

Naresh Devineni

Assistant Professor, Department of Civil Engineering
Associate Director, Center for Water Resources and Environmental Research
Faculty Affiliate, NOAA-Cooperative Remote Sensing Science and Technology Center
The City University of New York (City College), New York
212-650-8440

www.nareshdevineni.com

www.crest.cuny.edu/water

Project Title: A Novel Climate Impacts Tool for Managing Risks in Water Utilities

Project Summary: While the need for managing water for reliable supply has been acknowledged regularly, there is often lack of reliable information on water usage/demand at the utility/company level and no consensus on the range of price elasticity. Consequently, the nature of risk in different socio-economic and geographic settings has not been articulated beyond a simplistic analysis of the potential imbalance between estimates of average annual supply and demand. One reason for this may be the lack of quantitative data (or integration of existing data thereof), of the magnitude of water use/demand in utilities, especially considering the disaggregation to various sectors. **A systematic data assimilation and assessment of the extent of climate - water risk and impacts is lacking. This project will bridge this crucial data and knowledge gap and build on the platform created through this data assimilation to develop a utility specific water stress tool using climate information.**

Accordingly, this project will integrate water use database with a **Climate Impacts Tool (CIT)**, to quantify the water stress of any given utility or company considering competing sectoral demand scenarios coupled with climate information. This pioneering study will be executed by the HIREs students under Devineni's mentorship.