

AUGUST 2011

From the Chairperson

Welcome to our August Newsletter. I hope you are having a great summer, and it's just about to get better with our barbecue at Henley on Sunday 4 September – see below for details.

We have a busy programme for the remainder of 2011, starting with a visit from IPENZ Chief Executive, Andrew Cleland, and culminating in the Christmas soirée in the Penthouse at New Zealand House.

Andrew is visiting professional engineering institutions in the United Kingdom to maintain our continuing relationships and reciprocal membership agreements. While he is here we can all join him for a drink or two in London on the evening of Wednesday 31 August – see below for details.

I look forward to seeing you at one or more of the many events coming up.

Kelvin Smith
IPENZ United Kingdom Branch Chairperson
chair@ipenz.org.uk

IPENZ UK Branch Members

A warm welcome to new Branch members. The following IPENZ Members have recently moved to the United Kingdom:

Ralph McCorkindale
Anthony Smith
Tim Christensen

John Hood
Simon Fong
Nicola Haszard

Jake Hewitt
Louise McQuillan
Matthew Hargood

LinkedIn

Are you a member of LinkedIn? LinkedIn is the world's largest professional network and connects you to your trusted contacts. It can be used to exchange knowledge, ideas and opportunities with a broad network of professionals.

We have an IPENZ United Kingdom Branch group where you can connect with other IPENZ Members, as well as keep up to date with Branch news and activities. See www.linkedin.com/groups/IPENZ-UK-Branch-2232787

Recent Events

AGM

The AGM was held Wednesday 6 July 2011 at the Institute of Structural Engineers (IStructE) Offices at 11 Belgrave Street, following the technical talk on the Christchurch earthquakes by Matthew Free, Damian Grant and Des Andrews. The presentation was very well received. Please find below a report on the talk for your perusal.

Committee

The executive positions of Chair, Treasurer and Secretary were all open at this year's AGM and a very quick meeting voted in the new Committee thanks to there being a collection of willing volunteers.

2011/2012 Branch Committee members are:

Chairperson:	Kelvin Smith	Officers:	David Bigwood	Jonathan Gammon
Hon Secretary:	Mike Lowe		Graham Barber	Andrew Delugar
Hon Treasurer:	Kamal Patel		Ian Kirker	Judy Henderson

John Matthews continues to be our Branch Competence Assessment Coordinator.

Rule Changes

A lack of available volunteers at previous AGMs has prompted a slight change to our Branch rules agreed on at the AGM. The required gap between terms as Chair has been reduced from four to two years and if an executive position becomes vacant mid-term the Committee can nominate a Member to act in that position until the next AGM.

The AGM minutes and Chairperson's report are available in the news link on the Branch website (www.ipenz.org.uk).

Christchurch Earthquakes – Technical Talk in London

The UK Branch was most privileged on 6 July 2011 to hear an excellent technical talk on the recent Christchurch earthquakes at the headquarters of the Institution of Structural Engineers in London. We were fortunate to have Dr Matthew Free and Dr Damian Grant, both from Arup and Members of the Earthquake Engineering Field Investigation Team (EEFIT) present their findings from their recent mission to Christchurch, along with Des Andrews from Halcrow who focused on the Liquefaction aspects.

On 22 February 2011, a 6.3 magnitude earthquake struck Christchurch. The earthquake was in fact an aftershock of the Darfield Earthquake of 4 September 2010, magnitude 7.1. However, the close proximity of its epicentre to the centre of Christchurch meant the February earthquake had a far more devastating effect than the initial shock. There were 184 deaths, making it the second worst natural disaster in New Zealand history. More recently, a significant aftershock, also of magnitude 6.3, occurred on 13 June.

An excellent turnout of 40 members and guests listened intently and asked many questions of the speakers in a very good discussion session after the formal presentations.

Ian Kirker introduced the speakers, drawing on his own New Zealand experiences of being educated at Canterbury under the guidance of Professors Park, Paulay, Priestley and colleagues, famous in the world of seismic engineering and capacity design. Ian noted that along with a fellow student he had undertaken a surveying technique using photogrammetry to produce accurate historical drawings of the Christchurch Catholic Cathedral when he was at university, and that this now famous old building was being propped up with typical Kiwi ingenuity by stacking containers to act as a temporary buttress to stop the remainder of the Cathedral falling over.

