



Publications

- Yanan Chen, Xuguang Tang, Li Yao, Yan Zhao, Guo Li, Chaoyang Wu, Yanlian Zhou, Ashutosh Sharma (2023) "Management practices regulate the response of canopy and ecosystem water use efficiency in cropland ecosystems". Field Crops Research, 304, 109166. <https://doi.org/10.1016/j.fcr.2023.109166>
- Singh Raghuvanshi, A., & Agarwal, A. (2023). Unraveling atmospheric moisture transport linkages to extreme precipitation events and associated synoptic features over India. Journal of Hydrology, 626, 130290. <https://doi.org/10.1016/j.jhydrol.2023.130290>
- Farid, M. U., Kharraz, J. A., Sun, J., Boey, M. W., Riaz, M. A., Wong, P. W., Jia, M., Zhang, X., Deka, B. J., Khanzada, N. K., Guo, J., An, A. K.* Advancements in Nano-enabled Membrane Distillation for a Sustainable Water-Energy-Environment Nexus, Advanced Materials, <https://doi.org/10.1002/adma.202307950> (Accepted, Q1, Impact factor: 29.4).

Patent

- Title: A method of fabrication of superhydrophobic membrane; Name of the inventors: Bhaskar Jyoti Deka, Gaurav Vaghela, Akshit Pushkar and Himanshu Joshi, Application number: 202211008576 (IN); Patent no. 456366

Edited Book:

- "Recent Developments in Water Resources and Transportation Engineering" Springer Proceedings (TRACE 2022) Book Edited by Nidhi Nagabhatla · Yusuf Mehta · **Brijesh Kumar Yadav** · Ambika Behl · Madhuri Kumari (Springer)

Book Chapters

- Gupta, H., Raghuvanshi, A.S., Agarwal, A. (2023). Multiday Extreme Precipitation Ranking and Association with Atmospheric Moisture Transport During Indian Summer Monsoon. In: Pandey, M., Gupta, A.K., Oliveto, G. (eds) River, Sediment and Hydrological Extremes: Causes, Impacts and Management. Disaster Resilience and Green Growth. Springer, Singapore. https://doi.org/10.1007/978-981-99-4811-6_16
- Kumari, A., Raghuvanshi, A.S., Agarwal, A. (2023). Quantifying the Reliability of Reanalysis Precipitation Products Across India. In: Pandey, M., Gupta, A.K., Oliveto, G. (eds) River, Sediment and Hydrological Extremes: Causes, Impacts and Management. Disaster Resilience and Green Growth. Springer, Singapore. https://doi.org/10.1007/978-981-99-4811-6_6

Awards/Recognition

- P Kedarnath Reddy, (Ph.D. Scholar) candidate working under Prof. Sumit Sen, has been selected for the prestigious Prime Minister's Research Fellowship under the Lateral Entry Scheme in Cycle 11.
- Nagashree G E, (Ph.D. Scholar) working under Prof. Ashutosh Sharma, has been selected for the prestigious Prime Minister's Research Fellowship under the Lateral Entry Scheme in Cycle 11.



- Pragma Badika (Ph.D. Scholar) has received full funding from Germany to attend the “Potsdam Summer School 2023” at the University of Potsdam, Germany from September 03rd to September 08th, 2023.
- Akash Singh Raghuvanshi PhD candidate working under Prof. Ankit Agarwal, has been awarded the prestigious Prime Minister’s Research Fellowship.
- Akash Singh Raghuvanshi is shortlisted for the Allianz Climate Risk Award 2023.
- Prof. Ankit Agarwal, Department of Hydrology has been awarded the ‘IEI Young Engineers Award 2023-24’ in Environmental Engineering discipline. The award consists of a Plaque and a Certificate which will be presented during the inaugural session of the 37th National Convention of Environmental Engineers to be held at Himachal Pradesh (Shimla) during September 15-16, 2023.

