

DECISION SUPPORT TOOLS FOR THE EMERGING SMART AND CONNECTED INFRASTRUCTURES

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6:30 PM – 7:30 PM

Farzaneh Hall, Room 148

Our critical infrastructures are more connected due to advances in computing, sensing, and control systems. Consequently, infrastructure personnel manage more devices and data today than ever before. The trend is increasing at a faster rate. Traditional decision support tools cannot keep up, resulting in incomplete information, dated insights, and missed connections that can lead to delayed responses. There is a need for advanced tools that can aggregate structured, semi-structured, and unstructured data at a faster rate from traditional and non-traditional sources, and enable on-demand access to information, and real-time data-driven operational insights. This talk will discuss some of the next generation of decision support tools being developed at Oak Ridge National Laboratory.

Dr. Olufemi (Femi) A. Omitaomu is a Senior Research Scientist at Oak Ridge National Laboratory (ORNL). He is also a team lead for Critical Infrastructure Modeling and Simulation research team within the Computational Sciences and Engineering Division at ORNL. In addition, he is the theme lead for the Urban Resiliency research within the Urban Dynamics Institute at ORNL. He is a scientific member of the Climate Change Science Institute at ORNL. Dr. Omitaomu is also a joint ORNL-UT Associate Professor in the Department of Industrial and Systems Engineering; and an Adjunct Faculty in the Department of Civil and Environmental Engineering at the University of Tennessee. His expertise includes applied artificial intelligence, statistical data mining, and modeling and simulation with applications in infrastructure systems, energy systems, and emergency response.

Analytics of Resilient Cyber-Physical-Social Networks

Lectures accompanying ISE 4970/5970 are supported primarily by the Presidential Dream Course program. These lectures are free and open to the public. For accommodations on the basis of disability, please contact the OU School of Industrial and Systems Engineering at ccarney@ou.edu.

