

engineering or art?



The 2009 engenerate photography competition “Engineering or Art?” was held recently, giving IPENZ Members the chance to flex their creative muscles. More than 130 entries were received, featuring locations from Whangarei to Bluff, and all manner of places in between.

The judging panel considered the overall standard of competition to be higher this year, with entries again demonstrating the global and varied nature of the engineering profession.

Congratulations to our winner, **Aine Colson GIPENZ** from Opus Consultants, whose entry “Headphone and Speaker” (above) captured the attention of our judges with its strikingly simple composition. Miss Colson takes home a digital camera to the value of \$1,200.

The second prize, of \$500 cash, was awarded to **Hayden Scott-Dye GIPENZ** for his “Graeme Sydney-esque” photograph “Calm Day at Tekapo B”, taken during a fine day on the job.

The judges selected “Rural Power” from **Paula Nunweek GIPENZ** as the winner of the

inaugural “Taste of Kiwi” prize. This prize is awarded to an image that has a quintessential Kiwi feel, while capturing the essence of the competition, and is valued at \$500. Miss Nunweek’s subject choice and simple composition meant that it challenged the judges as to which way it should be viewed.

The remaining nine finalists were then subjected to the critical eye of the IPENZ Membership, via the Members’ Choice poll. This year, 273 members voted and selected “Stack in the Sky?” by **Ben Conway GIPENZ** as their favourite. Mr Conway also receives a \$500 cash prize.

Thanks to all those who entered, and Beca for its continued generous support of the competition. We look forward to running the competition again next year – so until then, keep snapping!



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President's Message

The Value of Membership

By now you will have received your annual subscription notice and probably, noting the quantum, asked yourself what value to you get as a Member of the Institution. In this issue how your money is spent is set out in detail.

Without reiterating the issues, two matters are important. The first is that subscriptions have reduced in real terms over the last eight years, and recognising the current economic times, the Board has not increased them for the coming year. The second is that by diversifying the income streams we are now able to leverage your subscription by about four times to get extra value for you.

What is more important, however, is the value you get for your outlay. As a society we are often inclined to focus on cost rather than value.

There are many ways to determine the value of services, but the one that most appeals to me is a variant on deprival value. This asks the amount you would be prepared to pay to receive a service if you were suddenly deprived of it.

A good example of this is the typical cost of connection to a municipal water supply. Nationally the typical cost of such a service is about \$25 per month, compared to a typical electricity cost of \$200 per month. This test asks that if you suddenly had neither and could only purchase one, which service would you choose and how much would you be prepared to pay for it.

I suspect that, although living without electricity would be extraordinarily inconvenient, we probably could not live in our urban houses without water – and we would probably choose sewerage as our next most important service before electricity.

Although the cost of the water service is only about 10 per cent of the electrical supply, this test separates cost from value and shows that we value the water service more highly.

But how does this relate to your subscriptions? Ask yourself what would not exist if the Institution did not.

How would your competency be recognised by the regulators? Would you need to convince every client or employer of your competence in advance of every commission? How would you know what degrees and from which universities were any good when assessing potential employees? Who would contribute to the codification of engineering knowledge and to whom would you turn for professional development? Who would the government be able to rely for independent technical policy advice? Who would work with schools to encourage the best and brightest to consider engineering as a profession and who but your peers would you wish to assess and recognise outstanding performance?

It is the work of the Institution through its many Members (much of it in a voluntary role) that underpins your day-to-day ability to practice, regardless of where and for whom you work, and ultimately it is your subscription that enables the systems to be put into place to achieve what is necessary if we are to be recognised as the profession that underpins our modern (engineered) society.

So I would encourage you to consider the value of your subscription rather than the cost and ask yourself: "Where would we be without the Institution?"

Anthony Wilson
IPENZ President

Towards the First National Infrastructure Plan

In September, the National Infrastructure Unit, part of the Treasury, released a discussion document entitled *Infrastructure: Facts and Issues – Towards the First National Infrastructure Plan*. This discussion document was prepared as a precursor to a national infrastructure plan for New Zealand.



IPENZ submitted on the discussion document in September. This article notes some of the topics covered in the discussion document and the points that IPENZ raised in its submission.

The purpose of a national infrastructure plan

The discussion document stated that the purpose of a national infrastructure plan is to “present a high-level view of the state of New Zealand’s infrastructure, describe the principles and direction of future investment, improve alignment between national and regional planning, establish greater discipline around infrastructure decisions and increase public awareness about the role that infrastructure plays in supporting and raising the nation’s living standards”.

IPENZ submitted that infrastructure plans need to be prepared in the context of strategic planning – setting the outcomes that the government wants to achieve for society, and the desired levels of service. Other areas such as co-ordination, infrastructure interdependency, resilience and forward planning for the workforce needed to deliver infrastructure should also be considered.

