



## Flood Inundation Mapping of Lower Godavari River Basin using Remote Sensing and GIS

## B. Vaishnavi, Kiran Yarrakula and J. Karthikeyan<sup>1\*</sup>

Center for Disaster Mitigation and Management; <sup>1</sup>School of Information Technology and Engineering Vellore Institute of Technology, Vellore-632 014, India E-mail: karjk2017@gmail.com

**Abstract:** River Godavari is one of the longest rivers in India, which faces flood almost every monsoon. To generate flood inundation map of lower Godavari River, SRTM DEM of 30m resolution, water level and discharge data are used. Hydrodynamic model is calibrated for the year 2010 and, the calibrated model is validated with the years 2011 and 2012. Percentage accuracy of simulated values show minimum of 89% to a maximum of 99% with respect to observed values.

Keywords: Hydrodynamic model, Flood inundation map, River Godavari, HEC RAS