



Sarmistha Singh

Ph.D., Auburn University, USA
Assistant Professor, Civil Engineering
sarmistha@iitpkd.ac.in, 04923-226-476
<https://iitpkd.ac.in/people/sarmistha>

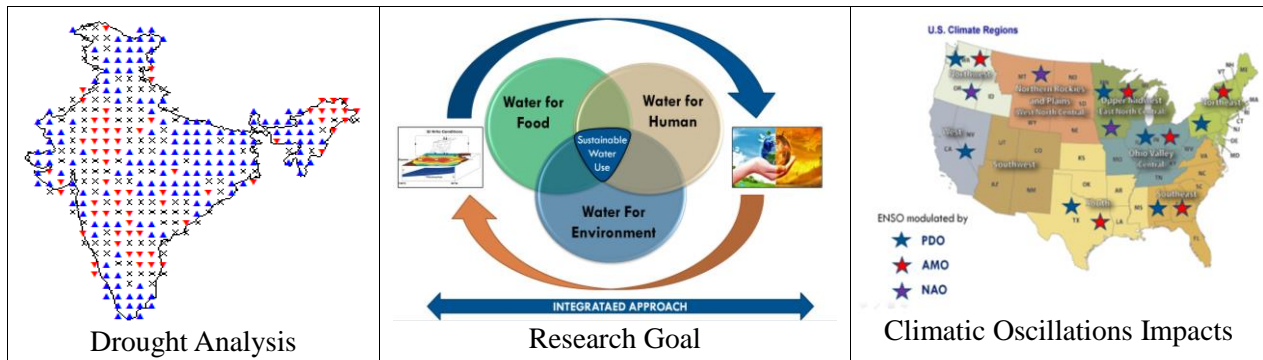


Research Interests

- Climatic Oscillation and Climate Change Impacts on Water Resources
- Remote Sensing Applications and Watershed Management
- Nonparametric Techniques and Forecasting in Hydroclimatology
- Hydrologic and Water Quality Modelling

Brief Summary of Research

Dr. Sarmistha Singh's research deals with the teleconnections of ocean-land-atmospheric interactions with the hydrologic cycle. Her research focuses on diverse issues related to water resources availability and quality in India, including impacts of climatic oscillations, climate change, droughts, and landuse change. Her work integrates historic observations and remote sensing products within a simulation/statistical modelling framework to address problems related to water resources in India. Her interests also include exploring/proposing sophisticated statistical techniques for analysis of experimental and time series datasets, develop environmentally sustainable watershed management strategies, and expand eco-hydrological research.



Projects

- Srivastava, P., Feng, Y., Wang, L., and **Singh, S.**, 2016. Evaluating practical approaches for farm bacterial testing in support of the FSMA Produce Safety Rules. Alabama Agricultural Experiment Stations, Grant amount - \$50,000.

Recent Publications

- Mitra, S., **Singh, S.**, Srivastava, P., 2018. Simulated Effects of Irrigation Pumpage Scenarios on Groundwater Levels during Droughts in the Lower Apalachicola-Chattahoochee-Flint River Basin. Journal of Hydrologic Engineering. (Accepted)
- **Singh, S.**, Abebe, A., Srivastava, P., 2018. Powerful Nonparametric Modelling and Prediction for Cluster Correlated Climate and Hydrologic Data. Water Resources Research, 54: 5879-7108.
- Hou, T., Filley, T., **Singh, S.**, Hughes, M., Berry, T.D., Tong, Y., Papanicolaou, A.N., Wacha, K.M., Chaubey I., 2018. Organic Geochemical Dynamics of Aggregate Breakdown Induced by Raindrops. Geoderma, 330: 19-29.