

Engineer Your Career

Information from Industry for Student Engineers

Issue 215



Thomas McKee, BE BCOM

After completion of my bachelor of engineering degree from the University of Auckland in 2014 I promptly joined Fulton Hogan. I already knew that I wanted to get involved in the contracting side of engineering and when the opportunity came to join one of New Zealand's largest and most renowned contractors I jumped at the opportunity. Fulton Hogan is split into many regions and departments and I was placed within the Auckland construction team where I would become a member of the Albany Highway upgrade project.

Albany Highway at the time of joining Fulton Hogan was in its initial phases of construction and site setup. I therefore had the fantastic opportunity to be involved in a multidisciplinary project encompassing almost all aspects of Fulton Hogan's expertise. From here I was placed on the services team as an engineer. The best thing about services is how challenging and complex it can be. One of my first jobs as a services engineer was the

undergrounding of overhead power lines and phone cables; this involved a 1000m meter length of lines carrying 33kV, 11kV and 400V cables and the installation of new transformers and switch gear. I was surprised by the vast extent of work that is required for the line undergrounding and gained an appreciation for the amount of work that is completed underground and out of sight. As a services engineer I also was involved in the relocation or upgrade to communication, gas, water and power networks. I found this work to be a fantastic balance between the outdoor and indoor aspects of engineering involving design, construction, quality assurance and liaison with service representatives.

Throughout my time on the Albany Highway upgrade project I was exposed to many more aspects of highway construction than my job title of services engineer. Service relocation tends to be one of the first phases to start on a construction job, therefore as the job progressed I was able to be involved in the



installation of street lights, footpath and cycle path construction, the installation of traffic lights and the preparation of road pavement.

Fulton Hogan has been a fantastic company with regards to early career progression as I have been given the opportunity to show my worth with a surprising amount of responsibility and support. Within half a year I was given the chance to run several different crews, create programmes for completion of works and oversee the performance of critical sections within a major project. The assistance available whether it is task specific technical support or any other degree of support has allowed me to build up a very quick understanding of the construction engineering discipline. With Fulton Hogan I have clear understanding of where my current career path is heading and the opportunities that I can strive for. This is promoted through the in house structured development programme and mentor system; an accelerated gateway to IPENZ accreditation and management roles.

The Fulton Hogan family is a fundamental aspect with regards to its success, the cohesive working relationship between the many departments and its people has placed the company in a strong and exciting industry foothold for the future. The people create a positive and every changing work environment. No two days are the same. I can honestly say that I am happy to go to work every day and proud to say that I work at Fulton Hogan.

Sharon Parackal

Engineer Your Career



How did you get the job at T+T?

I applied online for the Graduate Programme in my final year of Civil Engineering at the University of Auckland. As a result, I had an interview at the head office in Auckland and expressed my interest in developing practical experience in both Geotechnical and Environmental Engineering.

T+T were very supportive and had a role available in the Wellington office which would give me varied experience, covering both geotechnical and environmental aspects. I agreed to a second stage interview in Wellington and a couple weeks later I was offered the job!

What do you actually do?

Initially, I started out doing anything and everything! I developed experience in contaminated land, landfill inspections, water quality assessments, seawalls, erosion and sediment control, EQC, geotechnical investigations, and construction monitoring, just to name a few!

Over time, my interest in water quality developed, and today I am involved with assessing stormwater quality from subdivisions, industrial sites, quarries and landfills. I also liaise with clients, contractors and councils to minimise and mitigate adverse effects to the environment.

How has T+T supported your career?

At T+T there is a big emphasis on taking ownership of your personal development; you only get out what you put in. Combine this with a bunch of fantastic colleagues, supportive senior staff, a work hard and play hard culture, and it's a great environment for a young engineer to feel valued and to make a positive contribution to society.

What's the best thing about working for T+T?

