ASSESSMENT OF A SPATIOTEMPORAL DEEP LEARNING APPROACH FOR SOIL MOISTURE PREDICTION

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Assessment of a Spatiotemporal Deep Learning Approach for Soil Moisture Prediction and Filling the Gaps in Between Soil Moisture Observations

Mohamed ElSaadani,[1,*] Emad Habib,[1] Ahmed M. Abdelhameed,[2] and Magdy Bayoumi[2]

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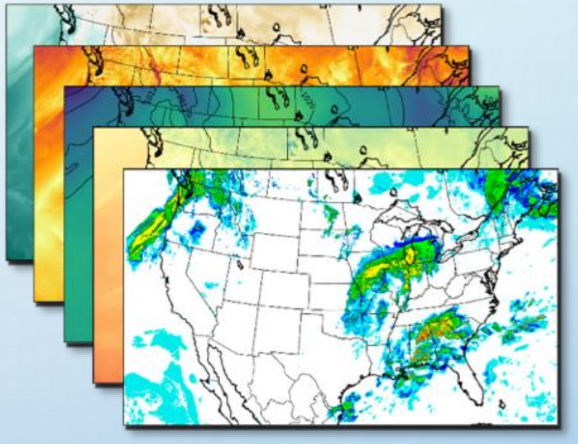

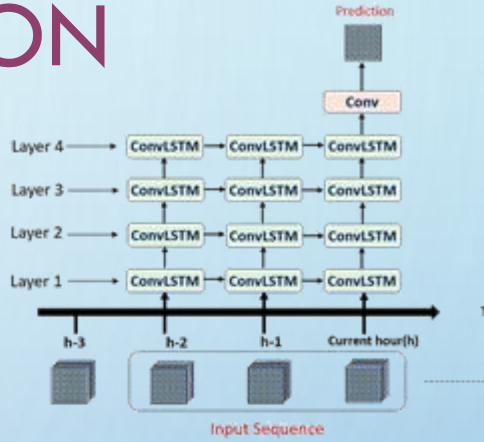

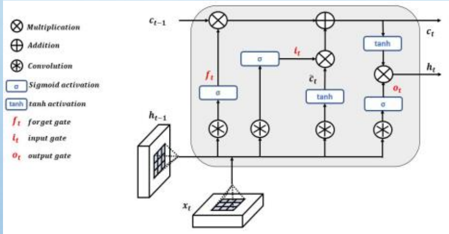

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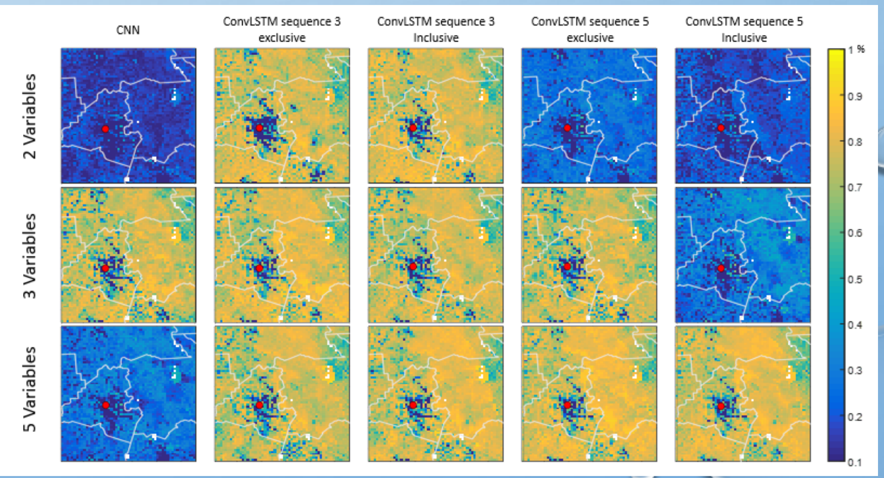

Louisiana UAV Specialties

EVALUATION OF UAV LIDAR-BASED DEM IN HYDRODYNAMIC MODELING APPLICATIONS

- The main objective is to inspect the added-value of using UAV LiDAR-based DEMs to derive hydrodynamic models' terrain grids and channel bathymetries by doing the following:
  - Site preparation and ground survey of validation points.
  - UAV flights using different payloads and technologies (e.g., LiDAR, Photogrammetry, Photogrammetry + RTK) and collect elevation point clouds.
  - Create DEM models using the point clouds obtained from each payload.
  - Validate DEMs using ground surveys.
  - Perform spatial comparison between the different models.

Phantom 4 RTK

DJI Matrice 600 with LiDAR unit

DJI Mavic with Multi-spectral camera