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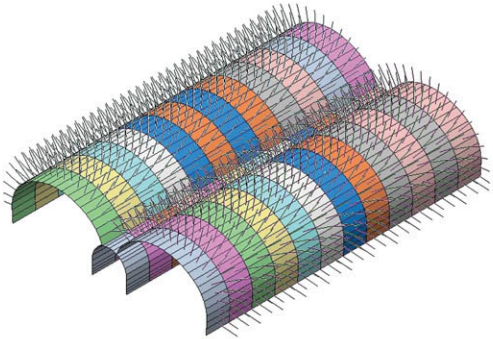
Recent Advancement in Soil Behavior, In Situ Test Methods, Pile Foundations, and Tunneling



Edited by
Liaqat Ali, Ph.D.
António Gomes Correia, Ph.D.
Junsheng Yang, Ph.D.
Mingjiang Tao, Ph.D.

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SELECTED PAPERS FROM THE 2009 GEOHUNAN INTERNATIONAL CONFERENCE

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50 *Foundation Upgrading and Repair for Infrastructure Improvement*
51 *Performance of Deep Foundations Under Seismic Loading*
52 *Landslides Under Static and Dynamic Conditions - Analysis, Monitoring, and Mitigation*
53 *Landfill Closures - Environmental Protection and Land Recovery*
54 *Earthquake Design and Performance of Solid Waste Landfills*
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56 *Static and Dynamic Properties of Gravelly Soils*
57 *Verification of Geotechnical Grouting*
58 *Uncertainty in the Geologic Environment*
59 *Engineered Contaminated Soils and Interaction of Soil Geomembranes*
60 *Analysis and Design of Retaining Structures Against Earthquakes*
61 *Measuring and Modeling Time Dependent Soil Behavior*
62 *Case Histories of Geophysics Applied to Civil Engineering and Public Policy*
63 *Design with Residual Materials: Geotechnical and Construction Considerations*
64 *Observation and Modeling in Numerical Analysis and Model Tests in Dynamic Soil-Structure Interaction Problems*
65 *Dredging and Management of Dredged Material*
66 *Grouting: Compaction, Remediation and Testing*
67 *Spatial Analysis in Soil Dynamics and Earthquake Engineering*
68 *Unsaturated Soil Engineering Practice*
69 *Ground Improvement, Ground Reinforcement, Ground Treatment: Developments 1987-1997*
70 *Seismic Analysis and Design for Soil-Pile-Structure Interactions*
71 *In Situ Remediation of the Geoenvironment*
72 *Degradation of Natural Building Stone*
73 *Innovative Design and Construction for Foundations and Substructures Subject to Freezing and Frost*

