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# GROUND IMPROVEMENT AND GEOSYNTHETICS

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SELECTED PAPERS FROM THE PROCEEDINGS OF THE 2014  
GEOSHANGHAI INTERNATIONAL CONGRESS

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# Preface

This special publication contains 54 technical papers which cover recent advances in research and practical applications in ground improvement and geosynthetics. Among 54 technical papers, half of them are included in three sessions devoted to ground improvement and the other half are included in two sessions devoted to geosynthetics. Among 27 technical papers for ground improvement, 9 papers focuses on ground improvement with pile/column technology as foundation or embankment support, 12 papers on ground improvement with chemical, electrical, or biological technology for soil stabilization, and 6 papers on ground improvement with other technology. Among the other 27 technical papers, 21 technical papers focus on geosynthetic reinforcement for roads, slopes, walls, and foundations and 6 papers on geosyntheics for other applications, such as the use of geofoam.

Each paper published in this ASCE Geotechnical Special Publication (GSP) was evaluated by at least two reviewers including the editors. The authors of the accepted papers have addressed all the reviewers' comments to the satisfaction of the editors. All published papers are eligible for discussion in the Journal of Geotechnical and Geoenvironmental Engineering and are also eligible for ASCE awards.

The papers included in this publication were presented during the GeoShanghai 2014 International Conference held in Shanghai, China, May 26-28, 2014. This conference was hosted by Tongji University, the Chinese Institution of Soil Mechanics and Geotechnical Engineering, the Chinese Society for Rock Mechanics and Engineering and the Shanghai Society of Civil Engineering in cooperation with ASCE Geo-Institute, the International Society for Soil Mechanics and Geotechnical Engineering, the International Association of Chinese Infrastructure Professionals, the Deep Foundations Institute in the USA, the Alaska University Transportation Center (USA), University of Edinburgh (UK), Ruhr University Bochum (Germany), University of Cambridge (UK), Ecole des Ponts Paristech (France), Virginia Polytechnic Institute and State University (USA), the Shanghai Society of Theoretical and Applied Mechanics, Nagoya Institute of Technology (Japan), University of Arizona (USA), the Transportation Research Board (TRB) (USA), University of Kansas (USA), Georgia Institute of Technology (USA), Vienna University of Natural Resources and Applied Life Sciences (Austria), and University of Tennessee (USA).

We are thankful to Professor Wenqi Ding and Prof. Lianyang Zhang, the chairs of GeoShanghai, for their leadership in organizing this conference and Professor Xiaojun Li and Professor Xiong Zhang, the secretary generals of GeoShanghai, and the local organizing committee for their diligent and tireless work for this conference. Finally, we would like to acknowledge the assistance of Donna Dickert of ASCE and Robert Schweinfurth of ASCE Geo-Institute (G-I).

The editors wish to thank the following individuals who reviewed one or more papers for this geotechnical special publication:

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For any reviewers whose names were inadvertently missed, we offer our sincere apologies.

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January 20, 2014

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