IPENZ considers that some sectors, such as such as transport (road, rail), water, wastewater, corrections, health and education should prepare 10-year infrastructure plans for their sector, with the plans including a list of funding and projects.

IPENZ commented that the Infrastructure Unit has a role in ensuring 10-year sectoral plans are in place and in providing overriding strategic direction addressing issues such as guidance on asset management, infrastructure governance, funding, pricing and procurement.

Principles

The discussion document presented five principles that will guide government decision-making to select projects and develop regulatory frameworks.

IPENZ submitted that there were a number of missing principles from the discussion document, including strategic asset management, adapting to climate change and demand-side management. IPENZ stated that these should be overriding principles for a national infrastructure plan.

Sectoral information

The discussion document presented information on a number of sectors. For each sector the discussion document outlined the

sector’s history, assets, institutional arrangements, funding and pricing, and planning.

IPENZ noted that the discussion document missed the following infrastructure from the sectoral section:

- electricity distribution
- gas distribution
- water treatment
- stormwater
- flood control
- coastal protection
- solid waste management.

IPENZ also noted that the discussion document did not discuss the projected doubling of freight by 2040 which will affect the infrastructure of road, rail, ports, coastal shipping and airports.

Cross-sectoral issues

The IPENZ submission noted that there are cross-sectoral issues to be considered, including:

- the ongoing need to improve the designation provisions of the Resource Management Act 1991
- the multiplicity of legislation affecting infrastructure improvements
- local government performance and finance
- demographic trends and planning.

Next steps

The National Infrastructure Unit intends to have New Zealand’s 20-year national infrastructure plan prepared by early 2010. The national infrastructure plan is expected to be updated every three years. More information is available on the National Infrastructure Unit’s web site at www.infrastructure.govt.nz/plan

IPENZ is likely to prepare a further submission to the National Infrastructure Unit when the draft infrastructure plan is prepared. If you are interested in being involved in infrastructure-related submissions please email policy@ipenz.org.nz and keep an eye on the IPENZ web site and *engineering direct*.

The IPENZ submission on *Infrastructure: Facts and Issues – Towards the First National Infrastructure Plan* is available on the IPENZ web site at www.ipenz.org.nz keywords “infrastructure plan”.

Where Does Your IPENZ Subscription Go?

The IPENZ Membership subscription covers a wide range of expenses. IPENZ addresses some of the most common questions from Members about where their Membership subscription is used.

During October, subscription invoices were sent to Members requesting payment of their annual subscription. Past experience shows that the request for these payments often leads to three reactions:

- Why is my subscription so high? It seems to have increased a lot lately.
- National Office is getting fat and expanding on the basis of my subscription payment.
- I am not sure what I am paying for.

How much have subscriptions risen by?

Consider the example of a Professional Member (MIPENZ) who is also registered as a Chartered Professional Engineer (CPEng) compared to the equivalent eight years ago in 2001.

	2001 MIPENZ and Registered Engineer	2009 MIPENZ and CPEng
Membership fee	\$385 (+ GST)	\$350 (+ GST)
Service centre fee	Included in above	\$38 (+ GST)
Professional standards fee	Included in above	\$50 (+ GST)
Membership fee	\$385 (+ GST)	\$438 (+ GST) 13.8 per cent increase
Registration operational fee	\$30 (+ GST)	\$92 (+ GST)
Registration reassessment contribution	Not required	\$105 (+ GST)
Total fee	\$415 (+ GST)	\$635 (+ GST) 53 per cent increase

Over the same period, the accumulative inflation, according to Statistics New Zealand, was 23.4 per cent and the median remuneration package for a Professional Member went from \$83,000 to about \$115,000, according to our remuneration surveys, a rise of about 38 per cent.

- In the last eight years the MIPENZ subscription has gone down by about 10 per cent in real terms, and by about 20 per cent relative to engineer remuneration.
- The combined cost of being registered and holding Membership has increased in real terms. However, if the completely new cost burden (the annual contributions to regular reassessment) is excluded, the total has gone up by 25 per cent – about the rate of inflation, but still well below the increase in engineer remuneration.
- The CPEng registration system requires many new actions to be undertaken that were not required for the old registered engineer – this is why the operational fee is about three times higher. In spite of this, the registration system has not been self-funding – cumulatively since 2002 it owes the IPENZ Membership about \$600,000.

Additionally, we know that IPENZ subscriptions and registration fees are much lower than those for other professions in New Zealand (accountants, lawyers, medical professionals, architects), and on a par with other engineering bodies around the world. Membership of the Institution of Engineers Australia costs A\$415 compared to NZ\$385 for MIPENZ, and Engineers Australia is committed to raising subscriptions at the rate of inflation that their institution experiences.

The IPENZ Governing Board has committed to keep subscription increases at or below the rate of inflation. The data above show this promise has been honoured.

