IEEE CIS/GRSS Joint chapter in association with IEEE SB JNTUH, Hyderabad presents a Distinguished Lecture on

"Vegetation Characterization with Multi-source Remote Sensing Data"

Date & Time: Friday November 08, 2024 15:30 hrs. – 17:00 hrs. IST

Abstract:

One of the most powerful applications of Earth observation remote sensing is vegetation characterization. Whether focused on the presence/absence of vegetation, its seasonal signal, or biochemical, biophysical and structural characteristics, maps and measurements derived from remote sensing data provide valuable insights into ecosystem health and functionality, agricultural activity and productivity, and highlight global patterns of the terrestrial biosphere. While different sensor systems and platforms offer their own unique data capture abilities, they also come with different challenges and drawbacks. Beyond data collection, there exist an incredible number of approaches and algorithms for measuring and mapping vegetation attributes. These applications often benefit from combining sensor data across temporal, spatial, and spectral scales. The most cutting edge of these approaches often fuse data from multiple platforms, or even incorporate non-remote sensing data. In this seminar, we will discuss 1) sensor selection and tradeoffs to consider, 2) common methods for characterizing vegetation, and 3) opportunities for sensor and data fusion to leverage the strengths of multiple systems across scales. Examples and use cases will include unsupervised and supervised problems, applications of machine learning/deep learning, and best practices for different fusion approaches.

Speaker Brief Bio:

Dr. Keely Roth is a Senior Remote Sensing Scientist and Science Lead for Horticulture on the Geospatial Sciences team of The Climate Corporation. She is based in San Francisco, CA, and has 10+ years' experience in remote sensing research and geospatial analysis. In her role at The Climate Corporation, she designs and leads research projects aimed at improving our ability to measure and map crop health during the growing season using field data and remotely sensed imagery from UAVs, planes, and satellites. She also leads the research program for Horticulture, including fruits, vegetables, and specialty crops. In her work, she is especially focused on and committed to applying the best remote sensing scientific principles to developing models and generating valuable data layers for her scientific colleagues as well as for farmers within the Climate Field View platform. She is passionate about helping farmers use their data to make faster, easier, and more informed decisions, and she is optimistic that the data revolution in agriculture, especially the continued improvement and integration of remote sensing data, will have positive impacts for both farmers and the environment

Organisers:

IEEE CIS/GRSS Joint Chapter
IEEE SB, JNTUH

Mode: offline

Venue:
GOLDEN JUBILEE SEMINAR HALL, ECE DEPT., JNTUH CAMPUS, HYDERABAD

Contact:

Dr. Kavitha Athota,
Chair,
Associate Professor of CSE & Chair,
CIS/GRSS Jt. Chapter,
IEEE Hyderabad.
athotakavitha@ieee.org.

Dr. Vijender Busi Reddy,
Vice Chair,
IEEE Hyderabad CIS/GRSS Jt. Chapter,
vijender@ieee.org,

Dr. *Mousmi Ajay Chaurasia*
Vice chair,
IEEE Hyderabad Section
mousmi.ksu@ieee.org

Registration Link: https://forms.gle/vFd7XV5q3ea9BA466