

President's Message



Getting it Right the First Time

In 2004 IPENZ ran a Members' poll in *engineering direct* on the issue of ethical standards in engineering practice. The results indicated that while 32% of Members thought there was no change in standards, 40% thought there was a decrease. While hardly scientific research, it was useful commentary on our profession.

Accompanying the mass deregulation of the last two decades there has been a growing concern that in order to save costs our profession is increasingly being asked to cut corners. Whilst we would like to think that any drop in standards has not included IPENZ Members, we cannot be certain this is the case.

In the building and construction industry a common perception is that the quality of project design documentation has declined significantly over the last 15 to 20 years. In Queensland this concern precipitated the formation of a whole-of-industry task force to present a plan of action for overcoming the problem. The results were presented in May 2005 (download the report from www.qld.engineersaustralia.org.au). In New Zealand, the Building Act 2004 is expected to lead to improvements, but until it is fully implemented in 2009 the extent of improvement will be hard to ascertain.

While some progress is being made to improve standards, engineers still find it difficult to learn from past mistakes; recently there has been a spate of structural failures in Europe, particularly of large span roofs, with consequential loss of life.

In the United Kingdom, failure to learn from failures has prompted the Standing Committee on Structural Safety to introduce CROSS, a scheme that allows engineers to learn from past mistakes and eliminate potential problems while maintaining confidentiality. This scheme, similar to those used in the aviation and shipping industries, has an independent organisation to collect and analyse reported concerns, identify trends and publish findings using real examples. The scheme does not publish details of the individuals who reported their concerns, the employer, the location of the project or any other material which would compromise the confidential nature of the scheme. CROSS is not a charter for whistle-blowers but encourages those who do have safety concerns to report them.

Here in New Zealand, as a result of an open letter to IPENZ, the Institution formed a structural taskforce in 2002 to inquire into the state of practice in structural engineering. The taskforce reported back in 2003 with specific recommendations.

The IPENZ Board has received further feedback that the state of structural engineering is still "of concern", a view supported by some members of our profession. Unfortunately, and despite efforts to the contrary, there is some evidence that bad practices on New Zealand construction sites are continuing.

The IPENZ Board discussed these issues and used the structural taskforce's original recommendations as a starting point for determining the way forward.

Our initial considerations noted that some of the structural taskforce's recommendations are yet to be completed. Of the seven recommendations, six relate specifically to matters in the Building Act, and the implementation timetable is insufficiently advanced to see hard evidence of whether the new measures will work.

At first, the Board thought a taskforce along similar lines to that formed in 2003 would be the best approach. However, after discussion with the Department of Building and Housing, we separated the wider industry issues covered by the Building Act from those that the original taskforce described as "unacceptable practices" and can be dealt with by IPENZ acting either as a professional body or as the Registration Authority under the CPEng Act.

The Board is now finalising a course of action to deal with these unacceptable practices. One idea is the establishment of a taskforce of practitioners to provide comprehensive practice notes – similar to the Heavy Engineering Research Association's notes that are used in the steel industry. Other possible initiatives include more stringent assessment of structural engineers' competence, continuing advocacy for requiring stronger involvement of designers during the construction process (under the Building Act), and introducing a New Zealand form of the CROSS system.

If you share these concerns we welcome your feedback. In the end, lowering standards will lead to loss of life – a situation no one wants to see.

Roly Frost

President

Ethics Advisers – a New Initiative to Assist Members

In several recent disciplinary cases, the Members involved have commented that IPENZ seems to turn against them when they are the subject of a complaint by acting as judge rather than their primary support. This is a serious concern and one which has been addressed by introducing Ethics Advisers.

Staff roles

National Office assigns three staff to work on complaints, all of whom are professional engineers: Engineering Practice Manager Andrew Clark; Director – Engineering Charles Willmot; and Chief Executive Andrew Cleland. Members who need ethical advice are welcome to contact any of these staff for advice. However, once a complaint is made, they have assigned roles within the disciplinary process; their concern is ensuring proper process is followed to protect the interests of both the engineer who is the subject of the complaint ("the respondent") and the complainant. In effect, staff act as "clerks of court" by advising committee members to ensure that there is no procedural irregularity.

Given this role, other than non-specific advice on process it is inappropriate for staff to talk to respondents about how best to defend a complaint. The governing Board has therefore decided that the Institution will meet its responsibility to support respondents by appointing senior Members to act as Ethics Advisers.

Continued overleaf >>

<< Continued from page 1

Ethics Adviser role

The role of the Ethics Adviser is to assist respondents to understand the disciplinary process, identify the essential matters of the complaint, understand their own actions with respect to their obligations as a CPEng or a Member of IPENZ, and prepare for each stage of the process. The Ethics Adviser does not act as a liaison with National Office, or represent the Member, but is a friendly person who can mentor and guide the engineer through a difficult experience.