National Office income

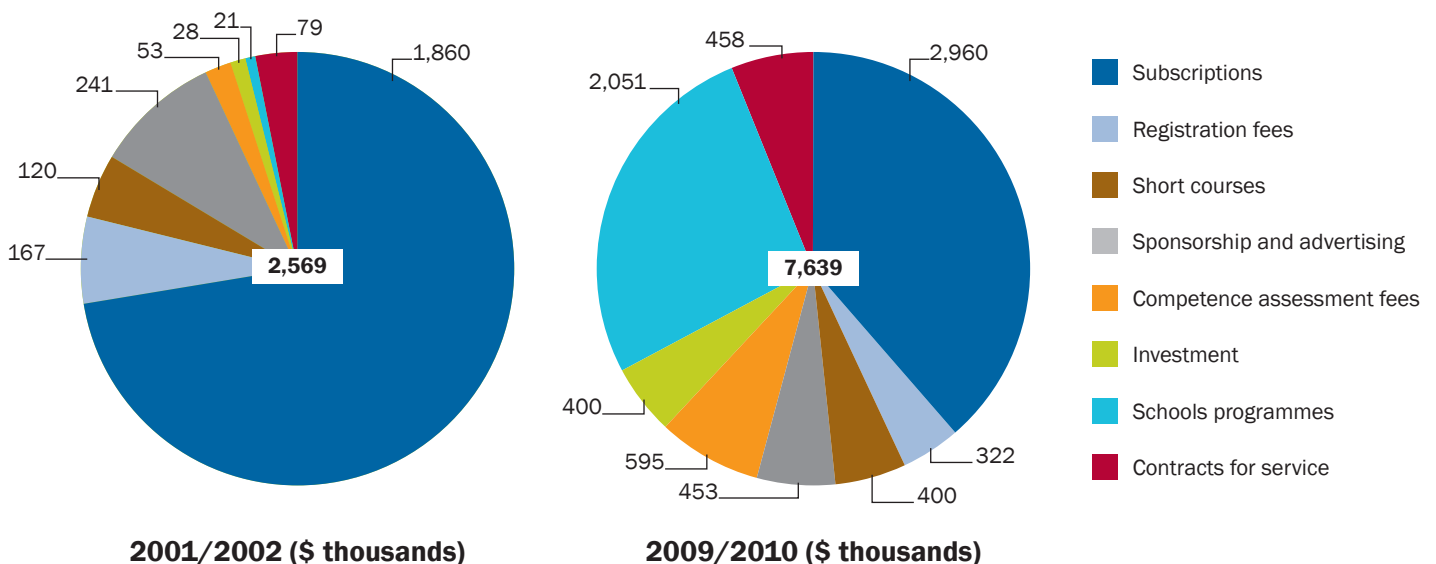
Figure 1 compares National Office income in the 2009/2010 budget and the actual 2001/2002 data.

Whilst income has trebled from \$2.6 million to \$7.6 million, subscription rises are not responsible – the rise in subscription income is due to the rise from 7,000 to 9,400 Members who pay a subscription.

National Office has moved from earning about \$0.50 per subscription dollar to \$2 per subscription dollar. New staff have been employed because of the new sources of income to meet the obligations that go with them. The largest new income is from the Schools Team. Schools employs over 15 staff, entirely from the external income sources.

The need for five-yearly competence assessments has increased the associated revenue stream, but barely enough to cover the extra costs.

Figure 1



Where does the subscription dollar go?

In broad terms, the subscription dollar funds those activities that do not generate their own income. The direct costs (not including overheads) are indicated for activities that are largely subscription-funded. Examples are not ranked in order of importance.

Largely or totally funded from associated income streams	Largely or totally subscription-funded
Schools programmes	Public policy programme (\$190,000)
International engineering agreements (funded through international register fees)	Accreditation of qualifications (\$100,000)
Technical Interest Group activities	Branch activities, engenerate and Pickering lecture (\$340,000)
<i>engineering direct</i> and 50 per cent of <i>e.nz magazine</i>	<i>engineering dimension</i> and 50 per cent of <i>e.nz magazine</i> (\$300,000)
Competence assessments and competence-based registration systems	Media activities, profiling the profession, engineering heritage (\$156,000)
Short courses	Mentoring and assisting graduates to prepare for competence assessment (\$100,000)
Promoting uptake of registers by regulators	Codification of engineering knowledge, standards, access to engineering knowledge (\$300,000)
International engineering secretariat	Development of the South Pacific Engineers Association (\$25,000)
New Zealand Engineering Excellence Awards	Internal awards and Fellowships, Fellows' and Achievers' Dinner (\$100,000)
Service contracts to other associated organisations (for example, collaborating technical societies)	Institutional governance, consultation with stakeholders (\$300,000)
Technical Interest Group records	Membership records, database etc. (\$330,000)

All these activities also contribute to Institutional overhead costs. Hopefully this answers the questions that Members have about their subscription fees.



