

## PREFACE

This special issue of the journal contains the selected papers presented at the *First International Conference for PhD Students in Civil Engineering* “New Researcher Generation with Challenges in Civil Engineering” (CE-PhD 2012) held in Cluj-Napoca (Romania) on 4-7 November 2012. This conference has been jointly organized by the Technical University of Cluj-Napoca, Faculty of Civil Engineering in partnership with SEnS Group. CE-PhD 2012 conference ([www.sens-group.ro/CE2012](http://www.sens-group.ro/CE2012)), with strong emphasis on participation from PhD students and supervisors involved in PhD civil engineering and architecture research programs, provide the forum for academics, young researchers and practitioners to discuss and review latest developments in the broad area of civil engineering and architecture. First International Conference for PhD Students in Civil Engineering launches a new series of conferences conceived to give students help and advice, to promote the new scientific generation in civil engineering and architecture and to develop stronger and more organized relationships between universities, national and international research funding agencies and the new researcher generations, respectively. During the CE-PhD 2012 students and community members have had the opportunity to attend several keynote presentations. The organizers are very gratefully to Prof. Balazs Gyorgy, Prof. Dan Dubina, Prof. Nicolae Taranu, Prof. Valeriu Stoian, Prof. Cornelia Magureanu and Arch. Serban Tiganas for their keynote lectures that helped to enhance the conference program. The conference has attracted over 200 abstracts (from Canada, Portugal, Switzerland, Germany, Italy, Poland, Slovakia, Croatia, Yugoslavia, Hungary, Russia and Romania) covering the broad field of civil engineering and architecture. The final conference program featured 102 successful peer-reviewed papers.

The selected papers from the conference, published in this special issue of the journal, have been successful peer-reviewed and presents advanced approaches to modern research problems in the fields of Civil Engineering and Architecture. The Editors are very grateful to all authors for their valuable contribution and to the Members of the International Scientific Advisory Committee, as well as other colleagues, for their help in reviewing the papers published in this special issue.

The Editors

Cluj-Napoca, November 2013