

# Preface

The collection of articles compiled in this first volume of the series entitled as *Perspectives on European Earthquake Engineering and Seismology* is composed of some of the keynote and theme lectures presented during the Second European Conference on Earthquake Engineering and Seismology (2ECEES) held in Istanbul. The remaining keynote and theme lectures will be compiled in the second volume of the series that will be published after the Conference. Since the Conference is a joint event of European Association of Earthquake Engineering (EAEE) and European Seismological Commission (ESC), the lectures thus articles cover the major topics of earthquake engineering and seismology along with priority issues of global importance.

On the occasion of the 50th anniversary of the establishment of the European Association of Earthquake Engineering, and for the first time in the book series on *Geotechnical, Geological, and Earthquake Engineering*, we will be publishing an open access book that can be downloaded by anybody interested in these topics. We believe that this option adopted by the Advisory Committee of 2ECEES will enable wide distribution and readability of the contributions presented by very prominent researchers in Europe.

The articles in this first volume are composed of five keynote lectures, first of which given by Robin Spence, the recipient of the third Prof. Nicholas Ambraseys Lecture Award. His lecture is titled “*The full-scale laboratory: the practice of post-earthquake reconnaissance missions and their contribution to earthquake engineering*”. The other four keynote lectures are by Mustafa Erdik on “*Rapid earthquake loss assessment after damaging earthquakes*”, Paolo E. Pinto on “*Existing buildings: the new Italian provisions for probabilistic seismic assessment*”, Matej Fischinger on “*Seismic response of precast industrial buildings*”, and Marco Mucciarelli on “*The role of site effects at the boundary between seismology and engineering: lessons from recent earthquakes*”.

The remaining 15 chapters are the EAEE Theme Lectures that are presented by: Tatjana Isakovic on “*Seismic analysis and design of bridges with an emphasis to Eurocode standards*”, Michael N. Fardis on “*From performance- and displacement-based assessment of existing buildings per EN1998-3 to design of new concrete*

*structures in fib MC2010*", Elizabeth Vintzileou on *"Testing of historic masonry structural elements and/or building models"*, Carlos Sousa Oliveira on *"Earthquake risk reduction: from scenario simulators including systemic interdependency to impact indicators"*, Roberto Paolucci on *"Physics-based earthquake ground shaking scenarios in large urban areas"*, Gian Michele Calvi on *"A seismic performance classification framework to provide increased seismic resilience"*, Katrin Beyer on *"Towards displacement-based seismic design of modern unreinforced masonry structures"*, Mario De Stefano on *"Pushover analysis for plan irregular building structures"*, Alessandro Martelli on *"Recent development and application of seismic isolation and energy dissipation and conditions for their correct use"*, Dina D'Ayala on *"Conservation principles and performance-based strengthening of heritage buildings in post-event reconstruction"*, Helen Crowley on *"Earthquake risk assessment: present shortcomings and future directions"*, George Mylonakis on *"The role of pile diameter on earthquake-induced bending"*, Amir Kaynia on *"Predictive models for earthquake response of clay and quick clay slopes"*, Kemal Önder Çetin on *"Recent advances in seismic soil liquefaction engineering"*, and Martin Wieland on *"Seismic hazard and seismic design and safety aspects of large dam projects"*.

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Atilla Ansal

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