About a dozen senior Members of the Institution, each with considerable relevant experience, have agreed to take on the role of Ethics Adviser. We will endeavour to run training sessions during 2006 to update Ethics Advisers on current disciplinary regulations in both CPEng and IPENZ contexts but in the meantime they are willing to get on with the role.

Appointing Ethics Advisers

In all cases, IPENZ immediately advises respondents in writing when complaint is received. In the future, this letter will include an offer to appoint an Ethics Adviser to assist the respondent. If the respondent chooses to take up the offer, IPENZ will identify an Ethics Adviser who lives as close as possible to the respondent. Once an Ethics Adviser without a potential conflict of interest is chosen, the respondent will be required to provide a written statement that he or she indemnifies the Ethics Adviser, even if their advice is followed. This ensures that the respondent understands the Ethics Adviser is a collegial support mechanism, not a professional service.

IPENZ cannot fund the work of Ethics Advisers but reimbursement of reasonable travel or communication expenses may be considered on a case-by-case basis if the respondent is unable to meet the costs.

Ethics Advisers and the disciplinary process

Once an appointment is made, the respondent is then free to contact the Ethics Adviser to discuss the complaint. What the Ethics Adviser does will depend on the particular circumstances, however, the Ethics Adviser would normally ask the respondent for the complete document file and any responses the respondent has

already made. Usually, the respondent and Ethics Adviser will try to identify the "essence" of the matter – often this is not clearly understood by the respondent, and the clarification that can result from such a discussion is very valuable. The Ethics Adviser may then discuss the content of any further submissions and might agree to review any written responses made by the respondent.

If an Investigating or Disciplinary Committee wishes to hear evidence from the respondent, the Ethics Adviser may accompany the respondent to make suggestions about how to present evidence and help the respondent manage their documents to ensure that he or she gives accurate replies. Additionally, the Ethics Adviser may give support at a more personal level if the respondent is under pressure. It is important to note that the Ethics Adviser cannot directly give evidence or act as the respondent's representative.

If an Investigating Committee decides to forward the complaint to the Disciplinary Committee, the Committee's proposed decision is sent to the respondent for any further submission before it is finalised. The Ethics Adviser can help the respondent interpret the decision and formulate a supplementary submission.

At the Disciplinary Committee stage, the primary role of the Ethics Adviser is to ensure that the respondent is well aware of what could happen at the hearing. After the hearing, the respondent is sent the Disciplinary Committee's determination and the orders made (if any). The Ethics Adviser can discuss the determination and its implications with the respondent to ensure that he or she fully understands any finding.

If the respondent is considering making an appeal, the Ethics Adviser can help the respondent weigh the pros and cons and identify the grounds for any appeal. However, it is not envisioned that the Ethics Adviser would be involved in making an appeal because this may be best left for legal counsel.

As with any new initiative, we expect that the role of Ethics Adviser will evolve as we learn from experience. However, Members can now be assured that their Institution will be there to support them if they are the subject of a complaint.

Making Student Membership Work Better

At present there are about 2,000 Student Members of IPENZ. There is no fee for this class of Membership which means that students who become IPENZ Members are effectively subsidised by other Members, particularly those in the Professional Membership grade. New Graduate Members also enjoy some subsidy, so the net effect is that those paying the highest subscriptions – Professional Members – are also providing the biggest subsidies, and are most inclined to complain about lack of value for money and perhaps even resign. This would be bad news for both IPENZ and students in the longer term.

In setting subscriptions the governing Board of IPENZ has adopted the principle that, in general, costs should be borne by beneficiaries and, where subsidies are given, these need to be acknowledged and accepted by the subsidising Member groups. We are therefore concerned that, as we try to make Student Membership more meaningful, we are increasing the subsidy and may be reaching the point where any further subsidy cannot be justified.

When we look to other similar bodies we see a mix of models for student membership. Some like IEEE and the New Zealand Institute of Management charge a student membership fee and have strong student-related activities. Others, for example Engineers Australia, have maintained free student membership and provide a significant subsidy.

During 2006 we will be engaging with student engineers to obtain their views on reshaping IPENZ's Student Membership. One possibility we may consider is two types of Student Membership – a "free" version that provides modest levels of service, and a fee-paying version that provides higher levels of service, for example, copies of IPENZ publications, more support for student activities and

wider access to web services. Students could then make their choice, and if, after a period of time, it became clear that one or other form of Student Membership was heavily favoured then we might stop the other. If a paying Student Membership class was introduced in 2007 it would probably be priced at about \$35.00 per year.

One principle is not negotiable: we only want students to join IPENZ as Student Members if they are committed to finding out what a self-regulated profession is and how it works. In a "true" profession the members of the profession – not the employers or government – collegially set the acceptable standards of competence and ethical behaviour. IPENZ performs these functions in New Zealand by setting accreditation and competence standards and disciplining poor performers.

