SESOC NEWS

Issue 9 • **September 2010**

Welcome to the ninth edition of SESOC NEWS. For general information regarding the NZ Structural Engineering Society (SESOC) and for committee contact details refer www.sesoc.org.nz

Professor Nigel Priestley (right) receives the fib Freyssinet medal from fib President Professor Michael Fardis.

SESOC
Structural Engineering Society of New Zealand

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Richard Aitken Receives IStructE Service Award

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Members Referred to DBH Practice Advisories

SESOC endorses these Practice Advisories and encourages its members to read them and to subscribe to future updates.

SESOC Bridge Group Update

The SESOC Bridge Group has met twice so far in 2010 and is planning the last meeting of the year for November.

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New Zealand Timber Engineering makes an Impact at WCTE 2010 in Italy

The biennial World Conference on Timber Engineering (WCTE) was held in Riva del Garda Italy in late June.

Sixth Asia Pacific Forum "Structural Engineering for Extreme Events"

Thursday 7 July 2011, Griffith University, Gold Coast, Queensland, Australia.

SESOC News

Nigel Priestley Awarded *fib* Freyssinet Medal

On 30 May 2010, Professor Nigel Priestley was awarded the prestigious Freyssinet Medal at the *fib* Congress in Washington DC. *fib* is the International Federation for Structural Concrete (fédération internationale du béton). The Freyssinet Medal is the highest distinction awarded by *fib* and is "given in recognition of outstanding technical contributions in the field of structural concrete".

SESOC are delighted that Nigel's contributions to structural concrete research and practice have been recognised in this manner. Nigel received his doctorate from the University of Canterbury, New Zealand, in 1967. He is Emeritus Professor of Structural Engineering at the University of California at San Diego, Emeritus Co-director of the Rose School (Pavia, Italy), and also works as a consulting structural engineer. His research focuses on the seismic design of concrete and masonry structures, and on seismic design philosophy. Nigel has published more than 650 books, technical papers and reports, mainly related to seismic design and he has received more than 30 international awards for his research.

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Richard Aitken Receives IStructE Service Award

The Institution of Structural Engineers (IStructE) has recently honoured Richard Aitken, a Fellow of IStructE, with the 2010 Service Award. The award was given in recognition of Richard's loyal support over many years for the Institution as Chairman of the New Zealand Division and its representative in Auckland.

Members of the SESOC Management Committee are reminded of Richard's continued efforts on behalf of IStructE when Richard reports on the many and varied activities of the New Zealand Division and its interactions with SESOC. One current initiative between SESOC and IStructE is the preparation of a special New Zealand edition of IStructE's *The Structural Engineer* journal. This special edition will feature many uniquely New Zealand structural engineering projects.

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Members Referred to DBH Practice Advisories

Since 2005, the Department of Building and Housing (DBH) has published 'Practice Advisories' under section 175 of the Building Act 2004 targeted at building designers including structural engineers, manufacturers, construction contractors, building officials and building consent authorities.

Each Practice Advisory is about a different topic and often contains issues of concern, do's and don'ts, background information and where to find further information. The 12 Practice Advisories issued to date, including the latest one about unstiffened eccentric steel cleat connections, can be found on the DBH website under 'building' and 'other guidance information' by using the following link www.dbh.govt.nz/guidance-information

SESOC endorses these Practice Advisories and encourages its members to read them and to subscribe to future updates and other relevant DBH publications using the link from the above DBH web page. Note that DBH no longer issue the Practice Advisories as hardcopies, and so subscription to receive electronic copies and a regular review of the DBH website is recommended.

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SESOC Bridge Group Update

The SESOC Bridge Group has met twice so far in 2010 and is planning the last meeting of the year for November. Fibre Reinforced Polymer (FRP) Strengthening of the Grafton Bridge and the Auckland Civic Carpark was presented by Will Pank of Beca and Hugo Jackson of Contech at Beca's Wellington office on 23 June. Case studies of these two recently completed strengthening projects covering both design and construction were well received by the audience of over 50 bridge and structural engineers. They provided an insight into the practical application of FRP materials and design and detailing aspects, as well as material acceptance and quality assurance.

On 19 August, over 60 bridge and structural engineers attended the presentation at Aurecon's Wellington office on two high-profile pedestrian bridges. The design and construction of the Te Rewa Pedestrian bridge in New Plymouth was presented by Peter Mulqueen of Novare, and John McNeil of Aurecon presented the Manukau Memorial Gardens Bridge. Both bridges are of steel construction and showcased how landmark structures can be created.

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For advance notice of upcoming SESOC Bridge Group meetings, please contact Geoff Brown on geoff.brown@beca.com

Minor Problem with SESOC Soils Program

A minor problem has been found on the soils input and results page in the Mass wall section of the 'SESOC Soils' computer program. The problem is in the label showing just above the 'Calculate' button which shows the critical capacity ratio for the soils foundation calculation. With both long-term and short-term calculations there are six possible conditions that could be critical. Unfortunately, the label did not always show the critical case. All cases were given correctly in the actual calculations (and designers should always check the calculations in any case). However, the defect with the label display is now corrected and an updated version of the program can be downloaded from the SESOC website.

On a general note, SESOC is researching how to improve and standardise the user interfaces in all its software programs. More on that soon.

New Zealand Timber Engineering makes an Impact at WCTE 2010 in Italy

The biennial World Conference on Timber Engineering (WCTE) was held in Riva del Garda Italy in late June. There were 660 delegates from 43 countries, including 27 from New Zealand and 23 from Australia. There were 18 papers and five posters from New Zealand that received considerable positive comment. Presentations from the Structural Timber Innovation Company (STIC) particularly raised the profile of research and development here and focused on seismic performance of multi-storey LVL structures, long span timber, fundamental properties of LVL and pinus radiata and connections. STIC is a NZ government and Australasian industry funded consortium which has major research contracts with the University of Auckland, University of Canterbury and University of Technology Sydney.

Major developments in Europe were related to cross laminated timber (CLT), large panels constructed from timber planks glued in layers with alternating grain directions. This is used in a variety of applications including multi-storey construction and composite floors. Around the world, the major advances are with the use of long screws and threaded rods in a wide range of connections and in timber reinforcement applications in shear and bearing. WCTE 2012 will be jointly hosted with Australia and held in Auckland in July 2012.

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Sixth Asia Pacific Forum
"Structural Engineering for Extreme Events"

Thursday 7 July 2011, Griffith University, Gold Coast, Queensland, Australia

The Asia Pacific Forum is an annual one-day event held in various centres around Asia where a theme is developed and seven or eight eminent speakers are invited to present a paper on that theme. The Forum was established in 2005 to provide a focused, high-quality series of presentations for the practising structural engineer. The theme for the conference in 2011 is "Structural Engineering for Extreme Events" and will principally cover the effects of fire, wind, earthquake, tsunami and high explosive blast on structures. It is intended to look at pre-disaster work such as strengthening of structures and changes in loading that might be expected due to climate change; disaster events and structural performance during an event; and post-disaster work such as how codes and standards are modified due to the forensic investigation and experience of extreme events. It is not intended to deal with repair or reconstruction of structures damaged in such events.

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Registration details and speaker programme will be provided shortly, however if you wish to notify your interest for further information, please do so by emailing David Donnan (david.donnan@arup.com) and David will make sure you get the right information when it becomes available.