



**The  
Geological  
Society**

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South East Regional Group

Meeting

**Date: 13 November 2018**

**Location: University of Sussex; 18.00 for a 18.30 start**

## **The assessment and investigation of chalk karst hazard for a site at the University of Sussex**

**Lee Taylor, Senior Engineering Geologist at Arup**

Lee will discuss how a chalk karst hazard was identified and assessed for a site situated on the west facing slope of an interfluvium in the South Downs near Brighton. The presence of karst features puts buildings and infrastructure at risk of differential and collapse settlement and can severely impact the cost and programme of design and construction. If features are identified, the presence of cavities should be determined along with the characteristics of infill and the three-dimensional extent of the feature(s), which helps to define the remedial action required. Geophysical methods and probing are more economical alternatives to conventional ground

investigation techniques. This talk provides a discussion of the hazard identification and assessment process, and makes recommendations on the use of CPT probing to identify karst features.

Lee is an experienced geologist in the field of engineering geology and geomorphology. He has worked in the Geohazard and Risk Management team in Arup London, but is now the lead engineering geologist in Arup Bristol. He specialises in the use of field based and desk based techniques to develop 3D models and visualisations of existing ground conditions and active geological and geomorphological processes. His experience covers a variety of infrastructure and building projects, including linear infrastructure (flood protection, onshore and nearshore pipelines, nearshore and offshore cables, tunnels, highways and railways), renewable and non-renewable energy assets.



**LOCATION: Foulton Building Room 203, University of Sussex, Sussex House Southern Ring Road,  
Brighton, BN1 9RH**