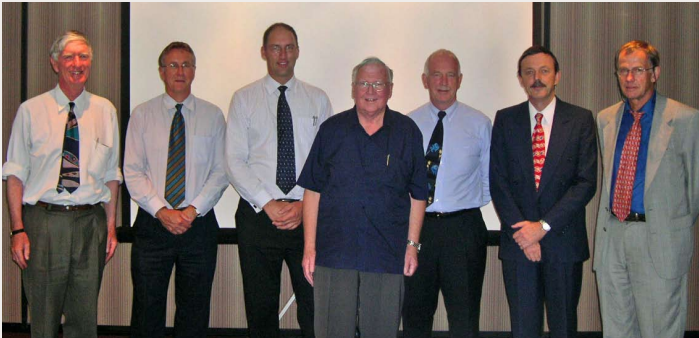


Issue 2 • May 2007

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

## In this issue



Esli Forrest (centre, front) flanked by the seminar presenters and SESOC president (from left to right) Richard Fenwick, Alan Powell, Ashley Smith, Len McSaveney, Brad Hannan and Nigel Priestley.

### [Prestressed Concrete Seminar and Award](#)

On Monday afternoon, February 26th SESOC held a very successful seminar at Auckland's Waipuna Conference Centre. The society also took the opportunity to present the SESOC Award for Structural Engineering Excellence to one of the industry's early pioneers, Mr Esli Forrest.

### [Executive Officer Appointed](#)

The committee received several worthy applications from the recent advertisements for an Executive Officer and has now confirmed the appointment of Mr John Garty to that position.

### [SESOC signs Agreement with IStructE](#)

SESOC president Ashley Smith recently attended the Pacific Structural Steel Conference at Wairakei and while there took part in a celebratory signing of the Memorandum of Understanding, or cooperation agreement, between SESOC and the Institution of Structural Engineers (IStructE).

### [ASEC 2008 Melbourne Conference – Call for Papers / SESOC Subsidy](#)

Australasian Structural Engineering Conference (ASEC) to be held in Melbourne, Australia from 26 to 27 June 2008.

### [Precast Floors Overview Group](#)

The Precast Concrete Floors Overview Group has been established with the intention to publish during 2007 a Guide for Seismic Design Assessment and Retrofit of Precast Hollowcore Floors.

### [Follow-up on Snow and Ice Loads](#)

#### **SESOC**

**Structural Engineering Society of New Zealand**

For general information and for committee contact details refer [www.sesoc.org.nz](http://www.sesoc.org.nz)

#### **Postal Address**

PO Box 6508  
Auckland



## Prestressed Concrete Seminar and Award

On Monday afternoon, February 26th SESOC held a very successful seminar at Auckland's Waipuna Conference Centre. Attended by 180 SESOC members, the seminar featured five speakers who presented everything from a fascinating history of New Zealand's prestressed concrete industry to the uses of the latest technologies in prestressed concrete structures being erected today.

The enthusiastic turnout at the seminar was undoubtedly due to the fact that the leading speakers are well known figures in the industry. To begin, Mr Len McSaveney looked at the history and challenges of pre-casting concrete during the last half century in New Zealand. One factor that encouraged the design of reinforced concrete structures was that they eliminated the need for boiler makers and welders. These tended to be troublesome trades, the delaying, union dominated practices of their members having often been learnt in England because of a pre second world war pact between Hitler and Stalin which ensured that communist led work places would be left alone. So could the development of New Zealand's reinforced concrete industry be partially attributed to this agreement between two long dead dictators!

Dr Richard Fenwick spoke about the behaviour and design of diaphragms in buildings with precast floors. He also acknowledged the pioneering work of Esli Forrest. This talk was very informative and easy to comprehend as Dr Fenwick is an experienced presenter and was able to use simple terms and diagrams to link his theoretical concepts to practical design examples.

Brad Hannan an Australian with plenty of New Zealand experience, talked about post-tensioned floor systems. He illustrated his talk showing a variety of floor structures in different stages of construction using different tensioning systems. The fourth speaker Professor Nigel Priestley gave his views on pre-cast buildings using unbonded tendons. He incorporated the PRESSS programme into his talk which drew upon his experiences in leading a series of influential experiments in San Diego, California in 1999.

The fifth and final speaker Mr Alan Powell pointed out that not all structures built from reinforced concrete are buildings. He emphasised that bridges too are built using a variety of prestressed concrete techniques and components. Mr Powell illustrated his talk about bridge design and construction with many shots of bridges, old and new that are familiar to most New Zealanders.

The society also took the opportunity to present the SESOC Award for Structural Engineering Excellence to one of the industry's early pioneers, Mr Esli Forrest, acknowledging his remarkable contribution during a career that has spanned more than half a century.

President of SESOC Mr Ashley Smith outlined a few of the achievements of Mr Esli Forrest before calling upon him to tell the audience in his own words about the highlights of his career. Esli responded by telling of the great advances in technology that had occurred during his career. He also paid tribute to others who he had worked with or who were prominent in the industry at the time.



Esli ended his acceptance speech with the following message:

“Let us observe and learn from what we see and cull new ideas and new directions in which to advance, remembering always that our work will one day face reality. The ancient city of Corinth is renowned for its architecture and is situated on the Achaean peninsular in a highly active seismic region. The Christian apostle Paul wrote to the Corinthian Christians 2000 years ago – “Let each take heed how he builds for the work of each will be tried with fire”. Having this caution in mind let us seek to advance the knowledge of our science.”



