GEOTECHNICAL SPECIAL PUBLICATION NO. 175

FMGM 2007

PROCEEDINGS OF THE SEVENTH INTERNATIONAL SYMPOSIUM ON FIELD MEASUREMENTS IN GEOMECHANICS

September 24–27, 2007
Boston, Massachusetts

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

EDITED BY
Jerry DiMaggio, P.E.
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Preface

Measurements of field performance during and after construction of constructed facilities has taken on more importance as structures become more complex and sensitive to deformations, the costs of surprise performance grow rapidly, owners seek to more actively manage risks to their projects, and the public demands diminished impacts from construction activities. Major developments in measurement technologies are providing more ways to monitor performance with near real-time frequency for decreasing cost. It is therefore beneficial to give those interested in instrumentation and performance monitoring an opportunity to meet regularly to exchange ideas and experiences to stimulate further advancement within field instrumentation. The international symposia for Field Measurements in GeoMechanics, FMGM as an acronym, are organized to serve this purpose.

This publication covers the 7th International Symposium on Field Measurements in Geomechanics, FMGM 2007, held in Boston, USA, from September 24-27, ,2007 under the sponsorship of the ASCE Geo-Institute. The great international interest and large attendance at this symposium have again clearly demonstrated the need for specialty conferences of this kind to build on the benefits from the previous six FMGM symposia held in Switzerland (1983), Japan (1987), Norway (1991), Italy (1995), Singapore (1999) and Norway (2003).

The great interest in the FMGM 2007 symposium is reflected by the large number of abstracts received (155). After independent reviews by two reviewers, 105 papers were accepted for presentation and publication in the proceedings. These papers were written by 174 authors and co-authors from 19 countries. The topics of the papers cover a wide spectrum within the three main conference themes:

- Case studies demonstrating the role of field measurements in problem-solving, research, safety assessment, risk assessment and improving the design of civil engineering structures and works.
- State-of-the-art and futures trends in measurement technologies, equipment, communications, data management and interpretation, and visions for future development.
- Business side of instrumentation demonstrating and quantifying the benefits of field measurements to project management teams, owners, engineers, contractors, regulators and insurers.

In addition three special workshops covering geotechnical instrumentation to measure performance, inclinometers and innovations in instrumentation, installation and data acquisition were held.

The efforts of many people were essential to the success of this symposium. As Chair of the Organizing Committee, my appreciation and thanks go to all those involved, especially to the authors of papers, the reviewers, the members of the Organizing Committee and the Editors of these proceedings, Jerry DiMaggio and Peter Osborn of the United States Federal Highway Administration. Without the extraordinary efforts of these people, there would have been no symposium and no proceedings.

September 2007

W. Allen Marr, Chairman of Organizing Committee, FMGM 2007
President and CEO of Geocomp Corporation, Boxborough, MA, USA
wam@geocomp.com

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