

Your Institution, your views

IPENZ has gone through a significant strategic refocusing. The Board has resolved many issues in ways that are apparently finding favour with the membership; but further feedback from members would help resolve issues currently under consideration.

None of these are new issues, and many Branches have heard the President and Chief Executive explaining them. This article backgrounds the issues and invites comment from members, which should be directed to the Chief Executive (acleland@ipenz.org.nz).

1 We have three grades of membership that are attained by demonstration of competence (Member, Technologist, Associate), but plans for a current competence Register for only one (CPEng); should we take the initiative and start competence registers for the other two member grades? Early feedback largely supports the idea, on the basis that there is a market demand, and it is better that we provide a comprehensive range of competence Registers than have another group step in to fill the gap.

2 If we have such Registers how should they be named? There are two schools of thought, one preferring the term "Chartered" in all three names, and the other preferring to differentiate the grades by means of adjectives e.g. "Chartered", "Registered" and "Certified". At its 24 May meeting, after initial feedback from members via Branch meetings, the Board determined that its preference tended towards Chartered Professional Engineer, Chartered Engineering Technologist and Chartered Engineering Associate. An alternative set of names – Chartered Professional Engineering, Registered Technical Engineer, Certified Associate Engineer – has also been discussed, but is less favoured by the Board. Which approach do members prefer? Either is possible. We would use trademark legislation to protect the names of the second and third registers.

Continued overleaf >>>

Coming up

in the July/August 2002 issue of *e.nz magazine*



Auckland motorways
Spaghetti junction smothered in a rich political sauce

Inca engineers
– could teach us a thing or two

Windsor Engineering
From small local manufacturer to big-time exporter

Speda
Keeping electronic tabs on wildlife, from wetas to crocodiles

President's Message

Engineering Public Policy



New IPENZ Presidents can easily find themselves in hot water when faced with leading questions from well-briefed members with a strong commitment to one part of the total mission of the Institution. After a recent presentation to a Branch meeting, I was asked quite simply whether IPENZ was a learned society. As his subsequent comments have revealed, the questioner clearly felt that my response was too ambivalent for his taste.

His concern is, of course, quite understandable. While IPENZ undoubtedly is a learned society, that is far from being its only function. Indeed, many informed members would argue with some justice that being a learned society is no longer the central role for IPENZ (save in distinctively New Zealand areas of practice, where we must maintain a leading position).

In most areas of engineering practice, however, the information and communication explosion has meant that IPENZ, like other national organisations of similar scale, now functions more effectively as an information conduit and an education broker than as a primary provider. The increasingly multi-disciplinary nature of engineering practice is another of the forces pushing us in this direction. Forthcoming rule changes, which reflect and respond to the real nature of the interaction between IPENZ and its constellation of "collaborating technical societies", emphasise just how much our learned society role has changed.

In earlier articles, I discussed briefly the growing importance of the roles of IPENZ in regulating and representing the engineering professions in New Zealand. A profession that was not trusted by the community to regulate itself would find it hard to represent the interests and capacities of its members to that community; and engineering has made a great step forwards in this respect with the recent passing into law of the Chartered Professional Engineers Act, an event whose implications have been widely discussed elsewhere.

Representation here means the process of harnessing the combined wisdom of the professions in the formation of public policy. Governments already turn for advice to IPENZ; on the whole, though, they tend to do so mainly in relation to matters that directly and obviously concern the practice of engineering, rather than those, much greater in number and importance, that simply have an engineering dimension.

In practice, governments seek input on major policy design from a more limited range of sources than might be imagined. They may consult more widely once a draft policy is in place, but, by that time, the scope for variation is often becoming restricted. Some sources of advice are obvious; ministerial advisers, the public service, sector representatives known to be broadly sympathetic to government objectives, and so on. When governments go outside this orbit, they want to be confident that the advice they receive is based on eminence and independence, rather than reflecting narrow sectoral self-interest.

This alone explains why, in almost all the countries with which we routinely compete for the international delivery of professional engineering services, professional

Continued on page 3 >>>

<<< 'Your Institution, your views' continued

3 Should we rename the membership classes? The distinction between "Members" (with an uppercase M, previously Corporate Members) and "members" (lowercase m) is confusing, and detrimental to recruitment of young people. They see it as archaic that they can be a member but not a Member. It is suggested that "Members" might become "Professional members", still using the post-nominal MIPENZ. This takes us back to the situation that prevailed for many decades, where an adjective was used in front of the word Member.

The term "Technologist" was introduced only two or three years ago when the single membership class of "Technical member" was split into Associates and Technologists. The term "Technologist member" is clumsy, and is likely to confuse or concern technology-based learned societies with whom we wish to work. It

is also clear now that the term technologist is unlikely to become totally internationalised – for example, Incorporated Engineer is used in the UK. We wish to position ourselves strategically so that the wider technology sector sees us as their natural affiliation, rather than as a science-based organisation. Should we therefore revert to "Technical member", a term very acceptable to the membership only about two years ago? (If we did so the register for these members would still be named "Chartered Engineering Technologist" which is not totally consistent, but is acceptable).

