SPoRT Seminar Series Presents:

The Spatially Generalized Hurricane Outage Prediction Model

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Date: Thursday, August 4, 2016
Time: 11:00 A.M.

Location: SPoRT VCL (NSSTC 3027)

Abstract:

The Spatially Generalized Hurricane Outage Prediction Model utilizes predictions of tropical cyclone wind speed and duration of strong winds, along with power system and environmental variables (e.g., soil moisture, long-term precipitation), to forecast the number and location of power outages. This project assesses whether using NASA Soil Moisture Active Passive (SMAP) soil moisture improves the accuracy of power outage forecasts as compared to using model-derived soil moisture from NLDAS-2. A sensitivity analysis is employed since there have been very few tropical cyclones making landfall in the United States since SMAP was launched. Our results demonstrate that using SMAP soil moisture can have a significant impact on power outage predictions. SMAP has the potential to enhance the accuracy of power outage forecasts, which can reduce the duration of power outages which reduces economic losses.