Special issue on "Advanced Sensing Technologies for NDE and SHM of Civil Infrastructure"

Preface

The work reported in this special issue of *Smart Structures and Systems* represent the forefront of an issue with notable importance. The restoration, renewal, and extension of service life of existing urban infrastructures are broadly recognized as the most critical challenges that nations face. Innovations in structural health monitoring, nondestructive testing, sensing, and imaging methods are essential for overcoming limitations in existing assessment methods and for addressing the grand challenge to maintain and improve deteriorating infrastructure. The work reported in the eleven papers that comprise this special issue represents all aspects of this topic, represented by recognized research teams from Asia, Europe and America. Both cutting edge fundamental work, such as electromechanical impedance sensing, nonlinear ultrasonic analysis, and tomographic image reconstruction, as well as practical deployment of such technology, to the benefit of engineers and infrastructure managers, are reported for concrete and steel structures. Together, the papers of this special issue represent the latest and best efforts of leading researchers on this important topic.

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Guest Editors:

John S. Popovics, Ph.D.
Professor, Department of Civil and Environmental Engineering,
University of Illinois at Urbana-Champaign, USA (e-mail : johnpop@illinois.edu)

Sung Woo Shin, Ph.D.
Associate Professor, Department of Safety Engineering,
Pukyong National University, Republic of Korea (e-mail : shinsw@pknu.ac.kr)

Sung-Han Sim, Ph.D.
Associate Professor, School of Urban and Environmental Engineering,
Ulsan National Institute of Science and Technology, Republic of Korea (ssim@unist.ac.kr)