The speakers had been similarly “indoctrinated” during their university studies in the New Zealand ways of capacity design at Canterbury and Auckland and had furthered their seismic and geotechnical studies overseas in the United Kingdom, California and Italy, all with impeccable New Zealand connections along the way.

Matthew gave an overview of the earthquake and spoke in detail about the tectonics, seismicity, seismic hazard model of New Zealand, and the particular strong ground motions relating to the Christchurch earthquake. In particular, the magnitude of the vertical accelerations was quite staggering with accelerations higher than 2g recorded, while horizontal motions were above 1g. The emergency response of central government and local authorities was discussed. New Zealand was well organised in this aspect and the response was very efficient and well coordinated. As well as 650+/- engineers, 1,400 military personnel were also mobilised to help. Matthew explained to the audience the system of green, yellow and red cards that were allocated to buildings.



**Technical Talk speakers
Des Andrews, Matthew Free and Damian Grant**

The colour system related to building safety and access for entry after the earthquake. The GeoNet Earthquake Ground Motion Network used in New Zealand was explained, and this had resulted in recording an incredible amount of valuable information that will be studied around the world.

The future of Christchurch was discussed, and it was noted that a new vision for the development and rebuilding of the central city could result in Christchurch revitalising itself, as Napier had similarly done in the 1930s.

Damian summarised the New Zealand concept of capacity design and seismic design practice, the significant changes to the code in 1976, and the policy on how to treat existing buildings. He presented the findings of the EEFIT mission on the response of buildings. Reinforced concrete buildings had generally performed in accordance with design objectives noting these were for a 475-year return period. However, the collapse of the older Pyne Gould Corporation Building (1963–1964) and the Canterbury Television Building had caused most of the loss of life. In all buildings, plan and elevational irregularities had often caused local failures. Unreinforced masonry buildings, namely heritage (pre-1940s), mostly commercial buildings in the CBD and other historic areas had performed badly. Damian discussed some of the factors that affected damage and the performance of retrofit systems.

Des focused on bringing the audience up to speed on all the geotechnical aspects of the Christchurch earthquake. He explained the geography and geology, the peak ground accelerations experienced, and showed examples of the rock slides, boulder falls, landslides, liquefaction and lateral spreading. He noted even the iconic landmark of Shag Rock on Sumner beach was destroyed by the earthquake. Des showed case studies of projects he had worked on in Christchurch where various ground improvement methods had been used to protect against the effects of liquefaction. His videos of liquefaction in people's back yards, soil in a wheelbarrow and also in a park in Japan were all very informative.

After a most interesting and professional presentation and discussion lasting until 9.00pm, we adjourned to the nearby Plumbers Arms to further debate some of the finer points. All our members and guests greatly appreciated the presentation. Apart from knowing friends and family affected, some of us are remote to the issues of the aftermath and way forward for the future of Christchurch, and the presentation brought us up to speed on the engineering and geological aspects of the earthquake and the challenges ahead.

Thames Boat Cruise - Engineers Australia

The annual Thames Boat Cruise was held on Saturday 6 August and was hosted by Engineers Australia. The rain held off and a most congenial afternoon was had enjoying the company and hospitality of our Australian colleagues. A very fine buffet meal and liberal quantities of refreshments were made available by our hosts for the cruise. The cruise was over three-hours long, and most of the sights along the Thames were seen. Of concern was the fact that few of the Australian engineers and guests had watched the Bledisloe Cup rugby match in the morning, and if they had watched it they were keeping very quiet! However, fears of being made to walk the plank kept us from rubbing the salt in too much. With a great rugby result and a pleasant afternoon on the Thames, enjoying the sights of London from the water, the IPENZ members in attendance had a most enjoyable day.



