(2023) ***Géotechnique Letters*** **13**, 89, https://doi.org/10.1680/jgele.2023.13.1.89

Award-winning paper in 2021

Papers published in *Géotechnique Letters* are eligible for awards from the Institution of Civil Engineers. Papers from any of the ICE journals can be nominated for several awards. In addition, each journal has awards dedicated to their specific subject area.

On Friday 14 October 2022, ICE president Ed McCann presented an award to the following published in *Géotechnique Letters* in 2021. The editorial panel nominated their best papers and an awards committee chaired by Tim Broyd allocated the awards.

TELFORD PREMIUM

The Telford Premium Prize was awarded to Laham *et al.* (2021).

ABSTRACT

This technical note describes a set of direct simple shear (DSS) tests that characterise the evolving geotechnical properties of a soft soil, through a loading history that represents episodic loading and consolidation periods as encountered by some offshore infrastructure. The interpretation uses a critical state soil mechanics (CSSM) framework. CSSM provides the necessary building blocks to quantify the balance between undrained cyclic loading and the associated increases in pore pressure, and drainage and consolidation, leading to strength regain. The results show how DSS tests can characterise the through-life response of soft clays. The measured responses showed the changing strength of the clay due to consolidation effects following loading, and match predictions from simple models. The results show how DSS tests can characterise the types of behaviour also seen in centrifuge models and field penetrometer tests related to the long-term response of soft clays under offshore infrastructure.

REFERENCE

Laham. N. I., Kwa K. A., White D. J & Gourvenec S. M. (2021). Episodic simple shear tests to measure strength changes for whole-life geotechnical design. *Géotech. Lett.* **11**, 103–111, https://doi.org/10.1680/jgele.20.00124.