



# SMUCE Chemical Engineering Careers Guide 2015

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with industry”*

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# SMUCE

## Chemical Engineering Careers Guide 2015

### **Acknowledgements:**

The Society of Monash University Chemical Engineers proudly presents you with our 2015 Careers Guide. One of SMUCE's major aims is to connect students with hiring companies and researchers, so that they can better understand the range of jobs available to them upon graduation. This publication provides insight into opportunities available across a number of industries for students at all stages of their degrees.

This guide has reached you thanks to the relentless work of a dedicated careers guide subcommittee. In particular, I would like to thank Laura De Rango, Melissa Paciepnik, Fatema Abbas Husain, Kim Sho, Marek Bialkower, Michael Ah-Cann, Samantha Bird, Luca Stamatescus and Benjamin Costa.

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Most importantly, we would like to thank our sponsors, ExxonMobil, Teach for Australia, IChemE and the Department of Chemical Engineering at Monash University. Without their support this Careers Guide would not have been possible.

-Georgia Jaffray  
Industry Vice President 2015

### **The Society of Monash University Chemical Engineers, SMUCE:**

The Society of Monash University Chemical Engineers aims to bridge the gap between classrooms and the world outside of university. It serves as a link between students, the academic department and industry.

Other career-relevant initiatives hosted by SMUCE this year will include:

#### **Weekly Industry Seminars:**

Each week a different company will come to Monash to inform students about who they are and what they do; to showcase their employees' experiences with their company; and to advertise potential employment opportunities. These seminars will be held in the Lawson Room (22 Alliance Lane, Room 201) each Thursday from 12-1pm during the academic year and will be followed by a free pizza lunch.

#### **Vacation Employment Day:**

This one-day information session will cover resume and cover letter writing tips, interview preparation advice and experience sharing from students who have successfully completed vacation work. This day will be held in the week before the beginning of semester two.

To stay up to date with all activities this year, including our academic and social events, like us on Facebook: [www.facebook.com/SocietyOfMonashUniversityChemicalEngineers](http://www.facebook.com/SocietyOfMonashUniversityChemicalEngineers)

If you have any questions, send us an email: [smuce@monashclubs.org](mailto:smuce@monashclubs.org)

Alternatively, pop into our office (opposite lecture theatre E1) whenever it's occupied.

# SMUCE

# Chemical Engineering

# Careers Guide 2015

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## Chemical Engineering Careers Guide 2015

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# How to use this Careers Guide

## Articles:

The 'Articles' section of the careers guide is comprised of the experiences of students and alumni. We've tried to provide a well-rounded view of chemical engineering that is relevant to students.

## Useful Information:

This part of the careers guide includes information that may be useful to undergraduate students during the process of job applications. We are most grateful for the Monash Employment and Career Development (ECD) team for taking the time to compile resume and cover letter writing tips and advice. ECD also offers a resume and cover letter checking drop-in, as well as professional development workshops that are open to all interested students.

## Industry Profiles:

These give a summary of what a number of companies do, as well as opportunities available to students. This is intended to give you an idea of what is available to you as a chemical engineering student. Please keep in mind that there are many other opportunities in Melbourne and Australia; it is up to you to find these. The SMUCE 2015 Chemical Engineering Careers Guide is only a basis for you to start your investigations.

### Legend for Researcher Profiles:



SMR — SUMMER OPPORTUNITIES



MST — MASTERS OPPORTUNITIES



PhD — PhD OPPORTUNITIES



INT — INTERNATIONAL STUDENT OPPORTUNITIES

## International Students' Section:

SMUCE has come to appreciate that it can be especially difficult for international students to begin their engineering careers. The articles in this section include information about the support available for international students. These articles will also provide insight into how other international students have overcome the obstacle of studying in a foreign country to gain work experience in both research and industry.

## Legend for Industry Profiles:

UNKNOWN —

VACATION OPPORTUNITIES —

NO —

GRADUATE OPPORTUNITIES —

YES —

INTERNATIONAL STUDENT OPPORTUNITIES —

## Researcher Profiles:

Like the Industry Profiles, these give a summary of some of the work of researchers at Monash University and how you can become involved. There may also be other opportunities available in the Monash University Department of Chemical Engineering. The best way to learn about research and opportunities is to talk to the academic staff in the department.



# Articles

The following section contains articles on student experiences in industry and research, alumni experience and advice for finding opportunities for experience. This section of the careers guide has been specifically tailored for chemical engineering students at Monash University.

# Career Planning

## An interview with Leigh Coutie

Leigh has used his engineering degree from Monash University as a platform for a dynamic career. Leigh has founded a number of start-ups, including Logic Engineering, Ingenuity, Coaching and Mentoring Transformations and Resilient Planet. He is also a Delegate for the Engineers Australia National Congress and a Chair of the Engineers Australia Victorian Centre for Engineering Leadership and Management. Leigh generously took time to answer some questions about career planning.

### Describe the path you took to be in your current role.

The path has twisted through many previous roles. I just like helping an organisation, making a difference, and ensuring that I have an appropriate work/life balance. My career has progressed in an ad-hoc, unplanned, but thoroughly enjoyable manner. Fortunately I feel I have grown from each experience – some painful but mostly really great.

### What kind of roles have you had since graduating?

- Mechanical Design Engineer.
- Commercial Pilot.
- Project Engineer.
- Computer Programmer.
- Website developer.
- Engineering Manager.
- Partner in an Engineering Consulting company.
- Project Manager (Construction and Engineering).
- Project Director (Engineering and IT).
- IT Architect.
- Global Project Director (IT).
- Consulting and Services Manager (IT).
- Transition Manager (IT).
- Company Director.
- Managing Director.
- Leadership Coach.
- Executive Coach.
- Multiple community organisation roles.

### As an undergraduate, did you imagine yourself in your current position?

I was having too much fun to consider my future. I still think I don't have any specific career goals (I don't recommend this approach though). What I have tried to do is to identify the skills, knowledge and experience I want and then to undertake roles that assist in that development.

### What advice would you give to an undergraduate student about planning a career in a particular industry?

Target the companies you want to work for, not the specific job. Within that company, look for the job opportunities. When you see one, don't just send in a job application. First call the person listed in the add, ask questions about the job. If you are interested and you think this suits you, tell them that and then send in your job application and mark it to their attention. This way they know you and will look for your application. You will have also differentiated yourself from the other candidates. If you don't think the job will suit you, say that and be honest. The next time you call them and find a job that does suit you better, you have already established contact and demonstrated integrity in your approach (tactfully, of course). The other piece of advice is to get your resume professionally done. I couldn't believe the difference it made to me mid-career when I did this. Finally, interview them as a company – they should be worthy of your capabilities also.

# Why do Work Experience?

It is no longer compulsory to complete 12 weeks of work experience to receive your engineering degree from Monash University. It may be a relief to know that this hurdle no longer stands between you and the piece of paper that should lead to an engineering career. It is worth noting, however, that this hurdle almost certainly does stand between you and your actual engineering career.

Even to get your first graduate job, you need some experience. Amongst other things, this would help you to recognise equipment and instruments away from paper, have instinctive safety habits, as well as appreciating the roles of various positions in the overall team. You can understand how this would be a head start in your new role as a graduate.

So if you can't work as an engineer without engineering experience, where can you start?

You can always look for vacation work. Many companies have formal summer work experience programs and other sections of this guide detail these; however it's hard to work on an engineering project when you've only just started your engineering degree. For this reason, most of these programs are only available to students in their penultimate year.

Why wait until your penultimate year for work experience? After all, it is a valuable way to build your practical engineering skills. Plus, it helps your studies when you can appreciate how things work in real life (steady state? What is that magic?). If you're in this position and haven't been successful in applying for a formal vacation work program, consider some of the other paths that you can take.

One such path is working at a company without a formal work experience program. Does anyone in your family work at a company that employs engineers? Or do you have a family friend that ticks this box? If so, see if they can organise for you to meet with someone in the company to talk about doing some work experience there. If not, try looking online, asking friends and peers, or reading the business section of a newspaper to find other companies that employ engineers. Once you have a company in mind, research what they do, their key projects and achievements and their contact details. When you call, try to get through to the Engineering Department rather than the HR Department and ask more about the company. Only ask about work experience towards the end of the phone call, after you've learnt more about what their engineers do.

Another option is searching for vacancies being advertised for qualified engineers. You could call the company with reference to the advertisement and explain that you're still an engineering student, but might be able to contribute to projects. At the end of each phone call, offer to send through your CV, academic transcript and a cover letter.

If you're still not having any luck with this, don't stress. There are other ways to get valuable industry experience. One way to do this is as an operator. These are the people who keep the equipment running, watch over the control systems and test the product to make sure that it's being made as it should be. Some operator positions are seasonal and those in the summer season are perfect for students. Watch out for advertisements for these positions, or express interest in an operator position, should one be available, if a company is not in a position to provide you with work experience.

Finally, if none of these options are working for you, part time work in an unrelated field is still valuable. It can improve your communication and teamwork skills, which are not only transferable to an engineering career, but are highly sought after by all employers.

# Kim's Research Experience

My name is Kim Sho and I am a penultimate year student in Chemical Engineering. It has been busy yet exciting course, ever since I stepped into my first lecture. As time went by, I got a chance to venture further into the chemical engineering field, realising that there are many potential career pathways apart from just being an engineer in the industry. The academic pathway, which is the research pathway, can be one interesting option available for future graduates as well.



I completed my research program when I was in second year, at the end of 2013. My supervisor was Dr Meng Wai Woo from the Department of Chemical Engineering. Prior to commencing the project, I spoke to a number of researchers in the department to find out more about their latest ongoing project. By doing this I got to choose the project that I found interesting and that I was keen to work on.

The research that we worked on was a whole new concept in the dairy industry, which was protein extraction by pumping the milk solution. Relevant approaches were taken to refine the problem, particularly taking its industry applications into consideration. Several challenges came up, where there were limitations with some of our approaches, leading to troubleshooting of the problem. Apart from daily laboratory experiments, reading research papers published by other researchers was a part of the project, to extend my knowledge in the industry.

It was a challenging yet interesting process. I was provided with the opportunity to analyse problems in a holistic manner to develop an applicable technology for the industry. Time management and self-discipline were essential for the research project, to ensure the project was on track. Analytical skills were developed through overcoming limitations and challenges during the project. All these personal skills developed from the research project are useful not only in my current vacation employment with the Vinyl Council Australia, but also applicable in my academic studies as an undergraduate student.

A career pathway in research is definitely worth taking into consideration, especially if you are passionate in bringing a new paradigm to the development of science. Working in an industry that you love and gaining a variety of experience, such as through a research role, will make your career fulfilling. Take the initiative and do not be afraid of failing, as all success begins with the very first step of learning.

-Kim Sho

# Laura's Industry Experience



Last summer, while my friends were at the beach, I was dressed in high-vis clothing, steel-capped boots, safety glasses and a radio headset. While my family was wrapping Christmas presents, I was in a paper mill, constantly sprayed in recycled pulp and helping produce 400 tonnes of paper per day.

For 12 weeks, I worked as a vacation employment student at Visy's Coolaroo site in the pulp and paper division, where 100% recycled paper is made for plasterboard, packaging and cardboard boxes. As I have only completed two of my five years of a Bachelor of Science and Bachelor of Engineering double degree, the major benefit of vacation work was that the whole experience confirmed that I had chosen the right course and career path. This has given me further motivation to continue with my studies at uni.

The first week was a very basic initiation process where I followed my supervisor around the site, attended meetings, and helped out with taking samples, analysing data and using Excel to do some simple efficiency calculations. The head-set allowed me to listen to the constant chatter over the radio system, as various employees were called to help from all departments to help deal with one problem or another. It wasn't long before I was able to identify problems and use the radio system myself, for example to call for help with opening a valve or warning the team that a pump was leaking or a tank overflowing.

Soon, I was effectively placed in a project-management role, where I had to oversee the timeline of a project, coordinate each aspect from each of the Electrical, Mechanical and Instrumentation Departments and review my progress on a weekly basis with my supervisor. I was also given some other smaller projects which involved pure engineering work, allowing me to spend half my time at my desk and the rest on-site, which I thoroughly enjoyed. For example, I was asked to evaluate the efficiency of a screen (effectively a giant, spinning, slotted-cylinder) as it would routinely become blocked. This involved reading the operating manual, taking samples of the inlet and outlet streams, perform mass balances by using Excel to gather and analyse data and finally comparing my findings to the 'ideal' operating conditions found in the manual.

The hardest part of vacation work was the full-time work routine. My first week of getting up at 5:30am for an hour-long drive, before 8 hours of work and another long drive home left me utterly exhausted. I realised that if I didn't get used to it soon it would be a very hard 10 weeks – let alone 40 years when university is done and dusted. Thankfully, after my first proper weekend the routine became manageable and I was able to fit in summer holiday activities as well as work.

