



July 2022 Newsletter



Publications

- **Garg, A., Yadav, B. K.,** Das, D. B., & Wood, P. J. (2022). Biomonitoring and phytoremediation of Cr (VI) contaminated water: A study on bioaccumulation and morphological responses in *Eichhornia crassipes*. *Journal of Environmental Engineering*, 10.1061/(ASCE)EE.1943-7870.0002074 (Accepted).
- **Tiwari, S., Yadav, B. K.,** Polemio, M., (2022). Performance evaluation of Aquifer Storage and Recovery (ASR) system in saline groundwater regions: Impact of operational factors and well design. *Journal of Hydrologic Engineering*, 10.1061/(ASCE)HE.1943-5584.0002222 (Accepted).
- Kashyap, A., Behera, M. D., Pandey, A. K., and **Agarwal, A.:** Spatial distribution of bedrock landslides over the landscape evolution in NW Himalayan River catchments, *EGUsphere*, <https://doi.org/10.5194/egusphere-2022-533>, 2022
- Eva Steirou, Lars Gerlitz, Xun Sun, Heiko Apel, **Ankit Agarwal**, Sonja Tutz and Bruno Merz (2022). Towards seasonal forecasting of flood probabilities in Europe using climate and catchment information. (Accepted in Scientific Reports)
- Dhamija, S.; Joshi, H. Prediction of Groundwater Arsenic Hazard Employing Geostatistical Modelling for the Ganga Basin, India. *Water* 2022, 14, 2440. <https://doi.org/10.3390/w14152440> (MDPI).

International Conference

- **Vaghela, G.;** Guo, J.; An, A. K.; **Deka, B. J.***, *Electrical Impedance spectroscopy for non-destructive detection of wetting, fouling and scaling in membrane distillation*. The 13th Conference of **Aseanian Membrane Society AMS13**, 4 - 6 July 2022, Nanyang Technological University (NTU), Singapore, Oral Presentation.
- **Sharma, S. K.;** Guo, J.; An, A. K.; **Deka, B. J.***, *Fabrication of superhydrophobic-omniphobic electrospun membrane to achieve zero liquid discharge from brine waste by membrane distillation*. The 13th Conference of **Aseanian Membrane Society AMS13**, 4 - 6 July 2022, Nanyang Technological University (NTU), Singapore, Oral Presentation.
- **Vaghela, G.;** Guo, J.; An, A. K.; **Deka, B. J.***, *Roughness enhanced electrospin/electrospray hydrophobic membrane to separate dye from textile wastewater via membrane distillation*. The Indo-German bi-lateral workshop **SuWaRec**, 20 - 22 July 2022, Hamburg, Germany, Oral Presentation.
- **Prof. Ankit Agarwal** was nominated to participate in the National Workshop cum brainstorming session “National Information System for Climate and Environment Studies (NICES)” scheduled on July 18 – 19, 2022, at ISRO, Antariksh Bhawan, Sadiq Nagar, New Delhi.



Book Chapter

- Gupta P K, **Yadav, B K**, Sharma, D (2022) “[Impacts of climatic variability on subsurface water resources](https://doi.org/10.1016/B978-0-12-823830-1.00003-1)” Advances in Remediation Techniques for Polluted Soils and Groundwater, 171-189, <https://doi.org/10.1016/B978-0-12-823830-1.00003-1>