From day one T+T offered me what I was looking for in terms of my career; variety, challenges and an expectation to succeed. My week can go from being in the office, to spending a day out at a nearby site, to flying out to another town to undertake an investigation. It's exciting, stimulating and challenging! While it can feel I'm in the deep end at times, someone is always there and willing to throw me a life ring. The expectation to succeed is fantastically balanced by trust and support from senior staff, making it a great place to learn, make mistakes, learn from those mistakes, and develop technical and interpersonal skills.

What advice do you have for current students?

The fact that you are in the middle of an engineering degree probably means you are smart! But also develop those practical skills; in the civil engineering industry it is not about that four page differential equation you can do without a computer, but how you approximate it into a one line equation. Outside of technical knowledge, your engineering degree will also show future employers that you are teachable, you are persistent, and that you can cram a lot of knowledge in a very (sometimes very very!) short period of time. Take this with you into your future career, don't be afraid to learn, be open to new experiences, make mistakes, and keep on learning!



Exceptional thinking together
www.careers.tonkin.co.nz

DOWNER YOUR FUTURE



We offer a comprehensive graduate programme, hands-on summer work experience and a selection of scholarships that will help you acquire the experience you need to succeed in engineering.

The Downer Graduate Programme is three years in duration and we work to bring Washington Accord degree-level engineers into Downer to develop their skills and become our future leaders. You can expect:

Rotations through the business

We aim to develop well rounded, highly skilled professionals by exposing you to the wider business before you specialise in one area.

Dedicated mentor programme

Downer has an established network of mentors across the country. As a graduate who joins Downer, your Manager will identify and engage an experienced colleague who has time to meet with you on a regular basis.

Young Professionals Conference

Every year we invite graduates to participate in the Young Professionals Conference. This event incorporates professional development, team building, networking and technical updates.

Professional Development

We run Professional Development Forums to provide support and guidance and keep your professional accreditation on track. Downer will pay your IPENZ Graduate membership and our senior engineers are on hand to provide direction and feedback as you develop your portfolio of evidence.

OWN YOUR SUMMER

THEO HOFFMAN (Summer Intern 2014/15) Graduate Engineer, Auckland University Alumni

Theo spent his last university summer working for Downer in Hobsonville on the Launch Road project. This was a \$6.5 million dollar project consisting of an 800m long concrete road with a 40m gabion basket retaining wall.

"Everyday onsite is different. Some days you could be doing testing and other days are in the site office writing up health and safety plans. I got a great sense of satisfaction in the work I was doing. I really enjoyed the comradery of the site management team and in challenging times we would always help one another out."



My advice is don't be afraid to back yourself if you are confident in what you are doing. At the same time, ask for help if you need it. Asking questions to the Project Manager and crew is one of the best ways to learn onsite and show that you are critically thinking about the work.

Theo Hoffman



Further details about our application process, key dates and opportunities to meet with us are on our website and social media feeds.

**All opportunities are advertised at
www.downercareers.co.nz**

DOWNER SUMMER INTERNS

Working as part of a road maintenance crew or supporting a tender submission, our summer interns are expected to get involved, gain a greater understanding of the industry and make a contribution to our business. It's an opportunity for you to try us out for size and an opportunity for Downer to observe you as a potential employee of the future. We are looking for future leaders keen to demonstrate their ability, develop their leadership skills, are self-motivated and enjoy being challenged. Interns who prove themselves may be offered full-time employment or be invited back next summer to continue your development with us. **Downer has projects right across New Zealand so we are also looking for people who are agile, willing to move to projects where their skill set is needed and keen to face any challenge to gain the right experience to take their career forward.**



KIMBERLY JUPP - A WOMEN IN CONSTRUCTION ADVOCATE AND MENTOR

PROJECT ENGINEER | MCCONNELL DOWELL CONSTRUCTORS LTD

As a new graduate with McConnell Dowell my goal was to be their first female project engineer. Now I've achieved that goal my objective is to be their first project manager. With hard work and a positive attitude I know this can be a reality. I want to lead the way for future female engineers to show them it can be done and to support them where I can.