Although Monash has formally removed the requirement for vacation work as a part of graduating from your degree, this in no way means it is any less desired by industries when employing graduates – a fact that was brought up by my supervisor numerous times. It is of tremendous value, as the practical knowledge and experience gained cannot be learned in a lecture theatre. The hands-on experience, being immersed in the engineering field and getting a taste of full-time work are reasons why I strongly recommend all students complete vacation before their final year.

-Laura De Rango

# MITI

## Monash Industry Team Initiative (MITI):

The Monash Industry Team Initiative (MITI) offers students real-world industry experience. Monash University students work in multidisciplinary teams to solve problems for various industry partners.

Over the 2014-2015 summer, Alexandra Gummer, a fourth year chemical engineering student, participated in this program at Bega Cheese in Tatura. Her insights are applicable to other students interested in the program, as well as those wishing to complete any kind of industry-based work experience.



### What is the best part of your work?

It's great to be able to learn about an industry while still studying. I've enjoyed being able to apply my technical knowledge to solve problems, while simultaneously increasing my understanding of engineering.

### What kind of difficulties have you experienced and how did you overcome them?

As a young person with limited experience and incomplete qualifications, it's hard to convince some people to take your work seriously. The hardest part of this is when you find a necessity for change. Some operators tend to have habits and even the most experienced engineers may have trouble convincing them to break these habits.

Often just taking the time to talk to people can be enough for them to see the value of your work. Don't make getting an answer the sole objective of every conversation. Get to know the people that you're working with and let them see the work you're doing. Keep them updated about the things that you're finding. This will make people more likely to want to help you out.

There are also a lot of things that you don't often think about in the classroom, like breakdowns. Often your plans to take samples for a trial are disrupted by unexpected downtime. This means you always need to plan more time than you think you need for most tasks.

### How have your experiences benefited you?

Having the chance to work in industry has helped me to develop a number of skills. In particular, the experience has improved my communication skills, teamwork skills and time management skills.

In industry, you need to liaise with many people on a range of levels – managers, supervisors, operators, just to name a few. Different people understand information in different ways, for example, numbers and data can be a good way to communicate to some, while others find this confusing and would rather hear more directly about what the numbers mean. Understanding this has increased my ability to communicate the same information to a broad range of people. Furthermore, my communication skills have improved as I have learnt which questions are the right ones to ask when collecting the information that I need.

The nature of MITI has enabled the growth of my teamwork skills, as I have realised we have a number of strengths within our team. Aligning these correctly is the best way to work effectively. It's been very insightful to watch how different people work together on a real world project.

## MITI (cont.)

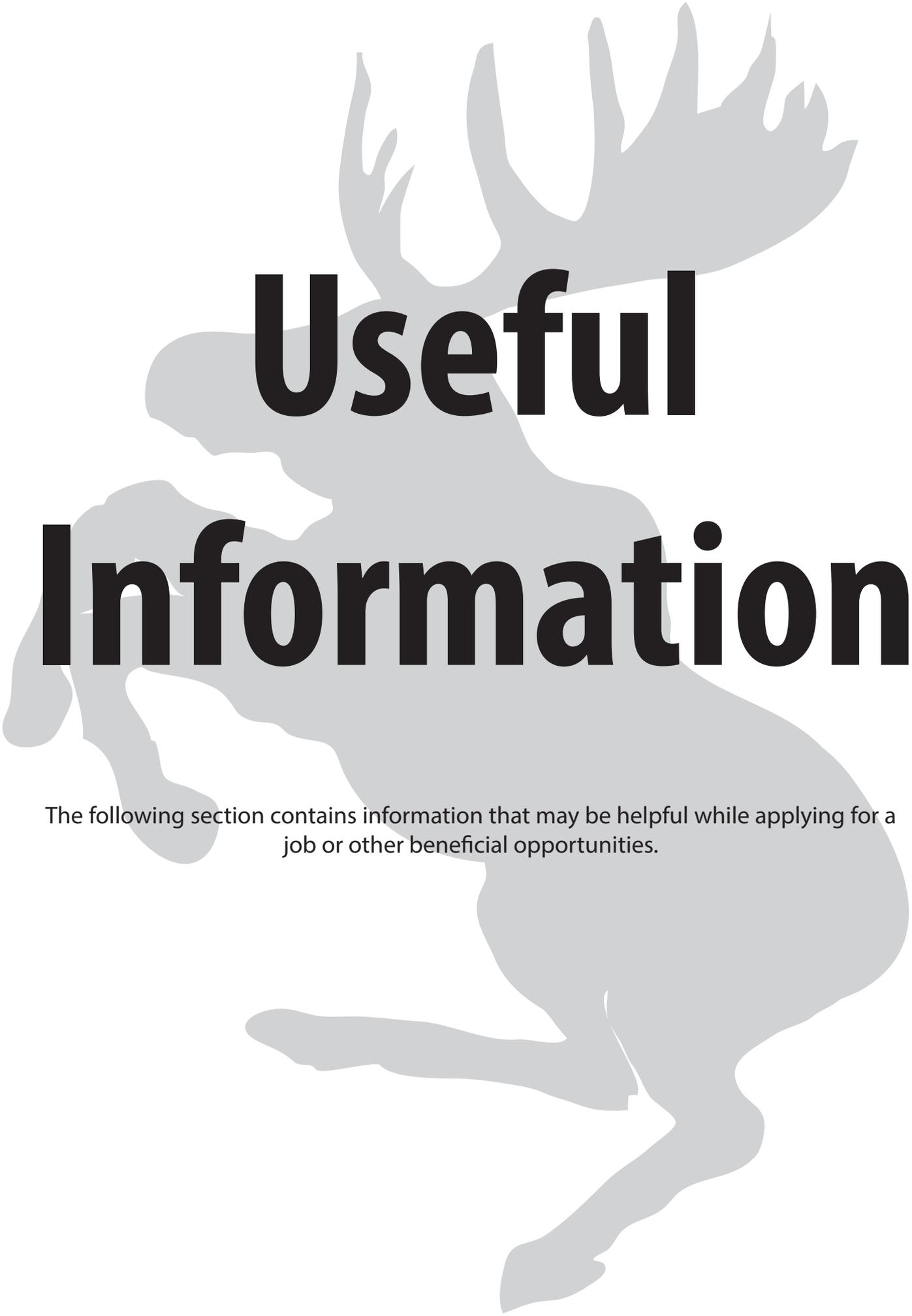
Finally, my time management skills have been challenged by factors out of my control that you don't experience in the classroom, like relying on smooth operation of equipment in order to collect data. I have learnt to use tools such as Gantt charts to ensure that I can account for this, but still work to a deadline.

### **What advice would you give to students who want to apply for MITI or industry-based work experience?**

If your applications get knocked back, don't take it to heart. Instead, keep trying! I applied to MITI after formal applications had closed, but was successful because the planned project required more students. Keep in mind that sometimes there are hidden opportunities and persist with applications.

For more information about the Monash Industry Team Initiative, visit:  
[miti.monash.edu](http://miti.monash.edu)





# Useful Information

The following section contains information that may be helpful while applying for a job or other beneficial opportunities.

**Your resume is the first impression that you will give to a potential employer, so make it clear, concise and relevant.**

You should take the time to research the organisation and the position that you are applying for. This will enable you to link the skills and experiences from your time at Monash University as a chemical engineering student and any other employment, volunteer work, memberships and involvement in groups or bodies.

Try not to use the same resume for every job that you apply for - tailor it for each different position and company. Doing this will help you stand out for all the right reasons. Your resume is where you show that you have the required skills, knowledge and qualifications that are needed for the position.

Page 1 of your resume should reflect the most relevant information pertaining to the job. As you head towards completion of your Chemical Engineering degree, details of your education will most likely be of most interest to the potential employer unless, of course, you have any industry related experience.

List your education in reverse chronological order. If you received any outstanding marks, be sure to include these. If not, there is no need to list them as companies often request a copy of your academic transcript which will contain this information. If you did well in a particular subject and the position requires this, then make the potential employer aware of your mark. Be sure to list your work experience and employment history in reverse chronological order.

For each position, describe your duties and any achievements, beginning each point with an action verb (e.g. formulated, identified, solved, and accomplished, managed, assisted, etc.). Remember to keep to the point and stress what you have achieved. Any engineering related work experience you have could have a separate heading, for example 'Chemical engineering related experience'. Keep in mind that most engineering work is project based, therefore you should give brief details of any projects that you were involved in and highlight your specific contribution to its success.

Over and above your Chemical Engineering degree and any engineering related experience, companies will look for employability skills that you have developed. These could include the following and should be addressed in a 'Skills summary' section of your resume:

- Communication
- Team work
- Self-management
- Planning
- Analytical abilities
- Initiative
- Flexibility

You should include evidence of how you possess and utilise some of these skills by using relevant examples. Merely listing skills with no evidence is meaningless for employers. **Remember this is the section that should contain the skills that the employer has specifically identified as being important and should be different for each application.**

Another heading to include in your resume if relevant is 'Voluntary and community work'. Employers value people who are worldly and culturally aware and willing to contribute to the greater community.

# Resume Writing (cont.)

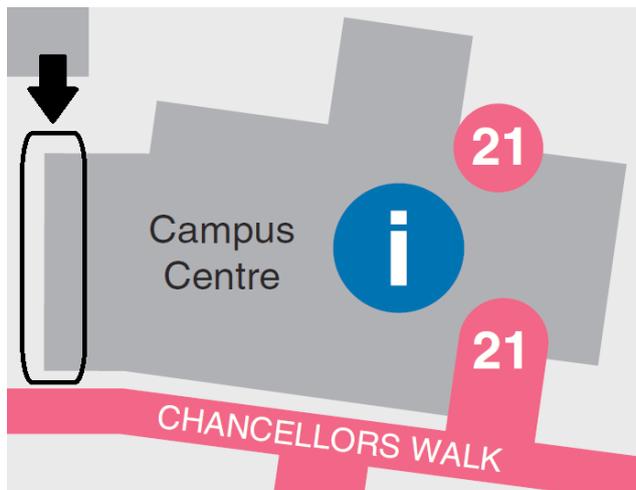
If you are a member/student member of any professional associations, for example Engineers Australia, mention this on your resume as it demonstrates your interest and commitment to the engineering field.

You may or may not include a list of your 'interests and hobbies' – it's a personal choice. Employers are usually interested in you as a person and this section could add another dimension.

Finally you need to include a section with details of potential referees. List their name, position title, organisation and contact details. Referees should have witnessed your capabilities in a working environment. It is acceptable to write 'available upon request' if you don't have up to date details but bare in mind you will need to provide the details if employers are serious about employing you. Always ensure you speak to your referees before listing their contact details.

## Quick tips:

- Use 10, 11 or 12 font and Arial, Calibri or Times New Roman are good choices.
- Triple check the grammar and spelling.
- Be consistent with formatting – use clear headings, bullet points (make sure they line up).
- Choose an easy to read layout and make sure there is plenty of 'white space' on the page.
- Be concise and use relevant examples.
- Write content in the third person – no 'I' or 'we'.



## Useful websites:

- [unigrad.com.au](http://unigrad.com.au).
- [undergraduateopportunities.com](http://undergraduateopportunities.com).
- EA Connect – via Engineers Australia.
- Career Gateway – Monash jobs portal. Access via Monash website and authcate login.

The Monash Employment, Careers and Development Centre is located in the Campus Centre on the far western side of the ground floor. It is at the end of the corridor that is next to the Airport Lounge stairs.

## How can we help you?

- Get your application documents checked – resume, cover letter, key selection criteria.
- Interview practice sessions.
- Tips for attending assessment centres.
- Half hour one-on-one career consultations.
- Online resources including sample resumes and cover letters, and lots of other useful career planning tips and information regarding employment outcomes based on your degree program.
- Please visit our website for more information and details of times available for these services and information on how to book appointments:  
<http://www.monash.edu.au/careers/>.

Your cover letter could be the first thing that an employer will read about you. A cover letter should introduce you and describe your qualifications, it should demonstrate your motivation for wanting to work for that particular company and your passion for chemical engineering and it should show that you have the relevant skills for the position. A common mistake made with cover letters is to repeat the information that is in your resume – this is not the point of a cover letter! Also re-write your cover letter for each application as it must be tailored specifically to each job you apply for.

## **Paragraph one:**

This should include the purpose of your letter. Include your qualifications, the position title and any reference number to the position (if applicable). If you're not writing in response to an advert and canvassing for potential employment, introduce yourself and your current career circumstances as concisely as possible, including any specialised professional interests and abilities.

## **Paragraph two/three/four/five:**

These paragraphs should demonstrate why you want to work for this employer and why they should want you. It is essential that you demonstrate within these paragraphs your ability to gather the most relevant information from a range of sources to state your claim as a suitable candidate.

Highlight the skills, expertise, qualities and employment experience you have included in your resume that you believe are most relevant to the requirements of the position. Make sure that you can demonstrate how you meet the selection criteria and how what you have to offer relates to both the current and future needs of the employer.

Include other factors that point to your possession of key general skills (e.g. communication, teamwork, initiative, self-management) through your experiences in voluntary or community activities, clubs and societies etc. If you have done a chemical engineering internship or vacation work include skills from this experience as evidence.

