The Institution of Engineers, Malaysia

Organised by :

Civil & Structural Engineering Technical Division

1 DAY SEMINAR ON

DESIGN OF PRESTRESSED FLAT SLABS INCORPORATING CONVENTIONAL STRIP DESIGN & FINITE ELEMENT METHOD BASED ON EUROCODE 2 AND TR43 PRINCIPLES

JOIN NOW !

Seminar Details :

- Date : 29th July 2026, Tuesday
- Time : 9am - 6pm
- Venue : Malakoff Auditorium
  Grd Floor, Wisma IEM, PJ
- PD HOURS : 6 HOURS CPD
  REF NO.: APPLYING

speaker

Ir. Dr Low Hin Foo

PhD.Eng (Monash), B.Eng (Hons) Civil, PEPC, MIEM, MACEM, MIES, CEng MIStructE, MIEAust CPEng, ASEAN Eng, APEC Engineer, IntPE(MY), ACPE(MY)

Registration Fees (inclusive 8% SST)	Online Fees (RM)	Normal Fees (RM)
Student Member	50.00	60.00
Graduate Member	100.00	120.00
Corporate Member	400.00	450.00
Non-Member	800.00	900.00

Register Now !

Synopsis

Prestressed flat slabs have become a hallmark of modern construction, offering efficiency in span, reduced structural depth, and enhanced serviceability. Their design, however, demands a thorough grasp of prestressing behaviour, stress control, and advanced modelling techniques. This talk introduces a practical and structured approach to prestressed flat slab design by integrating fundamental prestressing principles, Eurocode 2 (EC2) requirements, the TR43 stress normalisation method, and Finite Element Method (FEM) modelling for realistic structural behaviour. Key discussions will cover the behaviour of prestressed slabs as two-way systems, the serviceability-driven design philosophy where SLS governs, stress limits across cracked, uncracked, and decompression states, and the comparative use of FEM modelling versus conventional strip methods. Tendon profiling strategies—banded versus distributed layouts—alongside practical detailing at columns, slab zones, and punching regions will also be explored. Real project insights and modelling examples will bridge theory with engineering practice, equipping participants with both conceptual clarity and applied design strategies.

Speakers Biodata

Ir. Dr. Low Hin Foo

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MACEM, MIES, CEng MIStructE, MIEAust CPEng, ASEAN Eng,
APEC Engineer, IntPE(MY), ACPE(MY)

Ir. Dr Low Hin Foo graduated with an Honours degree in Civil Engineering from University Malaya in 1999 and earned his PhD in Engineering from Monash University in 2020, focusing on experimental and numerical studies of prestressed transfer plates subjected to staged casting and sequential stressing. With over 26 years of experience, he has specialised in the design and construction of prestressed building structures and long-span bridges both locally and internationally.

He previously served as Technical Manager at BBR Construction Systems (M) Sdn Bhd, an international prestressing specialist contractor, and is currently Principal Engineer at OSD Consultants (M) Sdn Bhd, Managing Director of OS Alliance (Singapore) Pte Ltd, and Group Managing Director of OSD Alliance Design Group. His expertise spans detailed design, construction, and costing of prestressed flat slab and flat plate systems with irregular column grids, transfer plates, and raft foundations. He has also contributed extensively to bridge engineering, including integral bridges, prestressed segmental box girders, and cable-stayed structures.

Ir. Dr Low has played a pivotal role in major national infrastructure projects such as MRT stations, long span crossings, viaducts for DASH and SUKE highways, and served as Independent Checker Engineer for LRT3 and RTS. Beyond consultancy, he actively shares knowledge through seminars and training courses with IEM, IES, and universities worldwide.