# GEO-FRONTIERS 2011

## Advances in Geotechnical Engineering



Geotechnical Special Publication No. 211

Edited by Jie Han, Ph.D., P.E. and Daniel E. Alzamora, P.E.

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GEOTECHNICAL SPECIAL PUBLICATION NO. 211

# GEO-FRONTIERS 2011

## *ADVANCES IN GEOTECHNICAL ENGINEERING*

March 13–16, 2011
Dallas, Texas

SPONSORED BY
The Geo-Institute of the American Society of Civil Engineers

Industrial Fabrics Association International

North American Geosynthetics Society

Geosynthetics Materials Association

EDITED BY
Jie Han, Ph.D., P.E.
Daniel A. Alzamora, P.E.

**Published by the American Society of Civil Engineers**

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ISBN: 978-0-7844-1165-0

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# Preface

The Geo-Frontiers 2011 conference was held March 13 – 16, 2011 in Dallas, Texas. The conference was co-organized by the Geo-Institute of ASCE, Industrial Fabrics Association International, North American Geosynthetics Society, and Geosynthetics Materials Association. The conference proceedings include 497 technical papers which cover advances in research and practical applications in the areas of geotechnologies including geosynthetics. These papers were presented in 86 technical sessions over a 3 day period. Each paper published in this ASCE Geotechnical Special Publication (GSP) was peer-reviewed by at least two reviewers including the editors.

The conference also included several special events. Four prestigious lectures were presented at the conference including the Terzaghi Lecture, Mercer (geosynthetics) Lecture, Seed Lecture, and Peck Lecture. There was a student paper competition which was held in a poster session. Students also participated in the Geo-Challenge in which they designed, built, and tested a scale model of a mechanically stabilized earth wall. A memorial session was organized to honor Bernard Myles, the Honorary Chair of this conference, for his contributions to the geosynthetics industry and Geo-Frontiers 2011. Several short courses were offered by international experts in their fields at the beginning of the conference.

The editors received great support, help, and cooperation from the organizing committee, session chairs, reviewers, and authors during the preparation of the technical program and proceedings. The acknowledgement of their support and help is provided in the proceedings.

Editors:
Jie Han, Professor, Ph.D., PE, the University of Kansas
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- ADSC: The International Association of Foundation Drilling
- ASTM International
- Business Co-ordination House
- Chinese Institute of Soils Mechanics and Geotechnical Engineering
- Deep Foundations Institute
- Fabricated Geomembrane Institute
- Federal Highway Administration
- Geosynthetic Institute
- International Association of Geosynthetic Installers
- International Geosynthetics Society
- Mexican Society for Geotechnical Engineering
- Pile Driving Contractors Association
- Transportation Research Board
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# Acknowledgements

The Geo-Frontiers 2011 editors would like to recognize all the time and effort made by the session chairs in managing their sessions and all the individuals who volunteered their time to review the papers. This publication would not be possible without them. For any reviewers whose names were inadvertently missed, we offer our sincere apologies.

Special thanks go to Ms. Barbara Connett with IFAI for her tremendous work. The technical program was successful because of her professional, efficient, consistent, and thorough management of not only the technical papers but also the people involved.

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