

# COURSE ON BRIDGE ENGINEERING

22, 23 APRIL

8.30 A.M. TO 5.00 P.M.

29, 30 2025

HOTEL ARMADA PETALING JAYA,  
LOT 6, LORONG UTARA C, SECTION 52,  
46200 PETALING JAYA

## Programme

8.30 a.m. – 9.00 a.m.	Registration
9.00 a.m. – 11.15 a.m.	Course presentation
11.15 a.m. – 11.30 a.m.	Tea Break
11.30 a.m. – 1.00 p.m.	Course presentation
1.00 p.m. – 2.00 p.m.	Lunch
2.00 p.m. – 5.00 p.m.	Course presentation
5.00 p.m.	End of Session



## Speaker's Biodata



Ir. Patrick Augustin graduated with a B.Sc.(Upper 2nd Class Honours Engineering) from Lancaster University and a DIC, M.Sc.(Concrete Structures) from Imperial College London University. He is a registered Professional Engineer, a Chartered Engineer, a Fellow of IEM, ICE & IStructE and a member of ACEM. He has also served as a Council Member for both ACEM and IEM. Ir. Patrick is also a BEM Accredited Checker and a HRD Accredited Trainer.

Ir. Patrick Augustin has written and published several articles related to the design and construction of bridges. He also conducts courses and presents paper at seminars and conferences on the subject.

## REGISTRATION FEE

ACEM member firms	RM 3,500.00 per person
Others	RM 4,000.00 per person

*(E-certificate of attendance will be issued, subject to full attendance.)*

Please click link <https://klikini.my/srJ5H> or scan QR code for online registration.

For further enquiries, please contact the ACEM secretariat at tel. 012-5290031 or e-mail to [vivien@acem.com.my](mailto:vivien@acem.com.my).



SCAN TO  
REGISTER

## MODULE 1

MODULE 1 : M1.1A INTRODUCTION TO BRIDGE DESIGN  
MODULE 1 : M1.1B HISTORY OF BRIDGE LOADINGS TABLE 1.1 COMPLETE  
MODULE 1 : M1.2 LOADS FOR HIGHWAY BRIDGES BD3701  
MODULE 1 : M1.3 HA LOADING  
MODULE 1 : M1.3 TABLE 1  
MODULE 1 : M1.4 I5 BRIDGE DECK  
MODULE 1 : M1.5 HA LOADING ON BRIDGE DECKS I5  
MODULE 1 : M1.6 BS5400 PART 1978 & BD37-88 MAJOR DEPARTURE  
MODULE 1 : M1.7 I5 BRIDGE DECK  
MODULE 1 : M1.7A I5-14 BEAM SECTION PROPERTIES  
MODULE 1 : M1.8 I5 BRIDGE DECK DESIGN AS RC - LOADINGS  
MODULE 1 : M1.9 DESIGN OF I5 AS RC  
MODULE 1 : M1.10 I5 BARE GIRDER WITH DECK LOAD  
MODULE 1 : M1.11 I5 COMPOSITE DECK WITH LL  
MODULE 1 : M1.12 EFFECT OH HB LOADING CRACK WIDTHS  
MODULE 1 : M1.13 LOCAL WHEEL EFFECT  
MODULE 1 : M1.14 GRILLAGE HB LOADING CENTRE OF DECK  
MODULE 1 : M1.15 SHEAR VS REINFORCEMENT  
MODULE 1 : M1.16 ADDITIONAL SHEAR REINFORCEMENT  
MODULE 1 : M1.17 CRACK WIDTH BS5400 CORRECTION X ON 13TH APRIL 2016  
MODULE 1 : M1.18 FINITE ELEMENT LOCAL WHEEL EFFECT  
MODULE 1 : M1.19 PUCHER CHART EXTRACTS  
MODULE 1 : M1.20 FORCES ON ABUTMENTS  
MODULE 1 : M1.21 PILE GROUP