Young Engineers Attend International Workshop



Two young engineers were selected as part of a prestigious young professionals' management training programme to attend the annual International Federation of Consulting Engineers (FIDIC) conference, "Global Challenges and Sustainable Solutions" held in London in September. **Tristan Ilich MIPENZ** and **Jan Kupec MIPENZ** from Aurecon New Zealand were two of only 20 young professionals selected to attend this FIDIC training programme.

Mr Ilich and Mr Kupec were sponsored to participate in the four-day workshop conference which included clients, architects and executives from every continent. Mr Ilich was selected by the attendees to give the opening address and he spoke on "human resources" and "ownership".



Other topics tackled by the young professionals' management training programme included "professional sustainability" and "image of the engineer".

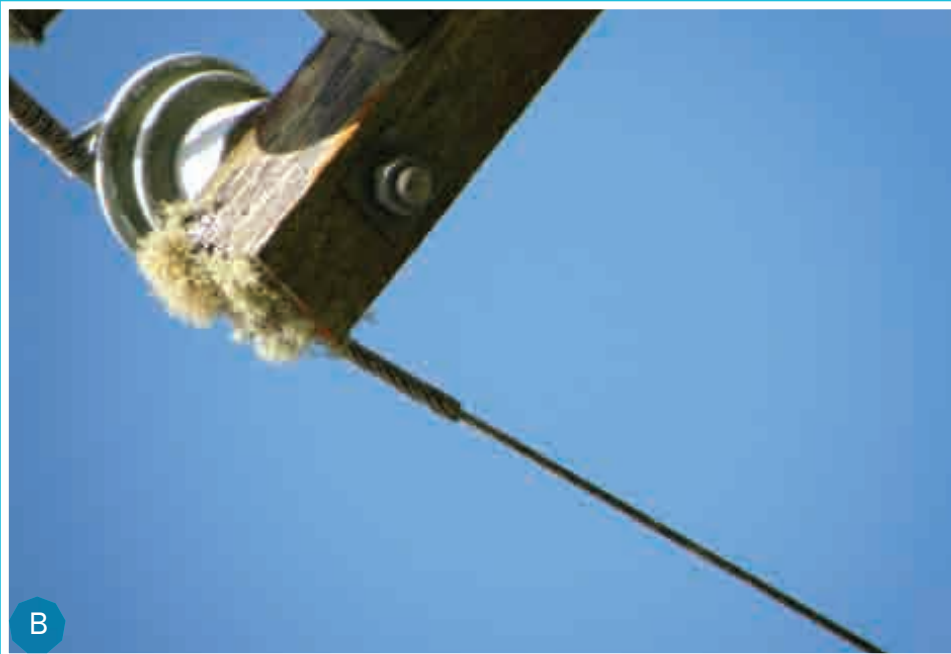
"Having the opportunity to work alongside a diverse range of fellow professionals in a constructive and intellectually challenging environment was a highlight of the conference," says Mr Ilich.

"A lifetime network has now been created amongst our group, the real value was meeting people face to face," adds Mr Kupec.