Lectures Delivered

- **Prof. Bhaskar Jyoti Deka** delivered a talk on "*Electrospun superhydrophobic and omniphobic membranes for the removal of contaminants using membrane distillation*" during the International workshop “Securing sustainable treatment for drinking water production and water recycling with focus on anionic contaminants (SuWaRec)” at Institute for Water Resources and Water Supply, Hamburg University of Technology, sponsored by Indo-German Science and Technology Centre (IGSTC) on July 20-22, 2022
- **Prof. Bhaskar Jyoti Deka** was invited to deliver a lecture on "*Contaminants in groundwater and their impacts on different ecosystems*" during the Approaches for management of Groundwater Quantity and Quality with a special focus on Managed Aquifer Recharge program organized by the Department of WRDM, IIT Roorkee.
- **Prof. Bhaskar Jyoti Deka** was invited to deliver a lecture on "*Basics of water quality analysis*" during the Approaches for management of Groundwater Quantity and Quality with a special focus on Managed Aquifer Recharge program organized by the Department of WRDM, IIT Roorkee.
- **Prof. Brijesh K Yadav** Delivered a talk on "In-situ Treatment of Polluted Sites using Bioremediation and PRB" during the International workshop “Securing sustainable treatment for drinking water production and water recycling with a focus on anionic contaminants” at the Institute for Water Resources and Water Supply, the Hamburg University of Technology, conducted by Indo-German Science and Technology Centre (IGSTC) on July 20-22, 2022
- **Prof. Ankit Agarwal** was invited to deliver a keynote lecture on “Network Techniques in Hydro-Climatology” at the i-Connect event on, Climate Change through the lens of modelling, AI and ML on 21st July 2022 by the Indian Institute of Tropical Meteorology.

Projects

- A project proposal on “Regional cooperation for Freshwater Ecosystem Services in the Himalayas (REFRESH): Understanding the influences of monsoon variability and compound extremes” has been approved for funding under the Collaborative Regional Research Programme (CRRP) of Asia-Pacific Network for Global Change Research (APN). PI: Prof. Ashutosh Sharma, Co-PI: Prof. Sumit Sen. <https://www.apn-gcr.org/news/conditionally-approved-new-projects-for-fiscal-year-2022-july-2022-june-2023/>



Awards and achievements

- Mr. Vijaykumar Bejagam (PhD Scholar) was selected as the recipient of the AsiaFlux Conference 2022 scholarship award.
- Mr. Abinesh G (PhD Scholar) attended WARREDOC International Doctoral Summer School EXTREMES IN WATER SCIENCE in Palermo, Italy, held on 10-14 July 2022. "

Miscellaneous

- Prof. Bhaskar Jyoti Deka (IIT Roorkee, India) and Prof. Dr.-Ing. Mathias Ernst (TUHH, Germany) jointly coordinated the three days workshop, sponsored by Indo-German Science & Technology Centre (IGSTC), on "*Securing sustainable treatment for drinking water production and water recycling with a focus on anionic contaminants (SuWaRec)*" from 20 - 22 July 2022 at Technische Universitat Hamburg (TUHH), Hamburg, Germany.
- Prof. Brijesh K Yadav has been nominated as an AGGS (Association of Global Groundwater Scientists) Fellow for his contributions to Groundwater Hydrology.
- Department of Hydrology (IIT Roorkee), in collaboration with the University of Potsdam (Co-PREPARE project partner), organized the "Data Visualization Workshop" for advanced-stage PhDs and postdoctoral candidates of IIT Roorkee on 01st July 2022 under the framework on the Co-prepare project. (convener of this event: Prof. Ankit Agarwal)
- Department of Hydrology (IIT Roorkee), in collaboration with the University of Potsdam (Co-PREPARE project partner), organized a "Google Earth Engine" workshop for advanced-stage PhDs and postdoctoral candidates of IIT Roorkee on 18th July 2022. (convener of this event: Prof. Ankit Agarwal)
- Prof. Sumit Sen and Mr. Bhargabnanda Dass participated in the Regional Workshop on Advancing Collaborative Springshed Management in the HKH on 12–15 July 2022, Kathmandu, Nepal, organized by ICIMOD. Prof. Sen presented the talk on "Integrated springshed management: Leveraging spring instrumentation and isotope hydrology in the Indian Himalayan Region".
- The department of Hydrology conducted an International workshop on "Multi-dimensional Dam Break Analysis using MIKE+" in association with DHI in offline mode on July 05, 2022, having overwhelming participation from research scholars and faculty/scientists from various organizations (convener of this event: Prof. D S Arya)

