

Geotechnical and Structural Engineering Congress 2016

Proceedings of the 2016 Geotechnical and Structural Engineering Congress | FEBRUARY 14-17, 2016 PHOENIX, ARIZONA EDITED BY C. Yoga Chandran, Ph.D., G.E., and Marc I. Hoit, Ph.D.



GEOTECHNICAL AND Structural Engineering Congress 2016

PROCEEDINGS OF THE JOINT GEOTECHNICAL AND STRUCTURAL ENGINEERING CONGRESS 2016

> February 14-17, 2016 Phoenix, Arizona

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

Structural Engineering Institute of the American Society of Civil Engineers

> EDITED BY C. Yoga Chandran, Ph.D., G.E Marc I. Hoit, Ph.D.



Published by the American Society of Civil Engineers

Published by American Society of Civil Engineers 1801 Alexander Bell Drive Reston, Virginia, 20191-4382 www.asce.org/publications | ascelibrary.org

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Errata: Errata, if any, can be found at http://dx.doi.org/10.1061/9780784479742

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Preface

This unique congress brings together the best of what the Geotechnical Engineering Institute and the Structural Engineering Institutes have to offer. In celebration of both Institutes twentieth anniversary we joined together to offer the attendees a great opportunity to exchange knowledge and network with colleges from another engineering institute. The joint congress features a robust technical program of sessions focusing on geotechnical, structural, professional practice, and blended topics.

The papers in the proceedings are on the following topics.

- Blast and Impact Loading and Response of Structures
- Bridge and Transportation Structures
- Buildings
- Collaboration for Design of Specialized Structures and Their Foundations
- Curricula and Continuing Education
- Earth Retaining Structures
- Embankments/Dams/Slopes
- Extreme Loads
- Geoenvironmental
- Geotechnical & Structural Elements of Foundation Design
- Grouting
- Hydraulic Fracturing (Fracking)
- Infrastructure Health Monitoring
- Non Building Structures & Non Structural Components
- Pavements
- Performance- based Design
- Performance of Constructed Facilities
- Professional Practice Issues
- Properties of Geo-materials and Modeling
- Reliability/Risk Assessment
- Resiliency and Sustainability
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- Seismic Hazard Analysis-Geotechnical & Structural Implications
- Site Characterization
- Soil Structure Interaction
- Structural Research
- Underground Construction
- Unsaturated Soils

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Acknowledgments

Preparation for the Geotechnical and Structural Engineering Congress required significant time and effort from the members of the Joint Program Committee, the SEI National Technical Program Committee, GI Program Committee and the staff from GI and SEI. Much of the success of the conference reflects the dedication and hard work by these groups.

The Joint Program Committee would like to acknowledge the critical support of the sponsors, exhibitors, presenters, and moderators who contributed to the success of the conference through their participation.

The Geotechnical and Structural Engineering Congress technical program consists of 120 concurrent technical sessions on topics of interest to both disciplines. New at this event are Lightning Round Sessions that enhance our ability to provide speaking time for authors AND one on one time with interested audience members! These types of fast passed, succinct and focused sessions are used at many conferences with great success. They allow the presenter 3 minutes at the podium to make a "TED" type presentation and then additional time to speak with the audience one on one with more detailed information on their computer.

On behalf of our dedicated volunteers and staff, we would like to thank you for spending your valuable time attending the Geotechnical and Structural Engineering Congress. It is our hope that you and your colleagues will benefit greatly from the information provided, learn things you can implement and make professional connections that last for years.

Sincerely,

C. Yoga Chandran, Ph.D., G.E. M.ASCE, Senior Project Manager CH2M Hill Conference Co-Chair

Marc I. Hoit, Ph.D., F.SEI, F.ASCE Vice Chancellor for Information Technology and CIO

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