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Editorial

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Welcome to the October issue of *Geotechnical Engineering*. The production system for forthcoming issues is busy and we are pleased to be able to publish seven papers and a discussion in the current edition.

We included obituaries of two eminent engineers in our August edition and we close this issue with an obituary of one of the most influential engineers in our profession who died early in 2008.

Ralph B. Peck had a long and distinguished career in geotechnical engineering working closely, and influenced early in his career, by Casagrande and Terzaghi. He worked on many and varied projects across the globe over many decades. Although he is widely considered to be one of the pioneering engineers in our branch of civil engineering his influence endured through the last century and into this. He was extensively published through his career and he presented his ideas in the ninth Rankine Lecture at the Institution of Civil Engineers in 1969. Gholamreza Mesri provides an obituary highlighting significant events and achievements of Ralph B. Peck's career, some insight into his technical philosophy and closes with some personal reflection based upon their working relationship.

The first three papers in the issue provide design guidance in the areas of pipelines, foundations and waterfront structures. Bransby and Ireland¹ report on physical model tests investigating the effects of pipeline displacement rate on both the uplift capacity of pipelines and the displacements required to mobilise peak load. They advise that designers should consider how rate affects the upheaval buckling resistance of pipelines particularly in silty sands. The next paper by Gavin *et al.*² also deals with tests in sand and the development of a non-linear elastic model to explain the rate of mobilisation of the footing resistance at low settlements related to the initial soil state and previous loading history. Field tests on full-scale footings allowed correlation between the bearing pressure mobilised and the cone penetration test *qc* value. Ahmad and Choudhury³ consider seismic design factors for sliding of waterfront retaining wall. They present a methodology for obtaining seismic design factors for sliding of a waterfront retaining wall using the pseudo-dynamic approach. They suggest that results show a good match with an existing methodology for the dry backfill case with

no upstream water but that the results for the wet case seem to be unique.

The next two papers deal with modification of the engineering properties of clayey soils. Attom *et al.*⁴ present a study on the effects of nylon and other fibres on the mechanical properties of clayey soils. They provide results concerning the improvement in mechanical characteristics as a result of increasing fibre content. Brooks *et al.*⁵ consider the improvement the unconfined compressive strength, California Bearing Capacity and swell potential of Philadelphia clay by the addition of cement kiln dust (CKD). They use these improvement characteristics to provide guidance concerning mixing and compaction of soils.

In the final paper Karaca⁶ reports on the influence of different filling materials on the physical and mechanical properties of Travertine from Denizli in Turkey. The author reports the improvement in the physical and mechanical properties of the various filling materials studied.

In closing this editorial I reflect on one comment attributed to Ralph Peck: 'Theory and calculations are not a substitute for judgment, but only the basis for sounder judgment'. Logically, and understandably, this suggests that studying good quality technical papers provides an opportunity to improve our engineering judgement; I hope you find the papers published in *Geotechnical Engineering* interesting and of value in the future.

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