engenerate

Photo Comp

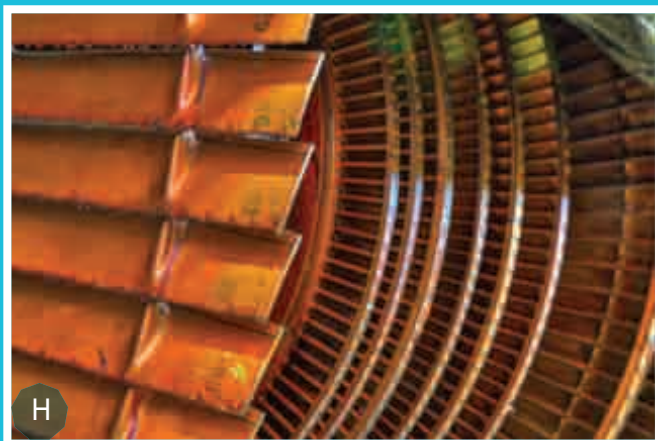
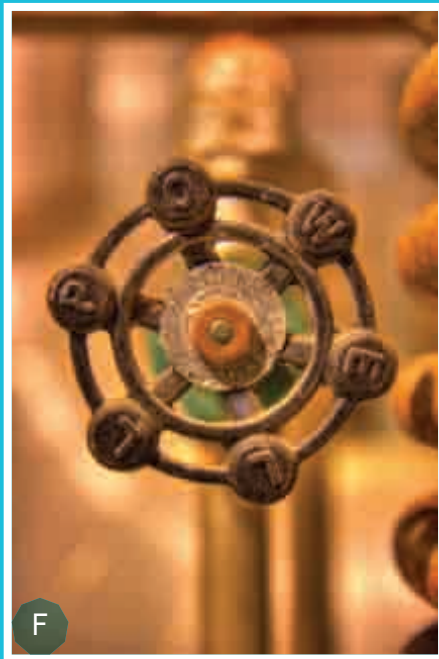
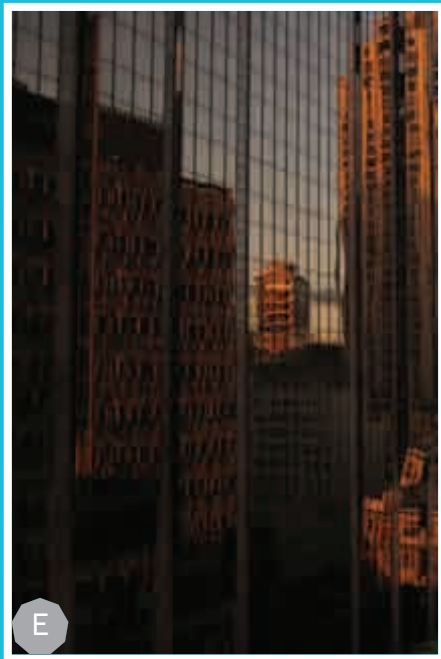
Second place: A – **Hayden Scott-Dye GIPENZ** *Calm day at Tekapo* B
Taste of Kiwi: B – **Paula Nunweek GIPENZ** *Rural Power*
Members' Choice: C – **Ben Conway GIPENZ** *Stack in the sky?*



petition



Finalists: D – **Derek Burrough GIPENZ** *Bluff Spirit*, E – **Kelly Briggs GIPENZ** *Reflections*, F – **Marie-Katrin Richter GIPENZ** *Powell*, G – **Steffan Thomas GIPENZ** *Papal Cross*, H – **Marie-Katrin Richter GIPENZ** *59-63*, I – **Lee Pike GIPENZ** *Engineered Sculpture*, J – **Alastair Carr GIPENZ** *Guardrail to Guardrail: A guardrail from their own perspective*, K – **David Easey MIPENZ** *Spinnaker Tower Stairs*.



Techlink Update

The Technology Education New Zealand biennial conference was held in Napier from 6–8 of October.



■ Brian Allen receives his TENZ award.



■ Conference attendees interact with some of the Furnware activities.

Technology Education New Zealand (TENZ) is one of IPENZ's technical interest groups and is a professional network set up to promote and support technology education in New Zealand. TENZ has over 600 members nationwide and was developed to:

- foster the development of technology in the New Zealand curriculum
- develop and maintain national and international links between those working in technology education and with the wider technological community
- support professional, curriculum, and resource developments in technology education
- encourage research in technology education
- organise a national technology education conference every two years.

The TENZ 09 conference, which is organised by IPENZ, was one of the largest professional development events for technology educators in New Zealand with approximately 200 educators from around the country present.

This year the conference offered the latest in practice and research, and included presentations from the Education Minister, **The Hon. Anne Tolley**, international guest speakers, and the best practitioners and researchers in New Zealand.

Highlights from the conference included a presentation from Professor **Marc de Vries** from Delft University of Technology in the Netherlands. Professor de Vries offered an international perspective on technology education and New Zealand's curriculum. Professor de Vries has been a strong advocate for the New Zealand technology curriculum, which he believes is in the best shape internationally.

Sharon Wagg attended the conference as an IPENZ representative, on behalf of the Chief Executive, **Dr Andrew Cleland FIPENZ**, and presented on the national engineering education plan (NEEP) project. One of the work streams of the NEEP project focuses on developing a

consensus on the subjects to be delivered nationally in Years 11–13 within the technology learning area, and agree with tertiary providers and end-user communities on progression pathways to tertiary study.

Techlink, an IPENZ initiative, also played a part in the conference programme. The Techlink team held a teaching presentation which focused on assisting teachers to develop new strategies to use the material on the Techlink web site and to maximise the usefulness of Techlink resources.

Techlink also held a workshop on the importance of raising the profile of technology and promoting its benefits to the wider community. This workshop provided participants with practical strategies on how to attract media coverage for student achievements and effective techniques for dealing with the media.

Futureintech was also present at the conference and provided delegates with resources and information on careers in engineering, technology, and science, and promoted the benefits of working with Ambassadors in classroom programmes.

A key aspect of each conference is to encourage educators to make links with industry and local enterprises to provide students with practical and relevant skills and knowledge that mirror industry practice. Delegates were given the opportunity to hear from industry representatives from Furnware, Heinz Wattie's, and Hastings District Council wastewater treatment plant. Visits to local technology-based industries also provided delegates with an insight into how some of New Zealand's most innovative companies operate.

