



The
Geological
Society

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Speaker:

David Gunn

British Geological
Survey

Date:

**Wednesday 5th
August 2020**

Meting

Commences:

18:00

Location:

**YouTube Live at the
following address:**

[https://youtu.be/X3X-
WztP8ik](https://youtu.be/X3X-WztP8ik)

**Free to attend.
Registration not
required.**

For further information
and registration, please
contact:

Event Convenor:
Richard Brown

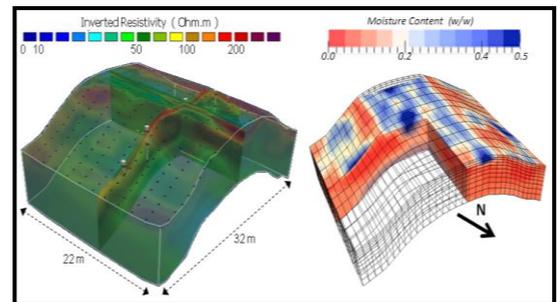
email:
richard.brown@aecon.com

Geophysics in Ground Visualisation ?

An evening meeting by the Engineering Group of the Geological Society (EGGS)

David Gunn: British Geological Survey

Around 25 years ago I incurred the wrath of my manager at the BGS with a glib remark, 'If geophysics was that good, there'd be less need to drill boreholes'. Our ensuing debate touched upon the many issues affecting geophysics, especially the compromise between the property attribution and smoothness. One thing we agreed upon was that non-invasive sampling affords geophysical surveys far greater access to larger volumes of the ground when compared to invasive site investigation. Since then, advances in survey speed and sampling have progressively ameliorated the smoothness compromise, and consequently, geophysical images have been used increasingly to support ground visualisation applications across a range of scales. Presenting some example applications at regional, district and site scales, this talk tests the question, 'Geophysics in ground visualisation ?' and touches on some of the issues needed for an affirmative answer.



Speaker Biography

Dr David Gunn is a Principal Scientific Officer working for the British Geological Survey. He is an engineering geophysicist who has spent 28 years at the BGS developing novel geophysical seismic and electrical methods. He has worked with many research and engineering partners to develop innovative ground investigation methods. His work includes geotechnical imaging via seismic proxy, especially applied for anatomical assessment of geotechnical assets. Recent relevant publications include:

Gunn, DA. 2017. The Geophysics Contributions from the QJEGH, 1967 – 2015. *Quarterly Journal of Engineering Geology and Hydrogeology*, 50, 379-392.

Gunn, D.A., Chambers, J.E., Dashwood, B., Dijkstra, T., Lacinska, A., Milodowski, A., Wragg, J., Uhlemann, S., Swift, R., Kirkham, M. & Donohue, S. 2018. Deterioration model and condition monitoring of aged railway embankment using non-invasive geophysics. *Construction & Building Materials*, Vol. 170, 668-678.

Dashwood, B.A.J., Gunn, D.A., Curioni, G., Inauen, C., Hobbs, P.R.N. & Reeves, H. 2019. Surface wave surveys for imaging ground property changes due to a leaking water pipe. *Jour. Applied Geophys.* 174, 1-12.

