

Neighbourhood Engineers UPDATE

The award attracted a larger number of entries this year. The judges were impressed by the quality of the entries, and the obvious enjoyment engineers, students and teachers derived from the projects.

This year's category winners are Verran School (Auckland) and Hastings Intermediate. Both schools receive \$3000. Merit awards were made to Otepopo School (Oamaru), Christchurch East School and Onehunga High School, Auckland.

More information about the award winners is available on the website:
<http://www.ipenz.org.nz/ipenz/careersed/neigheng/PastWinners.cfm>

Primary school category: Verran School

Students from Verran School's Envirogroup needed a place to sit in the garden and plan environmental projects. In summer they sat on the grass, but when it became too wet they found talking difficult sitting along a bench seat. The need for conversation-friendly seating identified, 24 eight- to nine-year-olds rose to the challenge. With the help of engineer Anthony Marino, they designed and built a Taniwha-shaped seat from concrete.

Intermediate/Secondary category: Hastings Intermediate

Students from Hastings Intermediate designed and built a pataka to store vegetables from their organic garden. The project was to design a method of storing vegetables such as potatoes and pumpkins safely for up to six months in their natural state, rather than freezing or preserving them.

They also wanted to learn how qualified engineers solve problems in the real world. From Simon Reveley, a process engineer, they learnt what was necessary to store vegetables, and how to control temperature naturally. The final design was based on the Maori pataka, traditionally used to store such vegetables, modified to utilise what they had learnt of natural temperature control methods. ☺



President's Message

The case for practice categories



The annual round of visits to Branches by the President is now more or less complete. This year it was earlier than usual, and shared with my predecessor in office, John Cunningham, largely because of the importance of consulting as many members as possible before finalising the criteria and procedures for the CPENG Register.

I have had the chance to meet many enthusiastic and innovative practitioners, to discuss the proposed criteria and procedures, and to reflect on the views they have expressed. For the most part, they have supported the direction IPENZ is taking, recognising the importance of adherence to international standards to facilitate the export of professional engineering services.

However, the issue of practice categories has caused vigorous debate almost everywhere it has been canvassed. It seems that New Zealand engineers, much more so than their colleagues in other countries, are polymaths; particularly in smaller consulting practices, they enjoy addressing whatever challenges may emerge in the course of a project.

They typically have extensive practical experience, a well-developed understanding of fundamental engineering principles, and a willingness to seek out information and engage in what is effectively applied research. Where specialists are involved at all, they are often used to solve specific technical problems, rather than fully integrated with the project team.

Versatility is a commendable attribute for any engineer, and has helped to foster the image of New Zealand engineers as "can-do" people who can be relied upon to take any project from initiation to implementation with a minimum of fuss and expense.

Quite clearly, those consulted did not want a practice category associated with registration as a Chartered Professional Engineer. They typically argued that the CPENG register will have legal standing, the code of conduct will require registrants to practice in their areas of competence, which will often extend across categories, and they would feel unduly restricted were they expected to identify in advance one or two primary practice categories.

Why, some asked, does IPENZ plan to assign applicants for registration as APEC Engineers, or as International Professional Engineers, to practice categories, and to offer all members the opportunity to adopt an extended post-nominal such as MIPENZ (Electrical) to denote their primary area of practice?

So far as the international registers are concerned, a balance must be reached between jurisdictions such as the United States, Canada and New Zealand, where a practitioner is simply registered as a professional engineer, irrespective of their field of practice, and others, like Hong Kong, Japan or Korea, where specialised practice is normal, and specialist

Continued overleaf >>>

<<< President's Message continued

registration required.

The APEC and IPE registers therefore identify registered practitioners as primarily engaged in civil, structural, geotechnical, environmental, mechanical, electrical, industrial, mining, chemical, biological, information, or, soon, business engineering.