4 How do we proceed with quality-marking people in the business and information engineering practice areas against competence profiles? The Board is proposing to develop an interpretation of the competence profile for each Register in the business/management context, using the work of the business

engineer taskforce. A similar taskforce for the information area might be set up to cover software engineering, computer systems engineering and perhaps telecommunications engineering.

5 Is there support for investigating formation of an "Academy" to provide a pool of engineers who have demonstrated leadership in the profession and who can assist with public policy work? Such an academy has proved successful in Ireland, and the coexistence of a science academy with a technology/engineering academy in Australia has helped ensure that the voice of engineers and technologists is heard on public policy issues in that country.

Members may have other concerns, and the Board would be delighted to hear your views on these as well. Please make your comments as brief as possible, and send them to the Chief Executive by 1 July 2002. ☺

Summary of Membership and Register Proposal			
Category	Professional Engineer	Engineering Technologist	Engineering Associate
Common educational qualification	Four year BE accredited under Washington Accord	Three year BEngTech accredited under Sydney Accord	Two year Diploma accredited under Dublin Accord
Membership class for holders of qualification	Graduate member	Graduate member	Graduate member
Qualification holder postnominal	GIPENZ	GIPENZ	GIPENZ
Membership class for competent professional	Professional member	Technical member	Associate member
Membership postnominal	MIPENZ	TIPENZ	AIPENZ
Register for those demonstrating current competence	Chartered Professional Engineer	Chartered Engineering Technologist	Chartered Engineering Associate
Register postnominal	CPEng	CEngTech	CEngAssoc

CPEng Bill passes into law

Shortly after 9:00pm on 29 May 2002, the Chartered Professional Engineers Bill received its Third Reading. The new Act will come into force on 1 July 2002, the Register will open from 1 January 2003, and the Engineers Registration Act of 1924 will cease to have effect at the end of the year.

After nearly 80 years, the old, comfortable, cheap, but increasingly outdated registration system will disappear, and professional engineers in New Zealand will have a modern internationally benchmarked framework within which to identify their currency and competence.

In the end, the new legislation was supported unanimously by the Select Committee, and by all parties in Parliament. To gain such extensive political consensus on a complex and precedent-setting measure is no mean achievement. Most Private Members' Bills deal with single issues, often emotionally charged ones, and are relatively simple in both form and function.

Dr Nick Smith, who promoted the CPEng Bill on behalf of the profession, and steered it through to a successful conclusion, deserves the gratitude and respect of IPENZ for his sustained efforts to achieve a better framework for professional practice in New Zealand.

No measure of this kind could have succeeded without the active support of the government. The Honourable Laila Harre, and the officials from the Ministry of Commerce, saw the merits of the proposal and worked with IPENZ to find ways by which their and our legitimate goals could be achieved.

The process has been a long and sometimes tortuous one. There have had to be quite a few compromises (by all parties) on procedural matters, but, importantly, none on matters of principle. All of those involved have been united by a wish to offer the public clear and authoritative information about the professional standing of registrants and to hold those registrants to account for the greater trust placed in them by the public as a result. ☺

The July issue of *engineering dimension* will be focused on the implementation of the CPEng Act.

HAVE YOU
registered
YET?

By registering on the IPENZ website, you can gain access to our 'members only' area, which provides specialised resources and an easy way to keep your membership up to date! www.ipenz.org.nz/ipenz/newuser.cfm

Presidents Message continued from page 1

engineering bodies have promoted the establishment, and often supported the operation, of some form of Academy of Engineering and Technology. The value of such an independent but supportive organisation, whose members are uniformly and unquestionably eminent, far outweighs the cost of any minor differences of opinion between the professional associations and the academy.

I believe that the time has come for IPENZ to consider very seriously indeed the possibility of taking a leading role in establishing a New Zealand Academy of Engineering and Technology, an association of professional men and women distinguished by exceptional achievements in the application of engineering and technology to New Zealand life. The natural and sensible way of going about this would be to harness the support and enthusiasm of other technology organisations with which we already maintain close and mutually productive relationships. The resultant Academy would complement the Royal Society of New Zealand, which covers all the sciences and their practitioners.

The objectives of the new Academy would be to:

- 1 apply engineering and technology to increase the well-being of society by:
 - managing natural resources more effectively
 - enhancing the competitiveness of industries and services
 - identifying and advising on new and emerging technologies

- evaluating the effects of technology on society and the environment
- securing public services that depend on engineering and technology
- helping to prevent, control and mitigate natural disasters
- contributing to ecologically sustainable development
- providing authoritative advice to governments

- 2 study and debate the engineering and technological dimensions of public policy
- 3 mobilise the expertise of the Fellows in support of national goals and aspirations
- 4 encourage research, development and education in engineering and technology
- 5 encourage and enhance the pursuit of excellence in engineering and technology
- 6 elect to Fellowship of the Academy persons of proven ability and achievement
- 7 liaise and collaborate with other learned bodies in New Zealand and overseas
- 8 liaise and collaborate with professional associations and educational institutions.

