The Institution of Engineers, Malaysia

Organised by
TUNNELLING AND UNDERGROUND SPACE TECHNICAL DIVISION (TUSTD), IEM

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WEBINAR TALK ON "LARGE DIAMETER SEGMENTAL LININGS: DESIGN ISSUES AND OPPORTUNITIES"

Date : 09 July 2025 (Wednesday)
Time : 04.00 pm - 06.00 pm
Platform : Zoom

Registration Fees:

- Student Member : **FOC**
- IEM Member : **RM 15.00**
- Non-Member : **RM 70.00**

Synopsis:

The use of large diameter (greater than 10m) segmentally lined TBM tunnels is becoming increasingly commonplace, opening up new opportunities for the use of underground space. This presentation looks at some of the drivers for the change, as well as some of the new design concepts it has enabled. Such concepts cover changing use of underground space and newer, safer, and less expensive tunnelling techniques to be deployed.

It then examines the pressures on the segmental lining designer, who must design for more segments designed for much higher forces, and sometimes more onerous load conditions, leaning on a combination of the author's personal experience of over half a dozen large diameter segmental lining designs. It provides project examples that illustrate the practical considerations the designer must account for, looking at both conventionally and steel fibre reinforced large diameter linings. Typical solutions to problems are described with examples from past projects.

Speaker: Mr. Harding, Anthony

Anthony is Jacobs Technical Director for Tunnels, Asia-Pacific. He gained a degree and PhD from Edinburgh University and joined Halcrow (now part of Jacobs) in London in 2000. He has worked on a wide range of tunnel projects, across the road, rail, power and water industries. His experience covers TBM and conventional tunnelling, including roles as technical manager and reviewer for multidisciplinary designs, usually within design-build environments. He has a particular interest in TBM tunnelling and has been involved in over 40 TBM tunnelling projects, including more than 10 large diameter tunnels, many of which have been steel fibre reinforced.