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Editorial

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Editorial

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On behalf of the Editorial Board of *Geotechnical Research* (GeoRes), we welcome our readers to the fourth issue of volume 8 (2021). GeoRes, being the first gold Open Access (OA) journal of the Institution of Civil Engineers, maximises the impact of research articles and knowledge-based case studies in a wide range of geotechnical challenges. Like most other OA journals, authors have to pay a publication charge for publishing in GeoRes. However, the journal offers a range of discounts for disadvantaged groups of researchers, particularly researchers from the International Network for the Availability of Scientific Publications (INASP) countries. Such a discount policy aims to partially eliminate an economic barrier for disseminating research output from developing countries. From 2022, the editors of GeoRes may offer up to six fee waivers for outstanding papers.

The contributions from the fast-growing regions of Asia-Pacific, Africa and the Middle East as well as the mature regions of Europe and North America are very much acknowledged and appreciated. In the last few issues, GeoRes has published papers in the following key areas in geotechnical engineering: (i) innovative ground soil improvement work (Ahenkorah *et al.*, 2021; Ciardi *et al.*, 2020; Feng *et al.*, 2020; Guo *et al.*, 2020; Weng *et al.*, 2020; Xie *et al.*, 2020), (ii) complex soil–structure interaction (Ge *et al.*, 2020; Guo *et al.*, 2021; Inazumi *et al.*, 2021; Qin and Ma, 2021; Shiau and Hassan, 2020; Xu *et al.*, 2020; Zhang, 2020), (iii) review (Lopes and Dias, 2021) and (iv) reliable laboratory testing/model development (Feng and Liu, 2021; Li *et al.*, 2020; O’Kelly and Nogal, 2020; Osman *et al.*, 2020; Wang *et al.*, 2021a).

The fourth issue of volume 8 (2021) includes four practical geotechnical engineering articles related to construction challenges and data analysis.

Joseph *et al.* (2021) present the dynamic amplification factor at backfill soil behind a gravity wall. The authors carried out a parametric study involving seven earthquake scenarios on a gravity retaining wall and developed an equation for the amplification factor at the wall top as a function of peak ground acceleration (PGA) and predominant frequency. A comparison with the previous literature indicates that the proposed equation holds good for ground motions of PGA ranging from 0.16g to 0.36g and a predominant frequency range

of 1–5 Hz. While the authors believe that the equation will be useful for preliminary estimates or rapid assessments, they suggested a further study on the influence of different backfill and soil conditions.

Collapsible soils are problematic in geotechnical engineering as they are susceptible to a significant and sudden reduction in volume upon wetting and loading. Abdulrasool and Al-Wakel (2021) present the effect of polyurethane foam on collapsible, gypseous soil, to improve its behaviour to support shallow foundations. The authors found that 3% polyurethane foam can effectively decrease the change in volumetric strain and collapse potential and recommend its use.

Neeraj and Thiyyakkandi (2021) present a study on the factor of safety of pile-stabilised slopes. The authors propose a new algorithm to compute the factor of safety of pile-stabilised slopes, in which the Morgenstern–Price method is modified to incorporate the effect of a pile. The factor of safety values are in close agreement with the result from the finite-element modelling.

Wang *et al.* (2021b) present a review of transparent soil. The authors report that the concept of transparent soil emerged in 1982 to observe the internal stress–strain distribution of soil. They suggest that the experimental or sample preparation success of transparent soil depends on the particle size, pore fluid ratio, solution ratio, temperature and time. The authors believe machine learning technology may improve the data acquisition and interpretation of transparent soil in the future.

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