We want prospective Student Members to reach an objective decision about whether they want to be involved with their peers in the profession on an ongoing basis. In our view every student who joins must therefore show a level of commitment to us by personally completing the application form on the IPENZ website www.ipenz.org.nz

At this stage we have a completely open mind about the shape of any new model for Student Membership – we want to find out what services Student Members want, and what they are prepared to pay.

We hope to make a final decision by July 2006 for implementation in 2007. We invite all interested Members to contact Kavita Kansara on 04 474 8980 or email kkansara@ipenz.org.nz to let us know your views.

Encouraging the next generation of engineers is one of IPENZ's chief goals and has led to the creation of Futureintech – an initiative promoting engineering, science and technology careers in schools.

Run by IPENZ and funded by the government (via New Zealand Trade and Enterprise), Futureintech is now in our third full year of operation. We work to give students a taste of what it's like to be an engineer, scientist and/or technologist, and show how subjects like maths, science and technology are used in real jobs.



Futureintech Ambassador Simone Stratton with Clevedon School students

We're not about glossy adverts or boring lectures. Instead, we aim to give students hands-on experience and show, rather than tell, what these professions are all about.

Ambassadors in action

To achieve our aim we recruit and train Futureintech Ambassadors to work in classrooms on practical and exciting projects. Ambassadors are young engineers,

scientists and technologists (usually under the age of 30) with a passion for what they do.

Ambassadors work on the four main classroom projects that Futureintech supports: the IPENZ Neighbourhood Engineers Award; CREST; Bright Sparks; and the Young Designers Award – all programmes with proven records of success.

In 2005 our Ambassadors helped students to design and build bird houses, electrical circuits, sand pits and playgrounds, and helped with computer programming and food technology units, just to name a few examples.

The amount of time involved can vary greatly; it can be a few hours in a classroom once a week or even just answering questions via email every now and again.

Get involved

Our success depends upon the support of Ambassadors, who are unpaid volunteers, and the goodwill of their employers who allow them the time to work in schools.

The hours volunteered can count towards elements 9, 10 and 11 of the IPENZ Competence Standard for Professional Engineers. It's also a great way to improve confidence and public speaking skills, and looks good on a CV.

If you are interested in becoming an Ambassador, or know someone who might be, contact your local Futureintech Facilitator listed at www.futureintech.org.nz/facilitators.cfm or email enquiries@futureintech.org.nz

Resources available from Futureintech

Futureintech's guide for parents and caregivers on careers in engineering, technology and science is now available. The booklet is available via our website www.futureintech.org.nz as is our fact file on flexible work practices.

Notice of Annual General Meetings

The Institution of Professional Engineers New Zealand Incorporated

The 92nd Annual General Meeting of The Institution of Professional Engineers New Zealand Incorporated will be held at the Duxton Hotel, 170 Wakefield Street, Wellington at 11.00am on Wednesday 22 March 2006.

Agenda

1. Notice of the Meeting – Confirmation
2. Apologies for Absence
3. Visitors
4. Obituaries
5. Honours Lists
6. Announcement of Honorary and Distinguished Fellowship Awards

The Institution of Professional Engineers New Zealand Practice College

The third Annual General Meeting of The Institution of Professional Engineers New Zealand Practice College will be held at the Duxton Hotel, 170 Wakefield Street, Wellington on Wednesday 22 March 2006, following the IPENZ Annual General Meeting.

Agenda

1. Notice of the Meeting – Confirmation

7. Confirmation of Minutes of 91st Annual General Meeting held on 17 March 2005
8. Matters Arising
9. Announcement of Board Election Results
10. Vote of Thanks to Scrutineers
11. Vote of Thanks to Retiring Board Members
12. Approval of 2004/2005 Annual Report and Statement of Accounts
13. Motions of Which Prior Notice Has Been Given
14. Appointment of Auditor
15. Vote of Thanks
16. General Business

2. Apologies for Absence
3. Confirmation of Minutes of 2nd Annual General Meeting held on 17 March 2005
4. Presentation of Annual Report
5. General Business

Dr A C Cleland, Chief Executive, email ceo@ipenz.org.nz

Registered office and postal address of The Institution of Professional Engineers New Zealand: 158 The Terrace, PO Box 12 241, Wellington.

Public Policy Key Messages: Technology and Society

IPENZ is currently developing key messages on technology and society as part of its focus on selected public policy issues. The finalised messages are intended to represent the majority view of the Institution's Members and provide a basis for speaking out on important issues.

Technology is one of the most potent forces for individual, societal and global change in the contemporary era. Societies need to understand the nature, causes and social consequences of scientific and technological developments, how technology functions in different societies, and how social forces attempt to shape and control these forces to serve diverse, often conflicting interests.