74 *Guidelines of Engineering Practice for Braced and Tied-Back Excavations*
75 *Geotechnical Earthquake Engineering and Soil Dynamics III*
76 *Geosynthetics in Foundation Reinforcement and Erosion Control Systems*
77 *Stability of Natural Slopes in the Coastal Plain*
78 *Filtration and Drainage in Geotechnical/Geoenvironmental Engineering*
79 *Recycled Materials in Geotechnical Applications*
80 *Grouts and Grouting: A Potpourri of Projects*
81 *Soil Improvement for Big Digs*
82 *Risk-Based Corrective Action and Brownfields Restorations*
83 *Design and Construction of Earth Retaining Systems*
84 *Effects of Construction on Structures*
85 *Application of Geotechnical Principles in Pavement Engineering*
86 *Big Digs Around the World*
87 *Jacked Tunnel Design and Construction*
88 *Analysis, Design, Construction, and Testing of Deep Foundations*
89 *Recent Advances in the Characterization of Transportation Geo-Materials*
90 *Geo-Engineering for Underground Facilities*
91 *Special Geotechnical Testing: Central Artery/Tunnel Project in Boston, Massachusetts*
94 *Performance Confirmation of Constructed Geotechnical Facilities*
95 *Soil-Cement and Other Construction Practices in Geotechnical Engineering*
96 *Numerical Methods in Geotechnical Engineering: Recent Developments*
97 *Innovations and Applications in Geotechnical Site Characterization*
98 *Pavement Subgrade, Unbound Materials, and Nondestructive Testing*
99 *Advances in Unsaturated Geotechnics*
100 *New Technological and Design Developments in Deep Foundations*
101 *Slope Stability 2000*
102 *Trends in Rock Mechanics*
103 *Advances in Transportation and Geoenvironmental Systems Using Geosynthetics*
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105 *Environmental Geotechnics*
106 *Geotechnical Measurements: Lab & Field*
107 *Soil Dynamics and Liquefaction 2000*
108 *Use of Geophysical Methods in Construction*
109 *Educational Issues in Geotechnical Engineering*
110 *Computer Simulation of Earthquake Effects*
111 *Judgment and Innovation: The Heritage and Future of the Geotechnical Engineering Profession*
112 *Soft Ground Technology*
113 *Foundations and Ground Improvement*
114 *Soils Magic*
115 *Expansive Clay Soils and Vegetative Influence on Shallow Foundations*
116 *Deep Foundations 2002: An International Perspective on Theory, Design, Construction, and Performance*
117 *Discrete Element Methods: Numerical Modeling of Discontinua*
118 *A History of Progress: Selected U.S. Papers in Geotechnical Engineering*
119 *Soil Behavior and Soft Ground Construction*
120 *Grouting and Ground Treatment*
121 *Probabilistic Site Characterization at the National Geotechnical Experimentation Sites*
122 *Sinkholes and the Engineering and Environmental Impacts of Karst*
123 *Recent Advances in Materials Characterization and Modeling of Pavement Systems*
124 *GeoSupport 2004: Drilled Shafts, Micropiling, Deep Mixing, Remedial and Specialty Foundation Systems*
125 *Current Practices and Future Trends in Deep Foundations*
126 *Geotechnical Engineering for Transportation Projects*
127 *Recycled Materials in Geotechnics*
128 *Soil Constitutive Models: Evaluation, Selection, and Calibration*
129 *Advances in Designing and Testing Deep Foundations*
130 *Advances in Pavement Engineering*
131 *Contemporary Issues in Foundation Engineering*
132 *Advances in Deep Foundations: In Memory of Michael W. O'Neill*
133 *Earthquake Engineering and Soil Dynamics*
134 *Soil Dynamics Symposium in Honor of Professor Richard D. Woods*
135 *Erosion of Soils and Scour of Foundations*

136 *Innovations in Grouting and Soil Improvement*
137 *Legal and Liability Issues in Geotechnical Engineering*
138 *Site Characterization and Modeling*
139 *Calibration of Constitutive Models*
140 *Slopes and Retaining Structures under Seismic and Static Conditions*
141 *International Perspectives on Soil Reinforcement Applications*
142 *Waste Containment and Remediation*
143 *Geomechanics: Testing, Modeling, and Simulation*
144 *Sinkholes and the Engineering and Environmental Impacts of Karst*
145 *Seismic Performance and Simulation of Pile Foundations in Liquefied and Laterally Spreading Ground*
146 *Asphalt Concrete: Simulation, Modeling and Experimental Characterization*
147 *Unsaturated Soils 2006*
148 *Advances in Unsaturated Soil, Seepage, and Environmental Geotechnics*
149 *Site and Geomaterial Characterization*
150 *Soil and Rock Behavior and Modeling*
151 *Advances in Earth Structures: Research to Practice*
152 *Ground Modification and Seismic Mitigation*
153 *Foundation Analysis and Design: Innovative Methods*
154 *Pavement Mechanics and Performance*
155 *Underground Construction and Ground Movement*
156 *Geomechanics II: Testing, Modeling, and Simulation*
157 *Computer Applications in Geotechnical Engineering*
158 *Contemporary Issues in Deep Foundations*
159 *Case Studies in Earth Retaining Structures*
160 *Dynamic Response and Soil Properties*
161 *Embankments, Dams, and Slopes: Lessons from the New Orleans Levee Failures and Other Issues*
162 *Problematic Soils and Rocks and In Situ Characterization*
163 *Geoenvironmental Engineering*
164 *Innovative Applications of Geophysics in Civil Engineering*
165 *Geosynthetics in Reinforcement and Hydraulic Applications*
166 *Educational Activities in Geotechnical Engineering*
167 *Geotechnics of Soil Erosion*
168 *Grouting for Ground Improvement: Innovative Concepts and Applications*
169 *Soil and Material Inputs for Mechanistic-Empirical Pavement Design*
170 *Probabilistic Applications in Geotechnical Engineering*
171 *Advances in Shallow Foundations*
172 *Soil Improvement*
173 *Advances in Measurement and Modeling of Soil Behavior*
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181 *Geotechnical Earthquake Engineering and Soil Dynamics IV*
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183 *Sinkholes and the Engineering and Environmental Impacts of Karst*
184 *Pavements and Materials: Modeling, Testing, and Performance*
185 *Contemporary Topics in Deep Foundations*
186 *Contemporary Topics in In-Situ Testing, Analysis, and Reliability of Foundations*
187 *Contemporary Topics in Ground Modification, Problem Soils, and Geo-Support*
188 *Advances in Ground Improvement: Research to Practice in USA and China*
189 *Characterization, Modeling, and Performance of Geomaterials*
190 *Asphalt Material Characterization, Accelerated Testing, and Highway Management*
191 *Road Pavement Material Characterization and Rehabilitation*

