



Publications

- Peng, J., **Deka, B. J.**, Wu, S., Luo, Z., Kharraz, J., Jia, W. "Rational design of PDA/P-PVDF@PP Janus membrane with asymmetric wettability for switchable emulsion separation," **Membranes (2022)**, Accepted.
- Gilbert Hinge, **Jay Piplodiya, Ashutosh Sharma**, Mohamed A. Hamouda*, Mohamed M. Mohamed (2022) "Evaluation of Hybrid Wavelet Models for Regional Drought Forecasting", Remote Sensing, 2022, 14(24), 6381; <https://doi.org/10.3390/rs14246381>
- Malik, M.A., Dar, A.Q. and **Jain, M.K.** Modelling the influence of changing climate on hydrology of high elevation catchments in NW Himalaya's. **Modelling Earth Systems and Environment, Springer Nature, (2022)**. (<https://doi.org/10.1007/s40808-022-01407-5>), 2022.

International Conferences

- **Guntu, R.K, Merz, B and Agarwal, A;** "Complex networks for quantifying modulators of compound extremes". Water Security and Climate Change conference", 12/2022, Bangkok.
- Vaghela, G.; Sahil. M.; **Deka, B. J.**; Roughness enhanced electrospray hydrophobic membrane for separation of dye from textile wastewater via membrane distillation. The 13th International Symposium on Southeast Asian Water Environment (SEAW-13), 13 - 15 December 2022, Asian Institute of Technology Conference Center (AITCC), Oral Presentation.
- **Deka, B. J.**; Guo, J.; An, A. K.; A non-destructive optical coherence tomography study on the removal of dissolved organic matter from water by in situ ferrate pretreatment. The 13th International Symposium on Southeast Asian Water Environment (SEAW-13), 13 - 15 December 2022, Asian Institute of Technology Conference Center (AITCC), Oral Presentation.
- **Deka, B. J.**; Guo, J.; An, A. K.; Oily Wastewater Treatment with Composite ZnO Nanoparticles Omniphobic Re-entrant PVDF Membrane. The 13th International Symposium on Southeast Asian Water Environment (SEAW-13), 13 - 15 December 2022, Asian Institute of Technology Conference Center (AITCC), Oral Presentation.
- **Garg A., Yadav, B. K.**, Biomonitoring of heavy metal (chromium) contaminated water using aquatic macrophyte *Eichhornia crassipes*, AGU Fall Meeting, 12-16 December 2022, Chicago, IL.
- **Tiwari, S., Yadav, B. K.**, Site Suitability Analysis for Aquifer Storage and Recovery (ASR) scheme in Saline Groundwater Regions using MODFLOW, AGU Fall Meeting, 12-16 December 2022, Chicago, IL.
- **Singh, U., Sharma, P. K., Yadav, B. K.**, Sensitivity Analysis of Sum-of-Echoes Model Using Logging NMR Data in Fractured Granite, AGU Fall Meeting, 12-16 December 2022, Chicago, IL.