That list of categories has emerged as the minimum necessary to be generally accepted as sufficiently detailed for seeking clearance for international practice, and sufficiently broad for most applicants to be content with registration in no more than one or two categories. The debate, which extended over several years, ended in agreement that each category should:

- certify continued competence in an area of engineering practice large enough to represent the principal activity of a significant number of professional engineers in all the participating jurisdictions;
- be broad enough that a complete package of professional engineering competencies can be demonstrated in the relevant area of practice;
- represent competencies sufficiently diverse that they are not substantially comprehended within the range normally associated with another, broader, category;
- be sufficiently broadly-based that each signatory organisation will have a continuing capacity to undertake an expert assessment of the competence of candidates for registration in the category;
- be administered through a management structure, and in conformance with a quality assurance system, that together ensure that the standards of assessment applied in that category will be consistent across the range of likely candidates, and will remain compatible

with the standards exercised in respect of other categories.

There was consensus that practitioners should be allowed to become registered in more than one category, provided that they could demonstrate the full range of competencies required for registration in each.

Preparations for the CPEng Register are now well advanced, with feedback from the consultative process taken into account. IPENZ is already committed to offering CPEng registrants the opportunity for recognition as APEC Engineers or as International Professional Engineers. These standards are effectively identical, although the current competence requirements for CPEng are more demanding than those for the international registers. We must, therefore, work out how to assign New Zealand practitioners to practice categories.

This is straightforward enough in principle, and the procedure will differ little from what has already become established practice. Each applicant will simply nominate one or two categories in which they feel able to demonstrate current competence, and IPENZ will appoint assessors with the expertise to test their claims. This is pretty much what happens now, except that the expertise required is usually inferred from the application. However, the process will have to become more transparent and defensible.

The proposed extended post-nominals would follow international precedents and would be entirely voluntary, without statutory backing. One objective would be to emphasise that Chartered Professional Engineers who are members of IPENZ, and who choose to identify a primary area of practice, will have an advantage over those who are only CPEng registrants, since membership of a professional association offers them greater opportunities to network collegially with their peers, and therefore to operate in a more

supported practice environment. We are assessing the relative merits of a *Practice College* model and a *Supplementary Register* model for achieving such a result. Each model has advantages and disadvantages.

There is already provision for a Practice College in our constitution, although the rules in question have never been used, and minor amendments would be required. The College would be a largely virtual entity, managed directly by the Board or by a committee appointed by the Board. Membership would be open to financial members of IPENZ in any of the membership classes Dist.FIPENZ, FIPENZ or MIPENZ who were registered as CPEng, or had passed an approved competence assessment in the last five years, and were not suspended from membership or registration for disciplinary reasons. There would be no membership fee, and no meetings other than the Annual General Meeting, at which the Board would report upon the membership of the College. However, mechanisms might be developed subsequently to give greater substance to College membership.

The alternative would be for IPENZ to operate a *Supplementary Register*, or series of registers, with exactly the same entrance criteria as the Practice College. This would achieve the same initial result, with less complexity, but might not offer such opportunities for future networking and extension.

As usual, the Board would welcome feedback on the above issues. While the practice categories set for the APEC and IPE Registers have to be accepted as the outcome of extensive international discussions (in fact, many practising engineers in all the relevant jurisdictions operate in a multi-disciplinary context), there is room for debate as to how we should implement them in New Zealand, and on the merits of the proposed extended post-nominals.

John Webster
President

CPEng progress report – running on time

Achieved so far:

10 September Submissions on CPEng standards closed.

13 September Eight-member Working Group representing various perspectives completed their review of submissions and prepared a report to the Standards Board.

17 September IPENZ made its nominations for appointments to the CPEng Council.

23 September Standards Board considered the Working Group report and developed drafting instructions for correcting the draft standards.

30 September Standards Boards approved standards for submission to the Governance Board. Submissions on Rules closed.

Still in progress or to be achieved:

8 October Governance Board to approve standards for submission to Chartered Professional Engineers Council. Governance Board to consider submissions on Rules along with an analysis by staff of the submissions. Board to prepare drafting instructions for updated Rules.

Mid-October IPENZ to appoint part-time staff assessors who will convene Assessment Panels.

Late October Chartered Professional Engineers Council to consider standards for approval.

30 October Governance Board to approve Rules, including standards.

Mid-November Rules to be completed and made available to engineers.

Late November Training of staff and voluntary assessors to commence.