In conjunction with the conference, TENZ held an awards ceremony which acknowledged the significant contribution made to technology education by some of the best and brightest teachers through the IPENZ-sponsored TENZ awards. TENZ awards are presented every two years to those who show excellence in leadership, teaching, and teacher education in the learning area of technology. This year seven educators received awards for their achievements.

News from an IPENZ Technical Interest Group

The New Zealand Society for Sustainability Engineering and Science (NZSSES) was formed in 2003. It operates as a learned society with the purpose of advancing sustainability engineering and science.



The society aims to promote research into the science and engineering underlying sustainability, discover methods and tools for achieving sustainability, and illustrate the application of sustainability to professional practice, design and management.

The feature event hosted by NZSSES is the biannual international conference. The inaugural conference in 2004 debated the philosophy and definition of sustainability and how engineers and scientists

could lead the way to global sustainability. The second international conference, "Talking and Walking Sustainability", offered delegates the opportunity to extend the philosophical debate but also showcased practical sustainability models. In December 2008, the "Blueprints for Sustainable Infrastructure" conference moved completely away from any debate of the philosophy or definition, and focused entirely on methodology, design and new thinking. "Transitions to Sustainability", in December 2010, is the fourth conference in the series and will look at what we need to do to embed sustainability into everyday life.

The NZSSES is well known for its Friday forums. These forums are morning sessions held roughly every two months to discuss topical issues. Three speakers present their viewpoint on the subject prior to morning tea, and then the audience has time to ask questions and enter into debate with the speakers for the remainder of the morning. These forums are free to members. The full list of forums is on the NZSSES web site at www.nzsses.org.nz

Throughout the year NZSSES offers a variety of short courses, workshops or seminars on topics such as life-cycle assessment, sustainable facilities, and sustainable indicators, among others. Topics suggested for forums and seminars for 2010 include building systems, the Resource Management Act, water supply, collaborative design consultation, climate change economics, conservation economics, scenario modelling and green chemistry.

Members are entitled to discounted fees on all fee-paying seminars and conferences, and receive regular newsletter updates on activities. Our AGM and end-of-year members' function is on Friday 4 December. NZSSES welcomes new members who are interested in learning about strong sustainability.

Professional Development Partner Status

Markplan saw acceptance as an IPENZ professional development partner (PDP) as formal recognition from its peers and industry that it is committed to the professional development of its engineers throughout their careers.

Markplan reinforces to its engineers that professional development is not just an activity that is relevant to Membership status, rather it is something which enhances and benefits one's daily tasks, relationships and seniority in the practice and with the engineering community as a whole. It is an essential part of professional life, not an optional extra, and a regular amount of time should be invested in it. Since becoming a PDP, Markplan has found that individual's desire to gain recognition for their engineering competence through the appropriate competence-based Membership class and register is greater.

Applying to become a PDP gave Markplan the opportunity to assess the career development opportunities and systems in the practice, and ask "how does this achieve the whole picture - the individual's goals as well as that of Markplan?". The company took an in-depth look at what it had been doing in the area

of career development over the years and were pleased that no radical changes to any of the development programmes or systems were needed. However, the process did allow it to improve further by establishing better recording systems, which will in turn yield a more robust PDP programme for the future.

Markplan chose to develop a "roadmap" which essentially forms the basis of the PDP programme. The roadmap aligns individual's development with the long-term goals of Markplan. Each engineer follows the same development programme in respect of this roadmap which identifies current skill level and responsibility in any particular role. As the engineer progresses along the roadmap, with exposure to various work experience, responsibility and skill development, the 12 IPENZ competencies are tracked and developed in a balanced way.

The aim of the programme is to monitor and provide direction for each participant's work experience, mentoring and level of responsibility to develop all 12 IPENZ competencies. All team members within the PDP programme are offered access to work and learning opportunities (both on and off

the job) needed to acquire the competencies and skills expected of engineers.

The PDP programme, including the roadmaps, has been easily adapted to include the Bachelor of Engineering, Bachelor of Engineering Technology and other technical qualifications. This allows for engineering technologists and technicians to achieve recognition in a Membership class and go on to apply for the appropriate register.

Continuing professional development is an integral part of running a sustainable engineering practice. The engineers at Markplan have the opportunity to participate in all aspects of the practice, and as a result, become engineers with business and people skills beyond the 12 engineering competencies. The PDP programme has helped Markplan to do this in a well planned and managed way.

Becoming a PDP has increased Markplan's interaction and involvement with IPENZ. Working with the Professional Development Team at IPENZ helped Markplan become a PDP, proving that the size of the organisation does not matter when it comes to providing professional development and enhancing careers.

