



WEBINAR

Combining 3D FEA and InSAR to manage embankment settlement risk on soft ground

By Dr Andrew Lees

Founder of Geofem, Tensar Technology

BEM Approved CPD Hours: Applying
(PEB PDUs: APPLYING)

17 DECEMBER 2025

03:00 PM – 05:00 PM



MGS Webinar by Dr Andrew Lees

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Webinar on Combining 3D FEA and InSAR to manage embankment settlement risk on soft ground on 17 December 2025 at 3.00pm

SYNOPSIS

The session will discuss an innovative case study on Robroyston Embankment in Glasgow. In this interactive webinar you can:

- Discover a peer-reviewed method for characterizing the Basal mattress reinforcement ground improvement solution in Plaxis 3D
- Understand how to predict differential settlement of embankments with peat pockets using the Soft Soil Creep model.
- Learn how satellite InSAR displacement data was used to validate the FEA model and monitor embankment settlements
- Marvel at the £500k saved by Glasgow City Council over harder engineering solutions

SPEAKER BIODATA

Andrew has extensive experience of the application of geotechnical research into practice. He gained a PhD in geotechnical engineering from the University of Southampton, then worked in consulting for 4 years, then as Assistant Professor of geotechnical engineering at Frederick University Cyprus for 12 years.

He also founded the consultancy Geofem and satellite remote sensing which specialises in geotechnical numerical analysis. Now he undertakes R&D for geosynthetic manufacturer Tensar International. He has over 20 years of experience applying FEA in geotechnical design and authored the popular textbook on geotechnical FEA published by the Institution of Civil Engineers. He was also a member of the redrafting panel for Eurocode 7.

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Registration Fee

MGS/IEM/GeoSS/CTGS/HKGES Member: **FREE**
Non-Member: **RM20.00 per person**

Payment Methods:

- 1) Online Bank Transfer
Bank name: Hong Leong Bank Berhad
Payee: Pertubuhan Geoteknikal Malaysia
Bank Account No: 281-000-12316
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- 3) Online Money Transfer Platforms (such as Wise)

IMPORTANT

- ✓ Each approved registrant will receive a unique Zoom link for the webinar.
- ✓ A minimum attendance of 75% is required in order to obtain a certificate of attendance.