



**Press release**

July, 12th 2012

# Armen Der Kiureghian

**Taisei Chair Civil Engineering, University of California, Berkeley**

**Post-earthquake decision-making: From personal experience to mathematical modeling**

Increasing density, complexity and interdependency of large cities has dramatically increased the vulnerability of human communities to natural and man-made hazards. Earthquakes epitomize many such hazards: They occur without warning, have potential to cause devastation over wide areas, disrupt lifelines, and place extraordinary demands on essential health and human services. In the immediate aftermath of such events, decisions must be made for allocation of emergency resources, disposition of facilities, and prioritization of repair and restoration actions. The key for rational decision making is information. We will examine how a Bayesian network can be used to process the evolving and uncertain information in the chaotic aftermath of a major earthquake, and how this information can be used to assess the state of an infrastructure system and to make decisions regarding the prioritization of inspections and disposition of system components.

Armen Der Kiureghian is Professor and holder of Taisei Chair in Civil Engineering at the University of California,

Berkeley. He received his B.S. and M.S. in Civil Engineering from the University of Teheran, Iran, and his Ph.D. in Structural Engineering from the University of Illinois at Urbana-Champaign in 1975. After three years at the University of Southern California, he joined the faculty at the University of California at Berkeley, where he has served as Assistant Professor (1978-81), Associate Professor (1981-85), Professor (1985- ), Vice Chair (1990-93) and Chair (1997-2001) of the Structural Engineering, Mechanics and Materials Group, and as Vice Chair for Instruction (2007-2009) of the Department of Civil and Environmental Engineering.

Der Kiureghian has received several awards, including the ASCE Walter L. Huber Civil Engineering Research Prize (1988), the CERRA Award (1999), the ASCE Alfred M. Freudenthal Medal (2006), and the ASCE Thomas A. Middlebrooks Award (2006). In 2001 he was awarded the Movses Khorenatsi Medal from the Government of Armenia for his contributions in advancing higher education in Armenia. He has been honored as a Distinguished Alumnus of the Facul-



ty of Engineering of Tehran University (2004) and of the Department of Civil and Environmental Engineering of the University of Illinois at Urbana-Champaign (2006). He is an elected foreign member of the National Academy of Sciences of Armenia (1998) and an elected member of the U.S. National Academy of Engineering (2011).

**Lecture**

July 12th, 2012

Start 6.15 pm

Event hall (ground floor) | Oskar von Miller Forum

**Das Oskar von Miller Forum – eine eigenständige Bildungsinitiative der Bayerischen Bauwirtschaft**

Das Oskar von Miller Forum – im Herzen Münchens in Nachbarschaft zur Technischen Universität München gelegen – ist ein internationales Gästehaus und Begegnungszentrum für Studierende, Meisterinnen und Meister aus der Bauwirtschaft sowie Gastwissenschaftlerinnen und -wissenschaftler. Das Forum gibt Impulse für die Hochschulbildung der Bauingenieure und leistet Beiträge zum Exzellenzstreben im Sinne einer traditionsbewussten und entwicklungsoffenen Qualifikation.