## MODULE 2

MODULE 2 : M2.1 SPAN LIMITATIONS PRESTRESSED CONCRETE BRIDGE DESIGN IN ACCORDANCE WITH BS5400 REV 3  
MODULE 2 : M2.2 WHY HIGH TENSILE STRENGTH FOR PRESTRESSED CONCRETE  
MODULE 2 : M2.3 HA LOADING ON BRIDGE DECKS I14 SARAWAK  
MODULE 2 : M2.4 BEAM PROPERTIES - SOFT  
MODULE 2 : M2.5 COMPOSITE BEAM ANALYSIS  
MODULE 2 : M2.6 PRESTRESSED DESIGN SELECTION BY TRIAL AND ERROR  
MODULE 2 : M2.7 SECTION 7.1 & TRANSMISSION LENGTH  
MODULE 2 : M2.8 DEBONDING FOR I14 25M  
MODULE 2 : M2.9 CODE OF DEBONDING  
MODULE 2 : M2.10 EFFECT OF STRAND BLANKETING ON JL-65-DECEMBER-2  
MODULE 2 : M2.11 CRACKS IN PRE-TENSIONED BEAMS  
MODULE 2 : M2.12 SHEAR CAPACITY ENHANCED BY PRESTRESS  
MODULE 2 : M2.13 DERIVATION OF UNCRACKED FORMULAE  
MODULE 2 : M2.14 DESIGN OF PRESTRESSED MEMBER FOR SHEAR  
MODULE 2 : M2.15 SHEAR RESISTANCE UNCRACKED SECTION BS5400 6.3.4.2  
MODULE 2 : M2.16 SHEAR RESISTANCE CRACKED SECTION IN FLEXURE BS5400 6.3.4.3  
MODULE 2 : M2.17 CALCULATION OF ULTIMATE MOMENT OF RESISTANCE OF A SECTION LA CLARK PG62  
MODULE 2 : M2.18 PIER 1 BEARINGS  
MODULE 2 : M2.19 DESIGN PARAMETERS LAMINATED ELASTOMERIC BEARINGS  
MODULE 2 : M2.20 LAMINATED ELASTOMERIC RUBBER BEARINGS FOR BRIDGES  
MODULE 2 : M2.21 BEARING CALC 231122 VERIFICATION RECHECK  
MODULE 2 : M2.22 PERFORMANCE OF DIAMOND SHAPE ELASTOMERIC BEARING PADS IN KUALA LIPIS BRIDGE  
MODULE 2 : M2.23 INVESTIGATION OF ELASTOMERIC BEARING PAD FAILURES IN LOUISIANA BRIDGES  
MODULE 2 : M2.24 LAMINATED ELASTOMERIC BEARING - SUGGESTED CASTING TOLERANCE OF BEARING PLINTH, A TECHNICAL NOTE

## MODULE 3

MODULE 3 : M3.1 SPAN LIMITATIONS PRESTRESSED CONCRETE BRIDGE DESIGN IN ACCORDANCE WITH BS5400 REV 3  
MODULE 3 : M3.2 I18 BRIDGE DECK 12.5M X 30 M SPAN UDL  
MODULE 3 : M3.3 I18 WITH EXTENDED TOP FLANGE  
MODULE 3 : M3.4 I18 WITH DECK SLAB  
MODULE 3 : M3.5 COMPOSITE BEAMS I18X EFFFLANGE - ANALYSIS

MODULE 3 : M3.6 GRILLAGE MODEL WITH SPRING SUPPORTS  
MODULE 3 : M3.7 TYPICAL DETAILING DECK SLAB AND BEAM  
MODULE 3 : M3.8 MAGNEL DIAGRAM I18X AT 1.8M C\_C  
MODULE 3 : M3.9 PRESTRESSED I8X DESIGN SELECTION BY TRIAL AND ERROR  
MODULE 3 : M3.10 CONCRETE FROM SANDSTONE AGGREGATE EFFECTS  
MODULE 3 : M3.11 ANCHOR-BLOCK-DESIGN CIRIA GUIDE 1  
MODULE 3 : M3.12 50 LEVELS EQUILIBRIUM STEEL CIRIA GUIDE 1 R2  
MODULE 3 : M3.13 BURSTING AND SPALLING REINFORCEMENT  
MODULE 3 : M3.14 STABILITY DESIGN OF LONG PRECAST  
MODULE 3 : M3.15 LATERAL STABILITY OF LONG PRECAST BEAMS  
MODULE 3 : M3.16 JL-89-JANUARY-FEBRUARY LATERAL STABILITY OF LONG PRESTRESSED CONCRETE BEAMS-  
PART 1  
MODULE 3 : M3.17 JL-93-JANUARY-FEBRUARY LATERAL STABILITY OF LONG PRESTRESSED CONCRETE BEAMS-  
PART 2  
MODULE 3 : M3.18 LATERAL OF LONG PRESTRESSED BEAMS  
MODULE 3 : M3.19 I1-10 ABUTMENTS EXTERNAL OF RS VOLUME  
MODULE 3 : M3.20 I18 BRIDGE DECK FOR SEMI INTEGRAL ABUTMENT

