



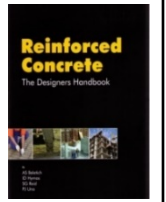
**IAN HYMAS** BSc (Hons) MEngSc

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

Recommended Text:

**Reinforced Concrete:  
The Designers Handbook**  
(2015 Revised Edition)

*Beletich, Hymas, Reid and Uno*



## PROGRAMME (8.30 - 9.00 Zoom invite link will be emailed)

### 9.00 - 11.00 Session 1

#### - LAYOUT AND DETAILING

- Key steps in determining panel layout from a structural system viewpoint
  - panel breakup
  - joint placement
  - structural steelwork
  - roof bracing
- Structural decisions such as number of panels per bay, smaller panels at corners, craneage required, wall openings, where to oversize and slot holes, connections to steel roof, panel to footing details, slab joint details, levelling of shims and tolerance issues.

### 11.00 - 11.15 Morning Break

### 11.15 – 1.00 Session 2

#### - PANEL DESIGN

- Structural design methods such as Moment Magnifier.
- Method according to Weiler and the ACI, as well as the J. Wyatt method (PCA) and the 'green book' method.
- Panel thickness versus various in-services loads, eccentricities, slenderness, P-Delta effects & fire issues.
- Reinforcement requirements (one layer vs two), reinforcement around openings, stresses during lifting.

### 1.00 - 1.30 Lunch Break

### 1.30 - 3.00 Session 3

#### - CONSTRUCTION ISSUES

- Design topics such as appropriate design of temporary bracing & props.
- Construction topics such as adequate preparation of detail drawings of panels, transportation of factor cast panels, casting layouts, inspection of panels prior to pouring, crane loads on floor slabs, erecting and bracing panels, steel erection, correct removal of braces and final inspection of steelwork, grouting panels and dowels.
- The speaker will outline many jobs he has been involved with, and where problems with craneage, props, steelwork erection, tolerance & temperature effect have had to be fixed.



### 3.00 - 3.15 Afternoon Break

### 3.15 - 5.00 Session 4

#### - ANCHORS AND CONNECTIONS

- Engineering involved in anchoring & transferring load into precast concrete from embedded non-reinforcement – both precast & post-installed anchor systems.
- Types of anchors, bolts and fasteners in the market place.
- Pull out capacities (Tension vs Shear)

### Certificate of Attendance will be emailed



Live streamed via 

#### COURSE COST

- 1 day course – \$770 pp

#### DATES, VENUES & REGISTRATION

- Registration form (back of catalogue)
- Visit our website [www.etia.net.au](http://www.etia.net.au)

#### FURTHER INFORMATION

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