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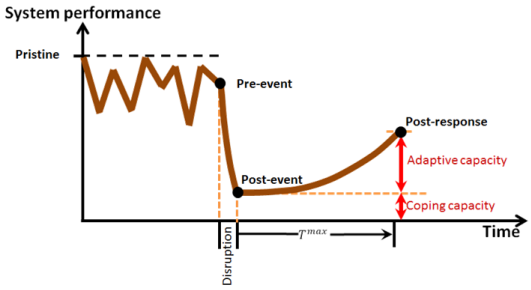

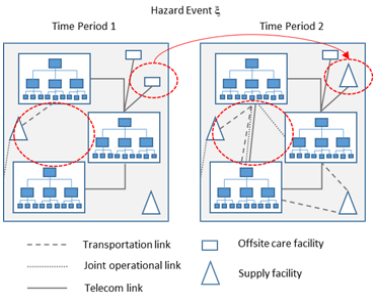

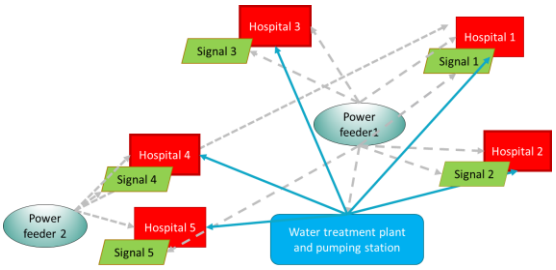

Resilience of our Transportation Systems in an Intelligent and Connected World

Prof. Elise Miller-Hooks

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Abstract

Secure and functioning transportation systems are of paramount importance to society. To ensure that effective services can be provided in a disaster's aftermath enabling society to recover, governmental agencies and private entities charged with designing, constructing, managing and operating these systems must invest in measures that prevent or mitigate the effects of disaster incidents and disruptions. Transportation networks are interconnected with other critical lifelines, such as power and water supply. Together, these lifelines support societal activities occuring within building facilities related by a common function, e.g. health care. Oftentimes, the abilities of system users, e.g. transit riders, play an important role in the services they experience. Thus, both the behavior of technical components and how the system enables its varying users to adapt are crucial. As our infrastructure systems become increasingly connected and intelligent, and new mobility options emerge, new hazards will arise as concerns and new notions of resilience will be needed. This talk will describe developed mathematical approaches for quantifying and maximizing the resilience level of these surface transportation systems and the societal functions they support both in the context of our current environment and in a developing intelligent and connected world.

Date: **24 October 2018 (Wednesday)**

Time: **17:00 – 18:00**

Venue: **Room Z414, 4/F, Block Z,**
The Hong Kong Polytechnic University,
Hunghom, Kowloon, Hong Kong

Speaker's Biography

Prof. Elise Miller-Hooks holds the Bill and Eleanor Hazel Endowed Chair in Infrastructure Engineering at George Mason University. She served as Program Director of the U.S. National Science Foundation Civil Infrastructure Systems Program, lead Program Officer for Critical Resilient Interdependent Infrastructure Systems and Processes (CRISP), and a cognizant program officer on an initial smart cities initiative. She previously served on the faculties of the University of Maryland, Penn State and Duke University. She received her Ph.D. (1997) from the University of Texas – Austin. She has authored over 150 articles and reports and 230 conference presentations and invited or keynote lectures. Prof. Miller-Hooks serves on the editorial boards of *Transportation Science*, *Operations Research*, *Journal of Intelligent Transportation Systems* and *Transportation Research - Part B*, and is Chair of the TRB Transportation Network Modeling Committee, founding Co-Chair of the TRB Task Force on Emergency Evacuation, and past president of the INFORMS Transportation Science and Logistics Society.

***** All Interested Are Welcome *****

For further information, please contact Prof. Anthony Chen at Tel. 3400-8327.
Free Admission. Please reserve your seat with Ms. Connie F.Y. Lam by email: fyc.lam@polyu.edu.hk.
Certificates of attendance will be provided to participants who attend the whole seminar.