The Fellows would be practitioners who at the time of their election were New Zealand citizens or normally resident in Australia and who were eminent by reason of their achievements in engineering or technology. Such eminence might be demonstrated through, for example:

- outstanding individual achievement or leadership in engineering or technology

- innovative management or development of industries based on engineering or technology
- outstanding contributions to education or public policy formation and implementation
- outstanding contributions at the interface between technology and society.

When faced with the question of whether or not to contribute to the development of a new engineering and technology academy within their jurisdictions, most engineering associations have initially asserted that they can already achieve most of the above objectives, and can recognise eminence within their profession. Those arguments have considerable force. But it is hard for a body like IPENZ to cover all bases equally effectively and, in particular, to represent (and regulate) those who practice engineering and technology on a day-to-day basis while simultaneously being accepted by governments at all levels as a natural point of reference for unbiased and supremely well-informed advice on longer-term public policy issues.

Our colleagues in the UK, Ireland, Australia, and many other countries have concluded that the public interest, and ultimately, therefore, that of the engineering and technology professions and their members, can be better served by establishing an independent and eminent academy to mobilise and focus the knowledge and judgment of the professions and their members for this purpose. The time has come for us to do likewise.

John Webster
President

Convention 2003 goes to Hamilton

Planning is well under way for Convention 2003, to be held in Hamilton 30 March – 1 April 2003. The intended programme has “how to improve your skills” sessions in parallel with broader strategic sessions, ensuring that there are sessions specifically for those involved in technical engineering work.

The overall theme will be “Building engineering capability to meet new paradigms”; we hope to have parallel sub-themes in the areas of facilities engineering, process engineering and software/information engineering on the first full day. On the second there will be more facilities engineering, and workshops and short courses on process control, mathematical modelling, and how to prepare a CPEng application. Convention 2003 will also introduce an innovation – a “Project Showcase” where members will be invited to present innovative elements of projects they have recently completed.

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Contract for membership record system let

The present IPENZ membership record system, which is written in Access 2.0, has reached the end of its useful life. A new record system based on a modern language – SQL – has been specified, and a contract let for its development. To be installed progressively from August 2002 to February 2003, it will enable the new CPEng register to be enacted, and overcome many shortcomings in the existing system. Mercury Projects Ltd, a Wellington-based software developer, is the successful contractor.

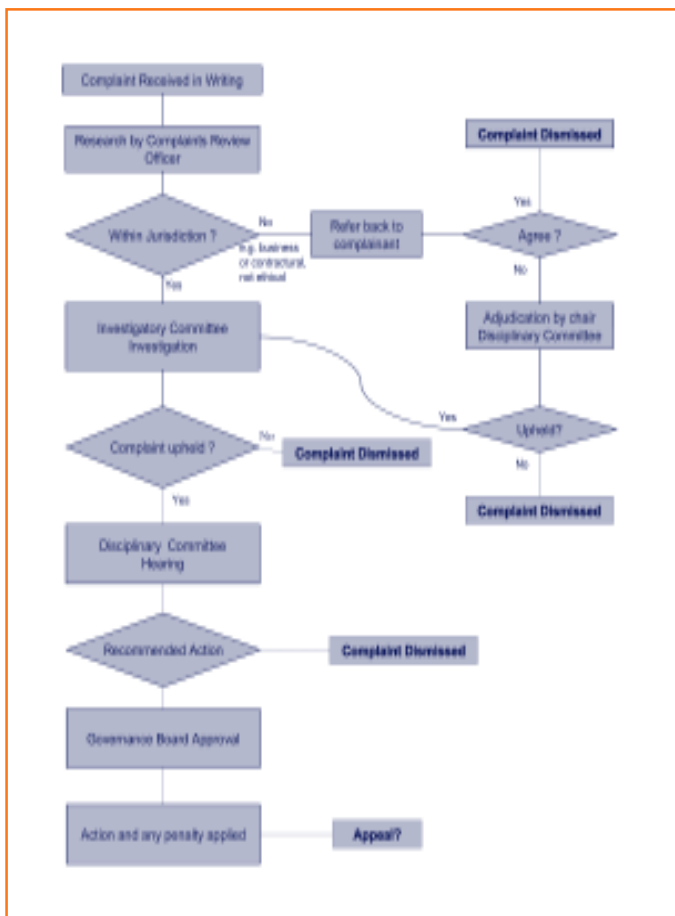
Chief Executive Dr Andrew Cleland said, “Mercury have developed a system for a professional body of a similar size to ourselves that is uncannily suitable to our own needs. We are confident that they have the expertise to develop a system that will serve IPENZ and Technical Groups well for some years.” The total cost of the project including staff time is several hundred thousand dollars, which is some indication of the complexity of the records we are required to keep to underpin membership and registration functions. ☺

Regulations for hearing complaints and disciplining members

IPENZ – Engineers New Zealand receive about 50 complaints about members per year. Of those, four or five may warrant the setting up of an Investigation Committee and of those only one is likely to progress to disciplinary action.

