

Achievers Young and Old



Pauline Edwards

Left to Right: Lisa Phillips, Angharad Bolland, Aimee McNaughton, Dr William Pickering, Sam Leslie, Alex Nairn, David McKeivitt

Six secondary school students were rewarded for their technological insight at the Dr William Pickering lecture last month. They were the winners of an essay competition, which was open to students at secondary schools in the Wellington, Wairarapa and Marlborough regions. Following the IPENZ Convention theme "Harnessing Technological Innovation in New Zealand" students were asked to discuss the ways engineering and scientific innovation is contributing to New Zealand's economic development and/or improving the well-being of its people. Students were encouraged to seek out local case studies to exemplify their points.

After his Newnham Lecture, Dr William Pickering personally presented writers of the six best entries with copies of Matthew Wright's *New Zealand's Engineering Heritage*. Lisa Phillips from Freyburg College was announced the overall winner, and her prize will be a visit to JPL in California. Sam Leslie from Marlborough Boys' College was the runner-up for the junior category, and Angharad Bolland from Wellington Girls' College the runner-up for the senior category. As their prize, they will each be touring the premises of some of New Zealand's innovative companies in Auckland and Christchurch.

The essay competition was a joint IPENZ and IEE project, supported by the Gifford Trust. ☺

Full Steam Ahead for ALSTOM

ALSTOM New Zealand Limited recently won a \$200 million contract to provide a full range of locomotive servicing, maintenance and overhaul facilities for Tranz Rail over a seven-year period.

According to Geoff Hunt, Managing Director ALSTOM New Zealand Limited, the long-term viability and growth potential of New Zealand's railway maintenance servicing and engineering industry will be enhanced by this decision.

"ALSTOM is the world's largest rolling stock service business and it already has a big presence in New Zealand, servicing infrastructure in the electricity transmission, telecommunications and power generation industries; the addition of rolling stock servicing significantly broadens our base here," Mr Hunt said.

International interest in the contract was intense, he said, but ALSTOM's track record in New Zealand to date had provided a competitive advantage. ☺

President's Message

Aspiration vs Legislation



The new CPEng system has come a step or two closer with the unexpectedly early resolution of the debate on the Shop Trading Hours Bill, and informed observers believe that it may now be possible to have the Chartered Professional Engineers Act, for which there is strong

bipartisan support, in effect from the beginning of 2003.

This is splendid news, but it focuses attention on the steps that need to be taken to ensure that the rules for the operation of the register, which must be framed as regulations under the Act, are effective and widely acceptable. IPENZ is required to develop such rules, having regard to international best practice, and the CPEng Council must approve them provided it is satisfied that the proper procedures have been followed.

Much of the background work has already been done. The rules for entry to and continuation on the register will reflect the established procedures and criteria for IPENZ membership. These are already rigorous, and in line with the best practice principles that have emerged internationally through the work of the Washington Accord, the Engineers Mobility Forum and the APEC Engineer Co-ordinating Committee.

However, rather more debate will be required in respect of the code of conduct that must be defined and enforced in conjunction the CPEng register. At first sight, it might seem that we could simply specify that the IPENZ Code of Ethics be used for this purpose. However, there is an inherent tension between a code of ethics, setting out the ideals to which members of the engineering professions should aspire, and a legally enforceable code of conduct defining minimum acceptable standards for professional engineering practice. The tension remains even where individual practitioners decide not to seek CPEng status, since the courts may very well adopt a legally enforceable code as a guide to acceptable practice standards irrespective of the status of the practitioners concerned.

Within the environment of professional association membership, that tension is resolved by the exercise of engineering judgment, backed up by relatively detailed guidelines that explore how the code of ethics would normally be applied in some instances of the circumstances that may arise in everyday engineering practice. However, the issue becomes less simple when a code of conduct is embedded in legislation, and each clause may be interpreted by reference to

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<<< President's Message continued

the exact legal meaning of the words and phrases it contains. Some members have already expressed concern that the aspirational nature of our code of ethics could be used by a complainant to cast doubt on work carried out in good faith and in accordance with established professional practice.

Senior IPENZ staff members are preparing a draft CPEng code of conduct as a basis for discussion. This draft has been based on existing tenets and guidelines, with the wording of the guidelines adjusted to avoid suggesting that they demand more than can reasonably be expected from a competent and conscientious practitioner subject to the normal pressures of the workplace. This approach has the merit of maintaining intact the central tenets of our present code of ethics in the form of principles to which reference can be made in cases where the guidelines are silent. The disadvantage is that the aspirations set out in such principles might conceivably be used against a practitioner who had, on perfectly rational grounds, come to a different view from their clients or the wider community as to the proper course of action in a particular situation.

To illustrate the dilemma, consider, for example, the comparison between what is probably the least

controversial element of our code of ethics (box A) with the approximately equivalent clause from a much more prescriptive code of conduct, designed to apply within a legislative framework, and prepared by the National Society of Professional Engineers in the United States (box B).

