

Chairman's Message – December 2008

The Trustees of the Foundation are changed to keep within the term allowed under the Deed and this November we farewell Steve Gentry DistFIPENZ and welcome Peter Browne FIPENZ. Peter was involved with the Benevolent Society and will give some continuity in that area and we look forward to his contribution to the wider aims of the Foundation.

Steve Gentry has helped the Foundation find its way, having been a founding Trustee. Besides his normal inputs he has found time to stimulate and re-organise the journalism award at the New Zealand Engineering Excellence Awards and to manage the publication of a Foundation run-on of the William Pickering biography. Thanks for your help and input Steve. We wish you well in your other pursuits.

Thanks to those who have donated to the Foundation. The growth of funds allows us to continue to expand our role in promoting the engineering profession and helping those in need.

Specific areas of the Foundation's work are:

- **Profile:** The IPENZ Foundation will be a partner in the New Zealand Engineering Excellence Awards to be presented in November. The Foundation is sponsoring the awards for the William Pickering Engineering Leadership Medal and the New Zealand Engineering Journalist of the Year.
- **Careers:** IPENZ Foundation scholarships are again being promoted with the aim to encourage secondary school students in years 12 and 13 to choose careers in professional engineering. These scholarships have attracted very good applicants and are a good focal point for promotion of engineering at secondary school level.
- **Rehabilitation:** We were able to help one engineer with his personal mobility and that has enabled an improved quality of life for the individual.



- **Pickering book:** The William Pickering biography arrived and was distributed to all school, university, public and community libraries throughout New Zealand. Many letters have been received acknowledging the usefulness of the book.

Working alongside IPENZ, the Foundation has an independent impact in which all IPENZ Members can participate. With your help and donations, the Foundation will continue to build on and advance the work of growing the engineering profession.

John Cunningham FIPENZ
Chairman – IPENZ Foundation

Do you have ideas for projects or speakers we could consider which promote engineering as a profession?

Please contact our Executive Officer – see contact details on page four.

IPENZ Foundation Donates Pickering Biography



This year the IPENZ Foundation managed the publication of a special run-off and then imported one thousand copies of a book entitled *William H Pickering – America's Deep Space Pioneer* – a biography that honours the life and work of New Zealand-born space trailblazer, Sir William Pickering.

The Foundation donated 767 copies of the biography to secondary school and tertiary institution libraries as well as to public and community libraries around New Zealand. IPENZ Members are encouraged to ask after the biography when they visit their local library to help publicise the donation, gain exposure for the book and to raise awareness of Sir William's contribution to engineering innovation.

The 268-page book is published by NASA, and is written by Douglas Mudgway, a fellow New Zealander, friend and colleague who worked alongside Sir William for nearly 30 years during his time at the Jet Propulsion Laboratory (JPL). Mr Mudgway also draws on personal accounts and interviews conducted prior to Sir William's death in 2004.

William Hayward Pickering was born in Wellington, New Zealand on Christmas Eve in 1910, but pursued his higher education at the California Institute of Technology. The young William received a doctorate in physics from Caltech and became a professor of electrical engineering with the same institution.

Donation Thanks

"This resource will be placed in the College Library and will be a valuable source of information on one of our exceptional New Zealanders. Hopefully this will encourage our science students to enter fields of engineering and technology as a tertiary option."
– Champion College

"I would like to thank the IPENZ Foundation for the copy of William H Pickering America's Deep Space Pioneer generously donated to the school library. On such a restricted budget, it is only through gestures

During World War II, he worked part-time on rocket electronics and guidance systems at the newly established JPL, but he rose quickly and by 1954 he had become director of the growing organisation.

In the wake of Sputnik's success in 1957, JPL turned its focus to space exploration, and Sir William won major accolades when he oversaw construction of Explorer 1, the spacecraft that carried Van Allen's instruments and was launched by von Braun's rocket. The success would see JPL transfer to NASA control shortly after the space agency's inception, and Sir William's team engineering spacecraft to explore the reaches of the solar system. He remained in charge of JPL throughout the 1960s and early 1970s, and was behind the Ranger and Surveyor lunar probes and the Mariner missions to Venus and Mars.