Late November CPEng handbook and application forms etc. to be available to help engineers prepare applications.

1 January 2004 New register to open and application processing to commence. ☺

Apprenticeships – a mechanical engineering perspective

The repeal of the Industry Training Act in the early 1990s replaced the traditional apprenticeship with a flexible set of unit-standard based modules. The traditional engineering trades (along with most others) suffered as through the 90s employers came to terms with unfettered competition, and changes in environmental and employment law, health and safety legislation, and trade practices; consequently trade training declined. Many trades de-skilled, relying on young unskilled labourers and an ageing trades workforce.

In the metalworking trades concern about a dwindling supply of tradespeople led to the

formation of Trusts. These organisations became the employers of record, and on-hired apprentices at a small cost to the host company. They covered the training and sometimes the assessment requirements of apprenticeships. Training generally remained a mixture of on-the-job and polytechnic-based learning.

The Trust model allowed an easy transition between employers if the relationship did not work out or the employer's business suffered a downturn. A further benefit was training with a number of hosts, since companies had become smaller and more specialised.

The Trusts merged into Apprentice Training New Zealand, now funded by Competenz. There are more than 350 apprentices on their books. The modern apprenticeship scheme, following a similar approach, has been a resounding success. The only problem with this scheme is an upper age limit of 21. Traditional (unit-standard based) apprenticeships have no such age limit, so each has a place.

Many bemoan the move to unit-standard based training; but its inherent flexibility allows more targeted training, to meet the specialised needs of innovative manufacturing. It is up to our profession to ensure that adequate skills are available to support their endeavours. ☺

Weather-tightness issue – the IPENZ perspective

In the *eZine* of 27 September IPENZ ran the following perspective for comment by members. We seek feedback urgently, as submissions to the Select Committee close on 21 October. Our approach is not to comment on the compensation issue, but to seek correction of the system failures for the future. Please send your comments to our Engineering Practice Manager, Murray Isdale misdale@ipenz.org.nz

Monolithic-clad buildings with a total value of at least \$3.6 billion have been approved and certified. These are not the only buildings involved, but this figure gives an idea of the potential scale of the weather-tightness issue. The private individuals who made this investment relied on a statute-backed system that appears to have failed many of them.

The primary responsibility for remedying what is recognised by most experts as a systems failure in the building industry lies with those responsible for setting and enforcing the rules for the construction industry. The public is not knowledgeable about increasingly complex building technologies, and they rely on systems established by Government and enshrined in law and regulation to provide them with reasonable protection.

The Building Act provides a policy framework for the national Building Code and creates the Building Industry Authority (BIA). If the BIA accredits a particular solution it must be applied as a routine standard by certification agencies (territorial local authorities or private certifiers); but otherwise standards are determined according to the certification agency's views of what practices will meet the performance-based Building Code. Published codes of practice or standards are widely applied where they exist, but in areas involving

new technologies national standards have not been developed, so certification agencies are largely left to make their judgements on the basis of whatever relevant information they can find, and their own experiences.

The systems backed by statute operate at two stages – the Building Consent approval process, during which designs are checked for compliance with established standards, and the code compliance certification stage when the quality of workmanship and adherence to plan is assessed to ensure that a building complies with the Building Code. Certification agencies operate within tight timeframes. Their work has been made more difficult by reduced levels of training for workers in the construction industry and fewer experienced tradesmen acting as gatekeepers on quality. The latter change means that a previously effective quality safeguard has been made less effective, thus increasing the importance of the code-compliance certification stage.

Whatever the failings resulting from private-sector activities during construction, there is a responsibility for those implementing the building control system to ensure that the statutory systems do sufficiently protect the public.

The Building Consent approval stage may have become too permissive. The Building Code as established by the Act is performance-based and not prescriptive. While this allows innovation and potential cost reduction, it also requires much more skilled and knowledgeable people to assess Building Consent applications and to certify code compliance. Some certification agencies have failed to respond to the challenge by raising the skill level, or enlarging the pool of talent, in their

organisations. Restructuring in the 1990s reduced the number of technically qualified staff working for local bodies, at a time when building certification expertise was increasingly needed.

