



DEPARTMENT OF CIVIL ENGINEERING

PUBLIC LECTURE

Computing and Machine Learning Applications in Civil and Construction Engineering

Prof. Kincho H. Law

Civil and Environmental Engineering

Structural Engineering and Engineering Informatics

Stanford University, USA

Date: May 30, 2019 (Thursday)

Time: 6:00 p.m. - 7:00 p.m.

Venue: Theatre A, Chow Yei Ching Building, The University of Hong Kong

Abstract

Civil and construction Engineering has had a long and successful history in adopting computing technologies, from computer graphics, CAD, engineering analyses, virtual simulations, to project management. As technologies continue to advance, there are many new opportunities for the engineering profession to take advantage of the developments in computational and information science. Technologies such as building information modeling, virtual reality, computer vision, sensors, Internet and cloud computing, etc., are now routinely deployed in engineering. Recent years have also seen the re-emergence of artificial intelligence (AI) applications. This presentation will provide an overview of current trends of computing technologies in the AEC domain and discuss some of the potential applications of AI and machine learning in civil and construction engineering.

About the Speaker

Kincho H. Law received his B.Sc. in Civil Engineering and B.A. in Mathematics from the University of Hawaii in 1976, and M.S. and Ph.D. in Civil Engineering from Carnegie Mellon University in 1979 and 1981, respectively. After serving as Assistant Professor at Rensselaer Polytechnic Institute from 1982 to 1988, he joined Stanford University in 1988 and is currently Professor of Civil and Environmental Engineering. Prof. Law's research interests focus on computational and information science in engineering. His research has dealt with various aspects of high performance computing; sensing, monitoring and control of engineering systems; legal and engineering informatics; smart manufacturing; web services, cloud and Internet computing.

Prof. Law was the recipient of the ASCE Computing in Civil Engineering Award in 2011. He has received a number of best paper awards from ASCE, ASME, IEEE and Digital Government Society; these include Best Paper (on Data Analytics for Advanced Manufacturing) at IEEE Big Data Conference in 2016, Best Paper at the ASME Manufacturing Science and Engineering Conference in 2015, Best Paper in the ASCE Journal of Computing in Civil Engineering in 2014, Best Research Paper (on Resilience and Smart Structures) at the International Workshop on Computing in Civil Engineering in 2013, and others. He also holds honorary appointments as Distinguished Visiting Professor at Tsinghua University and Visiting Research Professor at University of Hong Kong. Prof. Law was elected Distinguished Member of the American Society of Civil Engineers in 2017, Fellow of the American Society of Mechanical Engineers in 2017, Life Member of the American Society of Civil Engineers in 2018, and Senior Member of the Institute of Electrical and Electronics Engineers.

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