Editorial

M. C. R. Davies BSc(Eng)(Lond), AKC, MPhil, PhD(Cantab), CEng, MICE, FIPENZ, FGS, FRSE

A quick glance at the list names of the members of the editorial advisory panel for this journal will reveal that their geographical distribution is truly global – reflecting the international nature of the editorial policy of, and contributors to, *Ground Improvement*. This does not deter the panel from meeting regularly to discuss editorial matters and the longer-term strategic direction of *Ground Improvement*; which is achieved via the Institution of Civil Engineers internet conferencing service. Despite the significant time difference between some of the members, the editorial advisory panel has found this to work well. As a result of the way in which it operates, some of the members of the panel have not met in person. However, a large proportion of the panel's members attended the 17th International Conference on Soil Mechanics and Geotechnical Engineering that was held in October of this year in Alexandria, Egypt, and this provided us with the opportunity to hold a rare 'face-to-face' meeting to discuss the strategic direction of the journal.

At the Alexandria meeting the editorial advisory panel reaffirmed its desire for *Ground Improvement* to become increasingly recognised as the journal of record for developments in the discipline and that, to do this effectively, papers need to be processed as quickly as possible. However, the panel remains adamant that fast-tracking papers should not be at the cost of the quality and rigour of the review of papers submitted for publication. The panel also considered the topics of papers that should be published in the journal, agreeing unanimously that *Ground Improvement* should continue to publish relevant papers and discussion of these spanning laboratory studies, physical model testing, developments in analytical techniques, numerical modelling, new technologies and case histories. Indeed, this issue reflects very well this policy.

The first two papers in this issue, both describe laboratory studies to assess techniques to modify the strength and stiffness properties of soil. In the first of these Mohamedelhassan¹ reports on experiments to assess the effects of electrokinetic treatment of soft clay on water content, preconsolidation pressure and shear strength in order to improve engineering performance. In the second laboratory study published in this issue Sivapullaiah and Reddy² describe the results of tests conducted to quantify the effect of fly ash on reducing the swelling of both high- and low-plasticity clays which are subjected to high-strength-alkali contamination.

Hsiung³ presents an interesting case history from Taiwan in which groundwater surrounding a large excavation in an urban environment was controlled using double-packer sleeve grouting. The purpose of this groundwater control was to minimise damage to adjacent buildings. This paper contains interesting data together with a commentary on the damage to buildings resulting from the recorded ground movements.

This issue contains also two papers that report on numerical analysis conducted to investigate the performance of foundation systems improved using reinforcement techniques. In their paper, Saride *et al.*⁴ present the results of a study in which they used three-dimensional finite-difference analysis to predict the performance of model tests in which the bearing capacity of circular footings placed on geocell-reinforced soils was measured. In all the cases, the authors obtained a good agreement between the results obtained from numerical simulations and laboratory experiments. Although they are not able to compare the results of their analyses with field or model data, in the second paper describing numerical analysis Haldar and Sivakumar Babu⁵ use a plane-strain finite-difference code to assess the performance of a novel reinforced foundation system subjected to high-frequency dynamic loading from machinery. The analysis is able to quantify the change in natural frequency of the foundation as a result of the reinforcement – which increased the stiffness of the soil – showing that the presence of the reinforcement will prevent resonance occurring when the machinery is within its operating range of frequencies. In due course it is hoped that the authors of these two papers will be able to report in this journal case histories that describe comparisons of their analyses with the performance of full-scale foundation systems.

Finally in this issue, Vinod and Ajith⁶ present a discussion on the paper by Sivakumar Babu and Vasudevan,⁷ which describes a laboratory study of the strength and stiffness response of coir-fibre-reinforced soil. The discussion re-examines some of the findings of the original paper based on the contributors' own experimental findings and also extends the findings of the original paper.

REFERENCES

1. MOHAMEDELHASSAN E. Electrokinetic strengthening of soft clay. *Proceedings of the Institution of Civil Engineers – Ground Improvement*, 2009, 162, No. 4, 157–166.

2. SIVAPULLAIAH P. V. and REDDY P. H. P. Fly ash to control alkali-induced volume changes in soils. *Proceedings of the Institution of Civil Engineers – Ground Improvement*, 2009, 162, No. 4, 167–173.
3. HSIUNG B. C. B. Field performance of an excavation using sleeve grouting. *Proceedings of the Institution of Civil Engineers – Ground Improvement*, 2009, 162, No. 4, 175–183.
4. SARIDE S. GOWRISETTI S., THALLAK S. G. and PUPPALA A. J. Numerical simulation of geocell-reinforced sand and clay. *Proceedings of the Institution of Civil Engineers – Ground Improvement*, 2009, 162, No. 4, 185–199.
5. HALDAR S. and SIVAKUMAR BABU G. L. Improvement of machine foundations using reinforcement. *Proceedings of the Institution of Civil Engineers – Ground Improvement*, 2009, 162, No. 4, 201–206.
6. VINOD P. and AJITH B. Discussion: Evaluation of strength and stiffness response of coir fibre reinforced soil – Sivakumar Babu G. L. and Vasudevan A. K. *Proceedings of the Institution of Civil Engineers – Ground Improvement*, 2009, 162, No. 4, 207–209.
7. SIVAKUMAR BABU G. L. and VASUDEVAN A. K. Evaluation of strength and stiffness response of coir-fibre-reinforced soil. *Ground Improvement*, 2007, 11, No. 3, 111–116.