- **Singh, J., Yadav, B. K.**, Adsorption of Heavy Metals (Pb, Cd) on Polycarbonate Microplastics: The Role of pH and Microplastics Size, AGU Fall Meeting, 12-16 December 2022, Chicago, IL.
- **Guntu, R.K*, Merz, B and Agarwal, A**; Effect of reference period on the likelihood of the compound dry and hot event. AGU Fall Meeting, 12/2022, Chicago.
- **Kulkarni, S.S*, Ozturk, U, Marwan, N, Kurths, J, Merz, B, and Agarwal, A**; Complex Networks In Hydrologic Sciences. AGU Fall Meeting, 12/2022, Chicago.
- **Ganapathy, A*, Hannah, D.M., and Agarwal, A.**; Flood Classification Based on Hydrograph Characteristics. AGU Fall Meeting, 12/2022, Chicago.
- **Dhote, P.R*, Agarwal, A., Thakur, P.K.** Satellite radar and lidar altimeters observed seasonal variation in water level of Ganga River. AGU Fall Meeting, 12/2022, Chicago.
- **Ashish Mishra*, Dhyans S Arya.**, Comparative Assessment between the Satellite Land Surface Temperature and Observed Air Temperature: A Case Study of Dehradun City, India. AGU Fall Meeting, 12/2022, Chicago, IL, USA.
- **Das, S., Jain, M.K.***, Gupta, V. and Saha, A. Understanding the Uncertainty in Global Rainfall Erosivity Estimated using Multiple Satellite Precipitation Datasets. **Abstract ID: 1077494, Paper No. H42H-1390, Presented at AGU Fall Meeting, Chicago IL, USA, December 12 – 16, 2022.**
- **Gupta, A., Jain, M.K.***, and Pandey, R.P. Comparison between Gridded and Point Datasets for Drought Analysis in the Semi-arid Basin of Peninsular India. **Abstract ID: 1057986, Paper No. H45F-07. Presented at AGU Fall Meeting, Chicago IL, USA, December 12 – 16, 2022.**
- **Kassa, T, Jain, M.K.***, Agarwal, A, and Yadav, B.K. Spatial Characteristics of Drought Propagation from Meteorological to Hydrological Drought over Ethiopia. **Abstract ID: 1104086, Paper No. A46E-12. Presented at AGU Fall Meeting, Chicago IL, USA, December 12 – 16, 2022.**
- **Dhamija, S. and Joshi, H.** "Impact on Growth of Wheat and Chickpea Plants Irrigated with Arsenic Water," AGU Fall Meeting, 12-16 December 2022, Chicago, IL, USA.

Awards and Achievements

- **Mr. Shubham Tiwari** received the "Best Paper Award" at the International Conference on "Integrated Water Resources Management Prospects and Challenges – (ICIWRM'22)" organized by the Water Institute- A Centre of Excellence, Karunya Institute of Technology and Sciences, Coimbatore, from 8th to 10th December 2022.
- **Mr. Gaurav Vaghela**, PhD research student has been awarded with distinguished "**Asian Young Professional on Water Research**", "**Excellent Abstract Award**", along with "**International Travel Support**" at *13th International Symposium on Southeast Asian Water Environment (SEAWE-13)*. This symposium was organized by Research Center for Water Environment Technology (RECWET), the University of Tokyo (UTokyo, Japan), Southeast Asian Center for Water Environment Technology (SACWET), Asian Institute of Technology (AIT), Thailand, in cooperation with National Institute for Environmental Studies, Japan (NIES, Japan).



- **Title of the talk:** Roughness enhanced electrospray hydrophobic membrane for separation of dye from textile wastewater via membrane distillation.
Authors: **Gaurav Vaghela, Mohd Sahil and Prof. Bhaskar Jyoti Deka.**(http://www.recwet.t.u-tokyo.ac.jp/seawe/young_water_award)

Lectures delivered

- **Prof. Ashutosh Sharma** delivered a lecture on “Introduction to Downscaling Techniques (Statistical and Dynamical)” during a 1-week training program on “Climate Change and Hydrological Impact Assessment” organized at NIH, Roorkee, during 12 – 17 December 2022. Date: December 14, 2022.
- **Mr. Ravi Kumar Guntu** (PMRF awardee) is invited to deliver a seminar on “Spatiotemporal variability of rainfall-an entropy approach” on December 08, 2022, organized by the Asian Institute of Technology, Thailand.
- **Prof. Bhaskar Jyoti Deka** was invited to deliver an expert talk on "Emerging Technologies for Desalination and Wastewater Treatment" at King Mongkut's Institute of Technology Ladkrabang (KMITL), Thailand, on 17th December 2022.
- **Prof. Brijesh K Yadav** delivered a conference talk on “Aquifer Recharge Management in Arid and Semi-arid Saline Regions” on December 5, 2022 during the ATAL Faculty Development Programme (FDP) on Rain Water Harvesting for Sustainable Development of Ground water (RHSDG)” organized by SVNIT Surat.