Many local authorities did not see administering the Building Act as a continuing core activity and their senior management did not fully appreciate their responsibilities. In some cases, the low priority assigned to certification-related activities has led to cost-cutting to the detriment of service quality. Many poor-quality operators in the construction sector would have been flushed out long ago by better-designed and implemented regulatory systems.

The development of national standards and codes of practice has also lagged too far behind the development of technology in the building sector.

Professional engineers are involved in the sector, but largely on the structural design and code compliance certification of isolated primary elements outside the scope of NZS 3604 in residential construction, and of non-residential buildings. We work to develop and codify standards to ensure that our parts of the construction industry operate with a high level of professionalism. We must now examine those standards and codes to ensure that they are keeping pace with the needs of a changing industry.

As the professional body for engineers IPENZ would welcome the tightening of systems and improvement of standards so that the public can be assured that each item of work has been designed, built and certified by sufficiently skilled people. The introduction of the Chartered Professional Engineers register of currently competent engineering professionals will assist in those areas in which engineers play important roles. ☺

Hints for preparing your CPEng application

IPENZ will commence processing applications for CPEng in January 2003, but we know that many engineers will want to start preparing their application now to make best use of available time.

Never undertaken an IPENZ competence assessment (professional review/interview)?

The steps you should follow are essentially unchanged. If you have already started preparing your documentation using the current forms, complete it and send it to IPENZ National Office. Please note, however, that the cost will change; you will be required to pay the new fees which will be approved by the IPENZ Board in October.

If you have not yet started preparing for your competence assessment we recommend that you hold off until late November, when the new application forms will be available. The referee report forms and competency self-review forms will be changed to reflect the new standard.

We need to reiterate that the CPEng initial competence standard is the same as the current MIPENZ/Reg Eng entry standard. The only difference is that the standard will be expressed differently, to make it clearer for applicants providing evidence to demonstrate that specific

elements of the standard are met, and for assessors when judging that evidence.

Successfully completed a competency assessment in the past?

If you have successfully completed a competence assessment (professional practice assessment or professional review/interview) in the past, we offer the following hints to help you in your preparations:

- Visit the CPEng area of the IPENZ website (one click from the front page www.ipenz.org.nz) and keep up to date, looking particularly for the competence standards and rules updates. CPEng application forms should be available on the website by the end of November.
- Check the date of your last competence assessment(s). If you have successfully demonstrated competence for entry into the class of Member (MIPENZ and Registration) in the last two years, this will be strong evidence that you meet the CPEng standard for initial registration. The 300 or so people in this category will need to prepare little other evidence.
- If you were assessed more than two years ago, you will need to provide further evidence that you still meet the CPEng standard, and

the longer ago the previous assessment, the more evidence is likely to be needed.

- Prepare a chronological work history of positions held and type of work performed; consider using the format shown in the IPENZ Work History Summary, available on the website as a Word document (www.ipenz.org.nz/ipenz/forms/pdfs/Summary_of_Work_History.doc)
- Summarise your professional development activities over recent years. You can enter these CPD records on-line in the member-only area of the website, or download the form from the website (at www.ipenz.org.nz/ipenz/forms/pdfs/CPD_Worksheet.pdf).
- Ask at least two professional engineers who are familiar with your recent work whether they would agree to be nominated as referees.

We cannot give more specific information until the CPEng standards have been approved. We expect to be able to provide more detail on applying for CPEng by early to mid-November.

If you have questions please contact Jeanette van Barneveld (jvanbarneveld@ipenz.org.nz, ph 04 474 8984) or Jeff Wastney (jwastney@ipenz.org.nz, ph 04 474 8983) in the first instance. ☺

IPENZ launches new Heritage System

IPENZ as its contribution to New Zealand's 1990 sesqui-centenary (150 years since the signing of the Treaty of Waitangi) identified some 100 significant engineering works. Each work was commemorated with a brass plaque and marked for the 1990 year with a wooden signboard. The National Committee for Engineering Heritage has subsequently approved further such plaques, the two most recent at Scott Base and the Otago Central Railway. The plaques have proved a good way of promoting the engineering profession and highlighting its contribution to the nation.

