Riddhi Singh is a hydrologist working on hydrologic modelling and decision analysis in data scarce regions undergoing environmental change. At present, she holds the position of Assistant Professor in the Department of Civil Engineering at Indian Institute of Technology Bombay. Before this, she worked as Assistant Professor in Department of Civil Engineering at Indian Institute of Technology Hyderabad. She also gained post-doctoral research experience while working at the Earth and Environmental Systems Institute, the Pennsylvania State University, US. She completed her Masters and PhD work from Department of Civil Engineering at the Pennsylvania State University, US. In her career, she has worked in several areas of water resources including multi-stakeholder analysis of water resources systems, assessing the impacts of climate change on water resources, and prediction in ungauged basins.

She has expertise on hydrological modeling under changing climatic and land use conditions, with a focus on developing modeling approaches in the presence of large uncertainties. In this context, her group develops approaches to characterize vulnerability of hydrologic systems and methods to quantify vulnerability using models. She and her colleagues have also contributed towards decision making frameworks for managing ecological systems with limited resources that need to be shared among multiple stakeholders. As stakeholder can have conflicting preferences, the decision making framework should be able to identify suitable compromise management strategies that are acceptable to all stakeholders. In addition, it should also deal with potential uncertainties in predicting the future response of the system. This work is of particular relevance in regions that need to plan for sharing of limited resources.

Her present work includes, among others, a multi-stakeholder analysis of the proposed water sharing between Krishna and Godavari river basins; and developing an urban water management model for Hyderabad. For her research efforts, she has recently been awarded the Water Advanced Research Internship jointly funded sources from Indian ad United States. She is also currently Principal Investigator for a project awarded by Department of Science and Technology, India. She is a reviewer for several water resources related journals, and has presented in both national and international conferences.