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Specialization : Hydraulic Modeling, GIS, Data Science, Applied Statistics,
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KEYWORDS

Hydraulic modeling, Flood prediction, Compound Flooding, Data Science, Probabilistic Studies, Uncertainty Quantification

EDUCATION

2023: M. Tech., Environmental and Water Resources Engineering, Indian Institute of Technology Tirupati, India

2018: B.Tech., Civil Engineering, University of Kerala, India

RESEARCH SUMMARY

Ongoing research centers around compound flooding scenarios in coastal areas. Predicting future flooding scenarios and inundation extent by extending model domain through future LULC predictions, sea level rise and tidal amplification conditions.

Masters level research included conducting dam break analysis and sensitivity analysis for varying model parameters for an Indian dam and producing flood inundation maps. Shifting from conventional deterministic dam break model to probabilistic model through Monte Carlo Simulations for uncertainty quantification and its associated findings which included sensitivity analysis for assumed parameter distributions and ranking important dam break parameters using Machine Learning techniques based on probability exceedance curves.