Editorial

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It is my pleasure to be invited to write an editorial for this first issue of *Ground Improvement* in 2018. This issue contains 5 papers covering various topics in Ground Improvement using chemical admixtures.

Su and Liao (2018) investigate the base stability of an excavation when grout piles are installed. Circular slip analysis was employed using undrained shear strengths from both an improved zone by grout piles and an unimproved zone. They found that the factor of safety against base heave is affected by the shear strengths of clay and grout piles, the improvement ratio and the depth of excavation.

Utilisation of waste materials often poses a challenge in modern geotechnical engineering project. Ahmed *et al.* (2018) investigate the use of waste gypsum plasterboard as a stabiliser material for organic soft clay soil. Their results confirm that the introduction of recycled plaster with cement can improve the strength and stiffness of the treated soil.

An amino-based resin was utilised as a new chemical composition for grouting on the static and dynamic behaviour of both dry and saturated sands by Halabian *et al.* (2018). Under both static and dynamic conditions, the use of the amino-based resin can further improve the physical and mechanical properties of sand when compared with that treated with conventional cement.

Collapsible soils typically present major risk on superstructures. In the study by Attom *et al.* (2018), a cement–fibre admixture was used to reduce the collapsibility of soils. An admixture content of 5% was found to be appropriate for the soils to eliminate their collapsibility potential regardless of the soil initial water content and the cement:fibre ratio.

The paper by Darikandeh (2018) presents the laboratory investigation of an expansive soil stabilised by calcium carbide residue–fly ash. A significant reduction in the swell potential and swell pressure was observed and supported via pore sizes, morphological changes and changes in the x-ray diffractogram.

The five technical papers present an outstanding combination of ground improvement techniques. I am confident readers will find these papers to be interesting and acknowledge the authors for their contributions.

I would like to take this opportunity to wish our readers, editorial board and ICE staff members a happy new year.

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