



Two-Day Workshop for College Teachers

on

River Management, River Health Assessment, Mining Impacts and Riparian Ecology

Venue

Department of Geography,
Presidency University,
86/1, College Street, Kolkata-700073 West
Bengal, India

Workshop duration
19th - 20th March, 2025

organised as part of

Scientific Social Responsibility (SSR) component of SEBR/ANRF Project (Project No. CRG/2021/008342)

Title: <u>Riparian Health Assessment and Floodplain Fragmentation in the Rarh Region of Eastern India: Gauging the impact of mineral/sand mining and land use changes on the stream corridor quality and ecogeomorphology for prioritizing river restoration reaches)</u>

PI: Dr. Priyank Pravin Patel, Assistant Professor, Dept. of Geography, Presidency University

Kindly contact for queries/registration application to:

Dr. Priyank Pravin Patel

Assistant Professor, Department of Geography, Presidency University, Kolkata (Email: priyank.geog@presiuniv.ac.in Phone: +91-9830353124)

The Workshop's ethos...

Humans have altered rivers and riparian zones dramatically over the past century, thereby disrupting channel-floodplain connectivity and natural streamflow, consequently affecting local ecological relations. Their cumulative impact has manifested on every possible aspect of rivers, including on the hydrologic regime, channel morphology and stability, water quality and stream biota. Almost every river in India is affected by mineral/sand/gravel mining, which is driven by development of the economy and increasing urbanization. This Workshop has been designed to examine frameworks for holistic assessments of riparian ecosystems, tracking changes in river morphology and water quality and schemes for prioritising the most-affected river reaches. It shall provide a forum to exchange ideas on river management and provide collaborative pathways to undertake such studies.

About the Department

The Department of Geography is one of the oldest such departments in the country, with its genesis in the 1949-50 academic session as part of the erstwhile Presidency College. Geography at Presidency University comes under the Faculty Council of Natural and Mathematical Sciences and offers BSc (Honours with Research) and MSc in Geography, alongside a rigorous Doctoral Programme. The course syllabi are regularly updated as per the latest guidelines and international best practices to instil an understanding of the theoretical aspects while fostering marketable skills that may be applied in solving socio-environmental problems. The Department further offers a number Minor and Multidisciplinary Courses for students majoring in other disciplines and has also commenced a Value-Added Certificate Course on Geospatial Analysis Using Python for internal and external students, researchers and faculty members.

The Department has a state-of the-art Geospatial Laboratory (with high speed internet connectivity, dedicated high-end computer systems and multiple licenses of geospatial industry preferred software) and dedicated Laboratories for Earth Materials Analysis (soil and water samples), along with precision land and hydrographic survey equipment and modelling apparatus (Total Stations, Bathymetry and Tide Gauges, Stream Tables). Participants shall be required to carry their own laptops for completing given exercises.

Target participants and the application process

A total of twenty-five seats are on offer at the Workshop, and are solely intended for Faculty Members of nearby Colleges, as per the guidelines of the funding agency. Participants with an interest in river science, fluvial geomorphology and riparian environment management are warmly requested to apply for the above Workshop. The final list of participants shall be drawn upon the basis of the applicant's publication track record, and desire for engaging in physical geography research related activities. The guidelines and dates for the application process are as follows -

Period for submitting applications:

27th February to 8th March, 2025

• Notification of Final List of selected participants:

9th March, 2025

Return mail from selected participants confirming participation:

12th March, 2025

• Workshop commencement date:

19th March, 2025

There is no Registration Fee for the Workshop, as it is entirely funded by SERB/ANRF. A Workshop Kit shall be provided, along with lunch and tea on both days. Participants are requested to carry their own laptop for the geospatial analysis exercises. Please note that No TA/DA shall be provided for attending the Workshop. No accommodation shall be provided to any out-station Participants, but shall be assisted in arranging the same. The Workshop timings shall be from 10:00 a.m. till 6:00 pm, on both days. Kindly note that participation in full, on both days of the Workshop is a prior requirement.



Registration Form

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Scientific Social Responsibility (SSR) component of SEBR/ANRF Project (Project No. CRG/2021/008342) Name: Dr. / Mr. /Mrs. /Ms. _____ Designation: Institutional Affiliation: Institutional Address: _____ Present Academic Degree being pursued, if any: Please state whether in (tick): Guest / Ad-Hoc / Contractual / SACT / Substantive position / Other Nationality: _____ Age: _____ Telephone No.: _____Email ID: ____ Food Preference (tick): Vegetarian / Non-Vegetarian No. of Published Papers in last five years, if any- Total: In SCI, WoS, Scopus listed Journals: Kindly list your main publications in the last five years, if any (most recent one first): Date:_____

Kindly email the filled-out form by 8th March, 2025. Please contact regarding any queries to:

Presidency University

Tentative Schedule

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PI: Dr. Priyank Pravin Patel, Assistant Professor, Department of Geography, Presidency University, Kolkata

Day 1: 19th March, 2025 (Wednesday)

Venue: Department of Geography, Presidency University (Room No. 1)

- 10:00 am 10:45 am: Welcome Address by Head, Dept. of Geography, Presidency University
 - Insight about the Workshop by Director, IQAC, Presidency University
- 10:45 am 12:00 pm: River Health and Ecology Assessment Frameworks and Guidelines (Dr. Priyank Patel)
- 12:00 pm 1:00 pm: Mapping of Riparian Attributes from 2D and 3D Geospatial Datasets (Dr. Priyank Patel)
- 1:00 pm 1:45 pm: Recess for lunch
- 1:45 pm 4:00 pm: Hydrological analysis, streamflow modelling and water quality analysis (Dr. Priyank Patel)
- 4:00 pm 4:15 pm: Recess for tea
- 4:15 pm 6:00 pm: Mapping river environments from SAR data and flood analysis

(Dr. Manas Hudait, Dept. of Geography, Amity University, Kolkata)

Day 2: 20th March, 2025 (Thursday)

Venues: Department of Geography, Presidency University (Room No. 1) and A.K. Basak Auditorium (Main Building)

- 10:00 am 11:00 am: Discussions and Feedback by Participants on taught aspects and exercises
 Dissemination of ANRF/SERB Project findings till date (Dr. Priyank Patel)
- 11:00 am 11:45 am: River mining impacts on groundwater and river systems

(Prof. Pradip Sikdar, Dept. of Environment Management, IISWBM, Kolkata)

• 11:45 am - 1:00 pm: Talk on Tidal Rivers in West Bengal

(Prof. Subhamita Chaudhuri, Dept. of Geography, West Bengal State University, Barasat)

- 1:00 pm 1:45 pm: Recess for lunch
- 1:45 pm 2:45 pm: Examining Rivers, Walking along Rivers and River Management

(Siddharth Agarwal, Veditum Foundation, Kolkata)

- 2:45 pm 3:45 pm: River Systems and Mining Impacts
 - (Dr. Sujay Bandyopadhyay, Dept. of Geography, Kazi Nazrul University, Asansol)
- 3:45 pm 4:45 pm: Geospatial Analysis of Rivers and River Basin Health
 - (Dr. Somasis Sengupta, Dept. of Geography, University of Burdwan, Barddhaman)
- 4:45 pm 5:00 pm: Recess for tea
- 5:00 pm 6:00 pm: Interaction and Feedback from Participants on Workshop, Certificate Distribution