



2013 – 2014

*February's Joint MGS and
MN Section of ASCE Meeting*

Key Causes of Time-Dependent Behavior of Sand

Radoslaw L. Michalowski
University of Michigan

Freshly deposited or disturbed sands tend to exhibit time-dependent behavior. Two very well-known engineering consequences caused by time effects are: the increase in bearing capacity of displacement piles, and an increase in cone penetration resistance of sands after dynamic compaction. The source of this time-dependency is not fully understood. A hypothesis will be presented that considers the delayed fracturing of the micro-morphological features at grain surfaces as the key mechanism contributing to the time effects in sands. Results from recent laboratory experiments, both with a single contact between grains and on the specimens of sand will be presented in support of the hypothesis.

Date: Thursday, February 27, 2014

Location: Continuing Education and Conference Center
1890 Buford Avenue

St. Paul Campus of the University of Minnesota

(Pay parking is available in lots S104 and S108 or the Gortner Avenue Ramp. Typical evening rate is \$6.00. Detailed information is available at <http://www1.umn.edu/pts/park/visitorparking.html>.)

Time: 6:00 Social Hour, Sponsored by Hayward Baker.

7:00 Dinner – Buffet Style

8:00 Presentation – Prof. Radoslaw L. Michalowski

(One professional development hour toward continuing education requirements for Professional Engineers is available).

Cost: \$30.00 members and non-members, and \$5.00 Full-time students, payable to MGS at the door.

Reservations: Requested by 12 Noon, Monday, February 24, 2014
(STRICTLY ENFORCED)

Please register via the website at <http://www.mngeotechnicalsociety.com/eventsmpls.asp>

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