With the enactment of the Chartered Professional Engineers Bill it is timely that we review our Disciplinary Regulations. The process thus far has seen a review meeting held with IPENZ staff, the Chair of the Disciplinary Committee and the IPENZ Deputy President, from which a proposal was prepared for discussion at the 24th May meeting of the Board. The next step in the process is input from the membership. The current draft is in the “Discussion Documents” section of the member-only area of the IPENZ website.

This is an important issue for members of the profession; our own actions may be called into question, or we may be asked to be involved in the disciplinary process (for example as a member of an Investigating Committee). It is the mark of a profession that it has a code of ethics and is prepared to take disciplinary action if that code is breached. Taking such action helps us to retain the high regard of the general public.



Complaints may come from the public (IPENZ is listed on the Consumers Institute website [www.consumer.org.nz] as the body to whom complaints may be made about the practice of engineering), IPENZ members and staff.

IPENZ acts only on complaints expressed in writing. Ideally the complaint should make it clear which element of the code is alleged to have been breached, and provide supporting evidence. In IPENZ's experience many of the complaints are not ethical breaches *per se*, but are the result of poor client relationships (poorly-managed expectations, or poor communication). The public have high expectations of professions and many seek redress for any failure to meet these expectations, not only strictly ethical failures. Our processes need to meet these needs as well as ensuring that members are disciplined for proven failures to meet ethical standards.

A process with four separate stages is proposed. The IPENZ CEO manages the process to the Disciplinary Committee stage.


The first stage is research into the background to the complaint by a Complaints Research Officer, who will generally be either a staff member who is an engineer, or a member of the Institution. At this stage the member complained about will be consulted and information gathered to ascertain the seriousness of the complaint. The CRO may attempt mediation at this stage, but only if they are certain there is not an ethical breach but a failure to meet commercial expectations. The CRO may recommend proceeding, or that IPENZ has no jurisdiction.

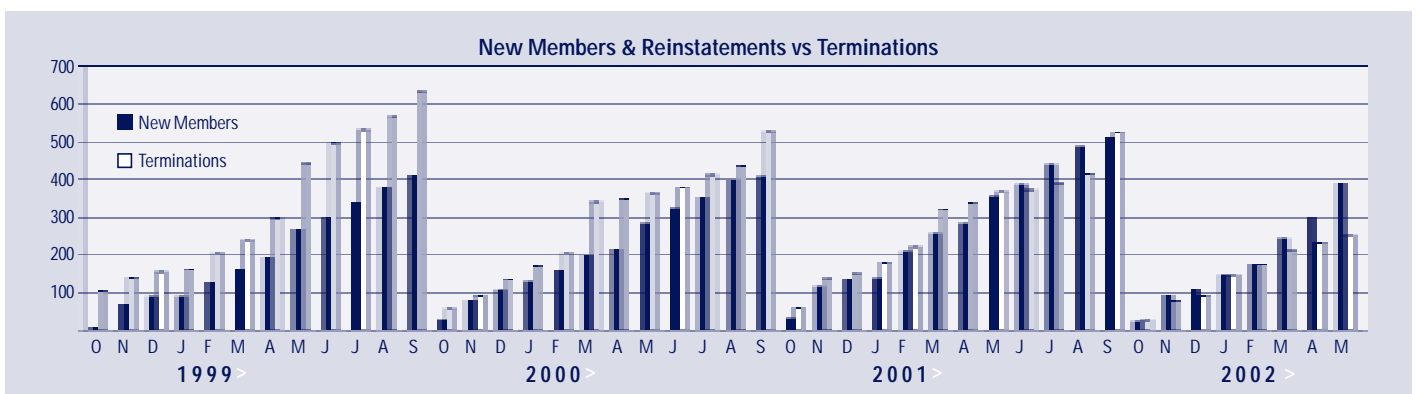
The second stage will be a formal Investigating Committee of three Members, normally Fellows, and usually from the same discipline as the engineer complained about. This committee must make one of three recommendations: that the complaint be referred to the Disciplinary Committee on the basis that there is a *prima facie* case; that the complaint be dismissed; or that the complaint lies outside its jurisdiction.

If the third stage is reached and a Disciplinary Committee is required the Governance Board appoints the chair (a standing appointment). The committee will be made up of two Fellows of the Institution plus two laypersons, one appointed by the Consumers Institute, and the other by the chair of the Disciplinary Committee. This will be a formal hearing with the right of representation by legal counsel. The report of the Investigating Committee will be available as evidence.

This committee may recommend to the Governance Board one of the following actions: dismissing the complaint; fining the member; expelling or suspending the member from the Institution; reprimanding the member.

The Governance Board must formally approve the recommendations of the Disciplinary Committee. If the Governance Board is unhappy with the outcome they may send the recommendations back to the Disciplinary Committee for further deliberation, but may not overturn their conclusions.

The Rules of the Institution allow a member to appeal a Disciplinary Committee decision. The Appeals Committee will consist of two members – either the President and a past president, or two past presidents – together with a barrister of the High Court of New Zealand. No change in this process is recommended. 



