# 411

# **COMPOSITE STEEL & CONCRETE STRUCTURES WORKSHOP**



#### **IAN HYMAS**

BSc (Hons) MEngSc

- Structural engineer for over 40 years.
- Founding partner of the firm Henry and Hymas.
- Member of the current BD-066 Standards committee for the Prefabricated Concrete Standard AS3850.



## WORKSHOP SUMMARY 8 hours of CPD

This one-day workshop will provide an overview of the **standard AS2327-2017**.

The standard AS2327-2017 on composite steel – concrete members has considerably expanded its scope when compared to the previous addition that only considered simply supported composite beams.

As well as updating the old standard the latest edition includes continuous beams, composite slabs, composite columns and new information on fire ratings.

## PROGRAMME (8.30am AEDT Zoom invite will be emailed)

#### 9.00 - 11.00 Session 1

#### - COMPOSITE BEAMS

- What's new in the recently published standard AS2327-2017
- History elastic design ultimate design.
- · Section properties.
- · Shear connections and their ductility
- Full and partial shear connection.
- Detailing shear connections
- Simply supported beams ultimate strength.
- Continuous beams ultimate strength.

#### 11.00 - 11.15 Morning Break

#### 11.15 - 1.00 Session 2

#### - COMPOSITE CONCRETE SLABS

- Available sections
- Section properties
- Testing for shear connection verification
- Strength as formwork
- Detailing
- Simply supported ultimate strength
- Continuous ultimate strength.

#### 1.00 - 1.30 Lunch Break

#### 1.30 - 3.00 Session 3

## - SERVICEABILITY: BEAMS AND SLABS

- Calculating deflections simply supported and continuous.
- Effects of creep and shrinkage.
- Effects of propping and construction stages.
- Detailing for crack control.
- Potential for ponding of wet concrete.
- · Detailing for crack control

**CALCULATORS REQUIRED** 

## 3.00 - 3.15 Afternoon Break

#### 3.15 - 5.00 Session 4

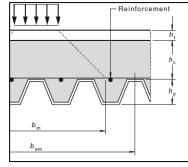
### - COLUMNS AND FIRE RATINGS

- An overview of:
  - New section in AS2327-2017 on composite steel concrete columns.
  - Fire rating
  - o Composite precast- in situ concrete

#### Certificate of Attendance will be emailed









## Max Tension in Composite Steel Profile:

$$N_{yp.d} = \phi f_{up} A_{pc}$$
 (where  $\phi = 0.9$ )

• One day course – \$860 pp

#### **FURTHER INFORMATION**

- (02) 9899 7447
- +61 413 998 031
- registrations@etia.net.au
- To register,
  visit our website
  www.etia.net.au
  OR scan the QR
  Code.