Show that you have researched the organisation and the position. Include this information when you show your enthusiasm for that particular position with that particular employer, but do not copy sentences from the employer's website.

## **Final Paragraph:**

What do you want to happen next? Confirm that you have attached your resume and any other documents requested. Finish on a positive note, thank the employer for their time and express interest in attending an interview.

Have a look at the Monash Careers Website for examples and for the correct way to address the letter, the salutation and how to close the letter.

<http://www.monash.edu.au/careers/students-grads/apply-for-a-job/cover-letters.html>

## **Quick tips:**

- **ONE PAGE ONLY – never longer**
- **Use a standard business style for your letter**
- **Use 10, 11 or 12 font and Arial, Calibri or Times New Roman are good choices**
- **Clear structure – one main idea per paragraph**
- **Plenty of white space (standard margins and space between paragraphs)**
- **100% accurate spelling and grammar**
- **Short, well-constructed sentences, not unnecessarily long and wordy**
- **Plain English (avoid slang, SMS or other abbreviations, jargon or terms which are too casual)**
- **A positive tone (do not include your weaknesses)**

# Quick Tips from Grads

## **Top 5 tips for interviews:**

1. Be vocal and confident about your ideas in a group situation.
2. Never sell yourself short, but also make sure you don't come across as arrogant.
3. Dress in professional but comfortable attire.
4. Come prepared with specific questions to ask the interviewer.
5. Research the company and specific projects relating to their work. Think about specific aspects of the company that interest you.

## **Top 5 tips of what to get involved in at uni/how to gain experience:**

1. Start as early as possible. Don't wait till your last year to start looking for opportunities. Second year is a good time to start looking for vacation work. It puts you ahead of the majority.
2. Get involved in extracurricular activities especially those involving leadership and also management. Companies like to see you can manage your time well so if you are juggling studies, work and extracurricular well, it is impressive.
3. If you can't find a paid internship consider volunteering to gain experience.
4. Network as much as possible. Attend any networking events and make sure you take the initiative to keep in contact with people you meet.
5. Start a LinkedIn account early and don't be afraid to add anyone you have met or worked with. Also keep it professional. On that note be aware that recruiters may look at your social media so think about what you make public.

## **Top 6 tips on balancing uni, work and life:**

1. Keep a diary/calendar so you can manage your time well. Include all uni, work and social activities so you can plan ahead.
2. Make sure you give yourself time to exercise, eat well and sleep. Also set aside down time to spend with your family and friends.
3. Don't overdo it. If you can't handle everything then consider what your priorities are and focus on them.
4. Attend to any academic issues before they become a big problem. If you are having problems understanding a concept in class then make time with your lecturer/tutor to revise it.
5. Don't procrastinate. If you know you can't stop looking at Facebook then consider deactivating your account during exams or setting yourself time limits.
6. Don't start watching a new TV show during exams if you know you will get addicted.

-Anna Nayyar and Clare Keogh  
Orica Graduate Chemical Engineers

# Don't be left out...

Networking can be one of the most daunting and difficult tasks for young graduate engineers; however, building a network of connections can unlock many opportunities that would not usually be available and can help to give you an advantage in the already tight job market. Networking can also help you build a group of contacts that you trust and can use to gain a different perspective from. Whilst some people are born to be natural talkers and connect with people very easily, others may struggle with awkwardness and shyness. The good news is that learning to network is not difficult and confidence comes with practice.

## **The Importance of Networking:**

There is a hidden job market in most professions that doesn't publically advertise positions. Instead, this job market is accessed through your contacts and networking. Networking can include your family, friends, university staff, members of clubs and groups you are involved in, colleagues and employers. Networking also helps you write better applications as you can find out more about the job and the company from your contact. In addition, when going for a job interview, mentioning that you have previously spoken to someone from the company gives you an advantage by showing that you are engaged with the company and enthusiastic about joining them. Networking remains an important skill as you progress from a graduate engineer to a professional. Networking helps to build a reputation and get your name out there as an expert in particular fields. Companies come to know who you are and what you have accomplished and will often pursue particular engineers, especially when starting a complex project with demands that match your skill set.

Beside the benefits that networking provides to your employability, networking is a way to build a support group of professionals that you can trust and call upon when you need an opinion or different point of view. This works best when you have contacts from a diverse range of fields and areas of expertise, so be sure to make contacts with people outside your field as they may come in handy some day.

## **Tips for Networking:**

Improving your networking skills begins by being prepared for the conversation. Start by practicing introducing yourself and going through the answers to some basic questions. Practicing with a mirror or a friend can simulate talking in front of someone and help to raise confidence and charisma. Aim to talk clearly and confidently and always be genuine and polite. Good topics for conversation include the contact's projects and achievements, the company's history, or how your contact finds working at their company. Researching the company and the contact beforehand will help you to form questions that you can use to facilitate the conversation. Talk about your skills, interests and experience but avoid talking about yourself too much. Making a business card with your details on one side and skills and areas of interest on the other can be a great way to be remembered and can invite your contact to hand you their business card.

During conversation be sure to look interested and engaged. Each situation is different, but in general try not to look defensive with tightly crossed arms or a closed stance. Always be positive and non-judgemental when talking to contacts. Lastly, don't forget about appearances by dressing appropriately for the situation. Networking can be about showing that you would be able to fit into a work environment, so dress to be employed.

## **How, When and Where can I Network?**

There are many ways to start networking. SMUCE's lunchtime seminars can be a great time to network with company representatives. A friendly chat after the seminar can help you build a

## ... Network!

contact with that company which may give you an enormous advantage when applying for a position.

Once you have practiced with SMUCE, it's time to give networking a go. Engineers Australia have student seminars and workshops where young engineers have a chance to mingle and introduce themselves to companies. Some companies also host meet and greets where students are invited to meet each other and learn more about the companies. You can also ask your existing contacts to suggest new contacts. It's important to remember that you should treat every person as a possible contact.

Be sure to keep in touch with the contacts that you have made. Follow up a conversation with an email and always be sure to send a thank you when a contact has helped you. Another great way to stay connected is by using LinkedIn. LinkedIn is a free professional social networking website which allows you to add and communicate with people you have met in a professional manner. LinkedIn is a great way to create a professional online profile that provides information about your skills and expertise. When using LinkedIn, it's important to keep your details up to date and relevant. Recent accomplishments, scholarships, and interests should be included. Be sure to confine your personal life to Facebook and keep your LinkedIn professional.

Networking is not only about building business connections; it is also about improving your communication skills, expanding your horizons, and being sociable. Networking can help you become employed and build a support group around you that you can call on for advice, help, or for a different perspective. Networking is a worthwhile endeavour that has far reaching benefits. It is a skill that every young engineer should be practicing.

This article was written with advice from Colin Jones, Process Engineer at Dairy Innovation Australia, DIAL.

-Michael Ah-Cann

**Institution of Chemical Engineers (IChemE):**

The Institution of Chemical Engineers (IChemE) is the global, professional membership body for chemical engineering professionals and anyone involved with process engineering, including employers, researchers and those who educate and train chemical engineers.

With over 41,000 members in 120 countries, IChemE is the only organisation that awards the internationally-recognised Chartered Chemical Engineer and Professional Process Safety Engineer qualifications. In Australia, IChemE is an assessing entity for the Registered Professional Engineer Queensland (RPEQ) registration which can be completed for suitably qualified members. We set the standards for chemical engineering and process safety engineering professionals.

IChemE currently has offices in Australia, Singapore, Malaysia, New Zealand and the UK.

Students are able to join IChemE for a one off membership fee of \$50 that is valid for the duration of their undergraduate studies.

Student member benefits include:

- Two free pocket sized reference books that are exclusively provided to students
- Free monthly subscription to the leading industry magazine tce, (The Chemical Engineer) and tce today app
- Knovel e-library – access over 500 science and engineering books, research papers and resources
- Up to 15% discount off books, including titles in your reading list as well as discounts on events and conferences
- IChemE Advantage – discounts/offers from a range of partnerships in many areas
- Special interest groups - with 20 groups available, one free registration in your preferred field
- Networking opportunities to meet other engineers to help gain the inside track in your industry
- Careers support – employment advice through IChemE approved recruitment agency
- Free upgrade to Affiliate/Associate member upon graduation (free for the first year and 50% off the following year for Associate level only)
- And much more...

For more information, visit:  
[www.ichemeoncampus.org](http://www.ichemeoncampus.org)



# Industry Profiles

The following section contains useful information relating to companies which may have employment opportunities for chemical engineers over 2015 - 2016.

	Graduate Employment Positions	Vacation Employment Positions	Vacation Employment Positions for International Students
Australian Paper	✓	✓	✓
Boston Consulting Group	✓	-	-
BP Australia	✓	✓	-
Deloitte	✓	✓	✓
Ego Pharmaceuticals	?	-	-
Emerson Process Management	✓	-	-
Engineers Without Borders	-	✓	✓
ExxonMobil	✓	✓	-
EY	✓	✓	✓
Fluor	?	-	-
Glencore	✓	✓	-
IAESTE	-	✓	✓
Mars Australia	✓	-	-
Newcrest Mining	✓	✓	-
Nufarm	✓	✓	-
Orora	✓	✓	-
Owens-Illinois	✓	-	-
Process Group	✓	-	-
Santos	✓	✓	-
Shell	✓	✓	-
Teach for Australia	✓	-	-
Thales	✓	?	-
Visy	?	-	-
Wood Group PSN	✓	✓	-
Yarra Valley Water	?	?	

## Australian Paper:

When you print your documents at work or at home, there is a good chance that you are using Australian Paper's proudly locally made copy paper. Many of the large and small boxes that are used for packaging your favourite food products are also made by us right here in Australia. When you send a letter, that envelope is likely to have been made by us in Melbourne.

Australian Paper's pulp and paper operations are vertically integrated in the manufacture of pulp, paper, envelopes and stationary which means that we not only manufacture the paper, envelopes and stationary that we sell to our customers, we also manufacture the pulp that is the key ingredient in making these products.

We make around 750 individual grades of paper at our mills in Victoria and New South Wales, from printing and publishing papers, office and inkjet printing papers, packaging papers and watermarked and embossed security and cheque papers. Our paper is converted into a variety of products such as scholastic and business books, envelopes, manila folders, other stationary products, food wrappers, paper bags, cardboard cartons, cheques, and passports.

Our product range includes recycled content and carbon neutral papers, and many of Australian Paper manufactured and owned papers are either AFS/PEFC or FSC® certified. Some of our best known brands include Reflex®, Optix™, Tudor®, Australian™, Olympic™, and Queen's Slipper™. We also produce a wide range of offset printing, specialty printing and digital papers, including ENVI Carbon Neutral, Australia's first Government-certified 100% carbon neutral paper.

## Key Projects and Achievements:

We invest in areas of the business that will allow us to continue to provide customers and consumers with environmentally and socially responsible premium quality papers that are manufactured right here in Australia.

Our sustainability initiatives in recent years include:

- Launch of the Future Fibre Strategy in 2011
- \$90 million investment in a paper recycling plant in Maryvale, Victoria
- Around \$7.5 million invested in upgrading machinery to increase paper manufacturing capabilities and reduce energy.

This demonstrates our commitment to the economic sustainability of our organisation as well as the communities in which we operate.

In 2013, we produced 619,000 tonnes of paper products, 450,000 tonnes of pulp, and sold almost 690,000 tonnes of our products to local and overseas markets. Our products are exported to over 75 countries in Asia, USA, Europe, Middle East, the Indian subcontinent, Latin America and Africa.

## Employee Development:

Australian Paper provides in-house and external training and development opportunities for its employees on an as-needs basis to ensure that they are equipped with best practice industry skills and knowledge that not only benefits the business, but also provides valuable professional and personal skills. All graduates complete the Graduate Program upon being employed (see below) to ensure they are equipped for a successful career with Australian Paper.

## Locations:

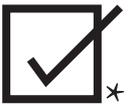
Australian Paper has three production facilities in Australia: Maryvale Mill, Australian Office and Shoalhaven Mill.



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Maryvale Mill is located in the heart of Gippsland, Victoria, 160 kilometres east of Melbourne. The mill was built in 1937 and has been upgraded periodically over the years to improve efficiency and environmental performance, and responding to customer needs with continuous product improvement.

Located in Preston in the northern suburbs of Melbourne, Victoria, our Preston Manufacturing Facility is the largest envelopes and stationery manufacturer in Australia. Using paper sourced largely from our paper mills, Preston has the capability to manufacture 2.1 billion envelopes per year and manufactures folders and filing products, note and lecture pads, business books such as carbon and carbonless copy books, school exercise and scrap books, adhesive mailing labels, and even playing cards!

Located in Bomaderry, 160km south of Sydney on the New South Wales south coast, the Shoalhaven Mill is Australia's only manufacturer of high-quality specialty printing and writing papers.

