Department of Civil Engineering
The University of Hong Kong

Centre for Infrastructure and
Construction Industry Development

SEMINAR

jointly organised by
Department of Civil Engineering and **CICID**, HKU

BIM-based Integration of Virtual and Physical Building Components

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Date: December 5, 2012 (Wednesday)
Time: 4:00 - 5:00 p.m.
Venue: CPD-G.02, Ground Floor, Central Podium Level, Centennial Campus
The University of Hong Kong

ABSTRACT

There is currently considerable industry interest in Building Information Modeling (BIM). The growth in uptake has resulted in a large number of new building projects being dependent on BIM for resolving coordination, schedule, integration, estimating and other problems. Advances in information and communications technologies (ICT) are continuing to open up new opportunities and applications. One application area that offers considerable potential involves extending the use of BIM models beyond design and into the construction, operation and maintenance phases of a facility's lifecycle. A good way of achieving this involves utilizing computational resources to achieve real-time bi-directional coordination between as-designed virtual models and the physical construction. This results in a Cyber-Physical System (CPS) and will enable improvements in progress monitoring, construction process control, archiving as-built status and active control of building components and sub-assemblies. This seminar will provide a brief historical perspective on BIM and describe ongoing research on the development of BIM-based systems for integrating virtual and physical building components. It will use a number of examples to illustrate the potential benefits to the construction industry.

ABOUT THE SPEAKER

Chimay Anumba is a Fellow of the Royal 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 for outstanding scientific contributions to Building and Construction Engineering. His research interests are in the fields of advanced engineering informatics, concurrent engineering, knowledge management, distributed collaboration systems, and intelligent systems. He has over 450 scientific publications in these fields and his work has received support worth over £100m from a variety of sources. He has also supervised more than 40 doctoral graduates and mentored over 20 postdoctoral scholars. He is a Chartered Engineer and Fellow of the ICE, IStructE, ASCE and CIOB.

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TSTN/as (19Nov2012)