

**Indian Institute of Remote Sensing  
Water Resources Department  
IIRS Outreach Programme**

**Two-week MOOC on**

**Advances in Geospatial Techniques for Monitoring and Modelling Hydro-meteorological Disasters during July 17-28, 2023**

| <b>Date</b>   | <b>Lecture (Evening 16.00 – 17.30 hrs)</b>   | <b>Faculty</b>        |
|---------------|--|-----------------------|
| July 17, 2023 | L1: Basics of Remote Sensing   | Dr. Manu Mehta        |
|               | L2: Image Analysis: Visual and Digital   | Dr Poonam Tiwari      |
| July 18, 2023 | L3: Platform and Sensors   | Shri. Vinay Kumar     |
|               | L4: Global Navigation Satellite System   | Dr. Anil Kumar        |
| July 19, 2023 | L5: Geographical Information System  | GID Faculty           |
|               | L6: Overview of advances in earth observation data and geospatial techniques for hydro-meteorological hazards assessment                         | Dr. Praveen K. Thakur |
| July 20, 2023 | L7: Hydro-meteorological parameters retrieval using satellite observations   | Dr. Vaibhav Garg      |
| July 21, 2023 | L8: Application of DEM in hydro-meteorological disasters assessment  | Dr. Arpit Chouksey    |
|               | <b>July 22-23, 2023: Holidays (Saturday-Sunday)</b>  |                       |
| July 24, 2023 | L9: Flood mapping, monitoring and hazard assessment using satellite data   | Shri. Pankaj R. Dhote |
|               | L10: Urban Flood Hazards and Risk Modeling   | Dr. Pramod Kumar      |
| July 25, 2023 | L11: Hydrological modelling and its applications in hydro-meteorological disasters assessment  | Dr. Praveen K. Thakur |
| July 26, 2023 | L12: Hydrodynamic modelling and advances in geospatial data: its application in riverine flood hazard, GLOF, Dam Break and river flow monitoring | Pankaj R. Dhote       |
| July 27, 2023 | L13: Snow and glacier hazards: mapping, monitoring and modelling   | Dr. Vaibhav Garg      |
| July 28, 2023 | L14: Advance techniques in drought monitoring and assessment using remote sensing data   | Dr. Bhaskar R. Nikam, |

**Faculty:**

**PK:** Dr. Pramod Kumar

**PKT:** Dr. Praveen Kumar Thakur

**VG:** Dr. Vaibhav Garg

**MM:** Dr. Manu Mehta

**AC:** Dr. Arpit Chouksey

**AK:** Dr. Anil Kumar

**BRN:** Dr. Bhaskar R. Nikam , EDPO, Bengaluru

**PT:** Dr. Poonam Tiwari

**VK:** Shri Vinay Kumar

**PRD:** Mr. Pankaj R. Dhote

Course Director:

Dr. Praveen Kumar Thakur  
Scientist / Engineer SG  
Head, WRD, IIRS

Course Coordinator:

Mr. Pankaj Ramji Dhote  
Scientist / Engineer SE

Through:

Dr. Pramod Kumar  
GD, HUSG and Dean (A)