#### MODULE 4

MODULE 4 : M4.1 THE HIGHWAYS AGENCY BA 19 85 DESIGN EXAMPLE OF 20M UB GIRDER BRIDGE-1-49  
MODULE 4 : M4.2 DECK CASTING NO LATERAL BRACING  
MODULE 4 : M4.3 DECK CASTING WITH INTERMEDIATE BRACING  
MODULE 4 : M4.4 LOCAL WHEEL EFFECTS  
MODULE 4 : M4.5 22M PLATE GIRDER BRIDGE  
MODULE 4 : M4.6 DESIGN OF INTEGRAL BRIDGES BA 42-96 AMENDMENT NO. 1 BA4296  
MODULE 4 : M4.7 16.5-22-16.5M BEARING DESIGN 210720  
MODULE 4 : M4.8 BASIC PAINTING SPECIFICATIONS  
MODULE 4 : M4.9 PACKAGE 3A BATU MAUNG INTERCHANGE CONCRETE FOR BEAMS MAY 2012  
MODULE 4 : M4.10 SUKE HALVING JOINT - DESIGN REPORT EXECUTIVE SUMMARY  
MODULE 4 : M4.11 TURNPIKE-SUKE-C-B-ML-CBI-017 CORING WORKS OF T-BEAMS DUE TO LIFTING HOLE NOT IN  
POSITION

#### MODULE 5

MODULE 5 : M5.1 ACTIVE AND AT-REST PRESSURES 6.1 BRIDGE FOUNDATIONS AND SUBSTRUCTURES  
Building Research Establishment by Dr Edmund C Hambly, Consulting Engineer Under the Direction  
of Dr J B Burland, Head of Geotechnics Division, BRS.  
MODULE 5 : M5.2 LATER SOIL PRESSURE INDUCED FAILURES 2 SEA-01  
MODULE 5 : M5.3 CYBERJAYA BRIDGE COLLAPSE  
MODULE 5 : M5.4 ASSESSMENT OF GROUND BEARING CAPACITY  
MODULE 5 : M5.5 HAND ANALYSIS OF A PILE GROUP  
MODULE 5 : M5.6 PILE CAPACITY FOR BENDING SHALL ALWAYS BE SATISFIED  
MODULE 5 : M5.7 PILE DESIGN USING SPT  
MODULE 5 : M5.8 CHIN FK INVERSE SLOPE GEJ 1978 V9N2 DECEMBER  
MODULE 5 : M5.9 SETTLEMENT MEASURING DEVICE  
MODULE 5 : M5.10 END OF SETTLEMENT - ASOKA PLOT  
MODULE 5 : M5.11 SET TAKING  
MODULE 5 : M5.12 INTRODUCTION TO REINFORCED SOIL  
MODULE 5 : M5.13 BATANG KALI LANDSLIDE

#### MODULE 6

AN INTRODUCTION TO RAILWAY BRIDGE ENGINEERING  
MODULE 6 : M6.1 RAILWAY BRIDGE LIVE LOAD  
MODULE 6 : M6.2 LURCHING AND NOSING LOAD  
MODULE 6 : M6.3 LOAD MODEL 71  
MODULE 6 : M6.4 DEFORMATION LIMITS FOR VERY GOOD PASSENGER COMFORT  
MODULE 6 : M6.5.1 PRECAST BEAM AND SLAB  
MODULE 6 : M6.5.2 W-GIRDER  
MODULE 6 : M6.5.3 U-GIRDER L.W.FLOOD HEADROOM  
MODULE 6 : M6.5.4 BALANCED CANTILEVER