Khalid M. Mosalam, PhD, PE

Taisei Professor of Civil Engineering and PEER Director

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a) Professional Preparation

| Cairo University | Egypt | Civil Engineering | BS | 1988 |
|--------------------|------------|--------------------------|-----|------|
| Cairo University | Egypt | Structural Engineering | MS | 1991 |
| Cornell University | Ithaca, NY | Civil & Env. Engineering | PhD | 1996 |

b) Appointments

| 2016-present | Director of Pacific Earthquake Engineering Research (PEER) Center |
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| 2015-present | Taisei Professor of Civil Engineering |
| 2015-present | High End Foreign Expert, Civil Engineering, Tongji University, Shanghai, China |
| 2007-present | Professor, Civil and Env. Eng., Univ. of Calif., Berkeley |
| 2014-2016 | Chair, Structural Engineering, Mechanics & Materials Program, Univ. of Calif., Berkeley |
| 08/12-07/13 | Visiting Professor, Civil and Env. Eng., Nanyang Technological University, Singapore |
| 08/12-07/13 | Visiting Professor, Civil and Env. Eng., Nanyang Technological University, Singapore |
| 2007-2012 | Vice Chair, Civil and Env. Eng., Univ. of Calif., Berkeley |
| 08/04-12/04 | Visiting Professor, Disaster Prevention Research Institute, Kyoto Univ., Uji, Japan |
| 01/05-07/05 | Visiting Professor, Middle East Technical University, Ankara, Turkey |
| 2003-2007 | Associate Professor, Civil and Env. Eng., Univ. of Calif., Berkeley |
| 1997-2003 | Assistant Professor, Civil and Env. Eng., Univ. of Calif., Berkeley |
| 1996-1997 | Lecturer, Civil and Env. Eng., Cornell University, New York |
| 1991-1996 | Research and Teaching Assistant, Civil and Env. Eng., Cornell University, New York |

c) **Products**

Closely related:

- 1. Arici, Y. and K.M. Mosalam, "System Identification of Instrumented Bridge Systems," *Earthquake Eng. & Structural Dynamics*, 2003, **32**(7):999-1020.
- Sezen, H., A.S. Whittaker, K.J. Elwood and K.M. Mosalam, "Performance of Reinforced Concrete Buildings during the August 17, 1999 Kocaeli, Turkey Earthquake, and Seismic Design and Construction Practice in Turkey," *Engineering Structures*, 2003, 25(1):103-114.
- 3. Mosalam, K.M., Takhirov, S., Hashemi, A., "Seismic Evaluation of 1940s Asymmetric Wood- Frame Building Using Conventional Measurements and High-Definition Laser Scanning," *Earthquake Eng. & Structural Dynamics*, 2009, **38**(10):1175-1197.
- 4. Li, B. and K.M. Mosalam, "Seismic Performance of Reinforced Concrete Stairways During the 2008 Wenchuan Earthquake," *J. Performance of Constructed Facilities*, ASCE, 2013, **27**(6):721-730.
- 5. Mosalam, K.M., S.M. Takhirov and S. Park, "Applications of Laser Scanning to Structures in Laboratory Tests and Field Surveys," *Structural Control & Health Monitoring*, 2014, **21**(1):115-134.

Other significant:

- Gardoni, P., Der Kiureghian, A., Mosalam, K.M., "Probabilistic Capacity Models and Fragility Estimates for RC Columns Based on Experimental Observations," *J. Eng. Mechanics*, ASCE, 2002, 128(10):1024-1038.
- 2. Marino, E.M., M. Nakashima and K.M. Mosalam, "Comparison of European and Japanese Seismic Design of Steel Building Structures," *Engineering Structures*, 2005, **27**(6):827-840.

- 3. Hashemi, A., Mosalam, K.M., "Shake-Table Experiment on Reinforced Concrete Structure Containing Masonry Infill Wall," *Earthquake Eng. & Structural Dynamics*, 2006, **35**(14):1827-1852.
- 4. Mosalam, K.M., M. Hube, S.M. Takhirov, S. Günay, "Teaching Innovation through Hands-on-Experience Case Studies Combined with Hybrid Simulation," *J. Professional Issues in Engineering Education and Practice*, ASCE, 2013, **139**(3):177-186.
- 5. Mosalam, K.M., S. Günay, "Progressive Collapse Analysis of Reinforced Concrete Frames with Unreinforced Masonry Infill Walls Considering In-plane/Out-of-plane Interaction," *Earthquake Spectra*, 2015, **31**(2):921-943.

d) Synergistic Activities (Selected)

- <u>Conducting real-life application to demonstrate use of "Dense-Packed Wireless Sensors" for damage detection and health monitoring of woodframe structural systems</u>: This was conducted between 2000 and 2002 by instrumenting several regions of a full-scale 3-story building tested on the UCB 6 degrees-of-freedom shaking table (part of the CUREE woodframe project funded by FEMA) using 55 2D wireless MEMS accelerometers developed by Berkeley Sensor and Actuator Center (BSAC).
- 2. Development of NEES reconfigurable reaction wall seismic testing facility at UCB: The goal of NEES is to provide a geographically distributed collaboration to achieve significant improvement in the ability to model seismic behavior of civil infrastructure. The testing facility at UCB is designed and constructed between 2000 and 2004 to support development of new generation hybrid testing methods, which smoothly integrate physical and numerical simulations at different locations using the Internet. This objective is explored in the NSF funded research project between 2001 and 2006 for Hybrid On-Line Experiments and Monitoring of Structural Systems. Mosalam operated (as the PI) the nees@berkeley site from 2009 to 2014.
- 3. Formulation of a seismic-resistance building code for energy-efficient (green) earthen architecture in <u>Morocco</u>: This multi-disciplinary project involved engineers, architects, and anthropologists to develop provisions for both builders and engineers to design and construct rammed earth buildings. The study (including field work in Morocco) was supported by the Getty Foundation and earned the UCB Chancellor's Public Service Award in 2013, refer to <u>www.ce.berkeley.edu/news/615</u>.
- 4. <u>Team co-leader for the project "Singapore-Berkeley Building Efficiency and Sustainability in the Tropics (SinBerBEST)</u>": The project involves more than 30 co-PIs from different disciplines of engineering and architecture from UC-Berkeley and Singapore, <u>http://sinberbest.berkeley.edu/</u>. The project aims to provide solutions for efficient use of energy in building construction and operation phases in tropical climate. It is an on-going study that started in 2012 for 10 years and supported by the National Research Foundation (NRF) of Singapore.
- 5. <u>Core PI for Lab 2C: Internet of Things & Societal Cyber Physical Systems</u>: This laboratory is part of "Data Science & Information Technology Center," one of three centers of the Tsinghua-Berkeley Shenzhen Institute, <u>http://tbsi.berkeley.edu/</u>. This is an on-going research and educational partnership established in 2014 by the UCB, Tsinghua University and the Shenzhen municipal government on the initiative of promoting research collaboration and graduate student education. This lab focuses on research related to the core technology of network intelligent sensor systems and sensing data platforms and analysis to build a smart home and wearable device industry alliance through cooperation in the data layer.