### Vacation Employment Positions:

Australian Paper run an annual vacation program, and this program will be offered for the 2015 – 2016 summer period. The positions available are located at our Maryvale Mill, will commence in late November 2015, and span for a period of three months concluding in February 2016. Vacation Students will complete challenging project work which provides real work experience at a large continuous manufacturing site. The type of work offered ranges from process and plant improvement to providing relief in an active organisational role. Work will be provided which is commensurate with your level of competence, skills and experience.

### Vacation Employment Positions for International Students:

\*All applicants must be legally entitled to work in Australia.

### Graduate Employment Positions:

Australian Paper runs an annual Graduate Program. The Graduate Process Engineering Program is run from the Maryvale Mill. The program generally commences in February of each year and spans for a period of 18 months. Our Graduate Program has been designed to develop our future leaders and technical experts. This opportunity will equip graduates with the tools required to build a successful career within our company and industry. Throughout the program graduates will gain valuable on-the-job experience as well as develop communication, technical and leadership skills.

Participants of the program will rotate through different areas of the Mill. Rotations are designed to provide the graduate engineer with an overview of how each area of the Mill operates. During the rotations participants of the program report to an area engineer or manager and work on projects that require them to investigate process improvement opportunity, provide recommendations and participate in the implementation activities. Graduates participate in the Graduate Mentoring program and will attend professional body networking events and may have the opportunity to participate in post-graduate study.

### Applying for a Position:

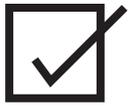
Students can apply by addressing the job advertisement once the recruitment for these positions commence. Recruitment generally commences during August of each year. The graduate and vacation program advertisements will appear on Seek and on University job boards.

### Other Information:

For further details please contact:  
Australian Paper Human Resources Department  
[03 5136 4016](tel:0351364016)



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### **Boston Consulting Group:**

The Boston Consulting Group (BCG) is a global management consulting firm and the world's leading advisor on business strategy. We partner with clients in all sectors and regions, with particular strength locally in Technology, Media & Telecom, Health Care, Industrial Goods, Consumer, Energy, Financial Institutions, Insurance and Public Sector.

### **Employee Development:**

As well as formal training, BCG employs an 'apprenticeship' model, with Associates given structured guidance and support in their on-the-job learning. Where areas for development are identified, formal and informal training is tailored to close the gaps. In addition, every Associate has a mentor allocated from BCG's most experienced senior staff.

### **Locations:**

The Boston Consulting Group (BCG) is the fastest growing global premium consulting firm with over 80 offices worldwide. We are also the largest of the premium consulting firms in Australia with offices in 4 cities.

### **Graduate Employment Positions:**

We are now recruiting for Engineering students to join as Associates in 2015, 2016 and 2017.

### **Other Information:**

Please contact [australiacareers@bcg.com](mailto:australiacareers@bcg.com) with any questions.



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# BP Australia

## BP Australia:

We find, develop and produce essential sources of energy. We turn these sources into products that people need everywhere. The world needs energy and this need is growing. This energy will be in many forms. It is, and will always be, vital for people and progress everywhere. We expect to be held to high standards in what we do. We strive to be a safety leader in our industry, a world-class operator, a good corporate citizen and a great employer.

In Australia we are engaged in: the exploration for and production of oil, natural gas and liquefied natural gas; and the refining, transporting and marketing of petroleum and lubricant products. Via our refinery and a national network of terminals, depots and truck stops, we are one of the largest suppliers of fuel to Australia's industrial sector.

## Employee Development:

You'll enjoy a culture of collaboration and respect. Working across teams and functions, you'll enjoy access to some of the most talented people in their fields. Equally, you'll be valued for your skills and expertise. Collective success is rewarded and diversity is highly valued. So we'll welcome your ideas and opinions, trust you to do your job and treat you with genuine respect and consideration.

We focus on training and development. From the start, you'll have a 'buddy' and a 'mentor'. You will also be part of a performance review cycle which is a key process in helping you reach your potential. Over the three year Graduate or 12 week Vacation Intern Program, you will be able to engage in several professional and personal development opportunities.

## Locations:

Globally BP operates in around 80 countries. In Australia, BP has operated since 1919. Today, we're involved in a whole range of activities, such as exploring natural gas and crude oil resources. We also refine and market petroleum products and produce lubricants.

## Vacation Employment Positions:

BP Australia offers a paid 12 week structured Vacation Internship Program (December – February) which will set you on the path to developing a successful, long-term career.

As a BP Vacation Intern, you'll have the opportunity to work on some of the most exciting and challenging projects our industry has to offer. You'll work alongside highly qualified and experienced colleagues, in a culture that values respect, diversity and shared success, to deliver tangible results using world-class technology. You also gain the technical and personal skills you need to build a successful career, while earning a competitive salary and benefits. Beyond this, there are opportunities to continue your career with BP Australia through our Graduate Program.

Vacation Intern applications are due to open mid July 2015.

## Vacation Employment Positions for International Students:

We do not currently offer positions for non-permanent Australia or New Zealand residents. However, we have many offices globally that offer graduate programs and we encourage students to explore these opportunities in countries where they are eligible or have the legal right to work.

## Graduate Employment Positions:

Australia's Graduate Program is structured depending on what part of the business you are in. The Downstream Challenge Program is BP's Graduate Program for technical and professional



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# BP Australia (cont.)



disciplines within the Downstream business across Australia. This program provides graduate opportunities at our corporate head office in Melbourne and our Castrol lubricants business in Sydney. Each of the programs typically run for 36 months.

Graduate applications open on Monday 2 March 2015 and close at midnight on Friday 27 March 2015.

### Applying for a Position:

Students are able to apply to either our graduate or vacation intern program via our website link at: [bp.com/grads/au](http://bp.com/grads/au).

### Advice to Students:

BP looks for graduates who will be a good cultural fit and are all-rounded individuals. We consider a strong academic background, sound commercial acumen and prospective leadership abilities, as well as a broad range of varied experiences.

### Other Information:

For more information, visit our website or contact us.

**Web:** [bp.com/grads/au](http://bp.com/grads/au)

**Email:** [AUSGraduates@se1.bp.com](mailto:AUSGraduates@se1.bp.com)

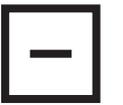
**Social Media:** 'bpcareers'



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## Deloitte:

As one of Australia's leading professional services firms, we are redefining the way professional services are experienced for our clients and our people.

Deloitte Touche Tohmatsu and its affiliates provide audit, tax, consulting, and financial advisory services through approximately 6,000 people across the country. Focused on the creation of value and growth, and known as an employer of choice for innovative human resources programs, we are dedicated to helping our clients and our people excel.

Our vision is to be the most inspiring firm to work with - for its people, its clients and its communities. Deloitte is committed to innovation to develop new ideas, products and services that create value for our clients, our people and the country. With seven key values or 'Signals' that have been honed over the years, Deloitte's culture is based on:

- Continuously growing and improving.
- Having fun and celebrating.
- Aiming to be famous.
- Playing to win - thinking globally.
- Talking straight.
- Empowerment and trust.
- Recruiting and retaining the best.

## Key Projects and Achievements:

Deloitte Australia's revenue of A\$1.162 billion for the fiscal year ending 31 May 2014, ranked Deloitte second by revenue of the Big Four in Australia. Globally, the network of member firms is ranked number 1 with revenue of US\$34.2 billion for the fiscal year ending 31 May 2014.

Deloitte was ranked in the 2014 BRW Top 50 Most Innovative Companies, and were the only major Professional Services firm on the list. We were also placed at number 4 in 2014 Universum's 'Australia's Ideal Employer' survey which was voted by over 8500 students from 41 Australian Universities – the highest ranking of the Big 4.

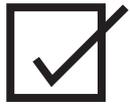
Deloitte Digital won Adobe's Digital Marketing Partner of the Year 2014 award for Australia and NZ. In 2014 we were also awarded the Employers of Choice for Gender Equality award by the Workplace Gender Equality Agency (WGEA). This award was previously known as Employer of Choice for Women (EOWA), which we held for 11 consecutive years.

Deloitte were named Accounting Firm of the Year and Audit Firm of the Year at the Financial Review Capital CFO Awards 2013. In 2012 we were named Inclusive Workplace of the Year by Australian Human Resources Institute (AHRI).

## Employee Development:

Whether a graduate or an experienced professional, a learning journey has been specifically designed with you in mind. Within your journey you will complete a variety of initiatives that we believe will be key to setting you up for success at Deloitte. Throughout this journey you will have 24/7 access to digital learning focused on sales, client advocacy, industry awareness, leadership and people management content. This is further supported by our technical curriculums aligned to each individual's area of specialisation.

What sets Deloitte apart is the flexible and simulated approach to learning. We design the learning experience around actual real life scenarios. Professional Development builds on the foundation that is established at D. Academy (for Graduate employees) and explores a broad range of development areas including engagement management, communication and impact,



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self and people development, and service and sales.

Your continuous growth and development also extends to further studies. To help our people and clients excel, we support access to best practice external programs and study (professional qualifications and post graduate or equivalent university courses) to complement the technical and non-technical programs delivered at Deloitte.

**Locations:**

We have over 6,000 people throughout Australia, over 200,000 staff globally, with 15 locations across the country, and 150 countries across the globe.

**Vacation Employment Positions:**

Deloitte Australia's vacation employment involves three to eight weeks gaining exposure to client work, our award winning learning programs, and social events, with the prospect of securing a graduate position with the firm. If you're in your penultimate year at university you are eligible to apply.

**Vacation Employment Positions for International Students:**

Deloitte Australia accepts applications for our graduate and vacation programs from students who do not yet hold Australian permanent residency. If you are in this category, you must meet certain criteria to be eligible.

Check here for more information:

<http://www2.deloitte.com/au/en/pages/careers/articles/international-students-careers.html>.

**Graduate Employment Positions:**

Surrounded by a large peer group, you'll be supported by a dedicated mentor and counselling team who will work with you to build your technical and business skills.

**Applying for a Position:**

Applications for graduate and vacation work open on our careers site as of Monday the 23rd of February 2015.

**Other Opportunities for Students:**

Our Deloitte Development Program is a two day interactive program that offers you professional development, an insight into life at Deloitte and an advanced opportunity to secure a summer vacation position. You are eligible if you are in your 1st year of a 3 year degree, 2nd year of a 4 year degree or 3rd year of a 5 year degree.

**Advice to Students:**

We have numerous tips and tricks on how to apply on our careers site.

Visit: [Yourfuture.deloitte.com.au](http://Yourfuture.deloitte.com.au). Don't forget to check out the "Discover where you 'fit' at Deloitte" while you are there.

**Other Information:**

If you are unable to find what you're looking for on our careers site please email your enquiry to: [graduate@deloitte.com.au](mailto:graduate@deloitte.com.au).



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# Ego Pharmaceuticals

## **Ego Pharmaceuticals:**

Proudly Australian-owned, Ego Pharmaceuticals has led the way in the development, manufacture and marketing of innovative skincare products for over 60 years. Our mission is to exist for people who want healthy skin. Ego is the specialist in skincare, backed by science. We make our products in Australia for the people of the world. We provide consistently high quality productions, underpinned by heritage and integrity.

From its inception as a family business in 1953, Ego has grown to become a world leader, producing a comprehensive skin and health care range for sale in Australia and around the world. Our reputation is built on consistently delivering effective, high-quality and innovative products to meet a diverse range of needs, and we are committed to creating the best possible skin therapies for our customers.

## **Key Projects and Achievements:**

The last few years have seen a large growth in production at Ego. As such, Ego has introduced various production plant and equipment into the manufacturing and packaging operations to increase capacity and improve efficiency.

Some other projects are:

- New Flammable Products Manufacturing Facility
- Trade Waste Project
- Intermediate Bulk Container Delivery System Project
- Bulk Tank Automation Project

## **Employee Development:**

At Ego, our people make the difference. Our people are our most valuable asset; while many may claim this, we at Ego have placed a premium on our people from day one. Regular training programs and professional development are offered by Ego to keep Egozites (that's what we call ourselves) trained in the latest developments and techniques in our respective fields of expertise.

## **Locations:**

Our manufacturing site is located in Braeside, Melbourne. We distribute from our Dandenong South location, and we have sales offices around Australia and around the world.

## **Graduate Employment Positions:**

We do not have a formal graduate programme. We advertise and fill positions as required.

## **Applying for a Position:**

Respond to advertisements as they are placed.

## **Other Information:**

Please email [jobs@egopharm.com](mailto:jobs@egopharm.com).



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## Emerson Process Management:

Emerson is a global leader in bringing technology and engineering together to provide innovative solutions for customers in industrial, commercial, and consumer markets around the world. Founded in 1890 in St. Louis, Missouri (USA), Emerson delivers solutions through five business segments: Process Management, Industrial Automation, Network Power, Climate Technologies, and Commercial & Residential Solutions. With sales of \$24.7B and more than 130,000 employees in over 150 countries, we have a customer-focused, results-driven culture where employee performance is recognized and rewarded. Emerson Process Management is a leader in helping businesses automate their production, processing and distribution facilities in key industries including chemical, oil and gas, refining, pulp and paper, power, water and wastewater treatment, metals and mining, food and beverage, and pharmaceutical. Running a process operation means constant pressure to cut costs, increase output, reduce energy use and emissions, and improve safety — all while managing increasingly complex operations.

