



YOUNG  
MEMBERS



Thursday 14<sup>th</sup> May 2015 at 6.00pm

The Institution of Civil Engineers, Thomas Telford Lecture Theatre  
One Great George Street, Westminster, London SW1P 3AA

## GROUNDWATER CONTROL TECHNIQUES

**Speaker:**

**Dr Martin Preene – Preene Groundwater Consulting**

Groundwater is an almost universal problem in tunnelling and shaft sinking. If not adequately controlled and managed during construction it can cause a range of geotechnical problems, including running sands, excessive ground loss and base heave in shafts, resulting in additional costs and time delays. However, with good planning, design and execution, tunnelling projects can be successfully and efficiently carried out even in very challenging groundwater conditions.

This presentation provides a background to the more commonly used methods of groundwater control and dewatering, and includes a review of the techniques used for groundwater control by pumping (sump pumping, wellpoints, deep wells, ejector wells) and for groundwater control by exclusion (cut-off walls, grouting, artificial ground freezing). Particular applications and challenges of groundwater control for tunnels are discussed.

Dr Martin Preene is a civil engineer with almost 30 year's experience of groundwater control with contractors and consultants worldwide. He is the lead author of the CIRIA Report C515, the UK industry guidance on groundwater control and dewatering.



Tea and biscuits will be available at 5.30pm

**Advance booking not required**

The event will be followed by a social in the ICE bar.

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