



*Editorial*

## STRUCTURAL INTEGRITY OF MATERIALS AND STRUCTURES

José CORREIA, Abílio DE JESUS, Rui CALÇADA

*University of Porto, Faculty of Engineering, Rua Dr. Roberto Frias, 4200-465 Porto, Portugal*

The research on structural integrity and durability of materials and structures is of utmost importance for the evaluation of the safety level of engineering structures. The investigation of properties of old and current materials applied in engineering structures, such as metals, concrete, and polymers under monotonic and cyclic loadings are discussed in this issue. Experimental and numerical analyses are performed to characterize the materials aiming at evaluating the safety state of structures and structural details. These topics have attracted permanent attention of scientists, engineers and designers.

Contributions were accepted to the following topics: i) Monotonic and chemical characterization; ii) Microstructure analysis; iii) Fracture Mechanics; iv) Fatigue crack growth; v) Fracture toughness; vi) Size effects; vii) Concrete damage plasticity; viii) Corrosion mitigation; ix) Digital image correlation; x) Hygrothermal performance; xi) Ambient vibrational characterization; xii) Durability analysis; xiii) Structural connections; xiv) Structural analysis; xv) Analytical and numerical analyses. Selected papers for this special issue were subject a peer review process following the journal standards.

As guest editors, we hope this issue provides a remarkable impact in the research related to structural integrity and durability of materials and structures. We would also like to express our gratitude to all authors for their contributions and to all reviewers for their generous work to guarantee the excellence of the papers. Finally, the guest editors would like to dedicate special thanks to Prof. Dr Algirdas Juozapaitis and Dr. Robertas Zavalis, Editor-in-Chief and Managing Editor, respectively, of Engineering Structures and Technologies Journal, and to Vilnius Gediminas Technical University and Taylors & Francis staff for their support during the preparation of this issue.