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Foreword

An international conference titled, *"Challenges and Recent Advances in Pavement Technologies and Transportation Geotechnics"* was held in China during 3 – 6 August 2009. The conference was hosted by Changsha University of Science and Technology, China and co-sponsored by ASCE Geo-Institute, Asphalt Institute, Central South University, Chinese Society of Pavement Engineering, Deep Foundation Institute, Federal Highway Administration, US Department of Transportation, Hunan University, China, International Society for Asphalt Pavements, Jiangsu Transportation Research Institute (JSTRI), China, Korea Institute of Construction Technology, Korean Society of Road Engineers, Shanghai Highway & Transportation Society, Texas DOT, Texas Transportation Institute, and Transportation Research Board (TRB).

This geotechnical special publication constitutes the proceedings of the four sessions of the conference: Soil Behavior and Laboratory Testing, In-situ Test Methods for Site Characterization, Design and Quality Control of Earth Structures and Subgrades, Pile Foundations in Subgrade, and Tunnel Engineering.

Whilst soil has been used as construction material since ancient times, technological advances continue to be made in the means of exploring, testing and in the geotechnical methods for planning and designing. The knowledge and awareness of soil behavior is fundamental to all aspects of geotechnical engineering. The objective of this publication is to provide the reader with information and foster the data on recent advances in the in-situ and laboratory testing, pile foundation systems, tunneling and design procedures for earth structures. The collection of peer-reviewed papers accumulated here synthesizes the current and future progression in respective geotechnical fields.

Papers in this volume were reviewed by professional geotechnical engineers with expertise in the subject area. Each paper included in this publication has received at least two positive examine reviews. Authors were given the opportunity to modify their papers based on reviewer's suggestions prior to final submittal of the papers. The ideas in the papers are those of authors and do not necessarily represent the views of reviewers, editors and ASCE. All papers are eligible for discussion in the Journal of Geotechnical and Geo-environmental Engineering and are eligible for ASCE awards.

The editors of this publication express appreciation to all the reviewers and authors who made this publication possible. We are grateful to Donna Dickert, of ASCE, for her prompt and willing support.

The Editors

Dr. Liaqat Ali
School of Civil and Environmental Engineering, National University of Science and Technology
Sector H-12, Islamabad, Pakistan
liaqatnust@yahoo.com

Dr. A. Gomes Correia
Head of Geotechnical Group
University of Minho/DEC
Campus de Azurem
4800 – 058 GUIMARAES, Portugal
agc@civil.uminho.pt

Dr. Mingjiang Tao
Department of Civil and Environmental Engineering Worcester Polytechnic Institute
100 Institute Road, Worcester, MA 01609, USA
taomj@wpi.edu

Dr. Junsheng Yang
School of Civil Engineering and Architecture, Central South University, 22 Shaoshan South Road, Changsha City, Hunan Province, 410075, China
jsyang@mail.csu.edu.cn

Contents