futureintech enews for industry

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# Cadetships: Back to the Future

Cadetship programmes are becoming an increasingly viable recruitment strategy to answer the shortages of qualified staff in New Zealand industry.

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Industries throughout New Zealand are having to be creative to cope with the ongoing shortfall of qualified technicians and appropriately trained and experienced technology, engineering and science graduates.

Many companies have decided to be more proactive in their recruitment strategies by establishing cadetship programmes, which help to sponsor the education of technicians while providing on-the-job training.

A technician needs a good mix of academic and practical skills. Cadetship programmes can develop both, with skills not taught in the classroom gained on-site from experienced professionals.

Cadetship programmes have advantages for both cadets and their employers.

Cadets receive the financial support they need for the tertiary education and training they need to join the workforce, while at the same time gain work experience and learn skills directly relevant to their chosen vocation.

Cadet sponsors enjoy a cost-effective solution to their entry-level recruitment problems. They can ensure that graduates have the knowledge and skill base required for their particular industry needs. While completing their education, cadets are often employed in lower-level technical work, freeing up experienced staff to focus on higher-level tasks.

A few examples from the engineering industry could serve as models for others.

As in many other industries, recruitment of engineering technicians is particularly difficult in rural areas and the country's smaller provincial centres. Sarah Dowling completed her cadetship with Opus International Consultants in Southland. She is now employed by the Southland District

Council and is taking a leading role with the council's recycling strategy. Opus plans to employ two cadets in Southland next year, and see the value of the programme in enabling them to recruit locally from a pool of suitably skilled and keen candidates. Nationwide, the company recruited 55 cadets at the beginning of 2006 in addition to a substantial 2005 intake.

Another Southland engineering technician Karen Ladbrook, who completed a cadetship with Southland District Council a few years ago which enabled her to stay in Southland while acquiring a qualification with national and international credibility. She valued the benefit of learning on the job and not having to have a large student loan.

Cadets normally enrol with the New Zealand Institute of Highway Technology and complete a Diploma of Civil Engineering in two or three block courses per semester. When not studying, cadets work on-site on a wide variety of projects exposing them to a range of experiences as they learn new skills.

Futureintech's next Fact File will be a guide to the advantages and opportunities created through Cadetship programmes.

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*tel 04 473 2023*
*fax 04 474 8933*
*enquiries@futureintech.org.nz*
*www.futureintech.org.nz*

*Futureintech is an initiative of The Institution of Professional Engineers New Zealand Inc*
*158 The Terrace, PO Box 12 241, Wellington, New Zealand*

# Supporting technology education

How good is your understanding of the New Zealand technology curriculum? Do you know what skills technology students have when they reach the workforce? What are the technologists of tomorrow learning today?

It is important for those in industry to understand what technology education is and what skills students are gaining from studying technology. It is vital industry supports and endorses technology education as it nurtures the technologists of the future.

The importance of technology to all New Zealanders was acknowledged with the introduction of a Year 1-13 curriculum in Technology in 1995. In June 2006, Technology was added to the 'approved subjects' list for university entrance in recognition of the academic strength of the new subject at senior levels in schools, it's increasing importance in society and the fact that technology is a growing focus of university study.

Industry involvement in technology education provides students with insights into real-world applications of what they're studying and opens their eyes to career opportunities. A number of initiatives aim to help industry become involved. Futureintech plays an important role by recruiting industry experts or "Ambassadors" to speak in schools and support classroom progress.

Another way to get involved is through the Techlink programme. Techlink researches and develops case studies on technological practice for use in classroom learning. These case studies tell industry stories from outset to completion and detail setbacks, solutions, and discoveries.

For examples of Techlink case studies, see www.techlink.org.nz/case-studies/Technological-practice.

The Techlink team welcomes input from companies, big or small. If you are keen to support student learning by sharing your technological experiences and insights, please email communications@techlink.org.nz

## WHAT DO AMBASSADORS GET OUT OF FUTUREINTECH?

**ANDREW RICHARDSON**
**Product Development Engineer**
**Fisher and Paykel Auckland**

**Andrew has been working with Edgewater College advising students and mentoring Year 13 student Emma Minter.**

"When I first signed up with Futureintech I thought I really didn't have anything to offer. I wasn't an A grade type of person and I hadn't achieved anything I'd consider wonderful, but as I got into it I could see the value that I was adding to these students.

"The work with Emma at Edgewater is great. She's very intelligent and focused on achieving her goals. It isn't hard work, its more fun than anything."

