



## Design of Portal Frame Buildings (incl Crane Runway Beams and Monorails)

This popular seminar returns to improve designer knowledge and confidence in the design of portal frame buildings, monorails and crane runway beams. It will include information on loads, purlins and girts, frame design, frame connections, roof and wall bracing, footings and slabs, gantry cranes and monorails. It supports the ASI publication '**Design of portal frame buildings including crane runway beams and monorails**' which incorporates significant changes to the 2011 Wind Code. Information on roller shutter door design and deflection limits for crane supporting frames will be presented. There will be a focus on practical issues and pitfalls. **Attendees can purchase the above publication at a special discount.**

### Program

- 12.00pm** Registration and light lunch
- 12:30pm** Introduction, key changes, grey areas in design
- Loads - dead, live, wind and seismic; changes in AS/NZS 1170.2 Wind Code, including the changes to internal pressures in Amendment 4 released in 2016
- Purlins and girts, roof and wall sheeting, local pressure factor of 3.0, effect of elongated local pressure patches, combination factor  $K_c$
- Frame design, columns, rafters, lateral restraints, end wall frames, deflections, roller shutter doors
- 2.30pm** Afternoon tea
- 3.00pm** Frame connections, knee and ridge joints, base plates, end wall columns
- Roof and wall bracing, tubes and angles in tension, tubes in compression
- Footings and slabs, uplift forces, pad footings, bored piers, holding down bolts, joint design
- Crane runway beams and supporting structures, deflection limits including discussion of the 10 mm sway limit, monorails including cantilevers, unequal trolley wheel loads, loading at or below bottom flange
- 5.00 pm** Finish

### Presenter

Dr Scott Woolcock, is a consulting engineer and co-author of the ASI publication, **Design of portal frame buildings including crane runway beams and monorails**. He is a member of the Standards Australia Wind Code Committee responsible for AS/NZS 1170.2.

Engineers attending this seminar may gain CPD points to meet Engineers Australia requirements.

EA or WTIA Members who are not ASI members should email [margritc@steel.org.au](mailto:margritc@steel.org.au) with current proof of membership to obtain the promotion code to access the WTIA/EA Member reduced fee.

Technical Partner

### Seminar Package

Seminar Notes (PDF)  
Discount on publication  
Light lunch on arrival  
Afternoon Tea

### Seminar Fee (incl GST)

\$375 ASI Member  
\$455 EA/WTIA Member  
\$535 Non-Member

Location	Date	Venue
Brisbane	Monday 12 March	Brisbane Convention & Exhibition Centre, Cnr of Merivale & Glenelg Streets, South Bank
Sydney	Wednesday 14 March	Rydges North Sydney, 54 McLaren Street, North Sydney
Melbourne	Thursday 15 March	Amora Hotel Riverwalk Melbourne, 649 Bridge Road, Richmond
Adelaide	Wednesday 21 March	Education Development Centre, 4 Milner Street, Hindmarsh
Perth	Thursday 22 March	Royal Perth Golf Club, Labouchere Road, South Perth

Register online at: <http://steel.org.au/events/asi-events>