The National Chapter and John Gardiner have been working in recent years on an improved framework for the identification and promotion of New Zealand's engineering heritage. This has been completed and we are now in the process of implementing it.

The framework has two components. The first is a process of recording, assessing and publishing items of engineering heritage value, defined liberally. They may be books, such as Furkert's *Early New Zealand Engineers*, influential learned papers or physical works such as the Wellington Railway Station. Items are first recorded and classified. Details such as their location and importance can be entered by anyone, after which they are assessed before acceptance on the Register.

Some items will be identified for more formal assessment, involving a more rigorous analysis of their importance from an engineering perspective, and leading to a range of possible outcomes – a plaque, an interpretive signboard or even a programme of events celebrating the work or the person responsible for it.

The second component is a heritage management system. This is a Web-based system for capturing, managing and promoting our engineering heritage. This will allow anyone with Web access to enter preliminary information about a particular heritage item. After an on-screen assessment by National Office, the information will be made public on the Internet. A fuller online assessment of the heritage significance of such material will also be possible. After it has been assessed, the new information will be made available on the IPENZ website, thus making the rich engineering heritage of New Zealand accessible to the whole world. To visit the website go to: www.ipenz.org.nz/heritage ☺

Claire's Corner

Potion Puzzle from the Past

Thank you to all those who sent in answers to the question posed in last month's *engineering dimension*.

The correct answers follow:

1. The problem was borer.
2. It was caused by a small two-toothed wood-borer of the Anobium family.
3. The extensive damage occurred in native timbers used in the old Provincial Buildings in Christchurch.

Our winner was John Crawford, Manager of Opus International Consultants, New Plymouth. Congratulations John! Your prize has been mailed to you.



Manisha Weerasinghe – Projects Officer

Manisha has joined IPENZ as the Projects Officer. She graduated from Massey University with a Bachelor of Business Information, specialising in Information Systems and Systems development. She said this degree has provided her with a sound business and technical knowledge.

Manisha also has CIMA (Chartered Institute of Management Accountants) UK and an International diploma in Computer studies from Manchester University UK. These qualifications

were studied in Sri Lanka, where Manisha lived before she moved to New Zealand – a country famous for its tea, golden beaches, gemstones, and wildlife. She worked there as a junior business analyst for three years before leaving for New Zealand. Prior to joining IPENZ she worked as an office administrator for Wesley Care, Wellington.

Manisha was involved in many extra curricular activities in College. She played netball and basketball, and captained her cricket team to all-island champion status. She is passionate about cricket and never misses watching a match involving New Zealand or Sri Lanka. Manisha also enjoys watching movies, reading, and travelling, and cooking an international range of dishes – especially Sri Lankan, Chinese, Indian and Italian.

Her professional goal is to develop skills and experience in the project management and business analysis areas. She finds the environment at IPENZ friendly and helpful, and looks forward to the challenges her role will provide. Manisha says her next big challenge (apart from working at IPENZ!) is to study towards an MBA.

We welcome Manisha to IPENZ and to New Zealand, and wish her every success with her future studies.



Lisa Hart - PA / Desktop Publisher

Our new PA/Desktop Publisher, Lisa steps into a challenging role at IPENZ. Assisting Virginia Burton, Jeff Wastney, Lorraine Brown and the publications team, Lisa won't find much time to ponder the meaning of life.

Lisa decided last year that she needed some fresh challenges. She successfully undertook a nine-month intensive Diploma in Computer Graphic Design, to complement her strong secretarial background. She will add valuable

talent to our design "team" (well, that makes two!) taking on the layout of this publication, among many responsibilities.

You'll also see or hear her as she becomes the liaison person for organising the committee meetings managed by Virginia, and assists Jeff with the preparation of the many CPEng-related materials. She is coping admirably with all that has been thrown at her since she started on 16 September.

But IPENZ may not seem challenging at all to this energetic adventure-seeker. Lisa has played indoor netball and squash, travelled extensively, and worked for three years in London. She has sky-dived, and survived being upended from a small canoe on the hippo-infested Okavango Delta river in Botswana.