This area of policy is based on the premise that New Zealanders must make

conscious value-based decisions about whether to forgo or take up new technologies. The engineering profession has a key role in objectively informing the debate leading to those decisions.

The preliminary key messages are based on two sets of issues: general issues concerning society and technology, and the role that engineers take in informing the debate; and several more specific issues.

A summary of the preliminary key messages on technology and society is set out below. Please email any feedback, including suggestions for additional or alternative specific issues, to policy@ipenz.org.nz by 13 March 2006. For further information please contact Policy Advisor Shelley Pope on 04 479 8949.

Generic issues	Key messages
<p>1. Acceptability of technology to society Technology advances faster than society's awareness. There is sometimes uncertainty about its value until the benefits are understood and evaluated.</p> <p>Some New Zealanders take a strong stance against innovations that may be deemed as going against our national values, such as genetic engineering and nuclear energy.</p>	<ul style="list-style-type: none"> The New Zealand public needs to be kept informed of technological advances from an objective viewpoint so that when values are formed by people, their decisions are not prejudiced or based on misinformation. Technology needs to meet the needs and desires of people rather than forcing people to adjust their lives around technology.
<p>2. Evaluation of new technology Technology is currently being developed and put on the market faster than the speed at which consumers can make informed decisions to partake of or forgo the new technology.</p> <p>As a result of "information overload" the average consumer may not be in a position to decide which new technologies to consider and which to disregard.</p>	<ul style="list-style-type: none"> The engineering sector needs to urge caution in the deployment of new technologies where the benefits and risks are not clearly established.
<p>3. Impacts of technology on society The introduction of technology may encourage or require societal changes to adapt to the use of technology. Consumers are currently reliant on trends in the marketplace and the voluntary publication of information by industry to assess new technologies. This information can be biased.</p>	<ul style="list-style-type: none"> Government or, where appropriate, industry must ensure that society is aware of all the implications of new technology including costs and benefits to individuals and society as a whole. Research should be undertaken to ensure that new technologies do not inadvertently create risks. Consideration, particularly in the development and implementation stages, needs to be given to specific principles such as environmental standards and cultural rights and beliefs.
<p>4. Management of technology for society Engineers must take a role in the management of new technologies in society.</p>	<ul style="list-style-type: none"> Engineers must comply with their <i>Code of Ethics</i> to ensure that society is not put at unnecessary risk.

Specific issues	Key messages
<p>1. Nuclear New Zealanders have decided that radioactive materials are acceptable for medical use, unnecessary for food irradiation, inappropriate for weaponry and propulsion, and possibly unsuitable for electricity generation.</p>	<ul style="list-style-type: none"> Engineers need to inform the public of the risks and benefits of using nuclear energy for power generation, including environmental risks, long-term residue disposal and the suitability of alternatives.
<p>2. Wind generation While some New Zealanders are supportive of wind generation as a sustainable and renewable energy source, others view turbines as unaesthetic and noisy. These opposing views may hinder the consent process for energy suppliers.</p>	<ul style="list-style-type: none"> Engineers need to inform the public of the effects of wind generation with regard to energy security, visual and sound pollution, and long-term environmental benefits, particularly in comparison with alternative energy supplies.
<p>3. Solar water heating Solar water heating has been promoted by the government for the public good of protecting the environment and decreasing the load on the national transmission grid.</p>	<ul style="list-style-type: none"> Engineers need to inform the public of the cost:benefit of solar water heating to both individuals and the nation as a whole, in terms of carbon tax and environmental costs. Consumers should also be educated on the approximate lifetime of the components and any costs additional to the original purchase and installation so that they can make informed decisions.
<p>4. Genetic engineering Genetic engineering is a controversial topic that is likely to remain in the news headlines and one that IPENZ Members may be asked to comment on.</p>	<ul style="list-style-type: none"> Engineers do not have a role in this debate, and, in order to maintain the integrity of the profession, should direct questions to the medical and health professions.

IPENZ CONVENTION 2006 VISION 20/20

22–23 March

Duxton Hotel, Wellington

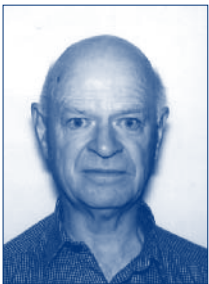
What will life be like in the year 2020? Will we still be struggling with issues such as energy, transport and climate change or will the decade bring its own challenges? Whatever the future holds it is certain that the decisions made by engineers today will have a huge impact on how we live our lives in 2020.

At Convention 2006 keynote speakers will outline challenges and opportunities facing engineers as we look towards 2020 in what promises to be a forward-thinking and thought-provoking programme. Technical sessions on day two are themed "How to get your project done" and examine projects from a variety of disciplines highlighting tools, knowledge and tips to take your engineering project from concept to completion. Day two also includes a "Women and engineering" panel discussion which will examine issues regarding retaining women in the engineering workforce.