The core difference is that our code of ethics is expressed in positive terms, suggesting what one should do to give effect to the basic tenet. The legally enforceable code of conduct tends to define what actions, if taken, would represent a breach of each tenet.

There is little doubt which version most professional engineers in New Zealand would prefer to take as their guiding light, and the NSPE code is silent on issues that we have taken very seriously in framing our code of ethics. A significant omission is any statement on sustainability. This

tenet is readily expressed in positive terms, but is probably the hardest to define in terms of proscribed actions without unnecessarily limiting its scope:

Members shall be committed to the need for sustainable management of the planet's resources and seek to minimise adverse environmental impacts of their engineering works or applications of technology for both present and future generations.

At the same time, the NSPE code includes extensive provisions on finer points of professional etiquette that we might well see as archaic, or as being governed by other legislation, such as the Commerce Act.

It is important to remember that disciplinary action taken under the Chartered Professional Engineers Act might have more effect on the practitioners involved than complaints lodged under the current system, consideration of which would normally be suspended until any legal action had been concluded. In some cases, at least, action under the Chartered Professional Engineers Act would have equal standing to civil action for damages, and might proceed concurrently, the outcomes potentially being cited as evidence in subsequent court proceedings.

The NSPE code spells out what practitioners must not do, rather than what they should do. Experienced practitioners might argue that it is likely to be much easier for them to prove that they did not commit proscribed acts than to demonstrate that they had taken all the positive actions suggested in our guidelines and/or implied by the relevant tenet. To restate our guidelines in negative terms would, however, be a major undertaking, and would clearly result in a code of conduct very different in flavour from our code of ethics. The key question, therefore, is whether members are satisfied that our existing code of ethics can provide a satisfactory basis for a legally enforceable code of conduct.

A firm decision has yet to be taken, and my purpose is therefore to invite you to comment on the way ahead. Certainly the matter will be very much in the minds of the members of the IPENZ Governing Board over the next few weeks, and we will want to be reasonably sure that we understand the collective view of the profession before committing members and others to a legally enforceable code of conduct. Your input really can make a difference.

John Webster
President

A) IPENZ – Engineers New Zealand

Members have a duty of care to protect life and to safeguard people.

Guidelines

To satisfy this clause you need to:

- 1.1 Give priority to the safety and well-being of the community and have regard to this principle in assessing duty to clients and colleagues.
- 1.2 Be responsible for ensuring that reasonable steps are taken to minimise the risk of loss of life, injury or suffering which may result from the work or the effects of your work.
- 1.3 Draw the attention of those affected to the level and significance of risk associated with the work.
- 1.4 Assess and minimise potential dangers involved in the construction, manufacture and use of your products or projects.

B) National Society of Professional Engineers (US)

1. Engineers shall hold paramount the safety, health, and welfare of the public.

- a) If engineers' judgment is overruled under circumstances that endanger life or property, they shall notify their employer or client and such other authority as may be appropriate.
- b) Engineers shall approve only those engineering documents that are in conformity with applicable standards.
- c) Engineers shall not reveal facts, data or information without the prior consent of the client or employer except as authorized or required by law or this Code.
- d) Engineers shall not permit the use of their name or associate in business ventures with any person or firm that they believe are engaged in fraudulent or dishonest enterprise.
- e) Engineers having knowledge of any alleged violation of this Code shall report thereon to appropriate professional bodies and, when relevant, also to public authorities, and shall cooperate with the proper authorities in furnishing such information or assistance as may be required.

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

A New IPENZ Board

At the recent AGM the following appointments were announced:

President

John Webster

Elected Board Members

Sharyn Westlake, Richard Haverkamp, Kelvin Walls

Deputy President

Gerry Coates

Appointed Board Member

Ralph Fouché

Vice President

Ian Parton

Board members continuing

Andy Buchanan, Matt Furness, Deane McNulty, Kevin Johnson

John Cunningham continues on the Board as Past President.



Ian Murray Parton FIPENZ is the Managing Director of Meritec Group Limited, a multi-discipline international consulting company.

Ian completed a Bachelor of Engineering with First Class Honours in 1969, and a PhD from the University of Auckland School of Engineering in 1972. He also completed a postgraduate business management diploma at the Harvard Graduate School of Business, Boston, in 1995.

Ian began his career in the Ministry of Works and Development. In 1976 he took up a position with Mandeno Chitty & Bell, which subsequently merged with Worley Group, since renamed Meritec. He established the Geotechnical Engineering Group, and later became Director of the Natural Resources Division.

In 1987 he became Managing Director of Meritec, overseeing a period of restructuring then rapid growth. The company now has around 450 staff, and offices in New Zealand, Australia and Asia. It has worked in more than forty-six countries, and won a TradeNZ Award of Excellence in 1996.

Ian has been involved in the development of international trade, in many roles: founding Chairman, Consulting Services Exporters Group; past Director, International Business Councils Limited; Chairman, Thai-New Zealand Business Council; and Executive Committee member, ASEAN-NZ Combined Business Council.

