chattoraj
19 Nov 19	Tuesday	1530-1630 hrs	Geospatial Technology for climate change studies	Dr. Arijit Roy
20 Nov 19	Wednesday	1630 – 1730 hrs	<b>Break</b>	
21 Nov 19	Thursday	1600-1730 hrs	Applications of Geo-web Services and mobile GIS in governance	Dr. Harish Karnatak
22 Nov 19	Friday	1530-1630 hrs	Panel Discussion Module-3	All speakers

50<sup>th</sup> Course on Basic of RS, GIS & GNSS Consist 04 Module

- 1- Remote Sensing & Digital Image Analysis
- 2- Global Navigation Satellite System
- 3- Geographical Information System
- 4- RS & GIS Applications

**There will be 01 exam for Basic of RS, GIS & GNSS after completion of the course**

**And a single exam for each Course no 51<sup>th</sup>, 52<sup>th</sup>, 53<sup>th</sup> and 54<sup>th</sup> course**

<b>Sl. No</b>	<b>Exam Name</b>	<b>Exam Date</b>
1-	Online Examination 51 <sup>th</sup> Course or Module1 on Remote Sensing and Digital Image Analysis	Last week of the Month
2-	Online Examination 52 <sup>th</sup> Course or Module 1 on Global Navigation Satellite System	Will be conducted first week and last week of the Month
3-	Online Examination of 53 <sup>th</sup> Course or Module 3 on Geographical Information System	Will be conducted first week and last week of the Month
4-	Online Examination of 54 <sup>th</sup> Course or Module 4 on <i>RS &amp; GIS Applications</i>	Will be conducted first week and last week of the Month