Be sure to register ASAP. To download an IPENZ Convention programme and register online visit www.ipenz.org.nz/convention If you have any queries about Convention please contact Kavita Kansara on email kkansara@ipenz.org.nz or phone 04 474 8980.

New Life Members

IPENZ congratulates the following Members who have achieved 50 years of IPENZ Membership.



Jock Stewart FIPENZ began his career with a trade apprenticeship. After time in the United Kingdom he returned to New Zealand where his projects with the Ministry of Works included the international airport at Mangere. Jock returned to the United Kingdom to work for the building services industry's research organisation (now BSRIA). He produced technical papers, contributed to good practice standards and guides, was responsible for laboratory and site-based research and testing, and was involved in energy conservation projects. He ultimately became responsible for the BSRIA's technical direction. Jock was awarded an MBE in 1986 and the CIBSE Barker medal on his retirement.



Paul Schon FIPENZ began his career as an "articled pupil" before studying at Wellington Technical College and the University of Canterbury. Paul worked at Hutt City as a staff engineer and tutored at the Central Institute of Technology. He then moved to Whangarei City, where he ultimately served as the Director of Engineering. Paul was then Chief Engineer at Hauraki Catchment Board and finally Executive Manager at Wanganui District Council. Between these positions, Paul had overseas stints in Papua New Guinea, Laos and Fiji. Paul was also active in the municipal division of the New Zealand Institute of Engineers and was president of the division for a term.



Tom Makinson MIPENZ joined New Zealand Railways in 1954. He supervised the upgrading and weather-proofing of the main trunk line south of Te Kuiti. After gaining registration and serving as Branch Secretary, he transferred to Wellington where he supervised a major expansion of the Gracefield delivery yard and alterations for the Wellington yard motorway piers. Following promotion to District Engineer at Dunedin, Tom detected a serious deformation in a viaduct truss and supervised the removal of a section of truss to restore span expansions. In Dunedin, Tom achieved the easing of 43 sharp curves on the main trunk line and served a term as Branch Chairman. He retired in 1987.



David Tucker MIPENZ worked for New Zealand Railways from 1952 until his registration in 1956. Overseas, David worked in Greenland, Canada and the United Kingdom and pursued postgraduate study in the United Kingdom. He then spent two years in Jordan working on the Amman to Aqaba highway and Amman and Jerusalem airport investigations. Back in New Zealand, David spent 24 years with the Ministry of Works and Development. After an early first retirement, David worked for London Works and Opus, part of a team that won two London Underground design contracts. David then prepared bids and contract claims for Opus in five countries until his final retirement in 1999.

Member Services

Public Policy

IPENZ contributes to the public good by providing an engineering perspective on matters of national importance. This includes researching key issues, publishing papers and Informatory Notes, making submissions and generating public debate.

We provide up-to-date policy information to keep our Members informed and encourage their participation in the public policy process. To find out more about policy issues affecting the profession and our current public policy activities visit www.ipenz.org.nz/IPENZ/Media_Comm/PP_Intro.cfm

Engineering Practice Support

IPENZ encourages Members to follow recognised professional practices in their day-to-day engineering activities. To assist Members in doing so IPENZ has developed a series of Practice Notes as a source of endorsed advice to engineers on practice-related issues. Practice Notes currently available include:

Note 1 – Producer Statements

Note 2 – Peer Review

Note 3 – Media Tips

Note 4 – Safety and Engineers

Note 5 – Sustainability and Engineers

Note 6 – Developing and Maintaining

Client Relationships

To discuss the use of these documents contact our Engineering Practice Manager Andrew Clark on 04 474 8986 or email practicemanager@ipenz.org.nz

IPENZ Technical Interest Groups

Members can also join IPENZ Technical Interest Groups which provide a programme of activities and services associated with a particular engineering specialty or discipline.

The Group informs Members of national and international developments and issues, contributes to knowledge development, supports the identification of good engineering practice, prepares informed comment on public policy issues and creates a national network amongst Members with similar technical interests by regular communication.

For more information on IPENZ Technical Interest Groups visit www.ipenz.org.nz/ipenz/who_we_are/organisation/technical_groups.cfm or phone Saltanat Cole on 04 474 8937.

JobHunt

The IPENZ JobHunt service www.jobhunt.co.nz (sponsored by Career Engineer) is the premier job finding and recruitment site for engineers and technologists. It enables jobseekers to efficiently search for employment online by personalising their search criteria. Employers may also advertise a position using selective criteria.



IPENZ welcomes **Glynn McGregor** to the Futureintech team. Glynn will be developing resources for the Techlink website to support technology education programmes.

