Water Ingress in Long TBM Tunnels
Mitigation and control

Join the Australian Tunneling Society and the Australian Geomechanics Society to hear about the 15km headrace tunnel for the Uma Oya project.

6pm, Wednesday 28 August 2019

Engineers Australia
Level 31, 600 Bourke Street, Melbourne

The 15km headrace tunnel for the Uma Oya project in Sri Lanka was excavated by double shield TBM and intersected large quantities of water. Learnings from this project such as better understanding the effects of the tunnel on the hydro-geology of the area, identifying relevant in-tunnel investigation techniques, and developing better pre-excavation and post excavation grouting systems relates to other long hard rock TBM projects.

Delivered by David Lees, the presentation will address why we need to limit the water ingress into tunnels under construction with regards to the potential effect on the environment with dewatering of surface and near surface aquifers, the effect on the construction and its schedule, and the methods available for prediction and control of ground water during tunnel excavation.

David Lees has over 35 years’ experience in the design and construction of underground works, both in mining and civil tunnelling, with particular expertise in grouting and ground treatment. David was Chief Site Supervisor on a 15km TBM tunnel in Sri Lanka, and whilst on the project took the opportunity to prepare a thesis for a PhD through the local university of Peradeniya. The presentation is based on his PhD thesis.

Please note: Networking will commence at 5.30pm, with the presentation taking place from 6.00pm – 7.30pm.

engineersaustralia.org.au