List of Publications

Dr. Adrija Roy

Patent

1. Ghosh, S., and **Roy, A.** (2019). Method and electronic device for irrigation water management (Ptent No.: 552587, Application no: 201921049095)

Journal articels (peer reviewed)

1. **Roy, A.**, Narvekar, P., Murtugudde, R., Shinde, V., & Ghosh, S. (2021). Short and Medium Range Irrigation Scheduling Using Stochastic Simulation-Optimization Framework with Farm-Scale Ecohydrological Model and Weather Forecasts. Water Resources Research, 57(5), https://doi.org/10.1029/2020WR029004 (IF = 5.4)
2. **Roy, A.**, Murtugudde, R., Sahai, A. K., Narvekar, P., Shinde, V., & Ghosh, S.
3. (2022). Water Savings with Irrigation Water Management at Multi-week Lead Time Using Extended Range Predictions. Climate Services, 27, 100320. https://doi.org/10.1016/j.cliser.2022.100320 (IF = 3.2)
4. **Roy, A.**, Murtugudde, R., Narvekar, P., Sahai, A. K., & Ghosh, S. (2023). Remote Sensing and Climate Services Improve Irrigation Water Management at Farm Scale in Western-Central India, Science of the Total Environment, 879, 163003, ISSN 0048-9697. https://doi.org/10.1016/j.scitotenv.2023.163003 (IF = 9.8)
5. Das, R., Chaturvedi, R.K., **Roy, A.** et al. Warming inhibits increases in vegetation net primary productivity despite greening in India. Sci Rep 13, 21309 (2023). https://doi.org/10.1038/s41598-023-48614-3 (IF = 4.6)
6. Han, X., **Roy, A.**, Moghaddasi, P., Moftakhari, H., Magliocca, N., Mekonnen, M., Moradkhani, H. (2024). Assessment of climate change impact on rainfed corn yield with adaptation measures in Deep South, US. Agriculture, Ecosystems & Environment, Volume 376, 109230, ISSN 0167-8809, https://doi.org/10.1016/j.agee.2024.109230.
7. **Roy, A.**, Moradkhani, H., Mekonnen, M., Moftakhari, H., Magliocca, N. (2024). Towards strategic interventions for global food security in 2050. Science of The Total Environment. Volume 954, 176811, https://doi.org/10.1016/j.scitotenv.2024.176811
8. Manuscript under review: **Roy, Adrija**, Sahai, A. K., & Ghosh, Subimal. (2023). District to Sub-district Scale Optimum Irrigation Water Management Planning at Multi-weeks Lead Time. in Journal of Earth System Science
9. Manuscript under review: **Roy, A.**, Moradkhani, H. Toward an Integrated Sustainability Assessment of Water-Energy-Food Nexus Indicators. In Journal of Environmental Management

Book chapters

1. Thakur, P.K., Patel, P., Garg, V., **Roy, A.**, Dhote, P.R., Bhatt, C.M., Nikam, B.R., Choksey, A., Aggarwal, S.P. (2022). Role of Geospatial Technology in Hydrological and Hydrodynamic Modeling-With Focus on Floods Studies. In: Pandey, A., Chowdary, V.M., Behera, M.D., Singh, V.P. (eds) Geospatial Technologies for Land and Water Resources Management. Water Science and Technology Library, vol 103. Springer, Cham. https://doi.org/10.1007/978-3-030-90479-1_26.

Conference Proceedings

1. **Roy, A.**, Ghosh, S. (2023, December). District to Sub-district Scale Optimum Irrigation Water Management Planning at Multi-weeks Lead Time. In AGU Fall Meeting Abstracts (Vol. 2023, H24B-01)
2. **Roy, A.**, Ghosh, S., & Narvekar, P. (2022, December). Generation of High Spatial and Temporal Resolution Rootzone Soil Moisture Data Series from Satellite Sources Using ML-Based Approach. In AGU Fall Meeting Abstracts (Vol. 2022, H22R-1081).
3. **Roy, A.**, Ghosh, S., Murtugudde, R. G., Narvekar, P., & Shinde, V. (2021, December). Planning of Optimized Irrigation Decision in Weather to Extended Range using Weather Forecast with a Coupled Framework of Optimization and Ecohydrological Model. In AGU Fall Meeting Abstracts. (Vol. 2021, GC44E-08).
4. **Roy, A.**, Ghosh, S., Murtugudde, R. G., Narvekar, P., & Shinde, V. (2020, December). Irrigation Scheduling using Probabilistic Simulation Optimization Framework and Farm-scale Ecohydrological Model at Daily Scale Using Weather Forecasts. In AGU Fall Meeting Abstracts (Vol. 2020, A188-0001).
5. **Roy, A.**, Thakur, Praveen K., Pokhriyal, N., Aggarwal, S.P., Nikam, B.R., Garg, V., Dhote, P.R., Choksey, A. (2018). Inter-comparison of Different Rainfall Products and Validation of WRF Modelled Rainfall Estimation in N-W Himalaya during Monsoon Period. ISPRS Annals of the Photogrammetry, Remote Sensing & Spatial Information Science, Volume IV-5, 2018 (Presented in ISPRS TC-V Mid-term Symposium, held in Nov, 2018)
6. Thakur, Praveen K., Dhote, P.R., **Roy, A.**, Aggarwal, S.P., Nikam, B.R., Garg, V., Choksey, A., Pokhriyal, N., Jani, M., Chauhan, V., Thakur, N., Dogra, V.J., Rao, G.S., Chauhan, P., Kumar, A.S. (2020). Significance of Remote Sensing Based Precipitation and Terrain Information for Improved Hydrological and
7. Hydrodynamic Simulation in Parts of Himalayan River Basins. International Archives of Photogrammetry, Remote Sensing & Spatial Information Sciences 43 (2020).