New Professional Practice Assessment fees – applying from 1 July 2002

IPENZ has a commitment that costs should be borne where they are incurred, so that subsidisation of one member by another is minimised. A review of the fees for assessing individuals has been completed, and the Board has approved the new fees, and a new name for the assessment process.

We are adopting names consistent with the CPEng Act in preparation for its implementation. The name of the assessment has been changed to Initial Competence Assessment (ICA), in place of Professional Practice Assessment (PPA).

There are two parts to a competency assessment; an engineering desk check, which is an assessment of documentation submitted, and an interactive assessment, which includes an interview and possibly a controlled written assessment. Some candidates may require only the former (denoted ICA1) whilst others will require the latter (ICA2).

The make-up of the costs involved reflects the time required by paid staff:

	ICA1	ICA2
Professional Engineers	1.75 hours	3.75 hours
Administrator	1.3 hours	1.8 hours

There is still a very substantial uncharged item – the time given by members who volunteer as interviewers. The Board has resolved that from 1 July 2002 the fees will be as follows:

ICA1	\$220 + GST = \$245.00
ICA2	\$530 + GST = \$596.25

It was recognised that those members on graduate or competency development programmes are quicker to assess, so they will receive a rebate of 20%. IPENZ members will be entitled to pay their ICA2 fee in two instalments. In summary the new fees are as follows:

	Payment at time of application for ICA1 (Desktop assessment only)	Payment at time of application for ICA1 + ICA2 (Desktop and Interactive assessment)	Payment on Anniversary date of application for ICA1 + ICA2
Non-IPENZ members	\$245	\$843.75	n/a
IPENZ members	\$245	\$545.63	\$298.12
IPENZ members on graduate or competency development programmes	\$196	\$436.50	\$238.50

Working to rules

During recent strategic changes in IPENZ a need has emerged to update the Rules of the Institution to better reflect our purposes.

The Board has looked carefully at those Rules that have been added to and altered several times, and decided that it would be simplest now to do a "Repeal and Replace" rather than a further set of changes. 95% of the content will be the same, but a repeal and replace would make the Rules a much more effective working document.

The proposed Rules are now available for comment in the member-only area of the website. The Board is looking for your feedback by 15 July 2002 with a view to holding a Special General Meeting on 3 December 2002 to approve the new Rules. The Rules are 35 pages long, so a summary of the main proposed changes is given here. Please direct your feedback to the Chief Executive (Acleland@ipenz.org.nz).

- 1 Regrouping into four major Sections – Basic Tenets, Membership and Awards, Governance and Management, and Subsidiary Organisations. The rules at present place matters related to each of these four main themes in different places and this can be confusing.
- 2 Reworking of the Objects, removing the term "science of engineering" which is confusing; positioning technology in the sub-objectives rather

than the main objective which relates to the profession of engineering; and giving some direction on ways to advance the profession.

- 3 Changing the names of some Membership classes as follows:

Member	>	Professional member MIPENZ
Engineering Technologist	>	Technical member TIPENZ
Engineering Associate	>	Associate member AIPENZ
Graduate Engineering Technologist, Graduate Engineering Associate	>	Graduate member GIPENZ
Affiliate	>	Affiliate member
Student	>	Student member

This would remove the distinction between "Members" and "members" which is outdated and confusing. The rationale is described in another article in this issue of *engineering dimension*.

- 4 Deletion of the Organisational Member category, which has not been used
- 5 Defining most membership classes more simply by linking them to international standards for competence
- 6 Clear separation of membership *statuses* (e.g. life, retired, low income), from membership *classes*
- 7 Clear statements of application processes for each class of membership and matching of those procedures to actual present practice
- 8 Removal of very prescriptive details about "Examinations" which we no longer use, but retention

of an empowering clause in case examinations are needed in the future

- 9 Tidying up of the removal and resignation processes for membership, which were incompletely defined.
- 10 Updating of the ways that fees are set, taking out very prescriptive requirements, allowing for rebates, and better recognising direct-debit payments.
- 11 Moving of rights of membership, discipline etc, to sit alongside other member-related areas in Section II.
- 12 Retaining the Rule about Papers and Articles, which may be outmoded, on the basis it may still have some value.
- 13 Minor tidying up around the operation of the Board, for example of the detail to be supplied with nominations to the Board, and a change from "immediate Past-President" to "the most recent Past-President willing and able to serve".
- 14 Movement of Winding Up and Regulations rules to be placed with like Rules in Section III.
- 15 Complete statements of Branch Rules, Technical Interest and Special Interest Group Rules according to the new models for these subsidiary organisations that have been developed over the last two years
- 16 An empowering clause to facilitate Memoranda of Understanding with Collaborating Technical Societies (previously Technical Groups, now separate legal entities)
- 17 A revised empowering rule for Practice Colleges, making them a grouping established by the Board
- 18 A new Rule empowering the creation of registers, not specifically for CPEng, but more generally. ☺

Kiwi Consultants win major highway project in India

New Zealand consultants Meritec Limited have started work on a construction supervision contract for a 34.7 km access-controlled six-lane highway in India.