I work for McConnell Dowell as part of the Stronger Christchurch Infrastructure Rebuild Team (SCIRT). We're repairing the earthquake damaged horizontal infrastructure in an alliance made up of five contracting companies, designers, New Zealand Transport Agency, Canterbury Earthquake Recovery Agency, and Christchurch City Council. This alliance provides opportunities to provide support to women across the industry and opportunities to form great connections and contacts with my peers.

WOMEN IN CONSTRUCTION – IT'S A GOOD FIT!

I am an active member of the SCIRT Women in Construction group SWIC (SCIRT Women in Construction). SWIC was initially intended to recruit more women to fill SCIRT roles. But the role of the group has ended up being much broader. It's the driving force behind new initiatives to raise awareness of construction roles open to women and to provide personal protective equipment (PPE) specifically designed to fit women.

After spending years working on construction sites wearing ill-fitting gear that's something I really wanted to change. Through SWIC I had the right contacts and the support of the group to make it happen.

The PPE for women was launched as 'Women in construction - It's a good fit'. That helps keep women safe on the job and helps increase the visibility and participation of women in the workforce. The range was launched at a joint event held with the Ministry for Women in November 2014.

Moving on from the launch of women's PPE we set up a quarterly SWIC workshop, the first of which saw 50 women attend.

I recently accepted an award on behalf of the SWIC group at the Hays National Association of Women in Construction (NAWIC) Excellence Awards. The SWIC group won the Helen Tippett award which celebrates achievements of those who actively promote the participation of women in the construction industry and encourage their progression.

YOU DON'T HAVE TO BE THE BOSS TO MAKE A DIFFERENCE

A past project manager once said to me that you don't have to be the boss to make a difference, you can influence and lead from where you are.

That resonated with me and I've always remembered it and tried to put it into practice because I believe that having leaders throughout the organisation makes it stronger.

I've recently been recognised by the Ministry for Women in their Impact Report Getting it done - a report written on work done in Canterbury around women in construction. They've profiled me as a woman in construction who leads from where I am.



MY VISION

My vision is that one day it will be commonplace for young women to consider a career in civil engineering. To help achieve that I've become an ambassador with FutureInTech - a programme run by IPENZ.

The purpose of FutureInTech is to have people working in science, technology, engineering and mathematics (STEM) speak to high school students to promote career options. I really enjoy sharing my story with students about how I got where I am today as it wasn't the traditional path.

I am always on the lookout for other women working in the industry I think would make excellent FutureInTech ambassadors to spread the word even further. An example of this was a woman I played squash with. She works in the electrical industry and has a great story to tell. I suggested that she look into becoming an ambassador, which she now is and loving it.

ABOUT MCCONNELL DOWELL

McConnell Dowell is a progressive engineering, construction and maintenance company building better communities through safe, smart, efficient infrastructure. The company commenced operations more than 50 years ago, and now employs over 8,000 people in offices and projects across Australia, Asia, New Zealand, Pacific Islands and the Middle East. McConnell Dowell offers creative construction solutions in building, civil, electrical, fabrication, marine pipeline, rail and tunnelling. www.mcconnelldowell.com





I've really enjoyed getting to know these different aspects of the engineering field!

I've also been involved with a project that required working out the length of a merge lane extension on Whangaparoa Road. This was a really interesting project, as I was able to select the right people for the job and had the opportunity to carry out the majority of the work myself with support from a fellow graduate. GHD has allowed me to be exposed to great practical experience, and I've loved having these opportunities to develop myself professionally.

Why should Auckland University students strive for GHD?

Making it possible to study and work part time is just one of the many great things GHD has to offer. You also have the freedom to speak up about the work you're interested in – graduates are encouraged to gain these valuable experiences and get involved with projects in other disciplines to expand knowledge and understanding. We have an awesome work environment, with approachable senior professionals who are always willing to share their knowledge and experience with you. I'm really looking forward to getting immersed in full-time project work now that I've finished my studies!

