

*Department of Structural Engineering
University of California, San Diego
SE 290 Seminar*



Dr. Erol Kalkan

CEO and Founder

QuakeLogic

"Next Generation Structural Monitoring and Smart Cities"

Monday, November 2, 2020

12:00 pm - 12:50 pm

Abstract

Structural monitoring has gained importance for safety requirements of critical structures including hospitals, high-rise buildings, bridges, dams, tunnels, wind turbines etc. Although these structures are designed and built to operate safely under anticipated static and dynamic loading conditions, deterioration and damage can occur over their lifetime. Extreme events such as earthquakes are the most prevailing source of failure. If damage conditions are not identified rapidly, they may leave the dam vulnerable to further damage. Early diagnosis of damage is also cost-effective, as the cost of fixing minor damage is generally lower than that of major damage. Our cloud-based structural health monitoring (SHM) system powered by artificial intelligence (AI) utilizes the sensors data to create unique earthquake risk management solutions. We provide meaningful and easy-to-understand information immediately after an earthquake. This timely and critical information helps stakeholders such as government authorities, engineers, emergency responders, disaster managers and dam operators to plan their role in making the people and their structure safer. Our mission is to ensure peace of mind for people after an earthquake.

Biography

Dr. Kalkan earned his B.Sc. degree in Civil Engineering and first M.Sc. degree in Engineering Seismology. His second M.Sc. degree is in Structural Engineering.

His doctorate degree is in Structural and Geotechnical Engineering from UC Davis. His postdoctoral studies were conducted at UC Berkeley. Dr. Kalkan was the recipient of the "2008 ASCE Raymond C. Reese Research Prize in Structural Engineering". He was granted "2008 EERI-FEMA NEHRP Professional Fellowship in Earthquake Hazard Reduction". He authored and co-authored more than 120 publications in earthquake engineering. Dr. Kalkan served as a guest editor of five special journal issues, and he is currently acting as an associate editor for the Journal of Structural Engineering, Engineering Structures, and Seismological Research Letters.

Sponsored by Professor Ken Loh
For more information on this seminar,
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