University at Buffalo
Department of Civil, Structural and Environmental Engineering
School of Engineering and Applied Sciences

ENGINEERING SEMINAR

Early Year Milestones of the Development of Earthquake Engineering in CSEE

George Lee
Research Professor and SUNY Distinguished Professor Emeritus

Abstract

This presentation will briefly summarize the important milestones for the earthquake engineering research efforts by the structural engineering faculty members in CSEE including the decision of UB to build a shaking table by emphasizing the observation of the responses of structures subjected to ground motions of eastern US and the observation of non-structural responses. UB, as the team leader, engaged experts from Columbia and Cornell Universities, submitted a winning proposal to the National Science Foundation with matching fund from the NYS Science and Technology Foundation by emphasizing structural control technologies to protect structures against ground motions including various structural control and seismic isolation technologies.

Short Bio

George C. Lee is a SUNY Distinguished Professor emeritus and research professor in the CSEE Department at UB. Previously, he had served as Chair of the Department of Civil Engineering (1974-77) and Dean of the School of Engineering and Applied Sciences (1978-95) at UB. Since 1995, Dr. Lee is Samuel P. Capen Professor of Engineering. Between 1992 and 2003, he served as Director of the Multidisciplinary Center for Earthquake Engineering Research (MCEER). Between 2003 and 2008, he has served as Special Task Director of MCEER for bridges and highway infrastructure systems. He earned both his Ph.D. and M.S. degrees at Lehigh University, and his undergraduate degree from the National Taiwan University. During his 52 years of educational services at SUNY at Buffalo, Dr. Lee has mentored 20 post-doctoral fellows, supported over 30 international visiting scholars and guided 50 Ph.D. students and 85 MS students. He has co-authored six books and published more than 250 papers on structural engineering and mechanics, and earthquake engineering. In his earlier career, he also contributed in cold regions structural engineering and in biomechanics of living systems. His currently funded research projects include Seismic Design of Structures with Response Modification Systems, Bridge Damage Monitoring Systems, Behavior and Design Methodology of Segmental Piers for Accelerated Bridge Construction in Seismic Regions using normal and high-performance materials, a major research effort at present is the Development of Reliability-based Multi-hazard Design Principles, Methodologies and Limit States against Earthquake and Other Extreme Hazard Load Effects for Highway Bridges.

Dr. Lee has held leadership positions in numerous professional organizations in which he is a member, including: ASCE, Structural Stability Research Council, U.S. National Committee on Biomechanics, and Committee on Hazard Mitigation Engineering of the National Research Council. He has served as the editor-in-chief or as a member of editorial boards of several ASCE and international journals. At present, he is the editor-in-chief (US) of Journal of Earthquake Engineering and Earthquake Vibration. He is the recipient of numerous awards and citations including the Superior Accomplishment Award from the National Science Foundation and the Newmark Medal of the American Society of Civil Engineers for his research contributions in structural engineering and engineering mechanics and his leadership role of successfully pioneering the center approach in earthquake engineering research engaging multi-institution, multi-disciplinary team efforts. In 2006, Dr. Lee received Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM).

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