



High-End Workshop

GeoWater: Empowering Water Resources Management through Geospatial Technology

21st to 30th March 2024

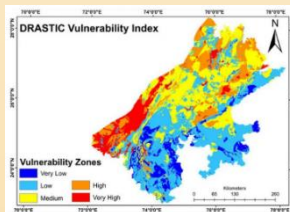
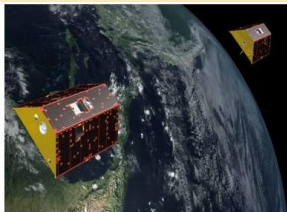
Organised by:

Department of Geography
School of Environment and Earth Sciences
Central University of Punjab (CUPB)
VPO Ghudda (Bathinda)
151401

Punjab Remote Sensing Centre (PRSC)
PAU Campus, Near Kitchlu Nagar Block 'F' end
Ludhiana
141004

Sponsored by:

Science and Engineering Research Board (SERB)
New Delhi



About Central University of Punjab

Established in 2009, the Central University of Punjab has achieved an 'A+' grade accreditation by NAAC in 2023 and consistently ranks among the top universities in NIRF. With a mission to provide comprehensive instructional and research facilities across disciplines, the university promotes innovation and aims to create a workforce responsive to global needs. Its eco-friendly campus spans 500 acres in Ghudda village, offering diverse PG and Ph.D. programs across 31 departments and 11 schools. The university actively engages in social causes, promotes environmental awareness, and implements initiatives like the Earn-While-You-Learn scheme, reflecting its commitment to excellence and inclusivity.

About Department of Geography

The Department of Geography at the Central University of Punjab, established in 2019, offers Masters' and Ph.D. programs covering diverse fields such as Applied Geomorphology, Glaciology, and Climate Change. It integrates advanced technologies like Remote Sensing, GIS, and Big Data to enhance spatial science understanding. Emphasizing multi-disciplinary approaches, it equips students for professional endeavours and research. The department aims for excellence in geographic research, student-centric teaching, and policy contribution for community development. Its mission includes developing cutting-edge lab facilities, promoting geospatial technologies, conducting impactful research, collaborating with other departments, and engaging in outreach efforts to raise awareness about environmental issues.

Advisory Board

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Central University of Punjab

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Dr. Suparna Tewari (Geology)

Dr. Dhaniya M.S. (Environmental Science & Technology)

Mrs. Renu Sharma (Geography)

Punjab Remote Sensing Centre

Dr. Raj Setia

Workshop Coordinator

Dr. Shruti Kanga

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Workshop Co-Coordinator

Dr. Raj Setia, Scientist-SE and Group Leader, Geodata

Analytics, Research and Modelling Group

About Punjab Remote Sensing Centre (PRSC)

Punjab Remote Sensing Centre (PRSC), is an autonomous organization under the Department of Agriculture, Government of Punjab, is the apex body in the state for all Remote Sensing (RS), Geographic Information System (GIS) and Global Positioning System (GPS) and related works. It is designated as a Nodal Agency by Govt. of Punjab for geospatial needs of the state and acts as the centralized hub for the geo-spatial data to all the user departments. PRSC has been setup under the umbrella of Space Applications Management System (SAMS), erstwhile National Natural Resources Information System (NNRMS). PRSC has played a pivotal role in various fields including agriculture, water resources, urban planning, environment, and disaster management. The centre utilizes geospatial techniques to provide valuable insights and solutions to governmental departments, researchers, and stakeholders.

About the Karyashala Scheme

'KARYASHALA' is an effort to improve research productivity of promising PG and PhD students from universities and colleges through high-end workshops on specific themes. This program aims to provide opportunities to acquire specialized research skills. These workshops will primarily be facilitated at organizations / institutions / laboratories of national importance such as IITs, IISc, IISERs, NITs, CSIR, ICAR, ICMR etc. It provides hands-on experience to the students primarily from universities, colleges, private academic institutions, and newly established institutes in handling/troubleshooting of high-end scientific instruments and such skill development on themes required for research work.

About the Workshop

This immersive workshop will equip participants to leverage geospatial technology for effective water resource management. Covering foundational concepts and practical applications, it will provide the knowledge and tools for informed decision-making and sustainable water management.

Foundational Knowledge:

- Master remote sensing: explore platforms, sensors, image interpretation, and processing crucial for environmental analysis.
- Conquer GIS: delve into coordinate systems, projections, database creation, and hands-on experience with industry-standard software.

Practical Applications:

- Address water resource challenges: understand trends and discover how GIS and satellite imagery analysis are game-changers.
- Map land use patterns, identify conservation areas, and integrate rainwater harvesting structures through land cover mapping.
- Grasp hydrological modelling and watershed management, including essential delineation techniques.
- Map and monitor water quality using both optical and non-optical methods.
- Tackle drought analysis, water resource planning, and flood mapping with diverse sensor applications.

Real-World Impact:

- Engage in case studies and collaborative group projects, applying your newfound knowledge to actual water resource assessment scenarios.
- Emerge equipped to make informed decisions and contribute meaningfully to sustainable water management practices.

Registration & Other Guidelines

Interested participants pursuing UG (4th year students only), PG and Ph.D. from recognised University/ Institution working in relevant area should apply through the Google Form link provided below. Alternatively, they can use the QR code. A limited number of seats are available for participants in related disciplines. The entry will be limited to a maximum of 25 participants. Selected participants will be notified by the e-mail.

Registration Fee: There is no registration fee

Last date submitting application: **14th March, 2024**

Confirmation of acceptance: **15th March, 2024**

Link for registration:

https://docs.google.com/forms/d/e/1FAIpQLSd3jvq v30M60fJwUUnYRoTb2GN0g8lau_SZXEtH6SOHsn3 DOQ/viewform?usp=sf_link



- Selected participants will be reimbursed travel expenditure (Train fare up to AC-III tier class or state transport buses by the shortest route as per Govt. of India norms).
- Food/tea/ refreshments will be provided by the organizers in Central University of Punjab during the entire duration of workshop.
- Accommodation will be provided by the organizers in Central University of Punjab.
- Participants are requested to bring their own laptops, if possible, for the workshop