

WEBINAR TALK ON 3D MODELLING OF NATM TUNNELS USING TUNNEL WIZARD IN MIDAS GTS NX

SPEAKER:

DR. SIDDHARTH PATHAK



9 JUNE 2026, TUESDAY



10.30AM - 12.30PM

Registration Fees:

Student Members : Free

IEM Members : RM 15.00

IEM Non Members : RM 70.00

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BEM APPROVED CPD: 2

REF. NO.: IEM26/HQ/180/T(W)

SYNOPSIS:

This webinar presents a practical approach to 3D numerical modelling of NATM (New Austrian Tunnelling Method) tunnels using the Tunnel Wizard in MIDAS GTS NX. The session focuses on efficient model generation, including tunnel geometry creation, staging of excavation, and installation of primary support systems such as shotcrete and rock bolts. Key aspects of NATM design, including ground-support interaction, stress redistribution, and deformation control, are demonstrated through a step-by-step workflow. The use of construction stage analysis to simulate sequential excavation and support activation is highlighted, along with important modelling considerations such as boundary conditions, mesh generation, and material modelling. The webinar also discusses interpretation of results, including displacement, lining forces, and stability assessment. The session is intended to provide practicing engineers with practical insights into applying advanced finite element tools for realistic simulation of tunnelling problems.

SPEAKER'S PROFILE:

Dr. Siddharth Pathak is a Technical Support Engineer at the MIDAS R&D Centre, India, specializing in geotechnical numerical modelling. He holds a Ph.D. in Geotechnical Engineering from IIT Mandi, where his research focused on strain-rate effects in sand and pile behavior under rapid load tests. Before joining MIDAS, he gained valuable industry and consultancy experience in geotechnical design, including slope stability, deep foundations, and ground improvement.