Upcoming Events

Visit by IPENZ Chief Executive – Andrew Cleland

Andrew Cleland will be in London at the end of this month and has set aside the evening of Wednesday 31 August to meet with United Kingdom-based IPENZ Members. The plan is to meet up at the Crown pub, 43 Monmouth Street, Covent Garden, WC2H 9DD, around 6pm. If you have any queries please contact Judy Henderson on jude.henderson@gmail.com.

Who: Members
Where: Crown pub, 43 Monmouth Street, Covent Garden, WC2H 9DD
When: Wednesday 31 August, from 6pm
How much: cash bar

Family Barbecue, Henley-on-Thames

We are privileged once again to have use of the Henley Rowing Club's grounds beside the River Thames for the IPENZ UK Branch Summer Barbecue. The spot has been a Branch favourite for many years and is a must-see for members both old and new. A barbecue lunch is provided for attendees and non-alcoholic drinks are provided (BYO alcoholic drinks). We ask members to bring a salad or a dessert to share and ask that you indicate what you will bring when you register.

Who: Members, families and friends
Where: Henley Rowing Club, Henley-on-Thames, RG9 3JD
When: Sunday 4 September
How much: £8/adult (Members and partners), £12/adult (Non-members), free for those aged 16 year and under

Please use the Online Reply Form and pay by automatic transfer through your bank to confirm your place.

Phone Ian and Melissa Kirker on 01189406630 or email bbqrsvp@ipenz.org.uk if you have any queries.

Payment – Reference: Your Name
Sort Code: 40-07-13
Account No.: 90829870

Graduates' Night – the Route to Membership

Are you thinking about applying for MIPENZ and CPEng, or just wondering what it is all about? Then this night is for you. We are seeking expressions of interest to determine if we have sufficient numbers to host such an event this October. If you are interested in finding out more about the processes involved as well as meeting other graduates and engineers who have recently successfully completed their assessments then please do not hesitate to contact the Chair on the contact below.

Who: IPENZ United Kingdom Graduates
What: Graduates' Night
When: October, if there is a good response to the expression of interest.
How: RSVP by 31 August to chair@ipenz.org.uk

Technical Talk – The Shard

A technical talk on the Shard was given to IPENZ Members in 2009 which was well received. With the Shard now nearing completion we have invited Jon Parker of WSP to provide us with an updated talk on this iconic building.

Who: Members and guests
What: Shard Technical Talk
Where: WSP office 70 Chancery Lane, London, WC2A
When: Tuesday 4 October from 6.45pm

Xmas Soirée 2011

This year the annual Xmas Soiree will be hosted by IPENZ in the Penthouse at New Zealand House. It is a great opportunity to mix with engineers from both IPENZ and Engineers Australia, as well as enjoy the amazing views of London from the terrace. It will be catered with a fantastic Christmas dinner and a choice of beers and wines.

Who: IPENZ/Engineers Australia United Kingdom Members and Guests
What: Xmas Soiree
When: Friday 25 November
Where: New Zealand House

Have you got an idea for a Branch event? Or perhaps you are working on a project and are willing to make a presentation to members. If so, please get in touch. We can assist to organise a suitable location and refreshments.

Other Events of Interest

Geological Society

The Society has a number of interesting and informative scientific conferences and lectures scheduled for 2011.

The full conference programme is available to download at www.geolsoc.org.uk/gsl/events

ICE Events and Conferences

Attending an ICE event or Associated Societies event is a good way to keep up-to-date with the latest thinking across the whole field of civil engineering and participate in stimulating exchange of ideas and experience.

You can find out more at www.ice.org.uk/Events-conferences

New Zealand Society - www.nzsociety.co.uk

Thursday 8 September – New Zealand Society 85th Birthday Celebrations

Join us at the Penthouse of New Zealand House to celebrate 85 years of the New Zealand Society. Sparkling wine reception, with scrumptious canapés, New Zealand wine and beer and of course the 360-degree view of London.

Cost is £25 for members and £35 for non-members. Special guests have been invited and the entertainment for the night is not to be missed.



Further Events of Interest

If you know of any other events your fellow engineers may be interested in, please forward details to chair@ipenz.org.uk