## Key Projects and Achievements:

- QGC LNG project.
- Santos GLNG project.
- Woodside Browse.
- Alcan Gove.
- BHP Ravensthorpe Nickel.
- Esso Long Island Point.
- Watercare.
- Apache Energy.

## Employee Development:

Emerson is committed to personal and professional development in which each individual must participate in at least 40 hours of professional development each year. The training offered to our employees is a combination of online, on-the-job and formal classroom based training both in-house and through external providers. We also offer personal development through regular lunch & learn about health and wellbeing, donate blood to Red Cross during work hours and assist local communities.

## Locations:

Our head office for Australia and New Zealand is located in Bayswater Victoria, however we have branches in Sydney, Brisbane, Gladstone, Adelaide, Perth and New Zealand.

## Graduate Employment Positions:

We will have allocations for graduates within our organisation in 2015. These are staggered throughout our financial year and are posted on our website and [seek.com.au](http://seek.com.au).

## Applying for a Position:

Students can apply for graduate program via our website via our website or [seek.com.au](http://seek.com.au).

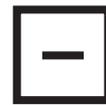
## Other Information:

For more information please contact:

Amy Wadhwa.

Phone: [03 97 210 200](tel:0397210200).

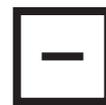
Email: [Amy.wadhwa@emerson.com](mailto:Amy.wadhwa@emerson.com).



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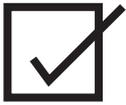


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## Engineers Without Borders:

Engineers Without Borders Australia (EWB) is a member-based not-for-profit organisation with 10 years' experience in creating systemic change through humanitarian engineering.



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We do this by:

- Working in partnership to address a lack of access to basic human needs such as clean water, sanitation and hygiene, energy, basic infrastructure, waste systems, information communication technology and engineering education.
- Educating and training Australian students, engineers and the wider community on issues including sustainable development, appropriate technology, poverty and the power of humanitarian engineering.
- Leading a movement of like-minded people with strong values and a passion for humanitarian engineering within Australia and overseas.

## Key Projects and Achievements:

EWB's Development Partnerships involve working with community partners in Australia and internationally to facilitate meaningful and lasting change through volunteerism.

Using a strengths-based approach to community development, we work with individuals, organisations and communities to build their capacity and access to collaborative networks. We use our engineering knowledge and resources to bridge self-identified gaps in access to community health, wellbeing and opportunity. In Australia, we work with Aboriginal and Torres Strait Islander communities and targeted local community groups. Internationally we work with local NGOs, universities and social enterprises in South Asia and South-East Asia.

The key initiatives coordinated within the EWB's Development Partnerships are:

- EWB International Intakes – 12 month placements for established and emerging professionals to engage in meaningful volunteerism.
- Training – facilitation of prep-departure training for overseas volunteers and cross-cultural training for our Aboriginal and Torres Strait Islander program volunteers.
- Partnership management with community organisations in Australia and overseas.

## Institute:

The EWB Institute is the education, training, research and innovation section of Engineers Without Borders Australia. The EWB Institute delivers high quality educational and training outcomes for students, professionals and EWB's membership. It also provides technical and educational support of EWB's development programs through courses, knowledge partnerships and university programs.

The key initiatives coordinated within the EWB Institute are:

- EWB Challenge - a design program for first year engineering students.
- Dialogues on Development - intensive study tours in Cambodia, India and in Aboriginal communities.
- High School Outreach Program - a member-led, hands-on science education program for school students.
- Knowledge Centres - communities of practice providing professional expertise in
- Research Program - program for engineering student researchers connecting them to
- Training Activities - in support of EWB's Field Volunteers, chapter leaders and membership.



## Locations:

EWB operates local chapters in each State consisting of students, professionals and non-engineers who are passionate about humanitarian engineering and enacting change in the local community. We also have international placements in India, Cambodia, East Timor, Papua New Guinea, Sri Lanka, Nepal, Vietnam and Indonesia.

## Vacation Employment Positions:

EWB offers unpaid internships at the Head Office in Melbourne during the summer. The EWB Summer Internship Program is an exciting program that will engage passionate individuals with EWB's work. This program has the clear objective of seeking people with a social awareness and humanitarian commitment to contribute through diverse skills (engineering, education, marketing, communications, events and fundraising) to achieve EWB's mission.

For more information contact: [j.hadjion@ewb.org.au](mailto:j.hadjion@ewb.org.au).

NB: Internships are not technical in nature. They are focused on procedural work and program support.

## Other Opportunities for Students:

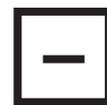
EWB volunteers get access to mentoring and networking opportunities.

## Other Information:

For more information, please contact:  
[info@ewb.org.au](mailto:info@ewb.org.au)



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## ExxonMobil:

ExxonMobil Australia is involved in the exploration and production of oil and gas, petroleum refining and supply of fuels (including natural gas). Affiliated companies also supply lubricants, bitumen and chemical products.

## Key Projects and Achievements:

- Kipper Tuna Turrum.
- Gas Conditioning Plant.
- Kipper Mercury Removal Project.

## Employee Development:

As a graduate with ExxonMobil in Australia you will have access to world-class training, state-of-the-art technology, a global network of highly talented colleagues and the opportunity to develop a wide range of skills and expertise throughout your career.

## Locations:

The company has offices in Melbourne and Perth with its headquarters for Australia in Southbank, Victoria.

## Vacation Employment Positions:

Details of the 2015/2016 vacation program have not yet been confirmed.

Typical vacation employment has involved the following:

- ExxonMobil offers a 12 week paid Summer Vacation Work Program to Australian Engineering students in their penultimate year of study.

The program is designed to provide:

- A real engineering project that is current and important to the business.
- An opportunity to apply your University skills to a practical real work problem.
- A competitive salary with additional scholarships on offer to support high performing vacation students through their final year of University.
- Useful skills for future employment.
- First hand experiences of an engineering work environment.
- Opportunity to experience what it's like to work for ExxonMobil, a dynamic global organisation that maintains its leadership position through its highly talented workforce and superior technology.

As part of the Summer Vacation Work Program, each student is assigned a recent graduate engineer mentor and encouraged to participate in various induction, orientation and training activities. Students are given real work projects of current business importance and have the opportunity to report back on these projects to the management team. They work closely with our recent graduate engineers as well as our senior technical engineering experts.

Interaction and visits to processing sites is an integral part of successfully completing vacation employment objectives. Projects support our various operations; Offshore Bass Strait, Longford Crude Oil Stabilisation and Gas Processing Plant, Long Island Point Fractionation Plant, Altona Refinery, supply and distribution.

Students may be offered graduate employment positions at the end of their 12 week placement to take up upon completion of their studies depending on their performance and available opportunities.



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**Graduate Employment Positions:**

Details on graduate positions for 2016 have not yet been confirmed.

**Other Opportunities for Students:**

Three scholarships are awarded each year as a part of the ExxonMobil Awards for Excellence. These scholarships are awarded to Australian Citizens or Permanent Resident engineers in their penultimate year of study.

Networking events are coordinated throughout the year with various student bodies on campus.

**Applying for a Position:**

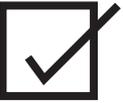
Visit: [www.exxonmobil.com.au/careers](http://www.exxonmobil.com.au/careers).

**Other Information:**

For more information:

**Website:** [www.exxonmobil.com.au](http://www.exxonmobil.com.au).

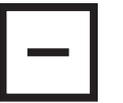
**Email:** [engrecruit@exxonmobil.com](mailto:engrecruit@exxonmobil.com) (direct specific questions here).



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**EY:**

We'll connect you to global clients and colleagues, and offer firsthand experience on the big issues that are shaping the world today. Through learning how to be part of a high performing team, you'll create relationships with people who'll help you to build a better career.

**Employee Development:**

- Learn more about yourself.
- Develop interpersonal skills.
- Understand how to make smart career decisions.

Through the structured learning sessions and workshops included in our programs, you'll understand more about us and gain the skills that will help you grow from student to professional.

**Locations:**

Work at the heart of global business and be part of a team that includes 200,000 people in more than 150 countries. Our office locations around Australia include Adelaide, Brisbane, Canberra, Melbourne, Perth and Sydney.

**Vacation Employment Positions:**

Our Vacationer Program is a great way to experience the working world during your holidays. If you're looking for a practical placement, join our Melbourne Intern Program. Show us what you're capable of and you may be invited to join us after graduation full-time.

As a high performing vacationer, you may be selected to attend the International Intern Leadership Conference (IILC) in Florida, USA and join over 3,000 students from across the world.

Apply online at: [ey.com/au/careers/vacationer](http://ey.com/au/careers/vacationer).

**Graduate Employment Positions:**

Join our Graduate Program or Sydney Graduate Challenge Program and you'll get early responsibility, support and training as you set out to achieve your career ambitions.

\*We hire international students for graduate roles, but not for vacation employment.

Apply online at: [ey.com/au/careers/graduate](http://ey.com/au/careers/graduate).

**Applying for a Position:**

Apply online at: [www.ey.com/au/careers](http://www.ey.com/au/careers).

**Other Opportunities for Students:**

Our exclusive Game Changers Club will show you it's never too early to explore how your skills could build into a career as you attend various EY events throughout the year.

Are you looking for some advice on which direction to take your career? Then apply for our Career Compass Program and discover if a professional services firm is the right track for you to take.

**Other Information:**

Should you wish to find out more about these opportunities. Please visit: <http://www.ey.com/AU/en/Careers/Students>.



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**Fluor:**

Celebrating its 100th Anniversary in 2012, Fluor is one of the world's largest publicly traded companies. Fluor works with governments and clients in diverse industries around the world to design, construct, and maintain complex and challenging capital projects. Clients depend on the expertise of Fluor's 40,000 employees operating globally to deliver capital projects safely, on schedule, within budget and with the quality they expect. In 2014, Fluor was named by Fortune, for the third consecutive year, as the top ranked engineering and construction company in its Most Admired Companies List.

Fluor's history in Australia commenced in the 1950's when Fluor constructed the Big Eildon Dam. During the ensuing 60 years, Fluor Australia has serviced client needs in the mining and metals, oil and gas, and infrastructure and other heavy industry sectors. Fluor Australia currently provides engineering, procurement, fabrication, construction, maintenance and project management services to clients in Australia and the Asia Pacific region. Fluor Australia also supports client's projects across Africa, Central Asia, and Europe.

**Key Projects and Achievements:**

Key projects completed in the Asia Pacific region are:

- Oyu Tolgoi: 35 Mt/y copper gold mine and concentrator, South Gobi region of Mongolia
- Batu Hijau Mine 45 Mt/y copper gold mine and concentrator on Indonesian island Sumbawa
- Front end engineering and design for Woodside's Browse FLNG project
- Prominent Hill: 10 Mt/y copper gold mine and concentrator, South Australia
- Iron ore expansion projects in the Pilbara (ongoing since 2001)
- Argyle Diamond Mines, mine and concentrator, Western Australia
- Dampier to Perth gas pipeline
- Goonyella Coal mine, railway and port

**Employee Development:**

Fluor is an equal opportunity employer that recognises the value of a diverse workforce. Fluor is also committed to graduate development by focussing on developing the graduate's technical skills and rotating graduates through the life cycle of a project. Graduates are also provided with the opportunity to discover the diversity of projects and industries, gain experience in their respective engineering disciplines and have the opportunity to rotate into non-discipline roles such as procurement, project controls, and business development. Graduates are selected according to academic merit, demonstrable interpersonal communication skills, proven initiative, ability to work well in a team environment and willingness to relocate for short term assignments on project sites within Australia and, in some cases, international sites.

**Locations:**

Fluor's main office is located in Perth, with affiliate offices in Melbourne and Brisbane. Sites are entirely dependent on the Client's project locations.

**Graduate and Vacation Employment Positions:**

Given the lack of investment and consequently engineering and construction activity in the current economic climate, Fluor does not anticipate offering graduate or vacation employment in the coming year. However, Fluor encourages graduates to watch the Business sections of the media for any announcements of projects being awarded to Fluor Australia.

**Applying for a Position:**

Graduates are invited to search for job opportunities using the search engine provided on the Fluor Australia web site: <http://www.fluor.com/australia/careers/graduate>.



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## Glencore:

Glencore is one of the world's largest diversified natural resource companies and leading integrated producer and marketer of commodities. Glencore's customers include industrial consumers, such as those in the automotive, steel power generation, oil and food processing sectors. Glencore also provide financing and logistics to producers and consumers of commodities.

Glencore is structured into three distinct business segments:

- Metals and minerals:
  - Includes mining, smelting, refining and warehousing operations in copper, zinc/lead, nickel, ferroalloys, alumina/aluminium and iron ore production.
- Energy Products:
  - Includes both coal mining and oil production operations as well as storage and freight equipment investments.
- Agricultural Products:
  - Includes the storage, handling and processing of grains, oils/seeds, cotton and sugar.