He has been a Trustee of St Cuthbert's College, and a founding Director of Tanlaw Corporation, a civil engineering contracting company. A Director of Ceramco Corporation (now Bendon Group) since 1997, he has been Chairman since 1999. He is Deputy Chairman of Watercare Services Limited, and has served on various industry advisory groups.

He is a Distinguished Fellow of the Institution of Professional Engineers of NZ, a Fellow of the Institute of Directors, and Chairman of the Advisory Board of the Civil & Environmental Engineering Department of the University of Auckland School of Engineering.



Dr Kelvin Walls MIPENZ started work with the Ministry of Works as a civil and structural draughtsman. There followed jobs with consultants, territorial authorities and a building contractor. He currently manages a consultancy, Building Code Consultants Ltd, specialising in the Building Act and Code, insurance investigations, litigation, lecturing and research. As a building engineer, Kelvin has presented several papers at IPENZ conferences and the CIB International Building Congress in

Wellington, April 2001, and he has published overseas.

Kelvin's interest in sharing information has led to lecturing roles at several universities. He is currently the Immigrant Engineers Convenor on the Auckland

Branch Committee of IPENZ, helping immigrant engineers find engineering employment. He has a broad business experience and is a director of the Youth Hostels Association, in which role he has been Convenor of the Audit Committee and a member of the Management Committee.

Kelvin has a strong environmental and community service ethic. He is a member of Ecologic, of Forest and Bird, and of the Eden-Epsom Lions Club, where he has held several positions, including a term as President. Kelvin's hobbies are keeping fit at the gym, tramping, kayaking and reading.

Having "talked the talk" and "walked the walk" in building engineering, business, governance, education and sustainability will make Kelvin a useful Board Member. He is committed to the IPENZ goal of turning New Zealand into a knowledge-based society, focussing on education, and combining knowledge with character.



Ralph Fouché MIPENZ graduated from Port Elizabeth Polytech in South Africa in 1986 with a National Higher Diploma in Civil Engineering. His initial experience was gained in South Africa, where he worked as a design technician and resident engineer from 1988 to 1995, working on the design and contract administration of wastewater and water supply upgrades.

Ralph immigrated to New Zealand in 1995 and joined MWH NZ Ltd in Christchurch, where he further developed his skills in project management and water and wastewater reticulation. He led a design team on the huge Manila Water Supply Scheme in the Philippines, involving 700km of pipework and pumpstations.

In 1999 he moved to Thames as utilities Asset Manager, providing asset and project management to the local government market. He was recently appointed Branch Manager for the Hamilton office of MWH NZ.

Ralph is a Technologist Member of IPENZ and a member of NZWWA. As an IPENZ Board member Ralph is looking forward to promoting the benefits of IPENZ to other membership classes and representing these classes in board discussions. He hopes to bring to IPENZ a global perspective.

Ralph is married to Fiona, and has two children aged four and two. When time allows his interests are sport and travel. ☺

Transmission Gully Aerial Laser Surveying

Transit New Zealand has commissioned an aerial laser survey of the proposed Transmission Gully motorway route into and out of Wellington.

The technique involves combining lasers, inertial guidance and Global Positioning technology. The lasers measure the distance from a helicopter to the ground from the speed with which the beam is reflected. The laser pulses 25,000 times per second, giving several "hits" per square metre. This technique generates more data more quickly than conventional aerial photogrammetry, and penetrates vegetation cover. The spot heights data will be used to generate a Digital Terrain Model of the route, to establish the best alignment for the motorway, help plan the required earthworks, and refine costings. Much of the motorway corridor is rugged and inaccessible. When the road is built much of the heavy earthmoving plant will probably be Global Positioning System controlled, with the digital terrain model controlling the final grade. ☺

New Engineering Practice Board

One of the significant recent changes to IPENZ – Engineers New Zealand's decision-making structure is the establishment of the Engineering Practice Board. MURRAY ISDALE introduces the board and its members.

Like the Professional Standards Board and the Professional Practice Board, the Engineering Practice Board formalises advisory functions previously devolved to standing committees.

The Board was established by the Governance Board to fulfil the following functions:

- to make recommendations on standards and/or codes describing good and sustainable engineering practice at the professional engineer, engineering technologist and engineering associate levels
- to make recommendations on the appointments and briefing of IPENZ representatives at external fora concerning engineering practice matters and codes or regulations
- to make recommendations, at an overview level, on the technical content of IPENZ learned society publications
- to advise the Governance Board on matters of engineering practice impinging on the Institution, on specialist-area competency standards, and on any other matter the Governance Board may refer to it.

The Practice Board will consist of seven Members or Fellows appointed by the Governance Board for their knowledge of engineering practice. Collectively they will cover all major practice area groupings (civil, structural, mechanical, electrical, process, information and communication, management) and areas of employment (utilities/infrastructure, information technology, secondary industry). Each appointment is for a maximum of three two-year terms.