Sir William became a leading expert on innovative space engineering and spoke frequently throughout the United States and the world on the importance of space exploration. He was also a skilled manager and public speaker who helped communicate the importance of space flight to the general public.

like yours that we are able to maintain a high standard of books available in the school and we appreciate your support." – Westland High School

"Students will enjoy research projects using this valuable wealth of information. It will also be a valuable tool for students investigating future pathways. Thank you to the IPENZ Foundation and the sponsors involved in its donation to so many secondary schools and libraries." – Hamilton Boys High School

Big Red Rooster and the Land Rover



Earlier this year the IPENZ Foundation eased the way for Dave Kettell FIPENZ CPEng with a \$3,000 grant for mobility aids. The grant helped Dave buy a walking frame, affectionately nicknamed “the land rover”, and “big red rooster”, a mobility scooter.

After developing Parkinson’s disease, Dave took early retirement from Opus International Consultants in Wellington, where he was Principal Environmental Engineer.

Since his retirement, he has had both knees replaced with artificial joints, one of his artificial knees replaced, and an operation for cervical stenosis. Then, in February 2008, he suffered a heart attack and subsequently had two stents placed in his coronary arteries. He’s now unable to drive a car.

Dave continued to contribute his expertise to IPENZ after he retired by serving on ethics committees. While discussing ethics matters with Charles Willmot, IPENZ Director – Engineering, Dave mentioned he was aware that one of the Foundation’s functions is to provide financial support to IPENZ Members in situations of need. Charles suggested that Dave contact the Foundation’s Executive Officer, Susie McCutcheon, who put his case forward to the Foundation Trustees.

Dave now uses big red rooster to get out and about in his local area, without relying on his wife. The scooter’s top speed is 12 kilometres per hour, and it can go for 50 kilometres before needing a recharge. The land rover, which fits into Dave’s car, supports him when walking and allows him to sit down and take a break, thanks to the built-in seat and locking brakes.

During his career Dave has notched up more than 35 years of experience in civil, public health and environmental engineering. After qualifying in the United Kingdom, he worked in Canada for five years before travelling to New Zealand. His work experience comprises environmental engineering projects in New Zealand and South East Asia, including a two-year aid project in Thailand and water supply projects in Laos. Another career highlight has been his involvement in

the Clearwater Wellington wastewater project, which won the 1999 IPENZ Environmental Award.

Dave served as a member, regional representative and board member of the New Zealand Water and Wastes Association, and contributed a number of technical papers. He has also pursued interests in institutional and government policy, and strategic development.

The support of Members and their families is an essential part of the function of the IPENZ Foundation. There are two objectives under which this support can fall:

- To assist, in New Zealand, Members suffering hardship due to physical or mental sickness, disability or incapacity to participate in education or rehabilitation programmes that enable them to resume a career.
- To promote the relief of poverty, in New Zealand, among Members or their dependents arising from age, physical or mental sickness, disability or incapacity or death of the Member concerned.

The Trustees discharge this function by making grants in response to approaches for assistance from Members or their families. Inquiries or requests should be addressed to the Foundation’s Executive Officer, Susie McCutcheon. All inquiries or requests for assistance will be treated in complete confidence.

Contact details are:

Executive Officer
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PO Box 12241
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(04) 473 2029
foundation@ipenz.org.nz

Read All About It!

Limited number of copies of a rather special book are available...

The IPENZ Foundation recently distributed hundreds of copies of the recent NASA publication on the life of New Zealand engineer, Sir William Pickering, to secondary schools and public libraries throughout the country.

Written by another kiwi, Douglas Mudgway, and titled *William H. Pickering – America's Deep Space Pioneer* this interesting book outlines the fascinating life of one of New Zealand's most famous engineers.

Sir William led the unmanned space programme at the Jet Propulsion Laboratory in Pasadena, USA for more than two decades from the mid-1950's, inspiring two generations of scientists and engineers, thus ensuring America's ongoing success in exploring the planets.

The Foundation has retained a limited number of copies of the biography for circulation to IPENZ Members. Copies of this significant work will be given (on a first-come first-served basis) to anyone making a tax-deductible donation of \$100 or more to the IPENZ Foundation. If you would like to secure your own copy of the biography, please send your donation of \$100 or more, including your delivery details to the address below and a copy will be couriered to you.

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