Invited Talks

- Prof. B.K Yadav delivered a keynote on “Wetlands for Engineered Bioremediation and Biomonitoring of Contaminants” on July 21, 2023 during the International Conference on Sustainable Development and Disaster Resilience Through Innovations (ICSDDRTI-2023) Organized by Amity School of Applied Sciences, Amity University, Lucknow during Oct 5-6 2023. (Chaired the session on Disaster Management).
- Prof. Sumit Sen gave the Invited lecture on Conserving springshed towards water sustainability at an International workshop on “Membrane technologies for desalination, energy and water sustainability” (MemDEW), held from 18th to 20th October 2023.
- Prof. Sumit Sen gave the Invited talk on “Springshed monitoring and data collection” at workshop on Springshed Management of the Department of Land Resources at Kohima on 18th and 19th October 2023.
- Prof. Bhaskar Jyoti Deka has delivered a keynote lecture on "Advances in membrane-based desalination technologies " during the 4th International Sustainability Conference on Health, Safety, Fire & Environmental Advances during October 30-31, 2023 at UPES, Dehradun.
- Prof. Ankit Agarwal was invited as a panelist to participate in the dialogue on regional cooperation on adaptation to cascading climate risks in the Hindu Kush Himalaya; Implications, barriers, and opportunities for India organized by the International Center for Integrated Mountain Development (ICIMOD), the National Institute of Disaster Management (NIDM) India and the Stockholm Environment Institute’s Adaptation Without Borders on 03 October 2023, New Delhi, India.
- Prof. Ankit Agarwal has delivered the IEI Young Engineers Award lecture titled “Forensic Analysis of Multiscale Dynamics in the 2023 Himachal Pradesh Floods” during the 37th National Convention of Environmental Engineers at Shimla” on October 26th 2023.
- Prof. Ankit Agarwal has delivered a keynote lecture on Disentangling the Characteristics and Drivers of Compound Drought and Hot Extremes during the 4th International Sustainability Conference on Health, Safety, Fire & Environmental Advances during October 30-31, 2023 at UPES, Dehradun.



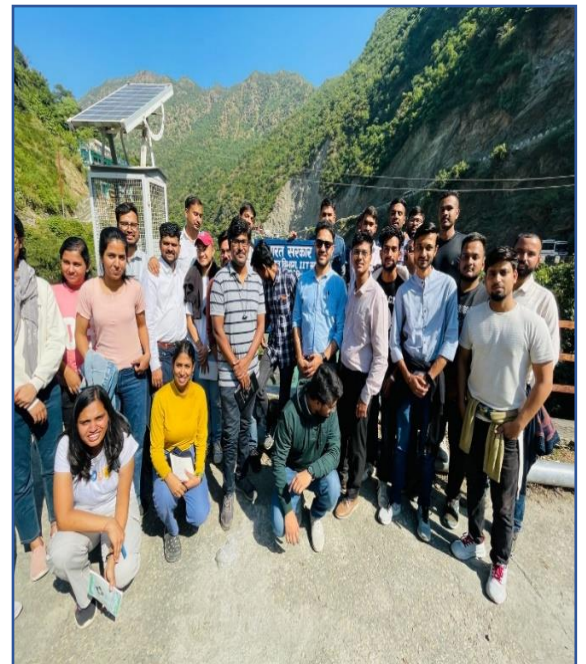
- Prof. Bhaskar Jyoti Deka has invited as Session Chair on 30th October under the "Waste to Resource" theme during the 4th International Sustainability Conference on Health, Safety, Fire & Environmental Advances during October 30-31, 2023 at UPES, Dehradun.

Conference:

- Denzil Daniel, Sumit Sen (2023), Comparative understanding of forest hydrological processes in oak and pine forests in Northwest India., presented at the International Symposium on "the Forests-Water-Livelihood Nexus in the Lesser Himalaya," hosted by the Institute of Forestry, Tribhuvan University, Pokhara, Nepal., 29-30 Sep.

Event Organized

- The Department of Hydrology organized the Bharat Singh t Lecture on "Navigating the Complexities of Climate Change in the Water Sector: Challenges, Opportunities, and the Road to a Sustainable Future" by Prof. Kala Vairavamoorthy on 12 October 2023.
- The Department of Hydrology organized a 3-day International Workshop titled "Membrane Technologies for Desalination, Energy and Water Sustainability: MemDEW" on October 18-20, 2023. Prof. Bhaskar Jyoti Deka coordinated the event.
- Department of Hydrology, IIT Roorkee organized "Natural Hazards Workshop for the Indian Himalayas 2023" themed on "Exploring the Himalayan Frontiers: Geomorphological and Hydrological Aspects" on 18th October 2023.
- A study tour was organized on 30th October 2023 to the CWC Gauge-Discharge site at Devprayag to demonstrate Discharge Measurement Techniques such as Area-Velocity, Slope-Area, ADCP, Radar, and Lidar-based non-contact methods.





Co-PREPARE
Collaborative with German (DFW) and Indian Institutes of Technology
Virtual Hazard in the Himalayan Region

**Theme: Exploring the Himalayan Frontiers:
Geomorphological and Hydrological aspects**

Keynote Talks
Hands-on Training
Open discussion

Organized by

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**Natural-hazard Workshop
for the Indian Himalayas**

18th October 2023

Venue: Indian Institute of Technology
Roorkee, Uttarakhand