Who you are:

Lauren Collins – I am a Civil Engineering graduate at GHD. I started in a student role at Fulton Hogan, and then joined GHD through their summer vacation programme over the 2013-2014 summer period. I'm now in a graduate role within GHD's Infrastructure Delivery team.

Your degree:

I have a Bachelor of Engineering (Civil). I studied at the University of Canterbury for the first 2 years of my degree, and finished at the University of Auckland. To achieve this, I needed to take two additional papers in Semester 1 of this year. GHD has made this very easy, offering the flexibility to be able to finish my degree while working part time.

Your path to your career:

When I had to decide which papers to take for NCEA Level 2, I started thinking more seriously about the career path I could see myself in. I was quite interested in maths and physics, but

I wasn't sure what my options were if I wanted to pursue a career in this field. It wasn't until a male friend who was applying to study engineering at the time advised civil engineering as a career path, that I truly considered it. As a student at an all-girls school, I hadn't even heard of civil engineering as a career prospect, but after doing some research (and asking a lot of questions!), I've wanted to be a civil engineer ever since.

What you do in your role at GHD day-to-day:

At GHD I'm involved with a variety of projects. One that's kept me particularly busy has been my involvement in the management of technical support for a roading project in Fred Taylor Drive. This project has allowed me to network with clients, take responsibility for deadlines, and manage time and costs for a job. One of the highlights of this job is the opportunity to visit project sites with engineers from other disciplines. I've checked retaining walls with structural engineers, tested soil conditions with geotechnical engineers, and



HEB Construction

"Serving one another"

Marat Khassenov

Bachelor of Engineering (Honours) Civil Engineering, Graduate/Site Engineer

About myself

I always had a strong feeling that I wanted to be an Engineer and had a passion for physics and maths at school. After finishing high school in Kazakhstan, I was granted the International Presidential Scholarship called "Bolashak", which in Kazakh language means "Future", to come to New Zealand and study a BE (Hons) in Civil and Environmental Engineering. Since then I have discovered New Zealand for myself and completed my practical work experience with the NZTA in Wellington and HEB Construction Ltd in Cambridge.

HEB Construction

HEB Construction Ltd was established more than 30 years ago and today it operates as a contractor nationwide. HEB is structured to deliver the best practices in construction, from design to delivery. Currently, the company offers innovative design and construction solutions in various areas including roads and bridges, structures and land development, water and wastewater treatment plants, port facilities, landscaping, and precast and heavy haulage. HEB's people are motivated professionals with the expertise and varied backgrounds to ensure the best outcome for any construction project.

My work experience in HEB

I started at HEB as a summer student after my 3rd year at university and worked in the

national projects division. That division is responsible for projects of national significance with a value of more than \$100 million throughout the country. My practical work experience was at the construction site of the Cambridge Project (value = \$160m), which is the part of the Waikato Expressway. During that time my job included monitoring and keeping records of earthworks, doing scale tests and pavement checks, taking off materials, and locating utilities. I have been involved in diverse multi-disciplined construction areas (civil and structural engineering, surveying, geotechnical engineering) and learnt from local and international gurus in their respective fields.

I received an offer for a Graduate/Site Engineer position with HEB during my last year at university. Currently, I am working on a land development project valued at over \$5 million in the Auckland area. On this project I am looking after drainage and utilities, shared and standard concrete footpaths, health and safety, and quality assurance. I also work closely with various sub-contractors, or "subbies" as we call them, to build pedestrian and wastewater bridges, retaining walls, and concrete culverts according to design specifications. The other aspect of my job is to help a project manager with monthly financial claims and checking suppliers' invoices. We have weekly site meetings with our client and consultant, which help us to maintain a good working relationship and keep everyone "on the same page".