"Working at the Garden School showed me that the effort put in is directly related to the rewards I get from it. I spent quite a bit of time creating the presentation and getting all the bits and pieces together and really put a lot of thought into how I should do it. I got advice here and there from people along the way and the end result was a class I enjoyed teaching.

"The class stayed interested and I was smiling all the way back to the office with the thought that my enthusiasm might have rubbed off onto the kids."

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## WHAT DO AMBASSADORS GET OUT OF FUTUREINTECH? (continued)

**ELEANOR MARKS**
**Chemical Engineer**
**Beca Engineering, Auckland**

Eleanor is involved in a Transpower Neighbourhood Engineers Awards project; helping 10 students at Elm Park School make their garden more interesting. The students have decided that they would like to build a fountain outside their International Office, and Eleanor is their engineering advisor.

"I work with the kids to help them with the technical solutions to their problems. They have heaps of ideas about the kind of fountain they want but sometimes they have technical questions that they can't answer. That's where I come in; I help them find out about pumps or the kind of materials they should use so that their fountain will last.

"I really enjoy the work, it's a great break from normal engineering and the kids constantly impress me with their creativity. They don't need to be told to think outside the square, they just seem to think that way anyway.

"Beca AMEC has been very generous and allowed me time to visit the school and work on the questions the kids have for me. I can fit the visits in around my normal work load quite easily.

"I would definitely recommend this program to other engineers as I think it's a very rewarding way to spend some of your time."


**CRAIG BROWN**
**Transmission Specialist**
**Meridian Energy, Christchurch**

Craig has been working with senior science students at Unlimited Paenga. He was a mentor to one senior student who was having difficulties with her science project, an interface between new hardware for arcade game controls.

"I enjoy engineering and Futureintech allows me to tell others about what I do and let them know why they should consider engineering as a career."

"I like to help others, being an Ambassador for Futureintech provides opportunities to help people with my engineering skills and knowledge. Speaking to new groups of people outside my work has really helped me to build confidence. This in turn is helping me improve my people skills which is very important for me and my career."

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# Futureintechnews

## HON TREVOR MALLARD'S VISIT

Hon Trevor Mallard, Minister of Economic Development, visited Tawa school on 9 August to see Futureintech Ambassadors in action first-hand. Mr Mallard spent a morning watching Ambassadors Megan Angell, of Traffic Design Group, and Henry Tatham of Beca support numeracy and mechanics classes. Also in attendance was the local electorate MP and Associate Minister for Economic Development, Winnie Laban.

Mr Mallard took a question-and-answer session on the project with senior teachers and Futureintech staff at the conclusion of the presentations. Feedback from Deputy Principal Neil Sargisson was particularly positive, saying that he had received nothing but compliments from his colleagues for Futureintech and the Ambassadors. He praised the programme for giving students a valuable chance to link what they are learning in the classroom to the real world.

## KIDS CONFERENCE

Wellington's annual Kid's Conference helps inform students about their career options. Now in its fifth year, the conference is a joint venture between Victoria University, Raumati South School and the business community. Running simultaneously at multiple venues, the conference consists of over 200 workshops featuring presentations from a wide range of experts.

Children worked with experts in a variety of workshops that covered a wide range of topics from designing buildings, drawing cartoons, robotics, making a business plan and accelerated learning, just to name a few.

Parents and teachers were welcome to attend the workshops but were asked not to participate in the group work so that the children could learn teamworking skills with each other.

The conference was an enormous success with over 300 children attending this year.

*Below: Chris Chitty, Robotechnology animatronics expert and creator of Ma the robotic sheep in the movie Babe, at the Kids Conference*

## FUTUREINTECH EXPANDS

Futureintech has just signed on a new facilitator to work in the Auckland region. Rod Hare is a science teacher from Orewa College and has experience teaching at both the primary and secondary school level. Rod's background in science is a valuable asset and Futureintech intends to make the most of his skills. Rod started in August and is working closely with Facilitators Angela Hart and Gay Watson to meet the increasing demand for Futureintech Ambassadors in Auckland schools.

## WWW.FUTUREINTECH.ORG.NZ

Futureintech's website contains a wealth of information for students, parents, teachers and careers advisors. It has profiles of young people working in technology, engineering and science, and the companies they work for.

Our Employer Profiles pages, at www.futureintech.org.nz/employers.cfm, profile companies under headings such as: Company Background; Company Achievements; Staff profile; Hiring staff; Work style; Future opportunities; and Advice to career seekers.

To discuss having your company profiled on these pages, contact Sam Sheppard, email ssheppard@futureintech.org.nz.

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