

SEMINAR SERIES
Department of Quantitative Analysis and Operations Management
College of Business, University of Cincinnati

Smart Product and Service Innovation through Dominant Design Strategy

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1:30 p.m.
216 Lindner Hall

Innovation is not an option for companies in today's flat world. For the past decade, globalization and transformation of the industrial economy has produced vast new challenges for the education institutions and industry globally. 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. Smart product and services are becoming one of the most competitive innovation strategies to meet today's global business needs.

This presentation introduces the concept and strategies on Dominant Design approach for smart product and service business innovation. Examples will be given on the changing business models in global business as well as product and service strategies. In addition, recent advances in embedded prognostics and infotronics technologies as well as their impacts to future maintenance and service business are discussed. Finally, examples will be given to illustrate the strategic opportunities for the productivity transformation.

Dr. Jay Lee is Ohio Eminent Scholar and L.W. Scott Alter Chair Professor in Advanced Manufacturing at the Univ. of Cincinnati and is founding director of National Science Foundation (NSF) Industry/University Cooperative Research Center (I/UCRC) on Intelligent Maintenance Systems (IMS www.imscenter.net) which is a multi-campus NSF Center of Excellence between the Univ. of Cincinnati (lead institution), the Univ. of Michigan, and the Univ. of Missouri-Rolla in partnerships with over 40 global companies including Rockwell Automation, Boeing, Caterpillar, DaimlerChrysler, ETAS, Festo, GE Aviation, Harley-Davidson, Honeywell, ITRI (Taiwan), Komatsu, Omron, P&G, Samsung, Toshiba, Toyota, United Technologies, Bosch, AMD, Parker Hannifin, BorgWarner, and McKinsey & Company. He is also a founding director for Advanced Gerontics Engineering (AGE) Innovation Collaboratory with a focus on innovation technologies for aging population at the Univ. of Cincinnati. His current research focuses on autonomic computing and smart prognostics technologies for smart product service and self-maintenance systems. Dr. Lee received his B.S degree from Taiwan, a M.S. in Mechanical Engineering from Univ. of Wisconsin-Madison, a M.S. in Industrial Management from State Univ. of New York at Stony Brook, and D.Sc. in Mechanical Engineering from George Washington University.

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