The Chair of the Professional Practice Board is an ex-officio member, and the Engineering Practice Manager will act as secretary (non-voting).

The Governance Board retains the right to review the composition of the Engineering Practice Board at any time.

The Board will consult with the Engineering Practice Forum at least once a year. This Forum consists of representatives of each Technical Interest Group and Technical Society of IPENZ, and of kindred bodies that the Governance Board thinks would contribute usefully. The Forum has no decision-making power, and exists solely for consultation.

At the Professional Practice Board's first meeting Dr Murray Milner agreed to take the role of chair. At its last meeting the Board elected Dr Richard Haverkamp to be its representative.



Professor Debes Bhattacharyya FIPENZ (ME Calc., PhD Jad., MASME, MASM) holds a personal chair in Mechanical Engineering at the Auckland University School of Engineering, where he is currently Head of Department. He gained an ME in Mechanical Engineering, followed by a PhD from Jadavpur University, Calcutta. He moved to the University of Western Australia as a Research Scholar in 1978, then to Auckland in 1980.

He also holds the position of Director of the Centre for Composites Research, a joint venture between the University of Auckland and Forest Research. This appointment reflects his research interest in fibre-reinforced composites.

Debes has a formidable publication record. He has contributed to Elsevier's Composite Materials Series of monographs; chapters for another seven books and articles and technical papers take the total over 150. He is a Fellow of IPENZ, Fellow

of the Royal Society of New Zealand, Vice-President of the Asian-Australian Composites Group Executive Committee, and a member of the American Society of Mechanical Engineers.

Away from his teaching and research commitments, Debes enjoys theatre, movies and time with his family.



Bill Darnell MIPENZ is currently General Manager Technical with Opus International Consultants. In that role he has responsibilities for technical standards and training issues. He was previously the Chief Civil Designing Engineer in the Ministry of Works and Development with responsibility for design standards, operational research, and implementation of new technologies into the Civil Division of that government department. In that role he was Chairman of the NRB Road Research Unit Structures Committee.

He is currently Chairman of the Design and Construction Industry Training Organisation and has been a member of that organisation representing ACENZ and IPENZ for the past three years.



Barry Davidson FIPENZ is a lecturer in the Department of Civil Engineering at the University of Auckland. He received his tertiary education there, graduating with a PhD in Engineering Science, and developed theory and software for studying the stability of frameworks. Subsequently he worked for several years in the USA, in earthquake engineering and structural dynamics for the nuclear industry.

Barry also has his own company, CompuSoft Engineering, which specialises in earthquake risk evaluations of buildings, and structural dynamics. His areas of interest include the interaction of structures with soils and fluids, structural dynamics and vibration control, stress analysis, and probabilistic design. He has been involved in the seismic design of various prominent structures, including highrise buildings in Auckland and Wellington.

He is an active member of the New Zealand Society of Earthquake Engineers, serving on various committees, and is the current president of the New Zealand Structural Engineering Society. He has more than 60 technical papers to his credit.



Ian Mills FIPENZ has been responsible for managing many successful contracts/projects in his 40-year project management career. His qualifications include BE (Civil) and Graduate Certificate in HR Development. His professional affiliations include membership of IPENZ, the Institution of Civil Engineers, the Arbitrators' and Mediators' Institute of NZ, and the Project Management Institute.

He has had leading roles in both construction and project management consulting organisations, so appreciates the success drivers from both a client and contractor perspective. He has specialised in managing not only 'normal' projects but particularly projects that are geographically spread, large, contractually or technically difficult, or in trouble, or where security and confidentiality are vital.

Ian is an experienced facilitator of workshops for value management, partnering, risk management and strategic management. He is the management representative on the Board.



Dr Murray Milner FIPENZ is Chief Technology Officer with Telecom New Zealand, and his role is to provide expert advice to senior executives on critical technology developments.

In his previous position as General Manager, Development, Murray was responsible for developing innovative telecommunication solutions to meet business imperatives.

Earlier roles involved the planning and implementation of network capabilities and support facilities. In Fundamental Planning he was involved in determining a business direction for Telecom.

From 1996 to 2000 Murray chaired the Board for Telecom's joint venture (with NEC and Scollay Holdings) software company. He had been a director for four years.

Before joining Telecom, Murray worked for the NZ Post Office in the area of satellite and submarine cable development.

Murray has represented his profession in various public forums concerned with Public Good Science funding and the Information Technology Advisory Group. He has also given presentations to audiences including government, investment analysts, technical forums, conferences and standards bodies on telecommunications technology.

Murray completed his BE in 1975 and his PhD in 1980 at Canterbury University. He received the Confederation of British Industries award (completed at Marconi, UK 1982/83) and a Harkness fellowship to study at the Dept of Engineering & Public Policy, Carnegie-Mellon University, Pittsburgh and at the Communication Satellite Planning Centre, Stanford University, California, in 1986–88.

Murray's interests include his family, amateur radio, carpentry and current affairs. He is also an active member of the Rotary Club of Wellington. Sporting interests include walking, swimming, golf and motor sport.



