

January 2022

Publications:

1. Laura A. Richards, Bethany G. Fox, Michael J. Bowes, Kieran Khamis, Arun Kumar, Rupa Kumari, Sumant Kumar, Moushumi Hazra, Ben Howard, Robin M.S. Thorn, Daniel S. Read, Holly A. Nel, Uwe Schneidewind, Linda K. Armstrong, David J.E. Nicholls, Daniel Magnone, Ashok Ghosh, Biswajit Chakravorty, Himanshu Joshi, Tapan K. Dutta, David M. Hannah, Darren M. Reynolds, Stefan Krause, Daren C. Gooddy, David A. Polya (2022). **A systematic approach to understand hydrogeochemical dynamics in large river systems: Development and application to the River Ganges (Ganga) in India**, Water Research, Vol 211, <https://doi.org/10.1016/j.watres.2022.118054>
2. **Yadav, B K**, Gupta, P K, (2022) Thermally Enhanced Bioremediation of NAPL polluted soil-water resources, MDPI Pollutants (Accepted)
3. Mwabumba, M F, **Yadav, B K**, Rawiza, M J, Larbi, I, Dotse, S, Limantol, A M, Sarpong, S, Kwawuvi, D (2022) “Rainfall and temperature changes under different climate scenarios at the watersheds surrounding the Ngorongoro Conservation Area in Tanzania” Environmental Challenges (Accepted)
4. Kumar, S., **Kumar Guntu, R.**, **Agarwal, A.**, Govind Kumar Villuri, V., Pasupuleti, S., RajKaushal, D., Kumar Gosian, A., Bronstert, A., 2022. Multi-objective optimization for stormwater management by green roofs and infiltration trenches to reduce urban flooding in central Delhi. J. Hydrol. 127455. <https://doi.org/10.1016/j.jhydrol.2022.127455>
5. **Tarun Pant, Abinesh Ganapathy, and Ankit Agarwal.** 2022. Investigating streamflow variability and hydroclimatic teleconnections: a comparison of regulated and unregulated streamflow stations. *Journal of Water and Climate Change*: jwc2022369. <https://doi.org/10.2166/wcc.2022.369>
6. **Agarwal, Ankit., Guntu, Ravi Kumar,** Banerjee, Abhirup., **Gadhawe, Mayuri.,** Marwan, Norbert., 2022. A complex network approach to study the extreme precipitation patterns in a river basin. Chaos 32, 013113. <https://doi.org/10.1063/5.0072520>

Book:

1. **Ankit Agarwal**, Naiming Yuan, Kevin K.W. Cheung and Roopam Shukla (Eds.). Emerging Hydro-Climatic Patterns, Teleconnections and Extreme Events in Changing World at Different Timescales. ISBN 978-3-0365-2952-3 (PDF). <https://doi.org/10.3390/books978-3-0365-2952-3>

Projects:

1. **Prof. Ankit Agarwal's** proposal has been approved by the DST international division, Indo-Portugal Executive Programme of Scientific and Technological Cooperation (2022-2025). Project Title: Anomalous Moisture Transport for Hydrological Extremes in a Changing Climate, Portugal coordinator the University of Lisbon.
2. **Prof. Sumit Sen's** project proposal has been approved by the DST international division, Indo-Italian Executive Programme of Scientific and Technological

Cooperation (2021-2022). Project Title: Probabilistic floods and sediment transport forecasting in the Himalayas during extreme events, Italian Coordinator, Research Institute of geo-Hydrological Protection IRPI of the National Research Council CNR, Perugia.

3. The project proposal "Advanced nanocomposite polymeric membranes for conversion of wastewater into potable water and revitalization of air in space" submitted by Prof. **Bhaskar Jyoti Deka** has been approved by the Indian Space Research Organisation (ISRO).
4. **Prof. Ankit Agarwal (PI) and Prof. Ashutosh Sharma's** proposal titled "Emerging Space Technology Application for Compound Extremes (STAC-X)" has been approved by the ISRO's Disaster Management Support Programme (DMSP) for 2-weeks training in May 2022.

Awards and Achievements

1. Prof. Ankit Agarwal received the Sivapalan Young Scientists Travel (SYSTA) Award from the International Association of Hydrological Sciences (IAHS).

Conferences/Invited Talks/Symposiums/Lectures/Workshops

1. Prof. Ashutosh Sharma delivered a special lecture on "Climate Change Impacts on Hydrological Systems and Terrestrial Ecosystems" at the Department of Civil Engineering, Himachal Pradesh University (HPU), Shimla on 22 January 2022.

Department Visits:

1. Prof. Oliver Gunther, President of the University of Potsdam visited the department to interact with faculties and students

Faculty Honors

1. **Prof. Bhaskar Jyoti Deka** has been invited to serve as Guest Editor for the Special Issue on "Sustainable Desalination and Wastewater Treatment: A Way Forward for Water, Energy, and Environment Security Nexus", Sustainability (Impact factor: 3.251, ISSN 2071-1050), MDPI journal. https://www.mdpi.com/journal/sustainability/special_issues/Desalination_waste
2. **Prof. Brijesh Kumar Yadav** has been selected in the "Area Advisory Board (AAB)" of Amity Institute of Environmental Sciences for two years
3. **Prof. Himanshu Joshi**, Member, Expert Committee, Establishment of IP facility and developing IP policy at Dr. APJ Abdul Kalam Technical University (AKTU), Lucknow, UP.
4. Prof. Ankit Agarwal has been invited to serve as a Guest Editor for the Special Issue on "Emerging Talents in Water Science: Water and Built Environment 2021/22" by frontier in Water. <https://www.frontiersin.org/research-topics/29913/emerging-talents-in-water-science-water-and-built-environment-202122>

Student Honors

1. Anooja Thomas defended her Ph.D. research work on January 25, 2022, successfully under the guidance of Prof. Brijesh K Yadav. Congratulations to Dr. Thomas.
2. Aman Kumar, Pooja Patel, Prabhat Dwivedi, Sujata Kulkarni, Tuhin Mukherjee, Arjun Kaushik has joined the Ph.D. program at the department of hydrology.