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Award-winning paper in 2020.

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Announcement

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Award-winning paper in 2020

Papers published in *Geotechnical Engineering* 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 15 October 2021, ICE president Rachel Skinner presented an award to following paper published in *Geotechnical Engineering* in 2020. The editorial panel nominated their best papers and an awards committee chaired by Tim Broyd allocated the award.

Crampton Prize

The Crampton Prize, presented for the best paper on geotechnics practice, was awarded to Xie *et al.* (2020).

Abstract

The drainage of groundwater is essential to slope stabilisation in both potential and existing landslides. Air injection is a new method for slope drainage that aims to control rapid rises in the groundwater level by

creating an artificial unsaturated zone with low permeability. The interception ratio, reflecting the effectiveness of the air injection method in intercepting groundwater, is defined in this paper and the effects of the length and hydraulic conductivity of the unsaturated zone on the interception ratio are studied through theoretical analysis, physical tests and numerical simulations. The results show that, in the initial stage, the interception ratio increases quickly with an increase in the length of the unsaturated zone. The interception ratio then gradually stabilises, with the stable value depending on the decrease in hydraulic conductivity of the unsaturated zone. The findings reported in this paper are important for improving the design of the air injection method.

Reference

Xie W, Sun H, Wei Z, Shang Y and Yan X (2020) Influence of the features of the unsaturated zone on the air injection method in a slope. *Proceedings of the Institution of Civil Engineers – Geotechnical Engineering* **173**(2): 115–124, <https://doi.org/10.1680/jgeen.18.00214>.