## April 2021

## Publications

- Mayuri Ashokrao Gadhawe, Ravi Kumar Guntu, **Ankit Agarwal* (2021).** Network-based exploration of basin precipitation based on satellite and observed data. European Physics Journal-Special Topics. https://doi.org/10.1140/epjs/s11734-021-00017-z

- Kalyan, AVS; Ghose, Dillip Kumar; Thalagapu, Rahul; **Guntu, Ravi Kumar; Agarwal, Ankit;** Kurths, Jürgen; Rathinasamy, Maheswaran. 2021. "Multiscale Spatiotemporal Analysis of Extreme Events in the Gomati River Basin, India" *Atmosphere* 12, no. 4: 480. https://doi.org/10.3390/atmos12040480

- Agrawal P, Sinha A, Kumar S, **Agarwal A,** Banerjee A, Villuri VGK, Annavarapu CSR, Dwivedi R, Dera VVR, Sinha J, Pasupuleti S. Exploring Artificial Intelligence Techniques for Groundwater Quality Assessment. *Water*. 2021; 13(9):1172. https://doi.org/10.3390/w13091172

- Yeditha Pavan Kumar, Rathinasamy Maheswaran, **Ankit Agarwal,** and Bellie Sivakumar (2021). Downscaling daily precipitation using wavelet-based hybrid models. Journal of Hydrology. https://doi.org/10.1016/j.jhydrol.2021.126373

- Setti, S.; Maheswaran, R.; Sridhar, V.; Barik, K.K.; Merz, B.; **Agarwal, A (2020).** Inter-Comparison of Gauge-Based Gridded Data, Reanalysis and Satellite Precipitation Product with an Emphasis on Hydrological Modeling. Atmosphere 2020, 11, 1252.

  https://www.mdpi.com/2073-4433/11/11/1252

- Manish Kumar, Øivind Hodnebrog, Anne Sophie Daloz, **Sumit Sen,** Shrinivas Badiger, Jagdish Krishnaswamy. 2021. Measuring precipitation in Eastern Himalaya: Ground validation of eleven satellite, model, and gauge interpolated gridded products. Journal of Hydrology. 599, 126252,doi.org/10.1016/j.jhydrol.2021.126252

- **Ranjan, S., Yadav*, B. K., & Joshi, H**. (2021) "Removal of Arsenic (As-III and As-V) from Aqueous Solution by developing Stable Maghemite (γ -Fe2O3) Loaded Pumice Composite", International Journal of Environmental Science and Technology (Accepted), (**IF=2.54**) Q2

## Projects

PI: Prof. Ashutosh Sharma
The project titled "Improving Hydrologic Predictions of Extreme Events using Machine Learning in India" was selected for Microsoft AI for Earth (AI4Earth) Grants.

## Invited Talk and Training Course

Prof. Brijesh K Yadav delivered an online talk "An Overview of Remediation Techniques used for Treatment of Polluted Land Sites" for Veda Vyas DAV Public School Delhi on April 24, 2021 (Earth Day) during the international event, #WEALL4GOALS, a collaborative program of 51 Schools of 8 countries.

Prof. Sumit Sen along with the collaborators from the University of Birmingham, Riverlabs, Inc., and Imperial College London, UK conducted a workshop on **Innovations in Non-contact Hydrometry** under the **WMO HydroHub** sponsored project for the Central water Commission engineers and staff on 23rd April 2021. (pdf)

## Awards and achievements

Prof. Bhaskar has been nominated as a Guest Editor for the Special Issue on "*Sustainable Technologies for Wastewater Treatment & Soil Remediation*", **Sustainability** (ISSN 2071-1050; CODEN: SUSTDE), MDPI journal (IF: 2.576). https://www.mdpi.com/journal/sustainability/special_issues/Sustainable_Remediation

Mr. Shubham Tiwari (Ph.D. Scholar) has received a conference grant to present his research at Interpore 2021 (May 31–June 4, 2021).

Ms. Anuradha Garg (Ph.D. Scholar) has received a conference grant for attending and presenting her work at Interpore 2021 (31 May – 4 June 2021).

## International conference

1. Ravi Kumar, Guntu and Ankit Agarwal: Wavelet Entropy Energy Measure (WEEM): A multiscale measure to grade a geophysical system's predictability. European Geophysical Union; 04/2021 https://doi.org/10.5194/egusphere-egu21-703

2. **Abhinesh, G., Ravi Kumar, Guntu**, Ugur Ozturk, Bruno Merz, and **Ankit Agarwal**: Merging of satellite precipitation products: Network-based approach to unravel sea-surface temperature and streamflow connectivity at different timescales. European Geophysical Union; 04/2021. https://doi.org/10.5194/egusphere-egu21-4670

3. **Karisma, Y., Ravi Kumar, Guntu, Ankit Agarwal** and Maheswaran Rathinasamy: Merging of satellite precipitation products: A quantile based Bayesian model averaging approach. European Geophysical Union; 04/2021. https://doi.org/10.5194/egusphere-egu21-3024

4. **Mayuri, AR.G, Ravi Kumar, Guntu, and Ankit Agarwal:** Network-based approach to explore basin network comparing observed and satellite datasets. European Geophysical Union; 04/2021. https://doi.org/10.5194/egusphere-egu21-4840