



Simulation in Construction Engineering and Management

By

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Abstract

Construction simulation is the science of developing and experimenting with computer-based representations of construction systems to understand their underlying behaviour. Simulation in the construction domain gained its footing in the early 1970's and has since become a useful modeling and analysis tool with a significant following amongst construction academics. It has been used in many contexts, including operations analysis, performance optimization, planning, constructability, risk and uncertainty, and training to name a few.

The presentation will first provide an overview of key advancements in construction simulation theory and practice. In particular, our review of the theory of simulation will focus on research attempts to (1) simplify simulation modeling tools, (2) to integrate simulation with other solutions (e.g. visualization, estimating, scheduling) (3) develop advanced analytical modeling techniques to facilitate better modeling and (4) integrate artificial intelligence technologies to enhance simulation. We will then provide an overview of simulation in practice with a focus on our experiences with the construction industry in Alberta.

Date : 22 October 2008 (Wed)

Time : 6:30p.m. to 7:30p.m. (Refreshments will be served at 6p.m.)

Venue : M1603, 16/F, Li Ka Shing Tower, The Hong Kong Polytechnic University

Speaker

Dr. AbouRizk received his PhD degree in construction engineering and management from Purdue University in 1990. He joined the University of Alberta as an assistant professor in November 1990. He currently holds the positions of the NSERC/Alberta Construction Industry Research Professor in Construction Engineering and Management and the Canada Research Chair in Operation Simulation at the Department of Civil and Environmental Engineering at the University of Alberta.

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