HEB's people are very supportive and positive, and always happy to help and share their knowledge. I am glad to have started my career

as an Engineer in this company and be a part of the big HEB family for "serving one another".

Graduate engineer package

As a graduate engineer you will receive a competitive remuneration and personal package which includes the following:

- Company vehicle (includes petrol, services, etc.)
- Company computer and mobile phone
- IPENZ membership fee
- You will be assigned a mentor who helps towards your CPENZ
- Discounted premium and medical insurance benefits
- Free courses and trainings, e.g. site safe, first aid training, etc.

Moreover, you have a great opportunity get experience in a wide variety of projects in different engineering fields, including civil, structural, and water, which will enable you to travel to many parts of New Zealand.

How to join to HEB Construction

- Next time when you are on the Engineering Career Fair make sure you come and see our friendly and helpful HEB people.
- Bring and submit your CV and cover page
- Talk to HEB's representatives
- Be honest and enthusiastic
- Call us later to show that you are interested in to be the part of the company
- And do not be afraid to ask questions.



Welcome to Honeywell, a Fortune 100 company that invents and manufactures new technologies, products and solutions that address tough macro challenges across diverse industries. Honeywell Building Solutions installs, integrates and maintains the systems that help keep your facilities safe, secure, comfortable, productive and energy efficient.

For more information visit: www.earlycareersathoneywell.com.au

Meet our graduates:

Natalie – 2014 Graduate Project Engineer

**What engineering specialisation did you study?**

Bachelor of Engineering, specialising in Mechatronics.

What do you do in a day?

I work in the Building Management System (BMS) projects team within Honeywell Building Solutions. My job consists of designing and commissioning air conditioning (HVAC) systems on large sites. I alternate between spending time in the office (usually during the design and configuration stages of a project), and on site (for customer visits and commissioning).

Why did you choose Honeywell?

When going through interview stages with multiple companies during my final year of study, Honeywell came across as a place where I could truly use my mechatronics degree. Other companies offered positions that focussed only on the mechanical OR electrical OR programming areas, but this wasn't the environment I was looking for. I was also looking to join a successful company with clear goals and measures of performance. I found that Honeywell definitely ticks these boxes (look up 'Honeywell Five Initiatives' and 'Honeywell Behaviours') and so was very appealing to me.

What's something neat you've discovered since joining?

Honeywell has a very successful peer recognition system, which is used actively worldwide. All employees have the opportunity at any time of the year to nominate their teammates for a recognition award. It is a fantastic and motivational way to recognise hard work and success.

Harry - 2015 Graduate Project Engineer

**What engineering specialisation did you study?**

Bachelor of Engineering, specialising in Mechatronics.

What do you do in a day?

When I started at Honeywell, I started off working on documentation and therefore had lots of interaction with Project Managers in regards to understanding the progress of ongoing and upcoming projects and ensuring these are correctly documented. Now I am working in designing and implementing security and surveillance system at the facilities of some of our major clients.

Why did you choose Honeywell?

It lined up to what I've studied as a Mechatronics Engineer where this degree teaches us how to integrate systems in a mechanical and electronic aspect. Honeywell specialises in the field of system integration and therefore I chose Honeywell.

What's something neat you've discovered since joining?

The software they used to integrate systems and also the technology they use for security. I also like how well they take care of their employees.



Nick Porter

I chose Engineering Science because I'm fascinated with the dynamics of large, complex networks. This same fascination drew me toward studying the large network of generators and consumers that make up our electricity sector. This led me to study electricity market design and optimisation for my Master of Engineering thesis.

I started working for Trustpower immediately after completing my Masters, moving to their office in Mount Maunganui in 2014. Initially, I worked with the Energy Trading team, which is responsible for managing Trustpower's exposure wholesale electricity prices. These can change significantly from hour to hour and month to month. In this team, I had a hand in developing and improving tools that forecast wholesale price distributions and estimate Trustpower's exposure to these prices.