National Office Staff Update

Several new staff members have joined IPENZ National Office in 2009. Some of these people have been at the office for some time now, but their roles have become permanent after starting on fixed-term contracts. IPENZ would like to introduce the following staff to our Members.



Erica Pitt

Erica has ten years of design experience, and joined IPENZ in June as Design Manager. She is responsible for the look and feel of IPENZ publications, including *e.nz magazine*, brochures, posters and annual reports, and uses her creative flair to make these look professional and appealing to the IPENZ Membership. She is also in charge of brand management, maintaining a strong identity for IPENZ, and designing new logos and brands for technical interest groups and events.

Rebecca Adams

Rebecca started at IPENZ in August as the Communications Manager. She recently worked as part of the communications team for the London Organising Committee for the Olympic and Paralympic Games. Rebecca brings her communications expertise to IPENZ to raise the profile of the Institution and the engineering profession in New Zealand. She places IPENZ and engineering in the public eye and is behind many of the exciting events that IPENZ hosts.



Kim Willcox Lee

Kim joined IPENZ in February this year as the Human Resources Advisor. She studied at Waikato University and gained a Graduate Diploma in Commerce in Human Resource Management from Victoria University. Kim was the Human Resources Advisor at Victoria University, and other organisations, and now works part time at IPENZ, providing HR advice to managers and staff and taking care of the IPENZ payroll. She also provides employment advice to Members when requested.

Fiona Shand

Fiona started at IPENZ in late August as the Boards' Secretary. She recently worked for the Christchurch City Council as Assistant Council Secretary and previously as the Community Board Advisor for the Hagley/Ferrymead Community Board in Christchurch. As Boards' Secretary, Fiona assists in the co-ordination of meetings and takes minutes at the Governing Board and Subsidiary Board meetings. She is also involved in the co-ordination of the IPENZ annual report.

Jess Brunette

Jess started in the Techlink team at IPENZ in May. He has a Bachelor of Arts in Media Studies and previously worked for a small company called Newsletters Ltd as a copywriter. In this role Jess wrote newsletters, case studies, and promotional material for government organisations and small businesses. As a writer for Techlink, these skills have come in very handy. Jess writes for the Techlink web site, which promotes and supports technology education. He researches and writes pieces that showcase significant work done by schools, teachers and students in the learning area of technology education.

IPENZ would also like to farewell **Nick Helm GIPENZ** as the Managing Editor. Nick has been with the Engineering Team for three years, initially as the Writer/Editor working on *engineering direct* and *engineering dimension*. He then took on the role as Managing Editor, overseeing all publications including *e.nz magazine*.

Recreation Safety Engineering

IPENZ attended the AGM of the Recreation Safety Engineering Technical Interest Group on 13 October at the offices of the Department of Labour in Manakau.

The highlight of the meeting was a presentation by **Brian Bradley** from New South Wales, who told the group facts and anecdotes from Australia. He provided a national audit tool for amusement devices and warned the group to watch overseas issues, as they can be used by the courts to provide "state of knowledge" upon which to base determinations.

A robust discussion took over the activities of the Model Engineering Association of New Zealand (MEANZ) in the area of miniature railways and their association as amusement devices. The meeting was well attended with 26 people attending from across the country.

Resource Management Act Amendments

How does the Amendment Bill which has been passed compare with what IPENZ wanted?



On 22 September 2009, the Resource Management (Simplifying and Streamlining) Amendment Bill received Royal Assent, thereby becoming an Act and amending the Resource Management Act 1991.

IPENZ provided the Local Government and Environment Select Committee with its submission on the Amendment Bill in April 2009. This article compares how the final provisions of the Amendment Act compare with IPENZ's recommendations in its submission.

Criteria for nationally significant projects

Prior to this Amendment Bill, the criteria for "national significance" were whether the matter:

- arouses widespread public concern or interest regarding its likely effect on the environment
- involves or is likely to involve significant use of natural and physical resources
- affects or is likely to affect any structure, feature, place, or area of national significance
- affects or is likely to affect more than one region or district
- results in or contributes to significant changes to the environment.

The Amendment Bill sought to introduce one further criterion – whether the matter is one that relates to a network utility operation that extends or is proposed to extend to more than one district or region.

In its submission, IPENZ commented that the existing and proposed criteria will result in many applications to the Environmental Protection Agency (EPA) for a hearing by a Board of Inquiry for projects that are not nationally significant. IPENZ recommended that the criteria should consider the project's national economic and social effects and the cost of the project.

The proposed additional criterion has been passed, along with one further criterion – whether the matter "will assist the Crown in fulfilling its public health, welfare, security, or safety obligations or functions".

IPENZ remains concerned at the potential for broad interpretation of "nationally significant" and that the EPA may receive significant numbers of applications that are not actually "nationally significant".

Decision-maker on designations

Under the Resource Management Act 1991, a requiring authority applies for a designation to the relevant local authority, which then makes a recommendation for the requiring authority to consider in making its final decision.

