

SCNZ STEEL CONSTRUCTION  
NEW ZEALAND

# STEEL FUTURES

## METALS WEEK 2015

Get ready for Metals Week 2015! Running from August 31<sup>st</sup> to September 4<sup>th</sup> in Auckland, members of Metals NZ will run a series of events throughout the week. SCNZ will play its part by hosting *Steel Agenda* and *Steel Innovations*.

*Steel Agenda*, our annual AGM and members' conference, will focus on the important issues and opportunities facing our industry going forward. Held on September 3<sup>rd</sup> at the Aotea Centre, the Metals Week Awards dinner will follow in the evening at the Rendezvous Hotel and include the SCNZ Excellence in Steel Awards.

*Steel Innovations* provides a forum for disseminating the latest knowledge in the design and construction of steel structures. First launched in 2013, the biennial event targets structural engineers, steel industry representatives, academics and students. The conference offers attendees the opportunity to learn from top local and international experts, gain valuable professional development hours, and network with fellow professionals.

Over the course of the two-day conference, commencing September 3<sup>rd</sup>, delegates will have the choice of attending more than 50 presentations covering seismic design, steel-concrete composite construction, fire engineering, durability, sustainability and steel bridges.

We are delighted to confirm keynote speakers Professor Jeffery Packer of the University of Toronto, and Dr Roberto T. Leon of Virginia Tech.

Professor Packer's area of expertise is the design of steel

tubular structures, with particular emphasis on welded, bolted, nailed and cast connections and joints. He has published extensively on this topic, including several co-authored design guide books (published in four languages).

He has considerable experience of several technical committees, including the American Welding Society, the Comité International pour le Développement et l'Etude de la Construction Tubulaire, the Canadian Standards Association and the International Institute of Welding. Prof. Packer is also the recipient of numerous awards.

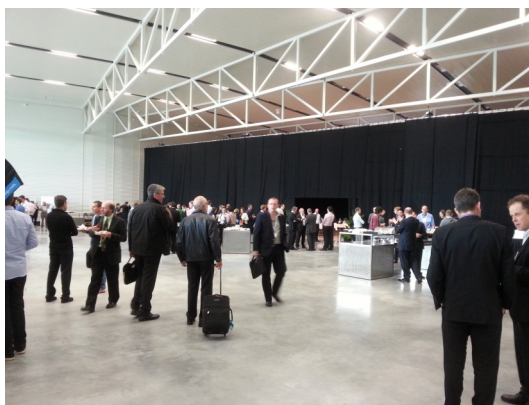
Dr Leon has a 25-year career in experimental structural engineering. His research interests include the dynamic behaviour and design of composite and hybrid steel-concrete structures. He has extensive involvement in technical committees, including the Building Seismic Safety Council Provisions Update Committee (BSSC/PUC), and has authored and co-authored over 90 articles in refereed journals.

Stay tuned for further information on these and other speakers. There will be an opportunity for local engineers to present papers at the event; details of the paper submission process will be available soon.

*Steel Innovations* also offers good sponsorship and exhibition opportunities for companies to promote their product or services at



Science and Innovation Minister, Hon Steven Joyce, speaking at the 2013 Steel Innovations conference



the event.

Contact Metals NZ CEO Gary Hook for more information: [metalsnz@gmail.com](mailto:metalsnz@gmail.com).

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## UPCOMING EVENTS

### 2014

12 Nov  
19 Nov  
26 Nov  
11 Dec

Central Regional Fabricators Forum  
Northern Regional Fabricator Forum  
Southern Regional Fabricator Forum  
SCNZ Executive Council Meeting

## EIGHT CERTIFIED FABRICATORS RECOGNISED AT SFC LAUNCH

The Steel Fabricator Certification (SFC) scheme was launched at the *Steel Agenda* conference in Hamilton on September 25<sup>th</sup>.

SCNZ and HERA, together with Ministry for Business, Innovation and Employment Chief Executive David Smol, presented SFC certificates to the first fabricator companies to be certified under the scheme: Chapman Engineering, D&H Steel Construction, Eastbridge, Jensen Steel Fabricators, John Jones Steel, MJH Engineering, Red Steel and Whakatiki Engineering.

The launch of the independent, quality assurance scheme is a significant milestone for our industry and will create an important point of difference for locally fabricated steel

compared with imported prefabricated steelwork.

The SFC scheme provides procurers and specifiers, such as engineers, architects and contractors, with certainty of product quality and significantly reduced compliance risk. It ensures participating fabricators have the appropriate personnel and quality management systems in place, and manufacture product to the specified quality standard. Developed jointly by SCNZ and HERA, the SFC scheme is based on the European system which is part of the CE-marking regulatory environment and represents



international best-practice.

Visit [www.steelfabcert.co.nz](http://www.steelfabcert.co.nz) to find out more.

## WRAP UP: STEEL STRUCTURES SEMINAR SERIES

Approximately 170 structural engineers and builders attended this month's three-centre Steel Structures Seminar Series.