The project for the National Highways Authority of India is being funded by government, fuel levies, tolls, private investments and international development bank assistance.

The highway forms part of the "Golden Quadrilateral", an ambitious five-year upgrading of almost 6,000km of highways connecting the main cities of Dehli, Kolkata, Chennai and Mumbai. The project has a consulting fee value of \$US 1.2 million and will run for three years. Meritec will work in association with two Indian consultancies, Mahendra Raj Consultants and Aarvee Consultants.

This is the first major highway contract in India to be won by a consortium led by a New Zealand consultant,

and Meritec's first highway project since they opened an office in New Delhi last year.

"Most international consultants would expect to take at least two years to penetrate the Indian market. We are delighted that our success has come so quickly", says Jon Lorentz, Meritec's General Manager Asia Pacific.

The Indian national highway (NH) network has a total length of 58,000 km, which accounts for only about 1.6 per cent of India's 3.3 million km of roads, but carries more than 40 per cent of the road traffic. Most of the network consists of two-lane or narrower roads, a significant proportion of them in poor condition.

Average vehicle speeds on Indian roads are amongst the lowest in the world: a truck in India averages about 250 km per day, compared with around 600 km per day in developed countries.

Meritec's success on this project results largely from recognising that roading solutions in India need to be a careful mix of international expertise with local knowledge and involvement. Their team leader on the project is an expatriate Indian, supported by Meritec's senior transport consultants. The approach maximises

technology transfer and helps develop India's capability in roading, while positioning Meritec in the market. ☺

Sustainable energy strategy

Budget 2002 commits \$12.6 million over four years to implementing the National Energy Efficiency and Conservation Strategy, which aims for a 20 per cent improvement in energy efficiency by 2012.

A renewable energy target – a 22 per cent increase in generation of energy from renewable sources – is under consultation.

New funding (\$3.15 million per year) will be used to promote more efficient use of traditional sources, and develop renewable sources, via initiatives such as industry efficiency programmes, transport reforms, and energy supply developments. Energy Minister Pete Hodgson points out that the strategy will contribute to productivity and competitiveness as well as protecting the environment – "We waste hundreds of millions of dollars a year through inefficient energy use". ☺



Qualifications for engineering technicians

There is disquiet about the Diplomas in Engineering designed to replace the NZCE, and anecdotal evidence of an increasing shortage of engineering technicians. VIRGINIA BURTON raises questions and suggests some answers, and seeks your feedback.

Diplomas in Engineering

There is doubt about the relevance of unit standards-based qualifications at the technician level (NQF Level 6 qualification). However, organisations are taking on increasing numbers of school-leavers as technician engineering apprentices. Recognition of on-the-job learning is therefore important; and a unit standards-based qualification offers more flexibility in this area.

Polytech diploma branding

Polytechnics seem to be marketing engineering diplomas under their own brands without advertising them as *national* qualifications, leaving industry uncertain which qualifications are nationally provided. Employers want to be sure that an engineering diploma in, say, mechanical engineering offered at Christchurch Institute of Technology is substantially the same as one offered by AUT. Some kind of national moderation is therefore needed to assure IPENZ and employers that learning outcomes and assessment will be consistent.

Polytech enrolments

Polytechnics are concerned at how few students are enrolling in diploma courses. Because the NDE courses in civil, mechanical, and electro-tech engineering disciplines have little core material in common, they have to be taught separately. This means that smaller polytechnics do not have the student numbers to run engineering diploma courses. So school leavers in less populated areas must move to a large city to study for an engineering technician qualification.

Market confusion

There is a National Diploma in Civil Engineering (a unit standards-based qualification of which the Design & Construction Consultants ITO and NZ

Contracting ITO have ownership); and there is also a polytechnic consortium-driven Diploma in Engineering (provider developed and owned). This creates confusion in the market. The consortium diploma is equivalent to two and a half years' full-time study; yet there is now a three-year Bachelor of Engineering Technology (Civil). More confusion for the market!

I am not aware of *any* polytechnic offering a diploma in chemical and process engineering. Is there no market demand for such a qualification?

Recognition of on-job learning

The National Diplomas in Engineering were designed to replace only the academic part of NZCE – currently there is no way for learners to receive any formal recognition of their on-job learning. IPENZ has a generic competency development programme for graduates of a two-year engineering diploma, but it has not really been picked up by industry. Is this programme needed? Should a system be established for formally recognising the on-the-job learning of engineering diploma graduates? What role should the ITOs and IPENZ play in this?

It is not surprising that fewer people are studying technician engineering. The market is unclear about the qualifications currently available; and it is consequently difficult for IPENZ to promote diploma qualifications while these issues remain unresolved.


The development of the National Diplomas began seven years ago and it is high time the market had a clear picture of what technician engineering qualifications are available and which ones are recognised by IPENZ as meeting a national standard. IPENZ can internationally benchmark these qualifications, but not until some of the issues outlined above are resolved.