At the beginning of 2015 I transferred to the Strategy and Growth team which is responsible for managing Trustpower's regulatory risk, analysing potential investments and acquisitions, and aiding in the development of unified company strategies. My role has been to model and analyse inputs for business cases and to analyse regulatory policies.

I have been lucky to have had exposure to a wide range of business units that have allowed me to see how all the pieces fit together. Trustpower has provided me with excellent opportunity to broaden my knowledge about the electricity, gas, and telecommunications industries, while developing my analytical skills and commercial acumen. I've been made to feel very welcome, and I've been given great opportunities to succeed and learn.

Stephanie Cook

After completing a double degree in Energy Studies and Economics, and a PGDipSci in Energy Studies at Otago University I joined Trustpower in 2013 as a Graduate Analyst in the Major Projects Team in Trustpower's Generation Division.

During my time in that role I worked on projects for various teams in Generation, such as the Comms and Controls team and the Engineering team. Projects I worked on include upgrading Trustpower's satellite systems, dam enhancements for civil safety, and gaining consents and information for prospective wind farm sites. I also assisted my team with the construction of a hydro scheme in the Hawkes Bay and the construction of a wind farm in South Australia.

I then moved into the Strategy and Growth division where I penned regulatory submissions for the company. This allowed me to get a wider understanding of the industry as a whole. Key issues that we looked at were the proposed TPM (Transmission Pricing Methodology) and the Australian RET (Renewable Energy Target) review.

I have recently been appointed to the position of Graduate Wind Engineer. My role is a combination of asset management of our current wind farms and looking at new development opportunities in the wind space. As some of our wind assets are nearing the end of their initial design life there are challenges around getting the best out of our assets. We are always exploring end of life options and efficiency upgrades. We maintain a wind monitoring program and are always looking at new opportunities.

Trustpower has been great in allowing me to be involved in various areas of the business. Gaining this broad range of experience about how the business operates really helps me in my current role and I'm really enjoying being part of the Wind Asset Management team.



Milmeq custom designs, engineers and manufactures systems for primary food processing, chilling and freezing and materials handling for processors within primary food markets, including red meat, poultry, dairy, seafood and horticulture.

Our solutions-focus and can-do approach has seen us pioneer a number of new technologies, many of which have gone on to become industry standards. We have developed plate freezing technology to extend the shelf life of meat product being exported long distances. We have since gone on to build the world's largest plate freezers which are used across Australasia and are becoming popular in Europe.

If you want your career to tick all the boxes:

- ✓ From concept to commissioning;
- ✓ International focus;
- ✓ Working alongside industry experts;
- ✓ Deliver customer-focused solutions;

Milmeq is seeking engineers with a knack for problem solving and a can-do attitude.

David Woodward: Project Engineer



I joined the Milmeq team late 2014 as a project engineer to further my engineering career, this was a great opportunity for me to work beside a multi-disciplined team on international projects. I have a passion for engineering and not just from behind a desk, I enjoy getting fully involved from the design process all the way thru to onsite commissioning. Milmeq provide numerous products to the primary food processing industry which keeps the work place interesting as I am exposed to a wide variety of projects, I also really enjoy that the majority of manufacture is completed in-house which allows me to get more involved with the process.

Vladimir Sbitnev: Automation Engineer

I joined Milmeq after completion of my Master's Degree (Mechatronics) in 2013. As I was experienced in industrial robotics I had an opportunity to use my skills gained from the past work experiences and theoretical knowledge learned from my studies. I have been involved in a few cutting edge robotic innovations in primary food processing which I found challenging, requiring creative and innovative thinking as well as a solid well-structured engineering approach. I look forward to these developments being integrated throughout the industry bringing safe, reliable and efficient operation to food processing operations.



Opportunities at Milmeq

- ✓ Milmeq has openings for summer interns, based at both its Dunedin and Auckland offices.

