Geo-China 2016

New Frontiers in Civil Infrastructure

Selected Papers from the Fourth Geo-China International Conference Geotechnical Special Publication Number 267

Shandong, China 25 – 27 July 2016

Editors:

Hany Farouk Shehata David Yanez Santillan Mohamed F. Shehata

ISBN: 978-1-5108-2977-0

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2016) by American Society of Civil Engineers All rights reserved.

Printed by Curran Associates, Inc. (2016)

For permission requests, please contact American Society of Civil Engineers at the address below.

American Society of Civil Engineers 1801 Alexander Bell Drive Reston, VA 20191 USA

Phone: (800) 548-2723 Fax: (703) 295-6333

www.asce.org

Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: 845-758-0400 Fax: 845-758-2633

Email: curran@proceedings.com Web: www.proceedings.com

Contents

New Trends in Foundation Design Using the Finite Element Analysis Method
Hany Farouk Shehata and Khalid M. El-Zahaby
The Weakness of Using Springs for Representing Soil9 Hany Farouk Shehata and Mohamed F. Shehata
Implications of the Seismic Coefficients in High Dams Constructed in Mexico
Research Progress of Rock-Fill Material Degradation in a Severe Environment
Beixiao Shi, Zhengyin Cai, and Shengshui Chen
Characterization, Experimental Investigation, and Application of a Sliding Controlled Spherical Bearing
Numerical Study of the Arching Phenomenon of Bored Piles in Sand44 Zahra A. Kamal, Mohamed G. Arab, and Adel Dif
Experimental Evidence for the Relationship between the Elastic Shortening of RC Piles to the Overall Subsidence of Foundations
Review of Large Mexican Dams in Operation
Lower Bound Bearing Capacity of Strip Footings on Jointed Rock Masses: A Reliability-Based Approach
Dual Response Surface Methodology for the Robust Design of Continuous Compaction Measurement Value
Planning and Evaluation of Rural Road Network Connectivity Using GIS83 Anil Modinpuroju and C. S. R. K. Prasad

νi

Emad Zolgadr and Naser Jedari Salehzadeh