I would really appreciate your feedback so that I can be sure I am representing the views of our members on these issues. Please add your comments to the Discussion Forum which is in the member-only area of the IPENZ website. Alternatively, just email your comments to me and I will have them added to the forum. vburton@ipenz.org.nz ☺



BoardHighlights

From the meeting of 24 May 2002

- A progress report on the updating of procedures for hearing complaints was received, and it was agreed that the membership would be consulted.
- The letting of a contract for development of the new membership record system, and associated contracts for data conversion and project monitoring, was approved.
- Preliminary approval was given for revising the fees for Competency Assessments (previously Professional Practice Assessments or Professional Reviews), subject to clarification of the way IPENZ members can pay by instalments [see detail of fees on p5].
- It was agreed to consult the membership on whether three current competence registers should operate, aligned with our three competence-based membership classes, and on whether membership classes should be re-named.
- A revised draft of the Rules was reviewed. It will be taken to an SGM later in the year as a "repeal and replace" action – details are given on p5.
- The future of the Benevolent Society was reviewed, and an investigation of ways to merge the IPENZ Foundation with the Society was commissioned.
- Capital item expenditure on changes to staff accommodation in National and Northern Regional Offices was approved.
- A Memorandum of Understanding with the Register of Engineers for Disaster Relief New Zealand (RedR NZ) was approved for signature.
- The Professional Practice Assessment Board was renamed the Competency Assessment Board to match the newly-adopted terminologies Initial Competence Assessment (ICA) and Current Competence Assessment (CCA).
- Progress towards the 2003 Convention in Hamilton was noted.
- Progress towards the launch of *engineering treNz* was noted – this learned-society publication will replace the old *Transactions*. 

Exporters of the Year

Trade New Zealand's annual Export Awards for 2002, sponsored by DHL Worldwide Express, were presented at the closing session of the inaugural National Export Conference.

Twenty-five finalists competed in seven categories: building and wood products, won by Rayonier MDF New Zealand; education, won by Aspect International Language Academies NZ; engineering, won by Glidepath; food and beverages, won by Frucor Beverages; manufacturing, won by Navman NZ Ltd, services, won by Opus International Consultants; and technology and communications, won by Tait Group Ltd.

Here we profile Glidepath, Engineering Exporter of the Year and the subject of a story in *e.nz magazine* (see the Jan/Feb 2001 issue), and Navman, who collected the Supreme Exporter of the Year award as well as the award for the manufacturing category. Navman also figured in *e.nz* (Mar/Apr 2001) in a previous incarnation as Talon Technology.

Navman NZ Ltd Supreme Exporter of the Year

Navman's exports of marine and land-based navigation products have grown tenfold in the last four years to \$30 million, and are expected to exceed \$70 million in the next year or so.

President and company co-founder Peter Maire says he is motivated by 'the buzz of

exporting" rather than the monetary returns: "The bigger the market, the bigger the customer, the bigger the deal, the more fun you get out of it".

Navman's export sales took off when the company expanded beyond marine electronics (fishfinders, chartplotters, instruments) into land navigation and fleet-tracking products.

The judges commented on Navman's competitive combination of innovation with excellent business processes, which have helped them commercialise ideas and respond flexibly to opportunities.

Glidepath Engineering Exporter of the Year

Glidepath's baggage handling systems earned about \$40 million in export sales in 2001. The judges observed that the company had evolved its market focus and the services it offered to grow its international business.

Chief Executive Neil Sayer says Glidepath has moved from an Asia-Pacific focus to a global marketing strategy. The result – contracts with airports in Santiago, Chile, Vancouver and Toronto. The last is a \$37 million design and build contract for a whole new system.

The company has also shifted its branding toward a specialized, high-tech, value-added approach. Glidepath have opened offices in South America and Canada, and plan a US office, to market and support their product. 

Obituaries

Cecil Marin Segedin Hon FIPENZ

Cecil Segedin's association with The University of Auckland lasted more than 50 years, starting in 1933. He graduated BSc as Senior Scholar in mathematics in 1936.

In 1937 he completed an MSc in Mathematics with first class honours, and he joined the Department of Mathematics as a junior lecturer. He helped maintain the teaching of mathematics during the war years and until 1948, when he went to Cambridge to complete a PhD. Cecil was a keen tramp, and pursued this interest in Europe, climbing with Edmund Hillary in the Alps.

Cecil played a major role in introducing modern applied mathematics at the university. He also took

on various administrative roles, serving as secretary of the lecturers' association and Acting Head of Department.


Returning to Auckland in 1951 Cecil began travelling regularly to Ardmore to teach the engineers practical mathematics. The relationship developed over the years, Cecil taking on the supervision of ME students. In 1963 he helped set up the Department of Engineering Science (then Theoretical and Applied Mechanics).

Cecil was the first HOD of Engineering Science and led the Department very effectively for 18 years until his retirement in 1981. He was a fine scholar and his publications are still regularly cited. He took up a Carnegie Travelling Fellowship in 1959 and a

research professorship at the University of Washington in 1967.

He was a great teacher. He always went over time and never cleaned the blackboard, but the students loved him. He communicated his enthusiasm for mathematics, and treated the students with warmth, generosity and compassion. He is remembered with respect and affection by generations of engineers.