Richard Gibbons BSc (Hons), Dip BA, FIEE, FIPENZ, AFNZIM is currently the Managing Director of Gibbons Consulting Ltd, a provider of consultancy services at management level to power and other network industries. He has had more than 30 years' experience in the electrical supply industry, much of that time in senior management positions. Recent experience has also included the gas, water and wastewater industries.

Recent projects have seen Richard helping network organisations meet the challenges of a changing environment. He has been involved in benchmarking, restructuring, training, strategic planning and reviewing for utility businesses, and in reviewing the educational requirements of the electrical supply industry.

Richard has been a director of Transfield Utility Services and the Electrical Supply Industry Training Organisation (ESITO). He is the immediate past President of the Electricity Engineers' Association of New Zealand Inc, and has served on several IPENZ and industry committees. He has presented some 30 papers on various engineering and management topics.

Richard's interests include cars and music, and he is involved with the Auckland Deaf Christian Fellowship for whom his wife Sandra is the chaplain.



Dr William Wakelin FIPENZ graduated BE (Chem) 1st Class Hons 1963 and ME (Chem) from the University of Canterbury, and DPhil (Eng Sc) from Oxford University, UK. He first worked for an international firm of consulting engineers and contractors in London from 1967 to 1972, then returned to New Zealand to take up the position of New Products Development Manager, Tasman Vaccine Laboratory. In 1976 he joined Morrison Cooper & Partners, Consulting Engineers and Architects, and became a partner in 1980. He held senior management positions in this firm and its successors until 1998, after which he has worked as an independent consultant.

His experience has been chiefly in developing new industrial processes particularly in wastewater treatment and solids disposal, and in the design of industrial facilities for the food, pharmaceutical, general chemical and water and wastewater industries. This work has included overseas assignments in India, Australia, Indonesia, Hong Kong and the Pacific Islands. He received a Silver Award of Merit from the Association of Consulting Engineers New Zealand for the development of a physico-chemical process for treating meat industry waste, and using recovered solids as an animal feed supplement.

He has held various roles in ACENZ, IPENZ and as a director of CEAS, and has for many years been an Accreditor for IChemE, IPENZ and the New Zealand Universities Academic Audit Unit. As well as assessing University degree courses in NZ, he was involved in the accreditation of Tomsk Polytechnic University in Siberia for the Global Alliance for Transnational Education. 

Tongan Engineering Student Graduates With PhD

Engineering student Chris Southern was one of the first Tongan students to graduate with a PhD from The University of Auckland's Faculty of Engineering. Only a small minority of Pacific Island students choose to study engineering.




After receiving his Bachelor's degree in Chemical and Materials Engineering, Chris undertook a PhD project to find a method of lowering the fat content in potato chips by decreasing the cooking time. The project was sponsored by Bluebird Foods throughout its three-and-a-half-year duration.

Chris says he was attracted to Chemical and Materials Engineering because of its excellent career prospects.

"I was good at chemistry and other sciences at school and one of my teachers suggested engineering as a career. She was a teacher who always pushed me to do my best and so I really respected her advice. Now I'm really glad I listened to her!"

During his final undergraduate year, Chris was president of the South Pacific Island Engineering Students Association (SPIES). The Faculty of Engineering started SPIES in 1993 as a positive initiative designed to enhance Maori and Pacific Island access, participation and achievement within the Faculty.

Chris says that acting as a mentor through SPIES enabled him to form strong bonds with other Pacific Island engineering students during his studies.

Chris grew up in Auckland and attended St Peter's College. He now lives in Otahuhu and is working as a technical services engineer at Castrol Specialised Industrial. 

Movers & Shakers



Appointed – Craig Holmes

Craig Holmes has been appointed as Advancement Manager for the Faculty of Engineering at the University of Auckland. His role will include the development of strategic partnerships, and event management.

Mr Holmes holds a Bachelor of Engineering Science from the University of Western Ontario. He worked in senior engineering roles in Canada before emigrating to New Zealand in

1990. Since then he has held senior management positions in engineering and strategic development at Clear Communications and TelstraSaturn.



Honoured – Professor Bruce Melville FIPENZ

A leading academic who has breathed new life into a Faculty of Engineering Department has been granted the Chair in Civil Engineering by the University of Auckland.

Professor Bruce Melville, FIPENZ, Head of the Department of Civil and Environmental Engineering at the University of Auckland, was recently granted the prestigious honour, which

the University bestows to recognise academic and general achievement.

The Dean of Engineering, Professor Peter Brothers, said the Chair was a well-deserved recognition of Professor Melville's achievements.

"Bruce's accomplishments are not only in research, but also in teaching and leadership. Since he took up the position of Head of Department in 1999, the Department of Civil and Environmental Engineering has made considerable progress. Under his leadership, the Department has seen the establishment of an Advisory Board, a strategic re-branding and curriculum change, and the establishment of new Masters programmes. Bruce has really been a driving force behind the Department and we are pleased to recognise his outstanding achievements."

