Ground Improvement and Geosynthetics



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Edited by

Anand J. Puppala Jie Huang Jie Han Laureano R. Hoyos



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Preface

Ground improvement has been practiced for years as civil and transportation infrastructures often need to be constructed on unstable ground. Unstable ground included soft soils, expansive soils, collapsible soils, reclaimed soils, contaminated soils and others. Improvement methods include mechanical and hydraulic methods, chemical stabilization methods in both shallow and deep ground, reinforcement methods using geosynthetics and others. This Geotechnical Special Publication (GSP) "Ground Improvement and Geosynthetics" is one of the several official proceedings of the GeoShanghai 2010 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 four hundred abstracts were received for this conference in response to the Call for Papers, of which sixty-one abstracts were submitted to the Ground Improvement track. The abstracts were reviewed by the Organizing Committee and fifty-three invitations were extended to the authors to prepare and submit full-length papers for the Ground Improvement track.

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, 47 papers and one keynote lecture were accepted and published in this GSP designated for the Ground Improvement 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 *Ground Improvement and Geosynthetics* will be stimulated and inspired by the wide range of papers written by a distinguished group of national and international authors. The 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 Maosong Huang, Chair and Professor Baoshan Huang, Co-chair of the technical committee of the GeoShanghai 2010 Conference. Appreciation is extended to the authors and track chairs for their significant contributions. Thanks are also extended to ASCE Geo-Institute staff, especially Carol Bowers, Director, ASCE-GI, and Lauren Tighe, 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 Dr. Sireesh Saride, Aravind Pedarla, Richard Williammee, and Nagasreenivasu Talluri of the University of Texas at Arlington 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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