The Amendment Bill sought to change this arrangement so that the local authority would make the final decision, rather than the requiring authority.

In its submission, IPENZ noted that the IPENZ Membership was split on the merits of this amendment – some Members considered this change would bring the process for designations into line with the process for resource consent, while other Members considered that local authorities are not best placed to make detailed conditions on designations.

This amendment has not been passed and is being considered as part of Phase 2 of the review of the Resource Management Act (RMA).

Outline plans

Prior to amendment, the RMA allowed for an outline plan to be prepared before construction commences. In its submission, IPENZ noted that many Notices of Requirements for designations are required to be very detailed and that insufficient use is made of the outline plan mechanism.

IPENZ considered that the focus of designations should be about protecting the land for future works and suggested that the provisions relating to Notice of Requirements be amended. This could be done by relaxing the extent of the information required and strengthening the outline plan provisions to allow a local authority to set detailed conditions closer to the detailed design stage.

These changes do not appear to have been made through the Amendment Act.

Conclusion

IPENZ welcomes the majority of the changes made through the Resource Management (Simplifying and Streamlining) Amendment Act 2009. The changes will help to expedite projects of national significance, particularly with a Board of Inquiry being required to provide its final decision within nine months (unless the timeframe is extended by the Minister for the Environment). The changes will also improve processes in relation to plans, resource consents and designations.

IPENZ now looks forward to Phase 2 of the review of the RMA. Phase 2 is focused on the following areas:

- EPA roles, functions and powers
- freshwater management
- infrastructure
- urban design
- overlaps between the RMA and other legislation.

The Ministry for the Environment has signalled that further amendment bills will be prepared in 2010. IPENZ is likely to prepare submissions on further amendment bills. If you are interested in being involved in RMA-related submissions please email policy@ipenz.org.nz and keep an eye on the IPENZ web site and *engineering direct*.

More information regarding the amendments to the RMA can be found on the Ministry for the Environment's web site at www.mfe.govt.nz/publications/rma

The IPENZ submission on the Resource Management (Simplifying and Streamlining) Amendment Bill is available on the IPENZ web site at www.ipenz.org.nz at keywords "RMA final submission".

Self-Reflection Skills

Reflective practice is seen as a key element in the development of the professional person. Reflective practice relies on the honest review of what current experience has been and what the subject has learnt as a result of that experience.

We encourage engineering professionals to get into the mindset of reflecting on their professional practice as it can help to develop future plans, to see where further development is needed relative to their role, career objectives and the 12 elements of the relevant competence standard. Reflective practice is continuous in nature and should be seen as an ongoing activity. It is not something to be done occasionally in order to "tick a box" during an annual performance review – reflective practice must be a committed process of recording and review.

As a key part of your professional development, reflective practice will help you:

- write well-structured and articulate professional reports
- approach your line manager with a proactive plan for enhancing your experience
- solve problems with innovative solutions. Reflective accounts can provide you with a ready-to-hand textbook of all the worked solutions that you have generated

- prepare your application for IPENZ competence-based Membership and registration with minimal time and effort.

Record-keeping tools

The IPENZ online CPD and work history record-keeping tools are a great way to start reflecting on your professional experiences and competence development. All your records are stored in one place including learning insights gained from attending courses, reflective accounts on projects you've been involved in, and changes in your role. The tools are accessible online in the Members' Area of the IPENZ web site.

When you feel you have written a particularly good reflective account, IPENZ encourages you to have this looked over by a senior engineer, either your mentor or line manager. Alternatively, you can send a copy of your reflective sample to the Assessment Team at National Office for feedback.

For more information on the online record-keeping tools, please contact the Professional Development Manager at profdevmanager@ipenz.org.nz

IPENZ offers professional development courses that are designed to help you acquire self-reflection skills in a professional engineering setting. For information on courses, please visit www.ipenz.org.nz/ipenz/nzecal

Professional Development Events

November 2009

Specification Practice

Christchurch 9 November

Effective Report Writing for Engineers

Auckland 11 November

Resource Management Act for Engineers

Christchurch 17 November

Nelson 18 November

Risk Analysis for Engineers

Wellington 27 November

December 2009

Finance for Engineers

Wellington 1 December

Risk Management Techniques for Engineers

Hamilton 2 December

Technical Workshops

Coldstore Engineering

Tauranga 12 November

Nelson 17 November

Auckland 19 November

Napier 24 November

Christchurch 26 November

Thermo-chemical Conversion of Biomass to Energy and Liquid Fuel

Christchurch 27 November

Need More Info?

Please contact the Professional Development Team on cpd@ipenz.org.nz or call us on 04 474 8984.

To register for an IPENZ course go to www.ipenz.org.nz/ipenz/nzecal and follow the instructions online.



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