Lisa also has a passion for horses. She owns an Appaloosa named Gypsy, and has completed a Massey paper in Equine Health and Nutrition. Lisa and Gypsy do a lot of trail riding – the next IPENZ staff outing, maybe? – and she also edits the trail-riding club's newsletter.

We welcome Lisa to IPENZ and look forward to her contribution.



Jeanette van Barneveld – Competency Assessment Officer

Brought up in Christchurch, Jeanette completed a BA at Canterbury University, and a Diploma in Secondary Teaching, by which time she had married Rick, who studied engineering at Canterbury.

Jeanette may be a Mainlander at heart but she has enjoyed opportunities to live in several different cities, starting in Sydney while Rick studied, using the time out to learn Dutch and

pottery, and travelling extensively around Australia.

Back in NZ they were posted to Alexandra in Central Otago, where their sons Dirk and Paul were born. Jeanette managed the college library, until MOW head office in Wellington called. Third son Martin joined the family, and Jeanette's life was packed with child- and church-related commitments.

Shorter spells in Dunedin and Auckland followed. They loved the beach environment on the North Shore, so the next shift to Wellington was made reluctantly. With the boys at school, Jeanette returned to teaching, a move to primary teaching proving very rewarding. The family has found time to indulge a love of outdoor recreation – skiing, triathlons, camping and surfing and biking in Coromandel – and travel overseas.


With the family finishing qualifications, Jeanette is seeking new professional and personal challenges. She figures her "upbringing" as an engineer's spouse has prepared her well for work at IPENZ – on holiday she has grown used to Rick jumping out of the car at road works, digging into the bitumen with his pocket-knife and counting the chips!

Welcome on board, Jeanette. 

Call for volunteer assessors

We estimate that about 3000 engineers will want to become CPEng. Most will be able to demonstrate competence through a "desk-check" – an assessment of documents by a panel of two. A staff member with extensive training in the new systems will convene the panel. They may be from any practice area, while the second assessor will be a member with knowledge in the candidate's practice area. Most of the latter kind of assessors will be volunteers.

About 500 members on our books are trained to assist in this role and they will be used as far as possible; but we still need a larger pool of trained assessors to cover the range of practice areas and the projected workload. A volunteer working with a fully trained staff assessor will need less detailed training than otherwise, which should minimise the cost of training.

If you have not trained for IPENZ competence assessment in the past but are interested in contributing, please email Alan Williams (awilliams@ipenz.org.nz). We will try to minimise the training demands on your time. The demand in particular practice areas and the need for geographic proximity make it hard to predict which assessors will be required, so some may undergo training without being called upon. Your professional colleagues will appreciate your willingness to assist. 

Movers & Shakers



Awarded – Glen Prince MIPENZ

Glen Prince, MIPENZ, a Wellington-based engineer with MWH New Zealand Ltd, has been named New Zealand Traffic Engineer of the Year at the IPENZ Traffic Management

Workshop in Rotorua. Sponsored by 3M, the \$8,000 award recognises innovation in traffic engineering, and was awarded to Glen for project-managing the implementation of a fire protection system in Wellington's Mt Victoria Tunnel. This is the first time a consultant has won the award.

Tony Brennand, Chairperson of IPENZ's Transportation Group, said that Glen's entry was a clear winner, going well beyond traditional approaches to tunnel fire safety. The system, designed by Tyco Integrated Systems, brought together leading-edge technology and smart thinking. It incorporates an automatic sprinkler system triggered by temperature increases, and a video incident detection system that monitors smoke levels and traffic flow. Images of an incident as it develops can be relayed to the emergency services – a first for New Zealand.

Glen is delighted with the recognition, and the chance to attend the International Traffic Engineering Conference and visit 3M's headquarters in the USA. He is to be married in June of next year, so may just find time to work in a honeymoon along with keeping up on best practice in his field.



Appointed – Kevin Johnson

IPENZ Board member Kevin Johnson has recently been appointed a director of NSM Contracting Ltd, North Shore City Council's Albany-based local authority trading enterprise.

