



Department of Space  
Government of India

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Indian Space Research Organisation (ISRO)  
INDIAN INSTITUTE OF REMOTE SENSING, DEHRADUN  
Annual Course Calendar IIRS Distance Learning Programme – 2021

**A. Course to be conducted in Morning Session (1100-1230 IST)**

| S. No | Course number | Course/Webinar   | Tentative Time Slot   | Duration                    | Coordinator   |
|-------|---------------|--|---|-----------------------------|---|
| 1.    |               | Basics of "Remote Sensing, Geographical Information System and Global Navigation Satellite System – Through SWAYAM portal<br>Link for join:<br><a href="https://onlinecourses.swayam2.ac.in/aic20_ge05/preview">https://onlinecourses.swayam2.ac.in/aic20_ge05/preview</a> | January 20 – April 30, 2021   | 15 Weeks                    | Dr. Poonam S. Tiwari  |
| 2.    | 6001          | Space Technology & Applications for School Teachers.   | May 31- June 04, 2021   | 1 Week (2 sessions per day) | Dr. Harish Chandra Karnatak   |
| 3.    | 80            | Earth Observation for Carbon Cycle Studies   | June 21-25, 2021  | 1 Week                      | Dr. N. R. Patel   |
| 4.    | 91            | सुदूर संवेदन एवं जीआईएस प्रौद्योगिकी के मूल सिद्धांत   | September 14-28, 2021<br><br>(Special course during Hindi Pakhwada) | 2 Weeks                     | Dr. Harish Chandra Karnatak/<br>Mr. Kamal Pandey/Mr. Dharmendra Kumar |
| 5.    | 92            | Geospatial Inputs for Enabling Master Plan Formulation for AMRUT sub scheme.   | October 11-15, 2021   | 1 Week                      | Mr. Pramod Kumar  |

**B. Course to be conducted in Evening Session (1600-1730 IST)**

| S. No | Course number | Course  | Tentative Time Slot | Duration | Course Director/Coordinator                                  |
|-------|---------------|---|---------------------|----------|--|
| 1.    | 73            | Overview of Geoprocessing using Python                                  | January 18-29, 2021 | 2 Weeks  | Dr. Harish Chandra Karnatak/ Mr. Ravi Bhandari               |
| 2.    | 74            | Satellite based Navigation: A Journey from GPS to Mobile phone platform | March 01-12, 2021   | 2 Weeks  | Dr. Anil Kumar/ Dr. Ashutosh Srivastav/Dr. Ashutosh Bhardwaj |
| 3.    | 75            | Geoinformatics for Disaster Management                                  | April 05-16, 2021   | 2 Weeks  | Dr. Arijit Roy/Mr. C.M. Bhatt                                |
| 4.    | 76            | GIS for Supply Chain Management   | April 26-30, 2021   | 1 Week   | Dr. Sameer Saran/Mr. Prasun K. Gupta                         |
| 5.    | 77            | Geospatial Technology for Archeological studies                         | May 17-28, 2021     | 2 Weeks  | Dr. Poonam S. Tiwari/<br>Dr. Hina Pande                      |
| 6.    | 79            | Himalayan Cryospheric Studies under Changing Climate                    | June 07-11, 2021    | 1 Week   | Dr. Pratima Pandey   |



| S. No | Course number | Course  | Tentative Time Slot                                  | Duration | Course Director/Coordinator                   |
|-------|---------------|---|--|----------|---|
|       |               |   | Postponed<br>(revised dates will be announced later) |          |   |
| 7.    | 81            | Overview of Web GIS Technology  | June 21- July 02, 2021                               | 2 Weeks  | Dr. Harish Chandra Karnatak/ Mr. Kamal Pandey |
| 8.    | 82            | Machine Learning to Deep Learning: A Journey for remote sensing data classification               | July 05-09, 2021                                     | 1 Week   | Dr. Anil Kumar                                |
| 9.    | 83            | Geospatial technology for hydrological modelling  | July 19-30, 2021                                     | 2 Weeks  | Dr. S.P.Agarwal                               |
| 10.   | 84            | Geospatial Modelling for Watershed Management   | August 02-06, 2021                                   | 1 Week   | Dr. Suresh Kumar                              |
| 11.   | 85            | Basics of "Remote Sensing, Geographical Information System and Global Navigation Satellite System | August 16 – November 26, 2021                        | 14 Weeks | Dr. Poonam S. Tiwari                          |
| 12.   | 86            | Basics of Remote Sensing and Digital Image Analysis   | August 16 – September 11, 2021                       | 4 Weeks  | Ms. Minakshi Kumar                            |
| 13.   | 87            | Basics of Global Navigation Satellite System  | September 13 – 24, 2021                              | 2 Weeks  | Dr. Ashutosh Bhardwaj                         |
| 14.   | 88            | Basics of Geographical Information System   | September 27-October 22, 2021                        | 4 Weeks  | Mr. Prabhakar Alok Verma                      |
| 15.   | 89            | Basics of Geocomputation and Geoweb Services  | October 25 -29, 2021                                 | 1 Week   | Mr. Kamal Pandey                              |
| 16.   | 90            | RS & GIS Applications in Natural Resource Management  | November 01-26, 2021                                 | 4 Weeks  | Mr. C.M. Bhatt                                |
| 17.   | 93            | Geo-informatics for Biodiversity Conservation Planning.   | December 06-17, 2021                                 | 2 Weeks  | Dr. Hitendra Padalia/ Dr. Subrata Nandy       |