Professor Melville said he was delighted to be honoured with the Chair of Civil and Environmental Engineering. "I think the Department has been through some exciting changes already and I am relishing the challenge of taking it into the future", he said.

Professor Melville has taught Civil and Environmental Engineering at the University of Auckland since 1980. He graduated with a PhD in Civil Engineering from the University of Auckland in 1975 and spent five years as a consultant in New Zealand and overseas before returning to take up the position of senior lecturer at the university.

He has been involved in a number of international projects, including collaborative research with US universities. Since 1989 he has generated research grants and external funding exceeding \$1.5 million from a range of sources.

Professor Melville's particular area of expertise is in fluvial sediment transport. Projects he has been involved in include the design of flood alleviation measures for Opotiki, and hydraulic model studies of hydro-electric schemes, including the Tongariro and Mighty River Power schemes.

He co-authored a book on bridge scour, which is recognised as the authoritative text on the subject, and was a member of a multi-national team responsible for preparing a strategic plan for a \$US10 million expenditure by the Federal Highway Administration on bridge hydraulics research.

Professor Melville has also been Associate Editor of the Journal of Hydraulic Engineering since 1993. ☺

Initiative to Help Migrant Engineers

Concern that the skills of new migrant engineers are not being fully utilised by New Zealand employers, although there is said to be a skills shortage, has led to an initiative in the Auckland area aimed at helping them find suitable work.

IPENZ and Auckland Branch have developed a plan to help unemployed or under employed migrants, working in association with Engineers for Social Responsibility (ESR), the Centre for Continuing Education at the University of Auckland, and the Ministry of Social Development.

Acting Manager of the Northern Regional Office, John Blakeley, says that there has been growing concern about migrant engineers who have been unable to find work in the profession, despite impressive qualifications and overseas experience.

Three six-week evening training courses have been initiated, each comprising twenty migrant engineers. The first two have been completed and the third will commence in April.

Auckland Branch member Dr Kelvin Walls (newly elected to the IPENZ Board) says that the course aims to help migrant engineers find suitable professional positions in New Zealand, and to familiarise them with aspects of our engineering environment such as the Resource Management Act, the Building Act and Standards and Codes of Practice. The course also has an English in the Workplace component presented by staff of the Centre for Continuing Education at the University of Auckland. In the time available, only a brief introduction is possible, and what these engineers really need is work experience.

A work experience programme is being developed with funding from the Ministry of Social Development. Employers will be offered a choice of unemployed migrant engineers for up to three months' work experience. During this time the migrant engineer will continue to receive a benefit and there is no cost to the host company, which will also be able to access a grant of \$3,000 per work experience candidate to cover administration and supervision costs. Details of this programme are being circulated to engineering employers in the Auckland region.

John La Roche, President of ESR, has helped to co-ordinate the programme. Having dealt with the issues faced by migrant engineers for some years, John says he is delighted that IPENZ has shown a real commitment to helping them, and that the Ministry of Social Development is able to support this initiative.

For more details about the programme, please telephone Lesley Cutting at IPENZ Northern Regional Office on (09) 623-6087. ☺

Disaster Relief Assignment for NZ Engineer



Ram Bhattu of the Register of Engineers for Disaster Relief New Zealand (RedR NZ) has been appointed to a disaster relief assignment with UNHCR in Pakistan. This is Ram's second assignment since he became registered with RedR NZ. His previous job was with the Red

Cross in Gujarat. Any IPENZ member interested in registering with RedR NZ should contact Neil Mander neilman@clear.net.nz or see application details on the website: www.redrnz.org.nz ☺

Board Highlights

The IPENZ Board met immediately following the consultation forum with representatives of Branches and Technical Groups on 23 March, and again as the “new” Board on 26 March, following Convention.

The Board was pleased to have the President, Deputy President, and Chief Executive of IEAust and the President of HKIE present as guests. Key outcomes were as follows:

- The consultation forum was rated by participants from Branches and Technical Groups as the “best so far”. It led to the Board obtaining useful feedback for its strategic review.
- Improved membership retention over the last two

years (loss of 174 members in the last five months compared with 220 and 204 in the two previous years), whilst maintaining recruitment, has led to a small rise in paying membership this year.

- A significant rise in student membership was noted.
- A “charter” was approved to guide Board members and help them better fulfil their functions.
- Progress on development of new membership record system software, to be in place for the start of the next financial year, was updated.
- A proposal was approved to launch a publication replacing the *Transactions*, and Lindsay Robertson was appointed as editor; the objective is to provide a contemporary record of significant advances in NZ engineering knowledge and achievement, and reviews of the state of the art in engineering practice;

this will be a primarily web-based publication.

