

# Performance-Based Seismic Design of Concrete Structures and Infrastructures

Part of the Advances in Civil and Industrial Engineering Book Series

Vagelis Plevris (Oslo and Akershus University College of Applied Sciences, Norway), Georgia Kremmyda (University of Warwick, UK) and Yasin Fahjan (Gebze Technical University, Turkey)

## Description:

Solid design and craftsmanship are a necessity for structures and infrastructures that must stand up to natural disasters on a regular basis. Continuous research developments in the engineering field are imperative for sustaining buildings against the threat of earthquakes and other natural disasters.

**Performance-Based Seismic Design of Concrete Structures and Infrastructures** is an informative reference source on all the latest trends and emerging data associated with structural design. Highlights key topics such as seismic assessments, shear wall structures, and infrastructure resilience.

## Readers:

This is an ideal resource for all academicians, students, professionals, and researchers that are seeking new knowledge on the best methods and techniques for designing solid structural designs.

ISBN: 9781522520894

Release Date: February, 2017

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Pages: 320

## Topics Covered:

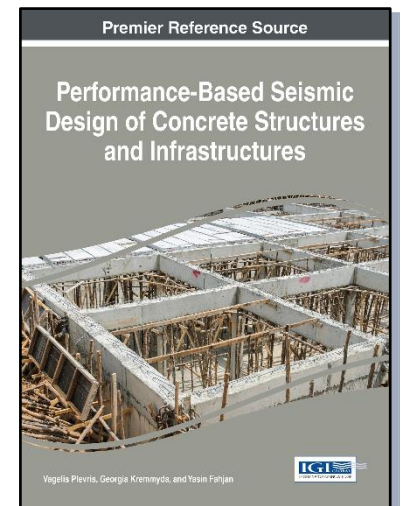
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### About the Contributors

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**Vagelis Plevris** is an Associate Professor at the Department of Civil Engineering and Energy Technology of the Oslo and Akershus University College of Applied Sciences (HiOA) in Oslo, Norway. He holds a 5-year Bachelor's Degree in Civil Engineering from the National Technical University of Athens (NTUA) with specialization in Structural Engineering. He also holds an MSc from NTUA on "Structural Design and Analysis of Structures", a Master in Business Administration (MBA) from Athens University of Economics and Business (AUEB) and a PhD from the School of Civil Engineering of NTUA. His research work focuses mainly on the Finite Element Method, Static and Dynamic Analysis of Structures, Earthquake Engineering, Optimum Design of Structures, Reliability and Probabilistic Analysis of Structures and Neural Networks and their Applications in Engineering. His published work includes more than 60 publications in peer-reviewed journals, conference proceedings, edited books and others.

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**Yasin Fahjan** is Professor of Earthquake Engineering at Gebze Technical University. Has strong background on computational methods for earthquake risk assessments, soil-structure interaction, fluid-structure Interactions. Developed several educational and commercial codes and algorithms related to structural analyses, rapid response and early warning systems, strong ground motion simulations and seismic hazard analysis. He is the main developer for AFAD-RED system operated by Turkish Disaster & Emergency Management Authority for real time estimation of earthquake damages on nationwide level. He also worked as earthquake engineering consultant for many pioneering engineering projects in Turkey and overseas. Prof. Fahjan worked as a team leader for many research projects in national and international level. He has considerable publication in the field (over 100 papers in refereed journals and conference proceedings).

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