

Editorial

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This issue of *Ground Improvement* covers a number of interesting themes, with papers from the Middle East, North America and Europe. The papers cover a number of challenging issues encountered by ground improvement practitioners and researchers alike. This issue covers topics on soil stabilisation, foundations on sands, soil nailing, slope stability, liquefaction of soils and erosion of sands.

The paper by Changizi and Haddad (2017) evaluates the effect of using nano-silica particles in the ground improvement of a clayey soil. The engineering, consolidation and strength properties of clayey soils was evaluated when stabilised with nano-silica, which was found to improve the mechanical properties of clay significantly.

The paper by Ahmadi *et al.* (2017) focuses on the geotechnical design and physical modelling of shallow foundations on sands when subjected to earthquake-induced loadings. A number of soil stabilisation techniques were used to mitigate seismic settlement, with cement grouting reported to be the optimum treatment solution.

The paper by Ghadimi *et al.* (2007) evaluated the effects of various factors on the bond strength of soil nails in the field, through a series of pull-out tests and with various injection pressures and other variables. A relationship was proposed between bond strength and other soil parameters. The displacement of soil nails in cemented soils were reported to be similar under gravity and pressure injection.

The paper by Wu *et al.* (2017) evaluated the usage of finite-element and limit equilibrium analysis to stabilise a high slope. Several approaches were utilised and the factors of safety compared. The results indicated that a flattened slope configuration and reinforcement with ground anchors would sufficiently reinforce the slope within the required design limits.

The paper by Zeybek and Madabhushi (2017) investigates the effect of durability of air bubbles under simulated field seismic conditions, through a series of sand column and centrifuge tests. The results indicated that entrapped air bubbles in soils, as a partial saturation technique can counteract liquefaction.

The paper by Amin *et al.* (2017) investigates the usage of the biogrouting technique to reduce the hydraulic erosion of sands. More effective treatment was reported to be achieved by aeration and by incorporating a drained stage between injection cycles. Microscale analysis methods were also conducted to confirm the findings.

The six technical papers included in this issue provide an excellent mix of ground improvement techniques in a variety of geotechnical and civil engineering applications. I am sure readers will find these papers to be extremely interesting and thank the authors for their contributions.

As a new editorial board member, I would also like to thank the honorary editor, Professor Buddhima Indraratna, the editorial board members and staff for inviting me into the team.

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