For more information email recruitment@milmeq.com or go to www.milmeq.com





THE UNIVERSITY OF
AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

ENGINEERING

Simon Mittermeier

**BE (Hons) - Mechanical Engineering
Master of Engineering Management
Product Development Engineer
Fisher & Paykel Healthcare, Auckland**

Simon Mittermeier was drawn to an engineering career as it offers enormous scope for invention and innovation and has the potential to make a positive contribution to society.

He completed his Honours degree in Mechanical Engineering followed by a Master of Engineering Management (MEMgt) at the University of Auckland. This gave him the right knowledge and skills to gain a competitive advantage in the global job market.

Now he works for one of the world's leading lights in technological innovation: Fisher & Paykel Healthcare, as a Product Development Engineer.

He designs and develops masks that treat obstructive sleep apnoea. This includes everything from conceptual design to clinical trials, right through to the product's manufacture and release.

The Master of Engineering Management (MEMgt) degree allows you to study either full-time or part-time and build up industry experience, with a major project conducted with an approved organisation. You can select from a range of highly flexible courses in both the Faculty of Engineering and the University of Auckland Business School to match your professional interests.

"This degree fills an important gap" says Programme Director of the Master of Engineering Management, Mehdi Shahbazzpour, "Once engineers go into the workforce, they want to progress in their careers. So apart from technical knowledge, they need to know about project management, strategy, marketing, HR, innovation and new product development. With this degree, engineers gain the right skill-set to be true innovators."

Apply now for 2016: www.engineering.auckland.ac.nz/master-of-engineering-management

Everyone should be able to enjoy a good night's sleep.

"My Engineering Management degree was achieved through part-time study. It broadened my understanding of the wider business environment: what it takes to get the right product to the right market within the right timeframe."

Simon works on the design and development of masks used in the treatment of obstructive sleep apnoea. This includes everything from conceptual design and clinical trials through to manufacture and product release.

Simon Mittermeier

**BE (Hons) - Mechanical Engineering
Master of Engineering Management
Product Development Engineer
Fisher & Paykel Healthcare, Auckland**

Start building your future with a postgraduate degree from New Zealand's leading Faculty of Engineering*.



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ENGINEERING

*2015 QS World University Rankings by Faculty

www.engineering.auckland.ac.nz

FOE/SM/01/15

Clubs and Societies are an integral part of the Faculty of Engineering.

With active clubs in our Faculty, we are lucky to have a huge range of student activities, interests and support groups represented.

Clubs offer students the chance to develop professional skills and networks in their chosen fields of Engineering whilst others allow their members to occasionally blow off steam and relax in the middle of a demanding and time-consuming

degree programme. Importantly, all our clubs are student led and student driven – this means that they provide activities for their members that their members really want (rather than activities and events Faculty staff think students want!) and offer students the chance to develop leadership capabilities. As club executive members, students are required to seek funding from internal and

external sources, manage a (sometimes significant) budget, and come up with annual plans, all whilst pleasing a demanding membership body.

We are very proud of our Engineering Clubs and Societies, and the high level of service, support and entertainment they deliver to our students.

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THE UNIVERSITY OF AUCKLAND
IEEE STUDENT BRANCH



RAINBOW ENGINEERING



Where are they now? Catch up with 3 former WEN girls, now Professional Engineers.