Originally from Scotland, Glynn completed an honours degree in chemical engineering and notched up industry experience with BP before moving to science and maths teaching. After his shift to New Zealand in 1976, Glynn continued teaching and for three years he was seconded to

work with the Royal Society of New Zealand as Executive Officer for Education.

In 1996 Glynn left the classroom to work with teachers in a professional development capacity as National Co-ordinator for Technology Education New Zealand (TENZ), now an IPENZ Technical Interest Group.

Outside work hours Glynn likes traditional music, walking his dog and watching "most good quality sport played with a ball".



A warm welcome is also extended to **Michele Boniface**, who joins IPENZ as Receptionist/Office Administrator.

Michele has a secretarial and administration background, having worked in a variety of administrative positions over the years. For the last five years, Michele managed a busy specialised retail store.

Michele has lived in Hamilton and Palmerston North but now makes her home in Upper Hutt, where she was born and bred. Michele enjoys indulging her passion for interior design and says her home is a work in progress – "Just ask my husband!"

When she's not at work, Michele also loves walking and gardening, and she's into creating and stitching her own embroidery designs. She is hoping to start attending art classes soon, having recently found she has a previously undiscovered talent for drawing.

Membership Changes

The following is the full list of additions to and changes in Membership classes for the period 1 September 2005 – 31 December 2005.

Elected to Graduate Member:

PD Abernethy, RM Adra, T Al-Khozaie, JM Aramowicz, G Bailey, S Barakat, J Barnett, N Barshai, HM Bell, H Bhalla, R Bhana, J Bhatt, NW Bishay-Girges, DC Brodie, CM Brown, HAM Chrystall, AN Clarke, RM Clarke, R Collingham, HA Coloma, MP Connolly, BJ Conway, JS Cox, KL Craig, RA Crowe, PT Currie, DL Curtis, MJ Cussins, NGMI Dayananda, RS De Kock, E de Leon, LG Edwards, PD Ewart, NH Falconer, HM Field, A Fillion, R Flitton, G Govender, P S Harford, IME Hawkins, J He, AE Heather, CF Henderson, S Hill, KW Ho, DM Hollewand, RJ Hopkins, SJ Ji, H Jung, N Kalidas, SR Kay, TR Kells, SG Kelly, HE Kerr, A Keshaboina, IJ Kett, F Khanam, CG Kirk, A Kouzmin, A Kumar, RA Lal, HST Law, ABLB Lee, KM Li, FS Lin, H Lin, KK Ling, KF Lui, DE MacDonald, JD McGirr, SI Marshall, JA Metcalfe, DA Mitchell, SA Morgan, A Musgrave, PB Nicholls, NC Nitsche, K Ohlbock, JM Oliver, MSJ Parker, MD Peacock, JIJ Piggot, SD Polson, KD Prasad, FBA Rahman, S Rajvanshi, PJ Readings, SME Roberts, A Rosborg, I Salamoun, AK Sami, SP Sherwen, M Shivaswamy, Q Smart, PE Stanley, PR Storey, JTY Sutton, FF Tan, FD Tapp, TC Taylor, JD Thompson, MD Thomson, DR Thurston, KKA Ting, TW Ting, DA Tookey, AN Topari, CA Tronnes, CP Twaddle, M Uno, TW Ure, P Vasisht, SK Venkataraman, P Vijayaragh, WJ Wallace, AJ Ward, WG Watkins, NR Weeraratne, JM Whiunui, NR Wiggins, IG Winson, TT Woods, CM Yeo, KD Yeo, SWG Yim, AC Yortt, JJ Zhong

Elected to Professional Member:

R Afzali, WT Baillie, MR Bell, IPR Black, LM Blakie, WS Boag, WI Brunton, NM Calvert, TM Chan, YW Chung, DC Clibbery, CAC Cook, SJ Couper, GH Cox, MG Cruikshank, BS Davidson, D de Vaal, NR Dhavale, H Edmonds, SM Finnigan, BL Gabbitas, BB Gibbons, NJ Gillespie, SM Gledhill, D Griffen, MJ Griffiths, SA Gunawardena, JC Haines, AJE Hall, MA Harding, KW Harm, PSC Harvey, DAL Hoffman, SJ Holm, RC Jack, KI Jackson, RDG James, N Kerr, S King, ECY Lee, K-W Leung, SJ Lewis, DP Liddell, KJ Ling, MJ Lorimer, MPG Lubbock, JD McAllister, MJ McCoy, PD McHardy, CJ McIlroy, TF Natsa, AP Neville, DE Nutt, JF Nyman, AD Powis, D Price, AJ Quinn, AA Raea, JM Rooney, G Rozen, D Saunders, GW Schofield, JP Schwass, SR Seatter, DJ Sharpe, K Shields, GN Slaughter, IC Smith, CJ Stringer, CJ Stumbles, TJ Taylor-Koolen, PW Too, WE Tremayne, J Venter, R Viljoen, MA Walker

Elected to Technical Member:

SWR Cicone, ATM Hasanuzzaman, CE Fletcher

Elected to Associate Member:

RW Causer

Elected to Affiliate Member:

PK Carter, GRY Divate, X Duan, JG Knudsen, LV Kumar, PH Mellor, B Oldham, R Ramsey, BJ Ritchie, E Sassenburg, GD Smith, GJ Turner



Latest Annual Report Now Available

The IPENZ Annual Report for the year ending 20 September 2005 was sent to all New Zealand-based Members with the January/February issue of *e.nz magazine*.

