Selected Papers from the Proceedings of the Fourth Geo-China International Conference

Geotechnical Special Publication No. 267



New Frontiers in Civil Infrastructure

Edited by
Hany Farouk Shehata, Ph.D.
David Yanez Santillan
Mohamed F. Shehata, Ph.D.

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NEW FRONTIERS IN CIVIL INFRASTRUCTURE

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Preface

Toward building sustainable and longer civil infrastructures, the civil engineering community around the globe continues undertaking research and development to improve existing design, modeling, and analytical capability. Such initiatives are also enhanced by the on-going research toward new frontiers in civil infrastructures. This Geotechnical Special Publication (GSP) "New Frontiers in Civil Infrastructures" is one of the several official proceedings of the GeoChina 2016 Conference and contains technical papers that address several of these issues. It includes the full-length, peer-reviewed papers accepted for this conference.

More than six hundred abstracts were received for this conference in response to the Call for Papers. The abstracts were reviewed by the Organizing and Scientific Committees. All papers were reviewed following the same procedure and at the same technical standards of practice of the Geo-Institute of the American Society of Civil Engineers. All papers received a minimum of two full reviews coordinated by various track chairs and supervised by the GSP editors. Standard editorial review forms and checklists were applied to maintain uniform technical standards of the papers. As a result, 23 papers were accepted and published in this GSP designated for the new frontiers in civil infrastructure's track. The authors of the accepted papers have addressed all the comments of the reviewers to the satisfaction of the session chairs. It is hoped that readers of this GSP will be stimulated and inspired by the wide range of papers written by a distinguished group of national and international authors. The papers (like all GSPs papers) are eligible for discussion in the Journal of Geotechnical and Geo-environmental Engineering and for ASCE award nominations.

Publication of this quality of technical papers would not have been possible without the dedication and professionalism of the paper reviewers. The names of these reviewers appear in the acknowledgment that follows. For any additional reviewers whose names were inadvertently missed, we offer our sincere apologies.

We are thankful to Professor Shucai Li, Chair and Professor Dar Hao Chen, Co-chair of the organizing committee of the GeoChina 2016 Conference. Appreciation is extended to the authors and track chairs for their significant contributions. Thanks are also extended to ASCE Geo-Institute staff, Board and meeting Specialist, for their coordination and enthusiastic support to this conference. All of the submission activities of the papers for this conference were managed online by Conference Manager and we thank Professor Khalid El-Zahaby and Professor Hesham K. Amin of the Housing and Building National Research Center, Egypt for their help with additional reviews and help with the final preparations of GSP. The editors also acknowledge the assistance of Ms. Donna Dickert at ASCE Geo-Institute in the final production of this Geotechnical Special Publication.

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