A professional engineer and experienced businessman, Kevin is Director – Downstream

Operations at Westech Energy NZ in Auckland. He joins the Chairman John Avery, and North Shore City's chief financial officer, Roger Duncan, on the board of NSM Contracting Ltd. ☺



Awards 2003

Members are invited to submit nominations and entries for the IPENZ Awards 2003, which include the IPENZ Annual Awards and the IPENZ Supreme Awards for Engineering Excellence. Awards will be presented to winners and finalists at the IPENZ Awards Dinner during the IPENZ Convention in March next year.

Entry is open to the following IPENZ Awards:

IPENZ Supreme Awards for Engineering Excellence sponsored by **Tranz Rail New Zealand**, celebrates innovation and excellence in projects, taking account of economic, social and environmental factors, innovation and "engineerly" in concepts and/or materials, the economic efficiency of resources, and design integration. There are seven categories: Building and Construction, Infrastructure, Information Technology and Networks, Manufacturing and Mechanical, Food and Bioscience Engineering, Energy, and Multidisciplinary for projects outside these categories.

IPENZ Young Engineer of the Year Award sponsored by **Works Infrastructure** recognises a young engineer who has made an excellent contribution as an engineer or leader, and/or through community involvement. Entrants must be aged 35 years or under at 31 December 2002, with a tertiary engineering or technology qualification. First prize is \$2000 from a total prize pool of \$3000.

IPENZ Entrepreneurial Award sponsored by **ALSTOM New Zealand** recognises an engineer or engineers who have created or developed a new business opportunity.

IPENZ Innovation Award sponsored by **Meridian Energy Limited** recognises an engineer or engineers who have demonstrated a commitment to innovation in engineering practice throughout their career, by creating new designs or concepts.

IPENZ Environmental Award sponsored by **BP Oil New Zealand** is awarded for the engineering work that best exemplifies care for environmental values. Account is taken of the recognition of environmental values in design and in the resolution of problems, and of the overall contribution the end result makes to environmental values and public enjoyment. Projects may be of local or national importance. The recipient of the award may be an individual, or a public or private body; an individual entrant need not necessarily be an engineer or a member of IPENZ.

Entries close at 5pm on 4 November 2002. Projects entered must be at least 80 per cent complete by that date.

For further information, or entry and nomination forms, please contact Bronwyn O'Keefe on +64-4-474 8934 or email bokeefe@ipenz.org.nz. Entry forms are available on the IPENZ website www.ipenz.org.nz

Techlink

Funding from Industry New Zealand's Enterprise Culture & Skills Activities Fund is allowing Enterprise New Zealand, IPENZ and *Tearaway* to work collaboratively on case studies of best practice in technology education. The Techlink project over the next 18 months will produce nine resource packages about technology-based innovation. Techlink will cover researching, developing and producing the resources and trialling them in schools.

Eighteen schools in three regions will be invited to use the material to help plan, implement and evaluate a unit of work. Two technologists will be assigned to mentor each school. Case study material from each school will be analysed in terms of the curriculum. The material will be published on the Techlink website (www.Techlink.org.nz) and in *Tearaway* magazine.

Teachers and engineers are invited to participate. Comments about the project and suggestions for case studies are welcomed – contact Angela Christie - achristie@ipenz.org.nz ☺

Nominations are called for the following positions to take office on 31 March 2003:

President

(one-year term, must be a Fellow)

Deputy President

(one-year term, must be a Fellow)

Vice-President

(one-year term, must be a Fellow)

Three (3) Board members

(two-year term, members from any class eligible)

Nominations close on:

13 December 2002

with the Chief Executive

These roles represent a real opportunity to contribute to the profession, by guiding the strategy of the Institution. Board meetings are held six times per year, taking a little over one working day, and Board members deal with ongoing correspondence between meetings. Direct travel and other costs are reimbursed from subscription income.

Nominees for President must have served two years on the Board in the last five years, and all nominees must be fully financial. Nomination forms, and details of other requirements for nominees, such as total service limitations, are available by contacting the Executive Assistant, Lorraine Biggs:

lbiggs@ipenz.org.nz

phone 0-4-474 8931, fax 0-4-474 8933

or by mail to:

IPENZ National Office, P O Box 12-241, Wellington

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The following is the full list of additions to and changes in the classes of membership for the period 1 August – 30 September 2002.