Members residing overseas can access an electronic copy via the IPENZ website www.ipenz.org.nz/ipenz/forms/pdfs/ or request a hard copy of the Annual Report by emailing ipenz@ipenz.org.nz

Engineers Honoured in New Year's List

IPENZ congratulates the three engineers who became Members of the New Zealand Order of Merit in the 2006 New Year Honours.

Emeritus Professor Josu Arrillaga was recognised for services to electrical engineering. He has made a significant contribution to the electrical power industry and to the education of electrical power engineers for over 30 years. He is an expert in high-voltage direct-current transmission systems and his work contributed to the building of the Lake Benmore to North Island system. He taught at the University of Canterbury for 24 years until 1999. Professor Arrillaga was awarded the IEEE's Uno Lamm Medal in 1997, a Royal Society of New Zealand James Cook Senior Fellowship in 2001 and the Society's J R Scott Medal in 2003. He has published 10 books and over 170 research papers, and remains active with the University of Canterbury's Electric Power and Energy Centre.

John Bowen received his honour for services to the environment. For over 20 years, Mr Bowen has made a significant contribution to protecting the environment through reducing refrigerant emissions into the atmosphere. He has been a member of the Institute of Refrigeration, Heating and Air Conditioning Engineers of New Zealand (IRHACE) since 1977, serving on its council from 1980 to 1999 and as president. Mr Bowen was instrumental in setting up the Trust for the Destruction of Ozone-Depleting Substances in 1993; the Trust has arranged for the destruction of 28 tonnes of refrigerant from systems in New Zealand. He played a lead role in developing industry practices aimed to reduce harmful refrigerants, including writing codes of practice and developing instructional seminars. He also developed the background work that led to the NO-LOSS training programme, an industry standard denoting service people skilled in refrigerant loss prevention processes.

Raymond Burrell FIPENZ was recognised for his services to mountain safety. He voluntarily devoted over 45 years to the work of Federated Mountain Clubs, serving on the executive for many years and as president for two terms. He was involved in establishing the New Zealand Mountain Safety Council in 1965 and was appointed the third Federated Mountain Clubs Patron in 1986. Mr Burrell has chaired the Wellington executive subcommittee for many years, edited the bulletin and was involved in search and rescue and mountain safety. He played a key role in setting up the New Zealand Mountain Safety Council and served on the Council's executive and as president.

Excellence in Chemical Engineering Award Winners

Two New Zealanders were recognised for their outstanding achievements in chemical engineering at the Chemeca 2005 conference held in Brisbane in September.



Courtesy of University of Canterbury

Roger Keey FIPENZ, Emeritus Professor at the University of Canterbury, became the first New Zealander to win the Chemeca Medal. The medal is the most prestigious prize within the chemical engineering profession and is presented to a prominent Australasian chemical engineer who has made an outstanding contribution to the practice of chemical engineering in its widest sense and who continues to serve the profession.

Roger was appointed lecturer in chemical engineering at the University of Canterbury in 1962 and to a Personal Chair in 1978. He was a foundation director of the Wood Technology Research Centre until 2001 and is currently a research associate at the centre. Since the late 1960s Roger has carried out research in drying technology; addressing the needs of the dairy, wool and timber industries and guiding researchers and colleagues worldwide. His ideas have been published in three books on drying theory and practice, and a fourth book co-authored by Roger is specifically concerned with the kiln-drying of lumber. Several of these books have since been translated into other languages and are now used as standard references worldwide. As a member of a joint Australia/New Zealand Standards Committee, Roger provided the engineering background in the development of AS/NZS 4360 on Risk Management.



Greg Ellis GIPENZ from Keratec Ltd won the Shedden-Uhde Medal and Prize for practical services to the profession or the practice of chemical engineering in Australia or New Zealand. Greg was recognised for excellence and adaptability in process engineering in a challenging industrial environment, culminating in creating the processing plant for extracting and fractionating keratin proteins from wool. In selecting and acquiring the plant to realise this process, judges said that Greg displayed high professional skills in combining sound engineering principles with effective networking with consultants to achieve an optimum outcome at the lowest investment risk.