Australian Steel Institute (ASI) National Technical Development Engineer Dr Peter Key focused on the design of tubular steel structures with specific emphasis on connection design and detailing. The session drew on a series of publications co-authored by Dr Key: *Structural Steel Tubular Connection Series* (8 parts) and *Tubular Design Guide 20*. Both publications are available from HERA or the ASI website.

SCNZ Senior Structural Engineer Kevin Cowie covered design and fabrication issues specific to two-way steel moment-resisting frames. This included concurrent loading and the design and detailing of connections (beam/column and splices).

The third session featured leading fabricators discussing cost-effective steelwork: David Moore, Grayson Engineering, Auckland; Malcolm Hammond, MJH Engineering, Wellington; and Simon Williamson, Pegasus Engineering, Christchurch. The key message common to all the presenters was that labour costs are always higher than material costs, so it's

important to focus on minimising work content rather than material weight. Each speaker gave examples of design and detailing practices that reduce labour content.

The programme concluded with a presentation by SCNZ Manager Alistair Fussell on the recently launched Steel Fabricator Certification (SFC) scheme. The aim of the scheme is to introduce a mark of quality to the local structural steel sector so clients can easily identify fabricators with the appropriate quality systems and personnel to consistently produce work of the required quality.

A key plank of the scheme is that quality requirements are related to risk. In the scheme four construction categories are recognised (CC1-4). Engineers specify a construction category or categories for their building or infrastructure using a risk matrix approach.

The technical and quality framework for the scheme is outlined in the SFC Code of Practice, and provides guidance on the construction category selection process. The document will be available to engineers early next year following a peer review.

## CONSTITUTION CHANGE AT RECENT SCNZ AGM

The SCNZ AGM was held on the 25<sup>th</sup> September at the Claudelands event centre Hamilton. At this meeting two important resolutions were passed.

The passed resolutions are as follows:

Resolution 1 –Steel Producer Qualifications (Rule 5.1 (c))

"That the SCNZ Constitution membership qualifications for a Steel Producer be broadened to include an international company participating in the SCNZ voluntary levy scheme that does not have a registered office or production facility in New Zealand."

The rationale for the proposed resolution is to recognise the

support of international steel mills who participate in the SCNZ voluntary levy scheme. This scheme is the primary funder of SCNZ's operations.

Resolution 2 - Steel Constructor Representation (Rule 16.3)

"That the SCNZ rules be amended to include the following clause:

To ensure local representation, three places will be available on the Executive Council to be filled by one Steel Constructor member from each of the three Regional Fabricator Forums (Northern, Central and Southern)."

## 2014/15 SCNZ EXECUTIVE COUNCIL

Congratulations to Bob Hawley (Steel Constructor: Redsteel, Napier), Mike Klemick (Associate: Dimond, Auckland), Craig Taylor (Steel Producer: Onesteel, Auckland) and Paul Thomsen (NZ Steel Ltd, Auckland) who were recently elected to the SCNZ Executive Council. Bob and Mike were former Councillors now re-elected after a break of several years. Former Councillor Scott Miller (Silvester Clark) was endorsed by the SCNZ Council at the last meeting as the replacement Professional representative for Geoff Chilcott who resigned mid-term.

The previous Council including outgoing representatives Steve Stickland and Scott DeLacey are thanked for their service in the previous year. Steve's service is particularly meritorious having been the Associate representative since 2008.

Congratulations to Mike Sullivan (Steel Constructor: D&H Steel Construction: Auckland) and Peter Donohue (Steel Distributor: Steel & Tube Holding Ltd: Christchurch) who were elected Chairperson and Vice Chairperson respectively at the recent SCNZ AGM.

The 2014/15 Executive Council for 2014/15 is:

### **Associate**

Mike Klemick (Dimond)

### **Professional**

Scott Miller (Silvester Clark)

### **Steel Constructor**

Bob Hawley (Redsteel)

Mike Sullivan (D&H Steel Construction Ltd)

### **Steel Distributor**

Peter Donohue (Steel & Tube Holding Ltd)

Neil Watson (Fletcher Easysteel)

### **Steel Producer**

Craig Taylor (Onesteel Ltd)

Paul Thomsen (New Zealand Steel Ltd)



**Mike Klemick, Dimond**



**Bob Hawley, Red Steel**



**Scott Miller, Silvester Clark**

## STEEL AGENDA 2014 – A RECAP

60 SCNZ members descended on Hamilton for the *Steel Agenda 2014* AGM, conference and dinner on September 25<sup>th</sup>. The day kicked off with a leisurely cruise on the scenic Waikato River, followed by lunch at Claudelands Conference & Events Centre.

Then the serious part of the day began. The formalities of the AGM were followed by a series of compelling presentations through which the importance of building solid relationships was a common thread.

