

Sustainable Civil Infrastructures

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Sustainable Infrastructure impacts our well-being and day-to-day lives. The infrastructures we are building today will shape our lives tomorrow. The complex and diverse nature of the impacts due to weather extremes on transportation and civil infrastructures can be seen in our roadways, bridges, and buildings. Extreme summer temperatures, droughts, flash floods, and rising numbers of freeze-thaw cycles pose challenges for civil infrastructure and can endanger public safety. We constantly hear how civil infrastructures need constant attention, preservation, and upgrading. Such improvements and developments would obviously benefit from our desired book series that provide sustainable engineering materials and designs. The economic impact is huge and much research has been conducted worldwide. The future holds many opportunities, not only for researchers in a given country, but also for the worldwide field engineers who apply and implement these technologies. We believe that no approach can succeed if it does not unite the efforts of various engineering disciplines from all over the world under one umbrella to offer a beacon of modern solutions to the global infrastructure. Experts from the various engineering disciplines around the globe will participate in this series, including: Geotechnical, Geological, Geoscience, Petroleum, Structural, Transportation, Bridge, Infrastructure, Energy, Architectural, Chemical and Materials, and other related Engineering disciplines.

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Hugo Rodrigues · Amr Elnashai
Editors

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He is founder and co-editor of the Journal of Earthquake Engineering and Editorial Board Member of several other journals, a Member of the drafting panel of the European design codes, past Chair of the UK Earthquake Engineering Association, UK delegate to and past Senior Vice-President of the European Association of Earthquake Engineering and a Member of the Council of the UK Institution of Structural Engineers. He is the winner of the Imperial College Unwin Prize for the best Ph.D. thesis in Civil and Mechanical Engineering (1984), the Oscar Faber Medal for best paper in the Institution of Structural Engineering and two best paper medals from the International Association of Tall Buildings, Los Angeles.

His technical interests are multi-resolution distributed analytical simulations, network analysis, large-scale hybrid testing and field investigations of the response of complex networks and structures to earthquakes. He has produced more than 250 research publications, comprising over 140 refereed journal papers and many conference papers, keynote and prestige lectures (including the Nathan Newmark Distinguished Lecture), research reports, three books and several chapters, magazine articles and earthquake field investigation reports. He has supervised 45 doctoral and over 100 Master of Science theses. Many of his students hold significant positions in industry, academia and government in over 14 countries.