## Key Projects and Achievements:

- We are Australia's largest thermal coal producer.
- Our Australian zinc operations extract from the world's largest zinc resource base.
- We operate Australia's deepest and highest grade underground copper mines.
- Our iconic 90-year-old copper and zinc-lead-silver Mount Isa Mines operation is Australia's largest mining and processing facility.
- Our Murrin Murrin hydrometallurgical project is the world's only single-site laterite nickel producer.
- We are one of the leading exporters of Australian grain.
- Our pioneering technology business has developed significant mineral processing innovations, metal smelting and refining technology, and marketed these to the global mining industry.

## Employee Development:

- Ongoing training and education.
- Support for approved external training courses.
- Structured performance development program.
- Graduates complete a Leadership Development Program.

## Locations:

- Coal:
  - We are Australia's largest coal producer with 11 mining complexes across NSW and Qld. We manage 20 Operating Sites and we are a Port Operator and a Rail Operator. Our geographic region spans North to South 2052 km. We produce quality thermal and coking coal for export via five key coal chains and ports. We have a strong safety and environmental performance and play an active role in the development of low emission coal technology.
- Copper and Zinc:
  - Glencore has copper and zinc operations across NSW, the Northern Territory and Queensland.
  - In Queensland, Mt Isa Mines operate two separate mining and processing streams. They mine the largest zinc resource base and the biggest underground network of copper mines in the world. Mt Isa Mines provide work for almost 5,000 employees and contractors.



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- o In NSW, Glencore CSA Mine is operated by Cobar Management. The CSA Mine is an underground copper mine located in Cobar, Central Western NSW. CSA Mine employs over 300 people.
- o Glencore's McArthur River Zinc Mine is one of the world's largest providers of zinc, providing approximately 3% of the world's total zinc resources. McArthur River employs over 400 people.
- Global Presence:
  - o Glencore provide work for the around 190,000 people around the world, in over 150 mining and metallurgical sites, offshore oil production assets, farms and agricultural facilities. Glencore is located in over 50 countries and has a global network of more than 90 offices.

### **Vacation Employment Positions:**

All Glencore vacation program opportunities will be advertised on our careers website: <http://www.glencore.com/careers/graduate-recruitment/>.

The Glencore Vacation Program is a 12 week paid program where the students are assigned to one of our mine sites.

### **Graduate Employment Positions:**

All Glencore Graduate program opportunities will be advertised on our careers website: <http://www.glencore.com/careers/graduate-recruitment/>.

The Glencore Graduate Program is a 2 year program where graduates are assigned to mine sites across the business.

### **Other Opportunities for Students:**

Glencore offers scholarships programs for the Copper and Zinc assets which are advertised via our careers website. For Coal specific scholarship opportunities, these are advertised through our university partners, the University of Newcastle, University of Wollongong, University of New South Wales and University of Queensland.

We are also major sponsors of the Women in Mining Network.

### **Applying for a Position:**

Students can apply for either the graduate or vacation program via our career's website: <http://www.glencore.com/careers/graduate-recruitment/>.

To ensure students are alerted to any relevant Graduate or Vacation Programme opportunities in their local region, as they are advertised, we encourage them to register for a 'Job Alert Profile' via the following address:

<https://glencorejobs.nga.net.au/cp/index.cfm?event=ja.startJobAlertProfile&CurATC=AUS&Cur-BID=15c6f576-6ca6-4f10-a792-9db401357a6d>.

When submitting an application, it is imperative that the students address all of the selection criteria; which includes a cover letter, resume and academic transcripts.

### **Other Information:**

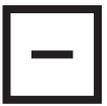
Students can contact the Glencore Human Resources Team at [Graduates@glencore.com.au](mailto:Graduates@glencore.com.au).



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### About IAESTE Australia:

The International Association for the Exchange of Students for Technical Experience (IAESTE) is an independent, non-profit, student run exchange organisation. It provides students in technical degrees with paid, course-related training abroad. With over 80 member countries and exchanging over 4000 job offers each year worldwide, it is the largest organisation of its kind in the world.

### IAESTE Traineeships:

IAESTE is open to students in technical fields such as engineering, sciences and architecture, and students must have completed their 3rd year of studies prior to undertaking a traineeship. Traineeships can be from as little as 4 weeks up to a whole year, however typically most positions are 3-6 months.

All traineeships are paid with salaries that cover cost of living and accommodation; however students are responsible for travel and insurance costs. Visas and accommodation are arranged by IAESTE in the host country, in conjunction with IAESTE Australia. Positions vary from year to year, but we have access to traineeships in over 80 countries and these positions include private companies, industrial organisations, research institutes, local government bodies, consultancies, laboratories and academic institutions.

The international IAESTE network also means you will have an instant group of contacts and friends when you arrive, with social events and travel often organised by IAESTE in the host country. An IAESTE traineeship is a great way to earn while you learn as well as being a fantastic opportunity to travel and meet fellow students from all around the world!

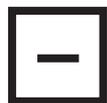
### Contact Us:

**Website:** [www.iaeste.org.au](http://www.iaeste.org.au)

**Email:** [australia@iaeste.org.au](mailto:australia@iaeste.org.au)



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## Mars Australia:

Mars Australia is part of the Mars Incorporated global organisation, with over 75,000 Associates employed worldwide. We manufacture and market some of the biggest and best brands in the world, including MARS®, SNICKERS®, M&M'S®, MASTERFOODS®, DOLMIO®, KANTONG®, PEDIGREE®, WHISKAS®, and SCHMACKOS®... just to name a few!

Our business in Australia began when we commenced selling the MARS® bar in 1954. Our first factory was built in 1967, and since then we have grown significantly. We now have six manufacturing sites across Australia in the Chocolate, Petcare, Food and Gum and Confectionery industries, and employ more than 2,700 Associates.

Whether it's the simple pleasure of savouring the world's best-loved chocolate and confectionery, the warmth that a healthy and contented pet brings to your family, or the rewards that come from creating fantastic tastes in your own home, Mars is the company behind many of the enduring brands Australians have come to know and trust.

## Graduates at Mars Australia:

At Mars Australia we believe that our graduates are the future leaders of our business, therefore from the outset, we give them real roles with real responsibility. To support our graduates in achieving this we have structured our program in a way that allows graduates to have the freedom to explore new areas whilst giving them the support and tools they need to develop.

As a graduate at Mars Australia you will join a 2-year program aimed to develop both your functional and technical skills as well as provide adequate time for development of leadership capability to enable you to progress to more senior roles. The program expands across all sites and divisions giving you the opportunity to work with a range of large brands in the Chocolate, Petcare, and Food businesses.

If you are eager to work with other high calibre individuals, you will discover that we offer all the tools and support required for individual freedom to grow and succeed within our business.

## Locations:

The majority of our roles are regionally located in the following major centres:

- Victoria – Ballarat and Wodonga.
- New South Wales – Bathurst and Wyong.

## Eligibility:

Applicants must be Australian or New Zealand citizens, or have current Australian permanent resident status at the time of application.

## How to apply:

Applications for the 2016 Mars Graduate Program open 9th February 2015 and close on 29th March 2015.

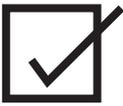
## Other Information:

For further information, including details on how to apply, visit:

[www.marsgraduates.com.au](http://www.marsgraduates.com.au).



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## **Newcrest Mining:**

Newcrest is one of the world's largest gold mining companies with a global workforce of around 10,000. We own and operate a portfolio of predominantly low cost, long life mines and have a strong pipeline of exploration projects. Our reserve and resource base is strong, with gold reserves representing more than 25 years of production at current rates.

Our work-force is located in Australia, Indonesia, Papua New Guinea, West Africa and Fiji. In every location our people live our values and share our vision of being the Miner of choice™.

In Australia we have two large operating mines:

- Cadia Valley Operations (CVO), located in central western New South Wales, and is one of Australia's largest gold mining operations.
- Telfer, located in the Great Sandy Desert in the East Pilbara region of Western Australia.

## **Key Projects and Achievements:**

Newcrest's latest mine, Cadia East, commenced commercial production from Panel Cave 1 in January 2013 and Panel Cave 2 in October 2014. When Cadia East reaches its capacity of 26 million tonnes per year, it will become the largest metalliferous underground mine in Australia and one of the largest in the world with an approved mine life of 21 years.

In December 2014, Newcrest approved work on the world class Golpu deposit in Papua New Guinea to proceed to Feasibility Study during 2015.

## **Vacation Employment Positions:**

Newcrest is passionate about developing young people. The selection process for Newcrest's Vacation Program commences in July/August each year.

## **Graduate Employment Positions:**

Newcrest's Graduate program includes on-the-job learning, formal training and individual support. However you will find the real opportunity comes from working on live projects with leading professionals using the best in technology and processes. It is this hands-on work, gained over our two-year Graduate Program that will see you grow as a professional.

Newcrest has a small Graduate intake planned for 2016. Positions will be advertised on our website in March/April 2015, for commencement in January 2016.

A relevant tertiary qualification is essential. As an exciting part of your adventure is working in remote or regional locations, you'll need to be resourceful, resilient, flexible and share our values.

## **Advice to Students:**

Read the SMUCE Careers Guide and speak to the Monash Employment & Career Development team prior to applying for Vacation & Graduate positions. It always helps to get a different perspective on your CV and cover letter before you submit an application!

## **Other Information:**

For more information:

**Website:** <http://www.newcrest.com.au/careers/grow-with-newcrest>

**Email:** [graduates@newcrest.com.au](mailto:graduates@newcrest.com.au)



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**Nufarm:**

Nufarm Limited operates in the industrial and fine chemicals industry. The company manages twelve industrial chemicals plants around the globe for the production of a range of agro-chemicals.

**Key Projects and Achievements:**

Nufarm continues to expand its operations overseas to enter new markets with the recent construction of several additional facilities. The company has also diversified and is expanding rapidly into GM grains business. The key strategy is to rationalise the business to return to core strengths of manufacture. This includes expansion and consolidation of each site.

**Employee Development:**

Nufarm will generally support a candidate's personal direction as long as aligned to the company's direction. This can take many forms, from company funded business-orientated postgraduate courses, to the targeted personal development of skills which may be aligned to a specific area of expertise.

**Locations:**

Nufarm manufactures in Western Australia and Victoria, but is represented in various forms in all states. Overseas manufacturing operations are located in Canada, United States, Brazil, Austria, France, Holland, England, Malaysia plus several smaller representations in South America, North Africa, Eastern Europe and South East Asia.

**Vacation Employment Positions:**

Nufarm continuously offers vacation employment on an ongoing basis aligned to specific projects and general plant operations. Usually this involves the candidate being aligned to a specific project which is in progression. The project may be adjusted to suit the candidate's abilities. During the vacation period the candidate will also be exposed to various functions around normal business and be expected to contribute in some way to this.

**Graduate Employment Positions:**

\*Nufarm generally does not offer graduate employment directly associated with universities, but identified high performers within the undergraduate vacation employment have often gone on to receive full time employment.

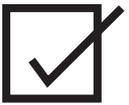
**Applying for a Position:**

Send your resume, cover letter and academic transcript directly to:  
[John.wilson@au.nufarm.com](mailto:John.wilson@au.nufarm.com).

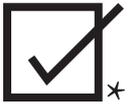
**Other Information:**

For more information:

**Email:** [John.wilson@au.nufarm.com](mailto:John.wilson@au.nufarm.com)



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**Orora:**

At Orora, we believe packaging touches lives. Together, we deliver on the promise of what's inside.

Headquartered in Melbourne and listed on the ASX, with 39 manufacturing plants and 83 distribution centres across 7 countries, and 5,500 team members, we supply packaging products and services to the grocery, fast moving consumer goods and industrial markets.

Our products and services include corrugated boxes, folding cartons, recycled paper linerboard, glass bottles & jars, multi-wall paper sacks, closures, aluminium beverage cans, bulk bags, packaging design & testing services, distribution and recycling services.

Our Australasian Business Group is focused on fibre and beverage packaging within Australia and New Zealand. Our North American Business Group is focused on total packaging solutions in the USA, Canada and Mexico. It also has integrated corrugated sheet and box manufacturing and equipment sales capabilities.

**Key Projects and Achievements:**

Orora offers customers the highest standards in innovative packaging solutions, reliable service and partnerships built on excellence.

In 2014 Orora was recognised as part of the 2014 BRW Most Innovative Companies, and won awards for innovation and design in the prestigious Australian Packaging Design Awards and Worldstar Awards.

Orora has also been recognised for outstanding environmental sustainability at the Energy Efficiency Council Awards.

**Employee Development:**

Orora is committed to developing our team members and in 2014 launched a global corporate university, providing learning opportunities 24/7 in all of the countries we operate.

**Vacation/Graduate Employment Positons:**

Orora offers vacation and graduate employment at different locations based on business need. We advertise these positions as they become available via SMUCE and Seek and students are able to apply to us directly.

**Other Information:**

You can find out more about us at <http://www.ororagroup.com>.



