



The Hong Kong Polytechnic University  
Faculty of Engineering

## Seminar

### **Innovation through Dominant Design and Infotronics Technologies** *An Example of Industry/University Cooperative Research and Education*

by

**Jay Lee**

Ohio Eminent Scholar and L.W. Scott Alter Chair Professor  
University of Cincinnati

Date: 13 December 2005 (Tuesday)  
Time: 2:30 p.m. (Tea reception starts at 2:00 p.m.)  
Venue: Room AG710, Chung Sze Yuen Building  
Language: English

#### **ABSTRACT**

Innovation is not an option for Hong Kong's industry. For the past decade, globalization and transformation of the industrial economy has produced vast new challenges for the education institutions and industry in Hong Kong. As the practice of engineering has expanded both in economic and social impact and in technological complexity, so the demands upon engineering education have become both broader and deeper. In the United States, industry R&D has changed its traditional corporate R&D model (Bell Lab Model) to more globally integrated R&D. Companies are looking for ways to leverage their R&D through strategic partnerships with global research institutions with niche value. Hong Kong academic institutions need to learn how to develop niche expertise with value-added innovation to nurture internationally astute engineers and leaders.

This presentation introduces the concept and strategies for product and business innovation based on Dominant Design approach and infotronics-based technologies. Examples will be given on the changing business models in global business as well as product and service strategies. In addition, an Industry/University Cooperative Research Center Model as well as its operations in an academic environment will be discussed. Finally, the implication to the transformation of Hong Kong's academic institutions is addressed.

#### **ABOUT THE SPEAKER**

Professor Jay Lee received his B.S. degree from Taiwan, a M.S. in Mechanical Engineering from the University of Wisconsin-Madison, a M.S. in Industrial Management from the State University of New York at Stony Brook, and D.Sc. in Mechanical Engineering from the George Washington University. Currently, he is Wisconsin Distinguished and Rockwell Automation Professor at the University of Wisconsin-Milwaukee. He is founding director of National Science Foundation (NSF) Industry/University Cooperative Research Center (I/UCRC) on Intelligent Maintenance Systems (IMS) which is a multi-campus NSF Center of Excellence between the University of Wisconsin-Milwaukee and the University of Michigan-Ann Arbor.

Professor Lee's research work involves in the areas of web-enabled infotronics and embedded tether-free technologies for remote machine monitoring, tele-maintenance, prognostics, and service logistics automation systems. He has over 80 technical publications, authored and co-authored two books, numerous book chapters, three U.S. patents, and had delivered over 100 invited lectures and speeches, including over 50 invited keynote and featured speeches at major international conferences.

**ALL ARE WELCOME**

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Enquiry: Faculty of Engineering (Tel: 2766 5064, Email: [denquiry@polyu.edu.hk](mailto:denquiry@polyu.edu.hk))