- Common strategic issues affecting Australia, Hong Kong and New Zealand were identified for joint action, particularly in the areas of engineer mobility and international affiliations.
- Further progress was made towards defining a style guide for IPENZ – Engineers New Zealand.
- The Fellowship, Distinguished Fellowship and Honorary Fellowship Panels were updated for the next annual rounds of peer review, and the success was noted of the present round of elections in raising the profile of these grades of membership.
- The principles by which the revised subscription system will be constructed to incorporate the effects of CPEng and provide fuller transparency regarding costs were approved. ☺

☺ Obituaries

Hugh Kenneth Aimer 1926 – 2002

Son of Ken Aimer, the architect of the Auckland War Memorial Museum, Hugh attended Auckland Grammar School, where he was a prefect and obtained a University Scholarship.

He studied engineering, first at the Auckland campus of the then New Zealand University College. He completed his first degree in Christchurch, where the new specialisation in electrical engineering was taught.

After graduating BE he travelled to England where he worked for the Newcastle cable manufacturer Reyrolle & Company, and travelled widely. In 1950 he returned to New Zealand to work in Transpower and ECNZ's predecessor the State Hydro-Electric Department. In 1952 he joined the Wellington MED (Municipal Electricity Department).

He added a Bachelor of Commerce, this time from Victoria University of Wellington, to his engineering qualification and qualified as a Chartered Engineer and a Registered Engineer. He was a Member of the UK Institution Of Electrical Engineers.

He had a successful private-sector career in the 1960s and 70s, during which time he founded the consulting engineering export association, ENEX. He was recruited from the top job at MotorSpecs to head the Auckland Regional Authority in the days when it was responsible for the airport, utilities, public transport and the Regional Parks, as well as planning and Civil Defence. He retired from this role in his mid-50s.

He was active in aviation circles for many years, co-founding the gliding club in Wellington, and undertaking commercial flying and instructing. He was also involved in yachting throughout his life, a long-time member of the Royal Port Nicholson Yacht Club, the Akarana and Richmond clubs, and the Royal New Zealand Yacht Squadron. His various boats were regular and often successful starters in Auckland's harbour races.

Hugh married Joan in 1955, and they had daughters Jane, Margaret and Anne, and son Simon.

On retirement from business he became even more active in the community, as willing handyman to the local kindergartens of his ten grandchildren, and for a time on the Auckland Cathedral project. He remained a keen yachtsman until the end, helming his Farr 9.2, *Hot Gossip*, to finish second in the Round-Waiheke Race.

Vernon George Coleman FIPENZ (Retd) 1912 – 2002

Vern Coleman BSc, MICE, MI Struct. E, FIPENZ was almost ninety when he died, and his retirement from professional engineering had been as long as many a career. He was born in 1912 in Tonga while his parents were posted there. At the outbreak of World War 1 the family returned to New Zealand.

Vern topped his class at Seddon Technical College, then completed BSc in mathematics and applied mathematics in just four years of part-time study at Auckland University. Qualifications in engineering – MIE (Struct. E) and AMICE – followed, though his BE studies remained incomplete because of World War 2.

Vern was responsible for the structural engineering design for the tallest building in New Zealand at the time, the steel-framed Auckland City Administration Building (opened 1966). He was involved with many landmark Auckland buildings including the award-winning Parnell Baths and Nelson Street Workshops, the Tepid Baths, the Auckland Public library, several parking buildings and the Purewa Crematorium.

Vern was an active Member of IPENZ from 1939, and was elected a Fellow in 1963 in recognition of his work on the earthquake and structural design of steel-framed buildings. In the 1960s he was a guest lecturer in earthquake engineering at the Auckland University School of Engineering.

Vern retired in 1972 after 44 years with Auckland City Council, interrupted by service in World War 2 with the NZ army engineers. To the young graduates of the time, he was “No Sweat Vern”, a term of respect and endearment although it was not used to his face.

Vern was a competent jazz pianist, singer, and player of the mandolin and the ukelele. He performed with the Auckland Light Opera Club in the 40s and 50s, taking roles in many shows, including the lead in *HMS Pinafore*.

Vern sailed in 18-foot mullet boats out of Auckland in the early 1930s. His first boat was wrecked off Waiheke, with the loss of the mandolin and almost everything else. When he wasn't sailing Vern tramped and skied, climbing Mt Ruapehu to see the 1945 eruption with almost fatal consequences.

Vern is survived by Pat, to whom he was married for 58 years, and their children, Bruce, Christine, and Clive. ☺

Membership Changes

The following is the full list of additions to and changes in the classes of membership for the period 1 October 2001 – 31 March 2002.