Natasha Ahuja

Originally from Dubai, UAE, I moved to Auckland in 2002 where I completed two years of high school at the Epsom Girls Grammar School and enrolled for a Bachelor of Engineering course at the University of Auckland thereafter. Having had the option to choose a select few Management electives in my final year of Biomedical Engineering, I got a taste of some benefits that a techno-commercial educational background might offer. With a flair for numbers and a keen interest in exploring the world of business, I commenced my career by taking up a graduate role as an Analyst within the Transaction Services division at PricewaterhouseCoopers in Auckland. I was fortunate to have been part of a great team full of smart and intelligent people, who continue to inspire and challenge me. As part of my role, I was primarily involved with performing buy-side financial due diligence and business analysis as part of mergers and acquisitions for both corporate and private equity clients across a range of industries. During my first year, I also completed a couple of introductory courses (part-time) in Accounting at the University of Auckland. After working for 2.5 years with PricewaterhouseCoopers, my desire to pursue a Master's degree in Business Administration (MBA) led me to take up an offer of a 16-month full-time MBA course (with part scholarship) from the Melbourne Business School at the University of Melbourne. A freshly minted MBA graduate in 2012, I moved to Perth for a new role in management consulting at Ernst and Young within the Advisory - Performance Improvement service line. I have now been with Ernst and Young for close to three years and as part of my role as Senior Consultant, I have primarily worked on a couple of long-term engagements with a global client in the mining industry. My consulting engagements have ranged from providing change and project management services on a large-scale business transformation and ERP implementation program to standardising project development and delivery processes for major capital projects as part of a global organisation-wide initiative.



Sakura She

In my final year at school, I was unsure of what to study at university. I did know I wanted to do something with computers and science. I chose to study Engineering because of two reasons. Firstly, it was a sort-after degree and secondly, because of the broad range of specialisations that the degree offered. As I was unsure still of exactly what I wanted to do, I thought that the first year of Engineering would give me a good indicator of what all the different specialisations were about so I could make an informed choice. After I completed my first year, I decided to specialise in Software Engineering as it was obvious to me that I excelled in software design and development.

In my final year of Engineering, I was still unsure of exactly what I wanted to do. Oracle was recruiting for their graduate program which offered a wide variety of different roles. I applied successfully for Oracle and was able to rotate through the different departments (Customer Support, Sales, Presales and Consulting) in my first year which further enabled me to make an informed choice about my career. I ended up in presales, which is what I have done since then. My official title is "Senior Solutions Consultant" focusing on Customer Experience (CX) applications. These applications include: CRM, Sales Force Automation, Marketing, and Social tools. In this role I gather key business requirements through customer engagements and discovery sessions to ultimately deliver quality solution-oriented outputs such as proposals, presentations, and demonstrations to customers.

My engineering degree helped me a lot in that firstly it enabled me to get this job in the first place as it is such a sort-after degree. Secondly, it gave me a great base both technically and in terms of written / oral communication skills that allowed me to excel in my current role. I have both the technical skill required to understand my focus applications in depth but also the great communication skills to explain them to customers in detail. I would highly recommend the Bachelor of Engineering degree at the University of Auckland to any prospective student as it is great to have on your CV and gives you a great base to do most professions you want to do later in life.



Annie Scott

I decided to study engineering as I really enjoyed physics at school. I spent my time questioning the way the world works, and with every answer I had more questions. I fully intended to study Chemical Engineering however after my first year at university I really enjoyed statics, and decided to continue with Civil Engineering; a decision I have never regretted in the slightest.

The best thing about engineering is getting to work and study with a group of amazing people. Although everyone is striving to do their best, it is never done at the cost of a friend. You work together to solve problems and finish assignments rather than competing against each other. People are extremely helpful so don't be afraid to ask questions - it all goes in roundabouts and they will be asking you a question one day! Lectures are world class, and a few helped push me to my limit, encouraging me to get the most I possibly could out of my time at university. The Engineering Faculty has a family feel and is incredibly friendly, a great place to learn.

In my current role I am a Graduate Structural Engineer in Auckland. At my job you work as an Engineer from day one, solving problems doing design work and helping your team to achieve the best. I'm currently working on the Christchurch Hospital and other interesting jobs around New Zealand. I am also helping to run the social good team at work, helping those less privileged than myself and take part in the work netball and pub quiz team. Engineering is an awesome degree and a great profession to be in, make the most of it!

I don't want to make it sound fun all the time - there will be plenty of late nights and long weekends. The steins and engineering balls each year are my best memories from university and a great opportunity to meet new people. There are endless opportunities having completed a bachelor of engineering, and it is something I am proud to have achieved.