## Executive Officer Appointed

The committee received several worthy applications from the recent advertisements for an Executive Officer and has now confirmed the appointment of Mr John Garty to that position. John is a BE qualified, self employed consultant based in Christchurch. He has previously worked as a structural design consultant, as a regional manager and as a national training manager for a road construction company so has wide experience to draw on. John will work from his Christchurch office for SESOC on a part-time (perhaps 50% full time) basis.

This appointment reinforces the fact that that SESOC is not only an Auckland based organization. In fact our current management committee includes three others from Christchurch, three from Wellington and one from Hamilton as well as several Aucklanders.



## SESOC signs Agreement with IStructE



SESOC President Ashley Smith (left) shakes hands with Prof David Nethercot Past President of IStructE and current Chairman of the Institution's International Agreements Panel following the signing of their agreement.

SESOC president Ashley Smith recently attended the Pacific Structural Steel Conference at Wairakei and while there took part in a celebratory signing of the Memorandum of Understanding, or cooperation agreement, between SESOC and the Institution of Structural Engineers (IStructE). Prof. David Nethercot, Past President and Chairman of the Institution's International Agreements Panel signed on behalf of IStructE. This signing served to formalise the relationship, which has been ongoing for several years, whereby IStructE makes an annual

financial contribution to SESOC and in return SESOC provides free membership to New Zealand based IStructE members and works with IStructE in a number of other ways.



IStructE has a much longer history and wider membership than SESOC with approximately 22,000 members in 109 countries, including many with dual membership of both societies in New Zealand. The two societies have much in common, both wanting to better serve their members and the profession of structural engineering, and to promote world-class standards of structural excellence. We expect the relationship will bring benefits to SESOC members and increased dialogue for New Zealand engineers with our international counterparts.

One of our roles under the agreement with IStructE is to promote and assist with the IStructE Chartered Membership examination for candidates here in NZ. For those who are unaware the examination is a 7 hour examination, which goes in two 3½ hour sessions with a half hour break for lunch. This year there were two candidates for the exam held on Friday 13 April at Beca offices. We provided an invigilator and in the end only one candidate took the examination – Patrick Ho. The second candidate, Chris Parker who lives in New Plymouth, was unable to attend the exam in Auckland at the last minute due to work commitments.

Next year IStructE will be 100 years old and SESOC will be pleased to welcome the president to New Zealand as part of the organisation's celebrations. One hundred years recognition of structural engineers' skills is worth celebrating in any country so the IStructE president should be warmly welcomed in New Zealand. For more information about IStructE and its centenary, please visit <http://www.istructe.org/centenary>



Contents

## ASEC 2008 Melbourne Conference – Call for Papers / SESOC Subsidy

Please find below a website link for the Australasian Structural Engineering Conference (ASEC) to be held in Melbourne, Australia from 26 to 27 June 2008. SESOC has committed to supporting this important conference by subsidising travel and conference registration costs for New Zealand engineers who present papers at the conference. Please note that the call for abstracts will close on 13 July 2007. We encourage you all to think about presenting a paper. Please visit <http://www.asec2008.com>



Contents

## Precast Floors Overview Group

This is to inform members that a Precast Concrete Floors Overview Group has been established with the intention to publish during 2007 a Guide for Seismic Design Assessment and Retrofit of Precast Hollowcore Floors. The new Concrete Structures Standard NZS 3101:2006 (and Amendment 3 to the pre-existing Standard NZS 3101:1995) introduced several new provisions relating to the design of hollowcore floors in new buildings. The Overview Group is considering the implications for existing installations. Members of the Precast Floors Overview Group are Des Bull, Dene Cook, Rob Jury, Len McSaveney, Stefano Pampanin, Peter Smith and Ashley Smith representing SESOC / NZSEE & NZCS, and David Hopkins, Richard Bialostocki and Graeme Lawrence representing DBH.



Contents

## Follow-up on Snow and Ice Loads

SESOC News Issue 1 discussed snow and ice loadings and the resultant damage to buildings from the heavy snow-storm that devastated parts of South Canterbury and the central south island in June 2006. SESOC communicated with DBH, and as a result DBH commissioned NIWA to review available snowfall records and to further investigate snow loadings in New Zealand. Snow loadings specified in AS/NZS 1170 were subsequently reviewed as a part of the DBH citation process for that standard. The results of the NIWA investigation into snow loads can be downloaded from the DBH website in two parts using the links below. The cautionary note in SESOC News Issue 1 remains relevant.



Contents

[www.dbh.govt.nz/UserFiles/File/Consulting/pdf/2006/B1-consultation/appendix-2-NIWA-snow-loads-review.pdf](http://www.dbh.govt.nz/UserFiles/File/Consulting/pdf/2006/B1-consultation/appendix-2-NIWA-snow-loads-review.pdf)

[www.dbh.govt.nz/UserFiles/File/Consulting/pdf/2006/B1-consultation/appendix-3-NIWA-snow-loads-review-2.pdf](http://www.dbh.govt.nz/UserFiles/File/Consulting/pdf/2006/B1-consultation/appendix-3-NIWA-snow-loads-review-2.pdf)