

CIVIL AND ENVIRONMENTAL ENGINEERING

Featuring:

Chimay J. Anumba

Dean, University of Florida,
College of Design,
Construction & Planning

CIVE 7400

Distinguished Seminar Series

The Department of Civil and Environmental Engineering Presents:

CYBER-PHYSICAL SYSTEMS DEVELOPMENT FOR CONSTRUCTION APPLICATIONS

Cyber-physical systems (CPS) enable the synergistic integration of virtual models and the physical environment and are now being increasingly recognized as vital for improved construction project information management, more efficient project delivery, and enhanced facilities management. A critical aspect of the deployment of CPS in construction is ensuring bi-directional coordination between the physical components and their virtual representations. This presentation will draw on examples from research prototypes to highlight the key features and benefits of these systems, and the steps involved in their development. It will also outline the lessons learned from developing a variety of systems for several aspects of the delivery of a constructed facility such as building component placement, temporary structures monitoring, mobile crane safety and efficiency, and facilities management. Following this, the lecture will explore future directions for CPS in construction.

About the Speaker

Chimay Anumba is a Professor and Dean of the College of Design, Construction and Planning at The University of Florida. He is a Fellow of the Royal Academy of Engineering, FREng (the United Kingdom's National Academy of Engineering). He holds a Ph.D. in Civil Engineering from the University of Leeds, UK; a higher doctorate – D.Sc. (Doctor of Science) – from Loughborough University, UK; and an Honorary Doctorate (Dr.h.c.) from Delft University of Technology in The Netherlands. He has over 450 scientific publications and his work has received support worth over \$150m from a variety of sources. He has also supervised 48 doctoral candidates to completion and mentored over 23 postdoctoral researchers. He is the recipient of the 2018 ASCE Computing in Civil Engineering Award.



Northeastern University

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103 Churchill Hall