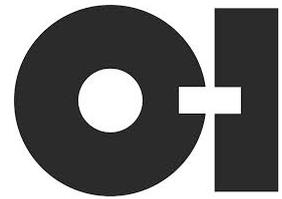
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## Owens-Illinois:

Owens-Illinois, Inc is the world's largest glass container manufacturer and preferred partner for many of the world's leading food and beverage brands. With global headquarters in Perrysburg, Ohio, USA, O-I delivers safe, sustainable, pure, iconic, brand-building glass packaging to a growing global marketplace.

O-I Australia is part of O-I's Asia Pacific region. Headquartered in Melbourne, Australia, the Asia Pacific operations encompasses eight plants across four countries - Australia, China, Indonesia and New Zealand. O-I Australia employs over 1,000 people across five sites including four manufacturing plants based in Adelaide, Brisbane, Melbourne and Sydney. Owens-Illinois (Australia) Pty Ltd is a wholly-owned subsidiary of Owens-Illinois, Inc. The company's legal operating entity in Australia is ACI Operations Pty Ltd, trading as O-I Australia.

## Key Projects and Achievements:

### Design:

- Throughout the Design, Size and light-weighting improvements:
  - Almost 121 million containers produced by O-I Australia in 2012-13.
  - More than 12,230 tonnes of glass packaging savings since 2011.
  - There have been 31 SKU Light Weighting Projects Completed since 2011.

### Recycling:

- During the 2012/2013 reporting period, O-I Australia continued working with employees, suppliers and the general public and diverted 292,614 tonnes from being placed into landfill.
- In 2011/2012, post-consumer cullet accounted for 37% of O-I Australia's total tonnes packed.
- In 2012/2013, O-I used 42,225 tonnes of Flat Glass and Fine Grind Cullet.

### Sydney Case Study:

- An advanced cullet processing plant (Glass Recovery Services) opened next to O-I's Sydney Plant in June 2012:
  - The first year of the new system provided our Penrith Based Plant 103,194 tonnes of colour-sorted recycled cullet.
  - Total cullet provided for the year exceeded the forecast by 23,194 tonnes.

### Adelaide Furnace Case Study:

- Reducing energy loss at Adelaide's AD2 furnace through new insulation:
  - The addition of rockwool to the Adelaide Furnace Wall has resulted in lower melting costs and a reduction of CO2 by around 1,600 tonnes a year.

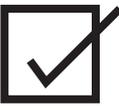
### Returnable Packaging Program:

- Enabling customers to return secondary O-I product delivery packaging for reuse:
  - In the reporting period 2012/2013, the total weight of waste prevented from going to landfill through O-I's returnable packaging program was 104,887 tonnes.

For the 2012/13 reporting period, O-I Australia's plants produced almost 800,000 packed tonnes of glass products or over 3.2 billion glass containers for some of Australia's well-known food and beverage brands. The Company had revenues of \$7.0 billion in 2013.



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## Owens-Illinois (cont.)

### Locations:

Adelaide, Brisbane, Melbourne, Sydney. Owens-Illinois employs approximately 22,500 people at 77 plants in 21 countries. In addition to its Asia Pacific operations, O-I has two joint venture operations with Thailand's Berli Jucker Public Company Limited (BJC) based in Malaysia and Vietnam.

### Graduate Employment Positions:

The O-I Graduate Program is an 18 month program offering hands-on rotations through all facets of our plant operations. The program has a specific focus on developing future leaders in our organisation, balancing development of technical skills with commercial understanding. Graduates are partnered with a mentor who supports their learning. During the 18 months they also participate in group learning activities such as Lean Six Sigma Green Belt qualification, group business challenges, and where possible an International experience.

### Applying for a Position:

Roles are advertised on [Seek.com.au](http://Seek.com.au) or applications can be forwarded to: [recruitment@ap.o-i.com](mailto:recruitment@ap.o-i.com).

### Other Information:

For more information visit:

Website: [www.o-i.com](http://www.o-i.com).



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## Process Group:

Process Group has an established track record as a leading solutions provider for the Energy sector. Our 30-plus year track record includes packaged process systems and complete process trains and plants for onshore and offshore Oil and Gas production facilities.

In June 2014 Process Group became part of the Degrémont and SUEZ ENVIRONNEMENT worldwide groups enabling it to offer, via Degrémont Industry, comprehensive management of the entire industrial water cycle, including water resource, process water, industrial water and industrial sludge. Process Group provides solutions to the following disciplines:

- Oil & Gas production facilities
- Crude Oil stabilisation & treatment
- Refining & Petrochemical applications
- Produced Water treatment systems
- Solids handling / Wellhead Desander systems
- Energy & Power generation

Process Group's clients include Shell, PDO, BP, ConocoPhillips, Cairn, McDermott, BHP Billiton, Occidental, Petronas, Premier, Chevron, ONGC, Addax, ExxonMobil, Pertamina, and Santos.

## Key Projects and Achievements:

Over recent years Process Group has implemented a best in class philosophy to safety. Consequently the loss-time injury rate has been significantly reduced to be equivalent to or better than our peers in the industry.

Process Group has designed and fabricated processing packages for some of the major oil and gas developments that have occurred in recent years. These include gas processing packages for INPEX's Ichthys and Chevron's Gorgon LNG projects off the Western Australian coast, Santos's GLNG project in Queensland, Exmar's floating LNG unit in Columbia, and Oil Search's LNG project in the highlands of Papua New Guinea. Further afield, significant produced water packages have been supplied to Indonesia and Iraq and oil treatment packages to Tunisia and Venezuela.

## Employee Development:

Process Group employs a wide range of engineers, including chemical, mechanical and electrical, as well as technical specialists. We offer extensive on-the-job training tailored to the position and the interests and skills of the individual. Most training will tap into our extensive worldwide online resources managed by SUEZ ENVIRONNEMENT and may also include internal or externally run courses. Specialisations include process design, mechanical design, detailed engineering, procurement, construction, fabrication, inspection and commissioning.

## Locations:

Process Group is based in Rowville, Melbourne and also has offices in Singapore and Abu Dhabi in the United Arab Emirates. Our global footprint includes clients in China, Japan, Oman, Iran, UAE, United States, Norway, India, United Kingdom, Thailand, Australia, Pakistan, New Zealand, Indonesia, Malaysia, Sudan, and Singapore.

The offices of Degrémont, our parent company, are located around the globe with headquarters based in Paris, France.



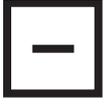
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**Graduate Employment Positions:**

Process Group anticipates that we will hire some graduates in both 2015 and 2016 depending on industry factors.



**Applying for a Position:**

Refer to our website Careers page for details of current available positions:

[www.processgroup.com.au](http://www.processgroup.com.au).

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**Santos:**

An Australian pioneer since 1954, Santos is a leading oil and gas producer supplying Australian and Asian customers.

**Key Projects and Achievements:**

With its origins in the Cooper Basin, Santos is one of Australia's largest producers of gas to the domestic market and has the largest exploration and production acreage position in Australia of any company.

Santos has also developed major oil and liquids businesses in Australia and operates in all mainland Australian states and the Northern Territory.

Santos also has an exploration-led Asian portfolio, with a focus on three core countries: Indonesia, Vietnam and Papua New Guinea.

From this base, Santos is pursuing a transformational LNG strategy with interests in three LNG projects; Darwin LNG, PNG LNG and GLNG.

Our substantial pipeline of projects ensures Santos is well positioned to achieve our production goal of 80 to 90 million barrels of oil equivalent by 2020.

With over 3,000 employees across Australia and Asia, Santos' foundations are based on safe, sustainable operations and working in partnership with host communities, governments, business partners and shareholders.

**Employee Development:**

Technical Development is taken seriously at Santos and a technical ladder framework is in place which tracks career progression and identifies areas for development.

**Vacation Employment Positions:**

Santos offers 12 weeks' vacation employment between November to February each year to chemical engineering students who are currently in their penultimate year of undergraduate study.

**What the program provides:**

Students in the program will be given the opportunity to improve their technical skills and enhance their personal development. The program provides hands-on experience through challenging project work.

**Feedback:**

At the conclusion of the program, students receive structured performance feedback from their Project Leader. Additionally, they are invited to provide their own feedback through an exit questionnaire.

**Program benefits:**

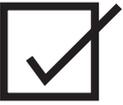
Students have an opportunity to determine their interest in the oil and gas industry and the company has an opportunity to assess students for possible graduate positions in the following year.

**Location of work:**

Project work will generally be based in our Adelaide, Brisbane or Perth offices. Some projects will require students to travel to our site locations in South Australia and



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Queensland during their employment period.

See our website for application open and close dates: [www.santos.com/careers](http://www.santos.com/careers).

### **Graduate Employment Positions:**

Santos recognises the strategic value in recruiting new talent at graduate level and provides excellent opportunities for growth and development through our Graduate Program.

Our program provides accelerated career development incorporating on-the-job technical training and specialist development activities, including:

- Graduate Induction Program
- Regular feedback
- Job rotations
- Mentorship and support
- Graduate Ambassadors
- Competitive remuneration and benefits package
- Flexible work options

We are keen to hear from applicants who are willing to strive for high quality results working in a dynamic and challenging environment and be flexible in their work location.

Applicants will be in the final year of their chemical engineering degree.

Santos targets high-quality graduates who exemplify Santos' values and are committed to achieving commercial outcomes through technical excellence. Applicants will need to demonstrate effective communication skills and strong problem solving, analytical, time management and organisational abilities.

Our graduates are generally placed into our Adelaide or Brisbane offices and have the opportunity to travel and work at our site locations throughout Australia. Later in their careers, high-calibre graduates may have the chance to live and work at our overseas locations.

The vacation program is the main pathway to our graduate program but we will advertise additional positions as they arise on our website [www.santos.com/careers](http://www.santos.com/careers). You may also submit an Expression of Interest application at any time via our website and we will advise you of opportunities as they arise.

### **Applying for a Position:**

We require all applications to be registered online and these will be reviewed and shortlisted. See our website for application dates [www.santos.com/careers](http://www.santos.com/careers).

Registrations will be received online when applications are open. Our structured selection process provides all candidates with the same opportunity to demonstrate our required attributes. This is achieved by utilising a consistent candidate evaluation process.

### **Other Information:**

For more information, visit:

**Website:** [www.santos.com](http://www.santos.com).

**Email:** [graduate.recruitment@santos.com](mailto:graduate.recruitment@santos.com).



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**Shell:**

Shell are a global group of energy and petrochemicals companies with around 92,000 employees in more than 70 countries and territories. We use advanced technologies and take an innovative approach to help build a sustainable energy future.

**Key Projects and Achievements:**

Prelude - Located 200km from the nearest point on the West Australian mainland, Prelude is an engineering first and a global game-changer in the energy industry. As long as three MCGs, Prelude will be the world's largest floating offshore production facility and the first deployment of Shell's revolutionary floating liquefied natural gas (FLNG) technology.

FLNG will allow Shell to produce, liquefy, store and transfer LNG (liquefied natural gas) at sea, opening up new business opportunities for countries looking to develop their gas resources and bring more natural gas to market.

**Employee Development:**

Real roles: From day one you will be given real, stimulating roles with increasing levels of leadership responsibility.

World-class training: A career at Shell is an opportunity continuously to learn and develop, especially on our Graduate Programme. We'll support you to gain industry-recognised qualifications and provide you with a wide range of structured learning courses from our own expert trainers.

Personal development: You will be assigned a supervisor and a mentor. Together with your supervisor you will construct your tailored Individual Development Plan to ensure we are providing you with the strongest possible support needed to succeed.

Assured performance and competence: A key feature of the programme is a system of regular performance checks, to ensure that you are making good progress.

**Locations:**

We're working at the very forefront of the energy industry, on uniquely innovative projects, so from the beginning you'll gain cutting-edge experience. We're also one of the world's best-known brands. With around 92,000 employees in more than 70 countries, we operate on a scale few can rival.

The head office in Australia is located in Perth, Western Australia.

**Vacation Employment Positions:**

**Shell's Assessed Internship**

An Assessed Internship is one way to get to know Shell from the inside and immerse yourself in our industry. It will also help you decide whether a career with Shell is right for you.

You'll join a project team and work alongside Shell employees, all professionals in their fields. Their perspectives will contribute to your understanding of our business, its demands and rewards. A supervisor and mentor will support you directly. You will undertake regular assessments throughout your internship. This is to ensure you get the most from the experience and receive feedback on your performance.

Lasting 12 weeks, our internships are available to students in their pre-final year of study. Applications for Shell's internships open in late July. The 12 week Intern program commences in



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## Shell (cont.)

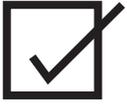
late November and finishes mid February.



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### **Vacation Employment Positions for International Students:**

Candidates must have current Australian or New Zealand permanent residency or citizenship at the time of applying to an opportunity with Shell Australia. Should you not meet this criteria, we encourage you to view internship and graduate opportunities with Shell in a country where you do have the correct work rights.

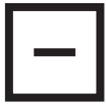


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### **Graduate Employment Positions:**

#### **Shell's Graduate Programme**

We've designed the Shell Graduate Programme to give remarkable candidates like you immediate experience of a real role in our business. You'll find yourself a key part of our global team, taking on the challenges of meeting the world's demand for energy.



