INNOVATING PRIORITIES IN SECURITY, RISK, AND RESILIENCE OF ADVANCED LOGISTICS SYSTEMS

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Chair, Fifth World Congress on Risk, Cape Town 2019

MONDAY, FEBRUARY 19
6:30 PM – 7:30 PM
Farzaneh Hall, Room 148

This talk will address resilience and risk analysis for emergent and future conditions including innovations, environment, regulations, markets, behaviors, demographics, missions, and others. How risk assessment changes the values around an engineering system or organization is a key interest. The principles and practices of risk programs in industry, government, non-government institutions, and the military will be described. Scenario-dependent preferences will be shown to influence priorities across multiple performance goals and initiatives. Examples to be described include: Scheduling of container-port operations, advanced chargers that reduce costs of electric vehicles in fleet operations, capacity expansion of the Afghanistan power grid, corridor risk management for transportation and other infrastructure, airport runway incursions and associated safety-training benefits, supply chains for future aviation biofuels, wireless broadband networks in public safety, and asset management of large-scale infrastructure systems for hydropower, waterway navigation, and flood control. Several key challenges for careers in the field of risk analysis will be identified.

Dr. Lambert is a Fellow of the Society for Risk Analysis, a Fellow of the American Society of Civil Engineers, a Diplomate of the American Academy of Water Resources Engineers, a Fellow of the IEEE, and a licensed Professional Engineer. He was President (2015-2016) of the worldwide SRA and is currently the Chair of the SRA Fifth World Congress on Risk in Cape Town in 2019. His efforts received the 2016 R.A. Glenn Best Paper Award of the American Chemical Society and several best-paper recognitions of the IEEE and others in recent years. He is a visiting professor of the University of the Chinese Academy of Sciences. He serves on the Standing Committee on Health Threats Resilience and Workforce Resilience of the US National Academy of Medicine. He is Editor-in-Chief of the Springer journal *Environment Systems & Decisions*, an Area Editor of the Wiley journal *Risk Analysis*, and an Associate Editor of the ASCE *Journal of Risk & Uncertainty in Engineering Systems*. He served the faculty of the University of Virginia since 1996, where he is a Research Professor of Systems & Information Engineering and Research Professor of Engineering & Society. He is an alumnus of the University of Virginia (Ph.D., M.S.) and Princeton University (B.S.E.).

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.

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