Elected to Graduate

N D Adams, W S Batchelor, S K Bedi, D R Bennett, B R Carlton, N J Cast, P YP Chung, J E Cooper, H Ewing, R R Findlay, G A Fleming, MPW Fon Sing, M N Frith, A J Halapua, P Harrison, R Hoque, B H Jones, S Khosraviani, C J Kinley, A B Kinvig, J D Kitchen, V Kumar, T Kyaw Kyaw, P M Lam, J C Landaeta Rosales, M A Langdon, M J Laws, H H Lee, V S Mace, M J McWhirter, B J Mathewson, D W Megaw, J H Nijdam, M I Nixon, N Noble, P H Oei, C J Ong, R S Owen, B K Park, A J Penman, M T Pickford, P Prakash, A Prasad, M E Radu, A Raquib, J P Reddy, ADE Reilly, M J Rickman, B G Robinson, B J Sandison, J K Schreiber, M Shi,

D B Tahu, I N Thompson, S Vellore, Venkataraman, H F Wilson, Z Zhu

Promoted from Graduate to Engineering Technologist

P R Banks

Promoted from Graduate to Member

A T Adams, R N Anthony, S C Ayris, T J Brook, J D Clendon, C M Coburn, W R Gribble, C P Haas, G C Jackson, G P Killick, N A Kirk, A R Lane, M J Leyland, I H H Morrison, W Okada, M A Preston, M J Rees, J A Robson, E J Rudkin, F N Snyman, J F Toplis, L M Tucker

Elected to Member

R M Abeysekera, V Brijacek, J M Coote, R J Davidge, C H De Ruiter, M Gunasekera, L C L G Jennings, L C Lee-Johnson, A J McKillop, S M Ward, D G Wilkey, CHM Yam

Elected to Engineering Technologist

M L Angell

Promoted from Engineering Technologist to Member

D V Sharp, V R Fouche

Elected to Engineering Associate

T B Fraser

Promoted from Engineering Associate to Engineering Technologist

M J Clarke, M W Gray, W E Hickman, J M Kelly, R L McFadyen, B J Stratton, E J Talboys

Promoted from Engineering Associate to Member

W A Shumane

Elected to Affiliate

J Coplestone, T Kyaw Kyaw, DHK Samaranayake, C L Swan, S Zaidi

Coming Events

EEAUST Short Courses

IPENZ-endorsed short courses

When:

Project Management
21–22 October (Auckland)
Managing Self & Others
23–24 October (Auckland)
Risk Management
29–30 October (Christchurch)

Contact: frankm@ee aust.com.au

Website: www.ee aust.com.au

Project Management for Senior Managers

Designed for key team members and decision makers.

When: Wellington 22–23 October 2002
Auckland 4–5 November 2002

Where: Wellington – Duxton Hotel

Auckland – Rydges Hotel

Cost: \$1794 (GST incl.)

Contact: mel@iir.co.nz

Website: www.iir.co.nz

Strategic Facilities Management Course

Learn to reduce operational expenditure through smarter maintenance and management programmes.

When: Wellington 23–24 October 2002

Auckland 30–31 October 2002

Where: Wellington – Te Papa

Auckland – Rydges Hotel

Cost: \$1681 (GST incl.)

Contact: mel@iir.co.nz

Website: www.iir.co.nz

Contract Law for Non-lawyers

IPENZ Wellington Branch course

When: Wellington 29 Oct 2002

Auckland 31 October 2002

Where: Wellington – Duxton Hotel

Auckland – Stamford Plaza

Cost: \$1231 (GST incl.)

Contact: mel@iir.co.nz

Website: www.iir.co.nz

IPENZ Manawatu Branch

Manipulation of Particle Properties (Dr Jim Jones, Massey University), and branch AGM.

When: 7.30pm, 6 November 2002

Where: Te Manawa

Contact: r.havercamp@massey.ac.nz



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