"A Comprehensive Agenda for Data Science at NASA Science Mission Directorate"

Dr. Manil Maskey
Senior Research Scientist
NASA

Tuesday, November 22, 2022
2:00 – 3:00 p.m. Olin 202
Reception in Olin 204 3:00 – 3:30 p.m.

Abstract: Data science is more than just the application of artificial intelligence (AI) and machine learning (ML) algorithms to extract knowledge. In the context of scientific research, data science is a field of science by itself encompassing a rigorous process of data lifecycle management along with the development, evaluation, and deployment of models. With the launch of several high-data volume science missions and the shift towards data-driven science, it is pertinent for NASA science to consider data science as a core part of science missions. To that end, at NASA Science Mission Directorate (SMD), we are building a comprehensive data science agenda to advance science. This agenda includes basic research, novel applications, collaborative cyberinfrastructure, and policy development. This talk will discuss the holistic agenda through the lens of Earth science with practical examples.

Bio: Dr. Manil Maskey is a Senior Research Scientist at NASA. He leads the advanced concepts team for the Inter-Agency Implementation and Advanced Concepts (IMPACT) project, where he develops innovative data-driven solutions to challenging Earth science problems. Dr. Maskey also leads the NASA Science Mission Directorate's Artificial Intelligence Team as part of the open science initiative. Dr. Maskey's career spans over 22+ years in academia, industry, and government. During that time, he has focused on research and application projects in the area of data systems, cloud computing, machine learning, computer vision, and visualization.
Dr. Maskey is an affiliate faculty at the University of Alabama in Huntsville Atmospheric Science department, a senior member of the Institute of Electrical and Electronics Engineers (IEEE), chair of the IEEE Geoscience and Remote Sensing Society (GRSS) Earth Science Informatics Technical Committee, member of American Geophysical Union (AGU) and AGU Fall Meeting Planning Committee, member of European Geosciences Union (EGU), and member of Association for Advancement of Artificial Intelligence (AAAI).