Cecil is survived by his wife Barbara, who was a long-time member of the Botany Department at The University of Auckland, and two daughters, Rosemary and Jill.

Information contributed by Professor Mike O'Sullivan, (University of Auckland) 

The following is the full list of additions to and changes in the classes of membership for the period 1 April – 31 May 2002.

Elected to Graduate

A T Adams, N A Adams, GWJ Alley, P J Andrews, K Arumugham, A S Bajaj, G J Beaver, S L Beniston, A J Black, DCT Bruton, G R Bulathsinghala, K H Butler, WTW Chan, Z Chen, B Chiam, A Y-H Chin, J H Cho, K Chong, B Colville, J J Couprie, S A Danks, T W Dawson, J M Deady, A P de Groot, S C Dye, A C Earl, D J Forster, M P Gajanayaka, C V Garstang, M B Gazzard, J L Geddes, K L Gee, M D Gilfoyle, A J E Hall, S G Hall, J P Halliday, S L Halligan, D P Harper, G J Harrap, C P Hatley, M P Hendriks, C E Hill, D A Hoe, R J Hornby, G Ikin, B A Irving, S M Jackman, OCG Jackson-Hill, J Ji, MPC Jongeneel, H J Judi, J L Kaczon, T D Kenyon, M-T Khoo, K K Kim, P M King, L T Koelmeyer, WMM Kurera, A T Lee, T S-C Lee, Y M Leung, S J Lim, N R Lloyd, T-C Loh, G D McKenna, A MacLennan, P C Martin, A Mishra, H K

Moon, V V Naidu, T F Natsa, T J Neill, K-S Nge, S H Nicholas, S M Osborne, OSS Othman, R W Parry, C R Pemberton, P T Perelini, M J Pettersson, C N Rathbone, B D Robinson, M G Rowe, A Sheikh, V G Silari, P Stewart, S Syed, P J Sullivan, T J Taylor-Koolen, M L Tibby, D Tjakra, F Vaino, R R Wahab, M R Ward, A J Wilkins, M R Williams, G B Wills, R D Wynn, Y Zhang

Promoted from Graduate to Member

D P Andrews, E O Barnett, D E Boyle, P R Brown, JGR Calder, A J Cromarty, T R Downing, S R Hall, T N Harty, MSR Hopwood, W Johnston, N J Keenan, A D Landells, N D Miller, M T Mole, K B Monk, ACD Palmer, A Roa, J R Wiles, M T Williams

Elected to Member

C J Adams, K T Doherty, S I Finer, J O Grimston, IHM Haycock, H J Houken, D J Howell, K D Inglis, NCR Johansson, D Jovanovic, N Mago, K D McKenzie, A K Murashev, H R Netterville, D J

Phillips, M P Prince, W H Round, C R Saka, A M van Staden, P J Venter, B J Ward, A Wood, T S Wylie

Elected to Engineering Associate
R W Moore

Promoted from Engineering Associate to Engineering Technologist
M C Sweeney, M R Belcher

Promoted from Engineering Associate to Member
S K Nagpal

Elected to Engineering Technologist
W Lin, C F Gunther

Promoted from Engineering Technologist to Member
G J Marshall

Elected to Affiliate
B Foster, N P Morgan, D Rapata, J E Tienstra, B Tuicaumia

Coming Events

Health & Safety in the Construction Industry

Leaders in the field share practical expertise.

When: 14 June 2002

Where: Carlton Hotel, Auckland

Contact: ema@ema.co.nz

Website: www.ema.co.nz

Project Management

EEAUST short course

When: 17–18 June 2002

Where: Christchurch

Cost: \$595NZ+GST

Contact:

frankm@ee aust.com.au

Value Analysis

Improving product service and delivery

When: 18–19 June 2002, 9am to 4.30pm

Where: University of Canterbury

Cost: \$750 (GST incl)

Contact: psc@canterbury.ac.nz

Website: www.cont.canterbury.ac.nz/short_courses.html

Managing Self & Others

EEAUST short course

When: 19 June 2002

Where: Christchurch

Cost: \$595NZ+GST

Contact: frankm@ee aust.com.au

Economic Decision Making

Basic principles of costing, budgeting and financial analysis

When: 19–20 June 2002

Where: Auckland

Contact: l.tsuka@auckland.ac.nz

Website: www.shortcourses.auckland.ac.nz/engineering

The Politics of Sewage

Schemes Today

IPENZ Auckland Branch meeting / Engineers for Social Responsibility lecture by Joel Cayford on seaside sanitation systems issues

When: 20 June 2002

Where: Auckland University School of Engineering Rm 3.407

Cost: free

Contact: jmacdon@actrix.co.nz

Principles for Successfully Writing and Auditing Spreadsheets

Participants should have at least a beginning knowledge of Excel.

When: 25 June 2002, 9am to 4.30pm

Where: University of Canterbury

Cost: \$385 (GST incl)

Contact: psc@cont.canterbury.ac.nz

Website: www.cont.canterbury.ac.nz/short_courses.html



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