MBIE's Chris Kane started the day's presentations by discussing the National Construction Pipeline Report. In 2013 the New Zealand Building and Construction Productivity Partnership released the Report for the five-year period to 2019. The report forecasts an annual 10 percent increase in construction activity for the next four years, peaking in 2016 at nearly \$32 billion. For the steel industry to profit from the pipeline, said Chris, the industry must continue to strengthen its relationship with government.

Raine Selles of Commercial Management Consulting provided sound advice on how to get variations paid. Only

60% of variations are paid and, staggeringly, about 90% of adjudications are related to variations. To ensure you're not a statistic, Raine said it's vital to plan well – understand the construction site, read the contract, identify any constraints – and maintain comprehensive records for the life of the project. This approach creates a better understanding between the parties involved and means fewer disputes over variations.

Graham Darlow, CEO of Fletcher Construction, waxed lyrical about structural steel during his inspiring presentation. A self-confessed "bloody great fan of steel", Graham predicted a bright future for those in the audience.

Structural steel, he said, offers qualities

that other materials simply don't have; indeed, it's fast becoming the material of choice in Christchurch.



**Graham Darlow, CEO Fletcher Construction presenting at the SCNZ Steel Agenda**

## NEED HELP WITH STRUCTURAL STEEL DESIGN? CALL THE STRUCTURAL HELP DESK!

SCNZ Engineers have a wealth of information and expertise at their finger tips to answer your structural steel design and construction questions. Call us on 09 263 5635 or email [zahid.hamid@scnz.org](mailto:zahid.hamid@scnz.org).



# NEW MEMBERS

SCNZ welcomed fifteen new members during the third quarter ending September 2014.

## Full (Steel Constructor)

Initiative! Unlimited, Christchurch

## Associate (Steel Detailer)

DUINZ Detailing Services Ltd, Auckland

EDC Consultants Pty Ltd, NSW

## Affiliate (International)

Marubeni Itochu Steels Oceania, Melbourne

## Affiliate (General)

Thiess Pty Ltd, QLD

ADG Engineers Pty Ltd, QLD

## Professional (Engineer)

LGE Engineering, Masterton

United Civil Construction, Whangarei

Holmes Consulting Group, Wellington

Engco, Christchurch

blueink Structural Design Ltd, Napier

Opus, Dunedin

Anvil Fire Consultants, Drury

Shore Engineering Ltd, Auckland

Design Engineering, Timaru

# STEELMEP: SOFTWARE FOR THE DESIGN OF COLUMN CONNECTIONS IN MOMENT RESISTING CONSTRUCTION

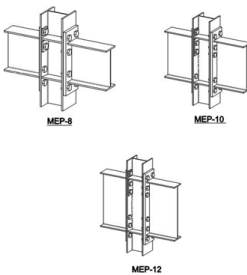
SCNZ have recently developed STEELMEP software for designing columns for moment-resisting connections. Structural engineers will welcome the development of this time saving tool that will greatly enhance design office productivity.

The software is limited to designing the column side of beam/column joints featuring beam moment endplate

## STEELMEP

Version 1.1

Company: Steel Construction New Zealand



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connections covered by the SCNZ standard connection guide Steel Connect—SCNZ 14.2:2007. The software is available free of charge to SCNZ members. Please contact SCNZ Senior Engineer, Kevin Cowie, for further details about the software or to receive a complimentary copy if you are an SCNZ member company.

# SLAB PANEL METHOD SOFTWARE UPDATE AND PRESENTATION

The updated Slab Panel Method (SPM) software was presented to structural and fire engineers at two fully booked workshops in September.

The Slab Panel Method (SPM) design procedures for the design of composite steel floor systems for severe fires were developed by HERA's Dr Charles G Clifton of HERA in 2000. The SPM design procedure allows engineers to design cost-effective floor systems that meet or exceed the fire safety provisions of the New Zealand Building Code. The SPM software was developed based on these procedures, and is used by many design engineers.

After Charles joined the University of Auckland as lecturer in 2008, the University further updated the software to keep up with the changes in construction industry.

SCNZ took ownership of the software from the University of Auckland and Heavy

Engineering Research Association in 2014. In order to ensure for the software to keep updated remain current with the latest advancements in computer technologies, the software was recently re-written and made more user-friendly. SCNZ is currently working on updating the SPM design procedure guidelines. The updated version of software was presented at workshops to structural and fire engineers. The first workshop was held in Auckland earlier in September and was presented by Charles Clifton, the principle author of SPM, and on the following week a second workshop was held in Christchurch, presented by Dr Anthony Abu. Both workshops were fully booked and very well received by participants, and SCNZ received positive feedback. The SPM software is available for purchase from SCNZ, [www.scnz.org](http://www.scnz.org).



**Would you like to become a SCNZ member?** For an annual subscription of only \$100 + GST you can enjoy the benefits of belonging to an association dedicated to the advancement of steel construction.

Please provide your details below, and email to [info@scnz.org](mailto:info@scnz.org) or fax to 09 263 5638.

Company Name:..... Primary Contact:

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Phone: .....

Email: .....