### C. International Courses/Webinar Series (1830-20:00 IST)

| S. No | Course number | Course/Webinar   | Tentative Time Slot  | Duration            | Coordinator                           |
|-------|---------------|--|--|---------------------|---------------------------------------|
| 1.    | 5006          | Space based observations for meteorological hazards  | September 06-10, 2021  | 1 Week              | Dr. D. Mitra                          |
| 2.    | 5007          | Space based Early warning Systems for Natural Disasters - <ul style="list-style-type: none"> <li>Flood</li> <li>Tropical Cyclones,</li> <li>Forest Fire,</li> <li>Landslide,</li> <li>Extreme Weather and</li> <li>Decision support systems for Disaster Early warnings</li> </ul> | November 08-19, 2021<br><br>(2 Sessions /alternate day (40 Min each) | 2 Weeks             | Dr. P. K. Champati Ray/Dr. Arijit Roy |
| 3.    | 5005          | Webinar Series on: Image Restoration and Processing of SAR Data <ul style="list-style-type: none"> <li>SAR Remote Sensing- Technology &amp; Applications</li> </ul>  | May 07, 13, 21, 28 2021  | 1 hour each session | Mr. Ashish Joshi                      |



| S. No | Course number | Course/Webinar   | Tentative Time Slot | Duration | Coordinator |
|-------|---------------|--|---------------------|----------|-------------|
|       |               | <ul style="list-style-type: none"> <li>SAR Data Processing Techniques</li> <li>SAR Geocoding techniques</li> <li>SAR Interferometry</li> </ul> |                     |          |             |

#### D. Webinar Series (1100-1230 IST)

| S. No | Course number | Webinar  | Tentative Time Slot  | Duration            | Coordinator                                     |
|-------|---------------|--|--|---------------------|---|
| 1.    | 1013          | <p>Webinar Series on Image Restoration and Processing of Optical Data</p> <ul style="list-style-type: none"> <li>Image pre-processing techniques- Optical remote sensing</li> <li>Radiometric corrections and normalization for satellite data</li> <li>Atmospheric corrections of Optical imagery</li> <li>Object Based Image Analysis for Earth Observation Optical data</li> </ul> <p>Note: Course has been reschedule due to technical reason, new date is April 16, 23, 30 and 07 May 2021.</p> | <p>April-09, 16, 23, 30, 2021</p> <p>New date:<br/>April 16, 23, 30 and 07 May, 2021</p> | 1 hour each session | <p>Dr. Manu Mehta</p> <p>Ms. Minakshi Kumar</p> |

#### E. Full day Workshop

| S. No | Course number | Workshop Title  | Tentative Time Slot  | Duration | Focal Point                                   |
|-------|---------------|---|--|----------|---|
| 1.    | 1011          | अंतरिक्ष प्रौद्योगिकी और इसके अनुप्रयोग   | January 11, 2021   | 1 Day    | Dr. Harish Chandra Karnatak/ Mr. Kamal Pandey |
| 2.    | 1012          | <p>Satellite altimetry for River monitoring</p> <p>Note: Course has been reschedule due to technical reason, new date is October 04, 2021</p>   | <p>March 17, 2021</p> <p>August 10, 2021</p> <p>October 04, 2021</p> | 1 Day    | Dr. S.P. Aggarwal                             |
| 3.    | 1014          | Earth Observation based Mapping, Monitoring and Modelling of Landslide: Recent trends and support to early warning system   | April 21, 2021   | 1 Day    | Dr. Shovan Chatteraj                          |
| 4.    | 1015          | Lunar Remote Sensing and Applications   | <p>May 12, 2021</p> <p>August 11, 2021</p>                           | 1 Day    | Dr. Mamta Chauhan                             |
| 5.    | 1016          | ISRO Geoportal and Information Services- ISRO Inter centre  | June 16, 2021  | 1 Day    | Dr. Harish Chandra Karnatak                   |
| 6.    | 1017          | SAR Application for flood hazard mapping and monitoring   | July 14, 2021  | 1 Day    | Dr. Arijit Roy/Mr. C.M.Bhatt                  |
| 7.    | 1018          | <p>Workshop on Space Technology for School children</p> <p>(Note: There will be no registration, Interested can directly attend the lecture from <a href="https://www.youtube.com/user/edusat2004">https://www.youtube.com/user/edusat2004</a>)</p> | August 12, 2021  | ½ Day    | Ms. Shefali Agarwal/Ms. Pooja Jindal          |

| S. No | Course number | Workshop Title  | Tentative Time Slot | Duration | Focal Point      |
|-------|---------------|---|---------------------|----------|------------------|
| 8.    | 1019          | Geospatial Modeling Driven Urban Hazard and Risk Analysis | December 01, 2021   | 1 Day    | Mr. Pramod Kumar |

#### **F. Popular Guest Talk Series on Space Technology and Application**

Topic, name of the speaker and actual date and time will be announced in First Week of the respective month in Year 2021

#### **G. Specialized Course for Directorate of Forest Education, Dehradun**

Course to be conducted, Afternoon Session (1430Hrs to 1600 Hrs)

|    |  |                      |        |  |
|----|--|----------------------|--------|--|
| 1. | Geo-informatics for Field Foresters<br>*Course is only for Directorate of Forestry Education, Dehradun | February 22-26, 2021 | 1 Week | Dr. Hitendra Padalia/<br>Dr. Subrata Nandy |
|----|--|----------------------|--------|--|

Note: Geo-informatics for Field Foresters Course is applicable only for Directorate of Forest Education, Dehradun