



香港岩土及岩土環境工程專業協會
ASSOCIATION OF GEOTECHNICAL &
GEOENVIRONMENTAL SPECIALISTS (HONG KONG)

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ANNOUNCEMENT

AGS (HK) Technical Seminar

Electrokinetic Slope Stabilisation

by

Dr. John Lamont-Black

(Technical Director, Central Alliance Limited, UK)

Date : Thursday, 27 August 2026

Time : 18:30 – 19:30 (Hong Kong Time)

Venue : The webinar will be conducted through Zoom.

Successful applicants will be informed by emails with a Zoom's link to the webinar. Participants should arrange for their own device with a stable network environment to join the webinar.

Enquiry : agshk.org@gmail.com

Fee : Free of charge

Registration : <https://www.ags-hk.org/event-details/electrokinetic-slope-stabilisation>

Please register by 18:30 on 27 August 2026. Successful applicants will receive webinar details after registration. CPD certificate will be sent to the attendees, who attended more than 80% of the webinar time, within 2 weeks after the webinar.

Book Prize : Professionals under 35 years of age are encouraged to submit a Book Prize Report (max. 500 words) on webinars and site visits arranged by AGS (HK).

Contributors to successful Book Prize Reports will be awarded a Book Prize that comprises of a book "Geology of Site Investigation Boreholes in Hong Kong" written by Chris Fletcher, and a coupon of HK\$500 for Eslite Spectrum (誠品生活) or equivalent. The successful Book Prize Report will also be published on the AGS (HK) website to showcase your accomplishment.

Prior to report submission, please refer to the "The AGS Book Prize Reports – Assessment Framework"* on the AGS (HK) website. You may submit your Book Prize Report to our assessors by uploading the report file through the AGS (HK) website at <https://www.ags-hk.org/book-prize>. Should you have any questions, please contact us at agshk@meinhardt.com.hk.

*Link to the AGS Book Prize Reports – Assessment Framework:
https://www.ags-hk.org/files/ugd/521a4c_b94496034732484687441cf4ed4d0bf9.pdf



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Synopsis:

Failed and failing slopes along linear transport infrastructure present particular challenges, including variable ground conditions, difficult access, limited ground investigation information, ageing assets and the effects of a changing climate. Conventional remediation may require several different techniques or a single solution applied across the full slope extent, both of which can lead to inefficient use of resources.

Electrokinetic Slope Stabilisation provides an adaptable and low-impact approach by combining three stabilising functions within one system: electroosmotic ground improvement to increase in-situ soil strength, reinforcement of the improved soil in a manner similar to soil nailing, and long-term drainage to reduce groundwater pressures. The technique makes efficient use of installed elements by allowing them to contribute in different ways and at different stages of the works.

Construction typically involves installing anode rods and cathode drains, followed by temporary cabling and any required surface drainage, active electrokinetic treatment over approximately 6–8 weeks, and final conversion of anodes into soil nails. The process generates useful data throughout implementation, enabling the system to be applied even where pre-existing ground investigation information is limited.

This presentation will introduce the Electrokinetic Slope Stabilisation technique, illustrate its application through case examples, and present an idealised variable-risk slope where the method is used to deliver targeted stabilisation while minimising environmental impact, construction duration and cost.

About the Speaker:

Dr John Lamont-Black is Technical Director of Central Alliance's Electrokinetic Division. Central Alliance is part of the RSK Group, a global engineering and environmental consultancy group comprising over 200 companies across 40 countries and more than 17,000 employees.

In the early 2000s, he co-founded Electrokinetic Ltd. with colleagues at Newcastle University, developing Electrokinetic Geosynthetic (EKG) technology and its commercial applications in civil and mining engineering. He has invented novel electrokinetic materials, developed practical design and implementation methods, contributed to patents and commercial research projects, and authored over 50 publications, primarily on electrokinetics.