Member Services

IPENZ Branches

On joining IPENZ, Members automatically become affiliated to their local IPENZ Branch. By attending Branch meetings you will have a unique opportunity to network, share information, and learn from your peers. Meetings are also a conduit for career development and engineering practice support, and provide opportunities for getting involved in your local community. Branch meetings generally involve a guest speaker or visit, followed by an informal gathering for networking and discussion.

IPENZ has Branches in the following regions: Northland, Auckland, Waikato, Tauranga, Taranaki, East Coast, Wanganui, Manawatu, Hawkes Bay, Wellington, Nelson/Marlborough, West Coast, Canterbury, South Canterbury, Otago and Southland.

Contact information for your local Branch is available at www.ipenz.org.nz/ipenz/who_we_are/organisation/Our_Branches.cfm or by phoning Branch Facilitator Kathryn McGavin on 04 474 8989.

How to Join

IPENZ has a range of Membership classes and is open to those with training and competence in engineering as well as those with an interest, but not necessarily with training or qualifications, in engineering.

IPENZ also administers a number of competence registers for professional engineers including the CPENG Register and the International Professional Engineers Register (which services the APEC Engineer and Engineers Mobility Forum Agreements). To become registered, applicants must apply and provide evidence that they meet the competence requirements for registration.

For more information on Membership classes, competence registers and joining IPENZ visit www.ipenz.org.nz/ipenz/join/ or phone Claire Auger on 04 474 8948.

Other Membership Benefits

As a fully financial Member you receive:

Special Membership rates for IPENZ Short Courses and Convention

Reduced rates for American Express Credit Cards and Income Protection Insurance

e.nz magazine – our flagship publication promoting New Zealand's engineering innovation, technology and achievements (past issues can be searched at <http://e.nz-magazine.co.nz/main.htm>)

engineering dimension – our monthly newsletter covering Institutional activities and information

engineering direct – our weekly electronic newsletter providing up-to-the-minute news across the range of Membership services



IPENZ Professional Development Short Courses February – March 2006

Start the new year by considering your professional development needs! The IPENZ Professional Development Programme is designed specifically to contribute to developing and maintaining Members' competencies as professional engineers, engineering technologists and engineering technicians. Register early for this topical one-day seminar and our popular short courses!

Earthquake Engineering for Structures

IPENZ and SESOC, with the support of NZSEE, are offering this one-day seminar which will expose participants to aspects of earthquake engineering relevant to modern day structural and civil engineering professional practice in New Zealand. The subject matter will include recent developments for structural designers and civil engineers and will benefit those practitioners interested in either upskilling or engaging in a refresher course. The emphasis will be on the application of earthquake engineering principles to structural and civil engineering design.

Queenstown	13 February
Christchurch	14 February
Nelson	15 February
Wellington	16 February
Taupo	21 February
Auckland South	22 February
Albany/Auckland	23 February

Cost: \$315 incl GST – IPENZ/SESOC/NZSEE Members
\$360 incl GST – non-members

Short Courses

Ethics for the Professional Engineer

This one-day course introduces participants to the ethical values that underpin their profession and the obligations that flow from them.

Dunedin	1 March
Christchurch	3 March
Wellington	8 March
Tauranga	30 March

IPENZ Mentoring Foundation Workshop

This one-day workshop is designed to develop mentoring and coaching skills and make mentors more effective in their interactions with mentees, team and project members, and clients.

Taupo	7 March
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Negotiation Skills for Engineers

This interactive, practical one-day workshop enables participants to identify their current strengths and build skills to improve their ability to negotiate successfully.

Albany	9 March
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Business Development and Professional Engineers

This one-day course outlines practical strategies for the complete cycle of effective business development – finding and keeping the right clients.

Palmerston North	16 March
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Leadership and Management Essentials

This one-day course covers the essentials for engineers and business managers to enhance their leadership and management practices. Participants will learn how to effectively handle their dual leader/manager role.

Auckland	17 March
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Getting the Best Out of Your People

Our people are our most important business asset today. We are all in the relationship business and communication is the "glue" that holds our relationships together. This one-day course covers the importance of "soft skills" and key techniques for managing relationships.

Auckland	20 March
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Risk Management Techniques

This one-day workshop is specifically designed for engineers and business managers to cover the fundamentals of risk management in an engineering setting.

Dunedin	31 March
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Places on these short courses are limited to 20 so register early to avoid disappointment.

Cost: One day	\$495 incl GST – IPENZ Members \$540 incl GST – non-members
Two days	\$945 incl GST – IPENZ Members \$1,035 incl GST – non-members

Registrations close one week before the start of the course or seminar in each location. Full details are available at www.ipenz.org.nz/ipenz/nzecal/ks.cfm or emailing CPD@ipenz.org.nz or telephoning Josie Nolan on 04 474 8982.



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