Elected to Graduate

M B Abi Nakad, V F Ahmed, A M Akbar, F P Arconado, M Arunachalam, C P Bacon, C J Baker, L M Balajadia, R Barnard, A G Bell, B Bell, H M Blake-Manson, DBB Bowen, T J Brook, R W Brown, L-B Bura, G A Cadness, N M Calvert, D J Campbell, P B Charles, S Chia, S R Chinni, T H Chung, G A Clark, T J Conder, F C Conning, B H Cooper, G C Cossey, C S D'Arth, A D Datt, S T De Almeida, LHS De Silva, WEH Dowling, K G Drinkrow, J T Dyer, CWE Eddy, L Edwin, RM English, S Farjo, B J Fournier, RK Fuller, S J Gardiner, S M Goodhue, A J M Grace, A W Gray, P R Gray, B W Grey, C P Haas, T W Halligan, C E Harris, P J Hayes, F Hdaid, E R Hebner, M J Heiler, C Y Heung, B P Hickey, T W Hook, D M Hovell, T-C Huang, L C Isidro, R C Jennings, S S Jirjis, N E Jolly, G J Kaithakkottil, K S Kamboj, J M Keen, D F Kenny, R Kestermann, A Khan, R B Kingsford, P Konijn, S M Kreegher, H D Kukde, A Kumar, D Kuok, Z Lai, M P Larsen, C C Lau, N K Law, E C Y Lee, T M Leslie, K R Lewis, K J Ling, L J W Linton, D E Londer, I A Lone, L Lunevich, D M McGuigan, T E McGuigan, K Machen, R J McKinnon, C E McPhee, B P Maguire, S R Maiden, G N Melvin, H M Meyer, R N Miles, P

M Minchin, A P Moller, S J Morgan, Z M Muhsin, J B Mumford, N Newham, B M O'Brien, F J O'Riley, C A O'Sullivan, OKM Padmasiri, BAT Pereira, J F Pickering, A Prasad, V S Prasad, M Pratt, J Pruwitan, S Z Qureshi, CNA Reeves, C Rengaiah, M M Robinson, E S Rowe, E J Samson, R B Savant, S A Scard, B K Scott, D D Sharma, J A Smith, R T So-Beer, K Soliman, D K Southon, M L Spillane, JCR Spinks, A G Stevenson, D L Stewart, AKG Tan, W R Te, S B Temple, R C Thompson, R Tinholt, V G Toy, J P J Turnbull, S B Tyrell, G van de Vorstenbosch, A Wakem, P O Walker, A G Ward, J L White, H W Wick, K A Wilkinson, N M Williams, S P Withanage, TLA Yang, T J Younger

Promoted from Graduate to Member

A R Amputch, N E Barrett, P R Boys, J K Burden, KRM Coleman, D R Coutts, N Croft, J G Cunningham, G K Doherty, C C Dunlop, L J Eckard, J E Gardner, M D Gerrand, N J C Gluyas, J M Greenwood, B L Hall, C J Hargreaves, D A Heiler, L Henderson, J J Irving, S P Kamo, K E Kidson, P F Kinley, G D Larcombe, T D McLeod, B W Manning, V Marotta, P J Marshall, I R Matthew, J F Miller, J R Natusch, R J Nicholson, J H K Ning, W J Noell, P J Quinn, GCS Rodger, C J Smythe, M R Treadgold, H J Visser, S Ward, R W Wilkinson, S M Winterbourn, M C Young

Elected to Member

RFA Beardsley, R S Blyth, P D Brown, R F de Roo, A J Fussell, A R Harvey, R J Kight, B A Lavers, WSL Lee, N A McCann, M G Mahoney, A B Mitchley, K A Morris, J J Mouton, N R Nancekivell, S J Page, K D Patrick, GAD Punchihewa, V S Sajnovic, PGA Thomas, IAD van Blerk, W J Weber, G J Wright

Elected to Engineering Associate

I W Jennings

Elected to Engineering Technologist

J D Skidmore

Promoted from Engineering Associate to Member

S W Young

Promoted from Engineering Technologist to Member

H A-S Abdul-Rassol, A S Ovanessoff, R J Porter,

Promoted from Engineering Associate to Engineering Technologist

S R Griffin, A W Geerkens, V R Fouche, D V Sharp, JDM Ward

Elected to Affiliate

R Azmat, H R Cameron, A J Clarke, L Clement, R Clement, C H Jenkins, M J Lewis, I S Maddox, A L Mendonca, S R Naidu, R J Snoep, J G Sim, K W Trask, S L Williamson

IPENZ Forms Charitable Trust

IPENZ has formed the IPENZ Foundation, which has been accepted by the Inland Revenue Department as a taxation-exempt charitable trust, so that donations will be claimable against tax. The resulting tax-exempt funding stream will be directed towards IPENZ's broader public-good activities, currently mostly funded through subscriptions. The Foundation's objectives are to:

- educate NZers on the role of technology and engineering in sustainable economic, environmental and social development
 - encourage NZ school leavers into tertiary education in engineering and technology
 - educate NZers on engineering and technological achievements as part of their national heritage
 - further the development and application of scientific knowledge for the public good
 - help Members in NZ suffering from hardship due to sickness, disability or incapacity, towards rehabilitation
 - relieve poverty among Members or their dependents arising from age, sickness, disability or incapacity or death of the Member concerned
- The Foundation's trustees, appointed by the IPENZ Board, are Tony Gibson (Chair), Warwick Bishop, Carolyn Thomas-Lewis, Steve Gentry, Brian Cashin and Bill Foster. 



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