Development of flood monitoring system using satellite data and geographic information system

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The natural disaster of heavy rainfall and Typhoon are increased damage of property and human life in urban area with the impact of climate change. Therefore the accurate observation and short-term forecast of heavy rainfall by satellite is very important for reduce damage from severe storms and Typhoon. This study develops a method for precipitation retrieval algorithm and rain/no rain cloud classification system using Korea geostationary satellite images and GPM(Global Precipitation Mission) DPR(Dual Precipitation Radar) and GMI(GPM Microwave Imager) sensors. The new algorithm used to validation compared with ground station and radar data for Busan city flood case at August 25, 2014.