

Training Programme on Earth Observation Data Analytics for Disaster Management focusing on Flood and Drought

Venue

1st Floor, Center for Soft Computing Research,
Indian Statistical Institute
203 Barrackpore Trunk Road · Kolkata 700 108

Date

10 – 14 July 2023

Day 1: Monday, 10 July 2023

Time	Program: Foundation	Speaker/Contributors
10:00 – 10.30	<i>Registration</i>	
10.30 – 10:50	<i>Welcome remarks and Scope of the workshop</i>	- A Ghosh, ISI
10:50 - 11:50	<i>Keynote Speech</i>	- D Dutta, DST
11:50 - 12.50	<i>Keynote Speech- No pixel left behind: Towards integrating earth observation data for disaster management into the SDG Framework</i>	- S Kumar, BVU
12:50 - 13.15	Self-introduction of the participants	- Participants
<i>13:15 – 14:15</i>	<i>Group photo and Lunch Break</i>	
14:15 – 15:00	Overview of Earth Observation Data Analytics and its Applications in Disaster Management (T)	- PK Singh, NIH (Online)
15:00 – 16:15	Drought and Flood Management Framework in India	- P Guhathakurta (Online)
<i>16:15 – 16.30</i>	<i>Tea/ Coffee</i>	
16:30 – 17:30	Basics of Remote Sensing (T)	- B Biswas, BU
17:30 – 17:45	Closing session and instructions for the next day's activities	- A Ghosh, ISI

Day 2: Tuesday, 11 July 2023

Time	Program: Fundamentals	Speaker/Contributors
10.00 – 10:15	Reflections on the previous day	- Participants
10.15 – 11:15	Weather and climate services provided by IMD	- S Bandyopadhyay, IMD
<i>11.15-11.30</i>	<i>Tea/ Coffee</i>	
11:30 – 13:15	Spatial Statistics in R (T+P)	- A Taron & S Ghosh, IWMI
<i>13:15 – 14:15</i>	<i>Lunch Break</i>	
14:15 – 16:15	Basics of AI and Machine Learning (T)	- A Ghosh, ISI
<i>16:15– 16:30</i>	<i>Tea/ Coffee</i>	
16:30– 17.30	Geospatial Cloud Computing Frameworks (T)	- Guneet Mutreja, DLR (Online)
17:30 – 17:45	Closing session and instructions for the next day's activities	- A Ghosh, ISI

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Day 3: Wednesday, 12 July 2023

Time	Program: Data Application	Speaker/Contributors
10.00 – 10:15	Reflections on the previous day	- Participants
10.15 – 11:15	Introduction to Google Earth Engine (GEE) (P)	- Guneet Mutreja, DLR (Online)
11.15-11.30	<i>Tea/Coffee</i>	
11:30 – 13:15	Climate Change and Extremes using Earth Observation Data (P)	- PK Singh, NIH (Online)
13:15 – 14:15	<i>Lunch Break</i>	
14:15 – 15:00	Flood/Drought Monitoring Using GEE (P)	- S Ghosh, IWMI
15:00 – 16:15	Special Lecture Applications of AI and Machine Learning in Farmland Mapping (D)	- Alok Talekar, Google (Online)
16:15-16:30	<i>Tea/ Coffee</i>	
16.30 – 17:30	Flood/Drought Monitoring Using GEE (P)	- S Ghosh, IWMI
17:30 – 17:45	Closing session and instructions for the next day's activities	- A Ghosh, ISI

Day 4: Thursday, 13 July 2023

Time	Program: Collation and Application	Speaker/Contributors
10.00 – 10:15	Reflections on the previous day	- Participants
10.15 – 11:15	Microwave Remote Sensing: Principles & Data Processing for Disaster Management Applications	- RS Chatterjee, IIRS (Online)
11.15-11.30	<i>Tea/ Coffee</i>	
11:30 – 13:15	Spatial Statistics and Econometrics for Disaster Management (T+P)	- A Taron & S Ghosh, IWMI
13:15 – 14:15	<i>Lunch Break</i>	
14:15 – 14:45	Advanced applications of Earth Observation Data and Utilities (D)	- S Ghosh, IWMI
14:45 – 15:15	Geospatial Policy of India and Other National/International Policy Frameworks Related to Disaster Management (T)	- B Biswas, BU
15:15 – 15:45	Startup/Industry presentation (D)	- P Mishra, Suhora (Online) - Shailesh Shankar, MAXAR (Online)
15:45– 16:00	<i>Tea/ Coffee</i>	
16:00 – 17:30	Roundtable Discussion: <i>Opportunities and Challenges of Using Earth Observation and other socioeconomic data in Practice</i>	- A Ghosh, ISI (Moderator) - D Bandyopadhyay, ERM - P Srivastava, Earthhood (Online) S Sen, IIT Roorkee (Online) - S Halder, Govt of WB - B Biswas, BU
17:30 – 17:45	Closing session	- A Ghosh, ISI

Day 5: Friday, 14 July 2023

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Time	Program: Impact and Innovation	Speaker/Contributors
10.00 – 10:15	Reflections on the previous day	- B Biswas, BU
10.15 – 10:30	Special Lecture Enhancing climate mitigation and adaptation responses using environmental footprint assessments.	- B Holmatov, IWMI <i>(Online)</i>
10.30 – 11:15	Flood and drought risks mapping using Earth Observation data	- N Alahacoon, International Water Management Institute <i>(Online)</i>
<i>11.15-11.30</i>	<i>Tea/ Coffee</i>	
11.30 – 13:15	Launch of Hackathon - Scope and Expectation - Discussion on Application and time frame - Data and tools - Group discussion and brainstorming	- B Biswas, BU
<i>13:15 – 14:15</i>	<i>Lunch Break</i>	
14:15 – 15:30	Idea presentation based on group discussion (each group) 10 mins (5 mins presentation + 5 mins discussion)	- Participants
15.30 – 16.00	Certificate Distribution Closing remarks by the Chair, GRSS, Kolkata chapter Way forward, and vote of thanks	- A Ghosh, ISI
<i>16:00– 16.30</i>	<i>Tea/ Coffee & Wrap up</i>	

T: Theory **P:** Practical **D:** Demonstration