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Every step of the way, we'll support you through a combination of structured training, informal learning, on-the-job, regular check-ins and inspiring mentors. You'll gain experience of different parts of our business so that you can discover where your skills and interests lie.

### **Applying for a Position:**

To apply, students need to visit [www.shell.com.au/graduate](http://www.shell.com.au/graduate) and make an online application during the application period. To find out more about the application process visit:

Assessed internship application process: <http://youtu.be/2nnXW9o2MT0>

Shell recruitment day for the graduate programme: <http://youtu.be/e98vrHWIHxc>

### **Other Opportunities for Students:**

Shell Talent Community is the best way for you to stay informed about career opportunities in your area of expertise, as well as relevant news and events. By signing up to the Shell Talent Community and connecting with us, we will have a good idea of your skills, interests and desired career path, whether you are a shining graduate or a talented, experienced professional.

How do I sign up? It only takes a minute to visit the Shell Talent Community portal and enter your details. Once you have done this you will begin to receive messages about your area of expertise and relevant news and events.

Sign up: <https://www.talentcommunity.shell.com/Students>

### **Other Information:**

For more information, visit:

**Website:** [www.shell.com.au/graduate](http://www.shell.com.au/graduate)

**Facebook:** <http://www.facebook.com/Shell>

**YouTube:** <http://www.youtube.com/user/Shell>

**LinkedIn:** <http://www.linkedin.com/company/shell/careers>

**Twitter:** [http://www.twitter.com/Shell\\_Careers](http://www.twitter.com/Shell_Careers)

## Teach For Australia:

Our vision is of an Australia where *all* children, regardless of background or social circumstance, are given the best chance in life through an excellent education. We help do this by transforming outstanding individuals into exceptional teachers and inspirational leaders, who will help change the lives of their students and become future change makers in Australian education. Teach For Australia recruits and trains high achieving, inspiring and passionate young Australians to teach in disadvantaged communities for a minimum of two years, where they have a life changing impact on their students. Our rigorous recruitment model, coupled with our award winning training and leadership program, supports participants to be highly effective teachers who can inspire students to achieve.

Teach For Australia also supports participants to be lifelong leaders of education change. We are building a pipeline of influencers who will move into all walks of life - in classrooms, government, boardrooms and charities - who are passionate and knowledgeable about educational disadvantage. This movement of dedicated change makers across all sectors will help drive the systemic change needed to eliminate educational disadvantage in Australia.

## Key Projects and Achievements:

- **Position of responsibility:** After joining TFA, over 50% of Associates attained positions of responsibility in just their first year of teaching, such as Head of Faculty and Year Level Coordinators. This figure increases to over 60% in the second year. In the third year and beyond, Alumni have attained Lead Teacher and Assistant Principal positions.
- **Principal satisfaction:** Principals rate Associates “as good as” (100%) or “better than” (95%) the graduate teachers they usually hire. 100% of Principals participating in the program want more Associates - In a recent report by the Australian Council for Educational Research, which surveyed partnering schools in the Teach For Australia program, all participating principals indicated that they would take another Teach For Australia Associate with an available vacancy. This is a strong endorsement of the quality of our Associates and the impact they are having on their schools and students.
- **Retention in teaching:** 71% of Alumni choose to teach beyond the program.

## Employee Development:

- **Teaching and Leadership Adviser (TLA):** Your TLA will support your development as a leader and provide rigorous, ongoing coaching in line with the Teach For Australia Leadership Development Framework.
- **In school mentor:** Every Associate will have a veteran teacher in school to mentor you along the journey of becoming a strong classroom leader and content expert.
- **TFA-School Academic Mentor (TFA-SAM):** TFA-SAM provides the key link between theory, coursework and practice as well as ongoing support for the Associate and the School Learning Mentor. TFA-SAMs support and guide the development of Associates’ professional practice in the classroom, and work closely with the School Learning Mentors and Teaching and Leadership Advisers in promoting their development through guided discussion.
- In the second year of teaching Associates have the opportunity to be paired with a **Leadership Coach** who is a senior leader from a field of your choice, who will assist you to reflect on your experiences in the classroom and articulate a direction that will help you grow into an authentic leader. We have many high profile Leadership Coaches, representing the corporate sector, social entrepreneurship, education and the public service.
- **The Cohort Community:** Your fellow Associates become one of your biggest assets over the program. As time goes on you will plan together, exchange ideas,



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get involved in robust discussions and, of course, do plenty of socialising. When you have had a tough day in the classroom (and there will be a few of those), they will be an invaluable source of support.

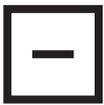
- Access to **Teach For All**, a global network of people connected through their desire to ameliorate educational disadvantage.



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### Locations:

Each year, we place Associates in a combination of existing Teach For Australia school partners and new schools in metropolitan, regional and remote areas. We partner with secondary schools of educational disadvantage as determined by socioeconomic and student performance measures. Before placing an Associate, we work closely with schools to ensure they fit our disadvantage criteria, provide an environment that will enable Associates to make an impact and demonstrate that they have the capacity to support Associates adequately over two years. Throughout the school placement process, we will work with you to find the best fit for your skills and talents as well as your geographic preferences and community aspirations.



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In 2015 Teach for Australia has placed Associates in Victoria, the Australian Capital Territory, the Northern Territory and Western Australia and in 2016 we hope to also place in additional Australian jurisdictions.

Teach For Australia is part of Teach For All - a global network of over 20 social enterprises that are working to expand educational opportunity in their nations by enlisting their most promising future leaders in the effort.

### Vacation Employment Positions:

No vacation employment. However, Associates begin the training and leadership development program at the end of November, which runs for approximately six weeks (with a break for Christmas and New Year), after which they are ready to begin teaching in their school.

### Graduate Employment Positions:

Yes. Teach For Australia has 130 graduate vacancies for 2016. The graduate program is detailed in the previous information.

### Applying for a Position:

To apply for the Teach For Australia program, the first step is to complete an online application. Application dates for our 2015 intake (2016/17 placement) are as follows:

- Round One: February 1st to April 12th.
- Round Two: May 24th to August 16th.

This is subject to change.

The application process is:

- Online application form.
- Phone interview.
- Selection day.
- Placement.

Throughout the selection process, each applicant is assessed against eight competencies. Only applicants who demonstrate proficiency within all competencies are extended an offer to participate in the program.

# Teach For Australia (cont.)



## Other Opportunities for Students:

Key Benefits of the Teach For Australia Program:

- Full time paid position for a minimum period of two years.
- Intensive teacher education leading to a Master of Teaching.
- Ongoing leadership development and coaching.
- An opportunity to be part of a movement that is positively impacting the lives of students and their communities.
- Access to professional development workshops and our broad supporter network.
- An experience that will last you a lifetime.

## Advice to Students:

We recruit from all disciplines.

Contact Emily Pearson (details below) to chat about this program further.

## Other Information:

**Website:** [teachforaustralia.org/passiton/](http://teachforaustralia.org/passiton/)

**Facebook:** [facebook.com/TeachForAustralia](https://facebook.com/TeachForAustralia)

**Email:** [emily.pearson@teachforaustralia.org](mailto:emily.pearson@teachforaustralia.org)

(Emily Pearson is Teach For Australia's Manager of Recruitment and Advocacy at Monash University).

**Phone:** [1300 832 832](tel:1300832832)

### Address:

Level 1, 103 Flinders Lane  
Melbourne VIC 3000



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## Thales:

Thales is one of very few companies in Australia with the expertise and infrastructure to develop and deliver complex systems that push the boundaries of technological excellence.

The capabilities of Thales Australia span a wide spectrum of high technology products and services. These include command and control systems, communications and mission management systems, electronic warfare, sonar and underwater systems, training simulators, avionics, air traffic management, soldier systems, munitions and protected mobility vehicles.

Thales Australia's service provision capabilities include extensive experience in material logistics, through life support, logistics supply chain, training systems, and consulting services for civilian and military applications.

## Key Projects and Achievements:

Thales Australia has successfully delivered a significant upgrade to the Collins submarine Platform Training Simulator (PTS), which now has the highest levels of reliability and availability since entering service in 1993.

Sophisticated Event Management Systems delivered by Thales Australia have secured important world leaders and supported a successful G20 Summit in Brisbane, Australia.

Thales has successfully delivered nine new Australian Light Armoured Vehicle (ASLAV) Crew Procedural Trainers (CPTs) to the Defence Materiel Organisation. The delivery follows a previous contract for nine CPTs that were first delivered in 2006 as part of LAND 112 and which play a central role in Australia's ASLAV program.

## Employee Development:

In order to encourage movement and support everyone's aspirations, we have created a broad and diversified training offer at the key turning points along your career path - creating real bridges between the various career families and businesses within the Group.

We offer training programmes adapted to your individual needs, opportunities for career progression, interesting and challenging work in a pleasant environment and an appropriate work-life balance:

- Our mobility policy enables 5,000 employees each year to develop their careers at home and abroad, in their existing areas of expertise or by branching out into new fields. Employees can progress by following either management or technical career paths.
- Our training and development is primarily managed through the corporate training facility, Thales Université, which provides a range of technical and management programmes, suitable for all levels of experience. All managers meet regularly with individual team members to review their career aspirations and development prospects.
- We believe that teamwork is a key factor in career development and encourage cooperation between all of our employees. Thales has created a number of professional networks common to the entire Group, through which our experts the world over can share their experiences and exchange points of view.
- To encourage personal innovation and success, we ensure that our employees enjoy considerable autonomy and flexibility in the organisation of their work. Moreover, Thales awards an annual company prize to the most innovative projects carried out by its people.



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**Locations:**

Thales has made a strategic investment in Australia over the past 20 years. This investment has built Thales Australia into a nationwide company with 3,500 employees in over 35 sites. Thales is a genuinely global company, with 67,000 employees in 56 countries.

**Graduate Employment Positions:**

Graduate recruitment will kick off in March 2015. Thales is looking for graduates in many different areas. As well as academic merit, Thales rates highly those who are motivated, unique and passionate. Extracurricular activities such as internships in your relevant field of interest and volunteering are also valuable.

**Applying for a Position:**

Visit our careers page: <https://www.thalesgroup.com/en/homepage/careers>.



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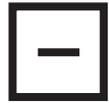
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FOR A BETTER WORLD



Visy



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**Visy:**

Visy is a leading, privately owned packaging and resource Recovery Company, with more than 120 sites across Australia, New Zealand, Thailand and Vietnam and trading offices across Asia, Europe and the USA. Our vision is to be the leading provider of recycling, paper and packaging products and services, via a dynamic business model that fosters innovative, sustainable solutions and superior returns. Our customers come from a wide range of industries, and we create packaging to suit their specific requirements.

**Key Projects and Achievements:**

**One of the world's largest privately owned packaging and recycling companies:**

With the acquisition of Southcorp Packaging, Visy effectively doubled its size overnight. This enabled Visy to achieve its goal to provide, through vertical integration, world leadership in the packaging and recycling industry. New products were also added into the mix - Visy began producing PET bottles and jars, aluminum and tinplate cans, paperboard cartons and rigid plastic packaging.

**Renewable Energy Focus:**

Visy's continual investment in clean energy is more than just a means of saving energy and emissions - it's part of our vision for the future. Since 2001, we've invested \$150m in clean energy - including \$50m in our latest clean energy plant at Coolaroo, Victoria that was launched in November 2011. The clean energy plant, named COGEN, turns residual waste into energy to help power two on-site paper mills.

**Employee Development:**

People really do matter to us here at Visy. Without our team of dedicated and passionate employees, we simply couldn't be where we are today. It's thanks to the strength of our people that we have grown from a small box maker to the world-class integrated packaging and recycling company we are today. At Visy, we don't think learning should stop once you have been in the business for a few years. After all, there's always something new to discover about the world around us, and who knows how that could affect our business? So we're committed to helping our employees learn and grow by giving them ample opportunities to do so.

Training programs are available to employees at all levels of the business, and we keep these up to date according to industry developments. In particular, the Visy Graduate Development Program is specifically designed for new employees, where on-the-job training is combined with opportunities to visit Visy workplaces in Brisbane and Sydney. The program ensures that well-rounded employees are ready to be fully integrated into the Visy workplace.

There are many facets to the Visy business - from engineering and accounting to economics, marketing and technology. Underpinning all these areas is a philosophy of sustainability, and a set of values we're genuinely proud of.

So what do we value at Visy?

- Innovation
- Customer focus
- Passion and energy for the business
- Relentless pursuit of lowest cost
- Acting with a sense of urgency
- Safety, integrity and respect for each other
- Encouraging and developing excellent people

It should go without saying that we also value safety, and are 100% committed to ensuring our

INDUSTRY PROFILES

## Visy (cont.)



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people behave safely in all parts of the business to create the best possible environment for everyone.

With our diverse mix of people, Visy is a melting pot of different skills and backgrounds. Regardless of where people come from, once they're part of Visy we encourage them to broaden their horizons and spread their wings. Many things are possible within the business, and our people are encouraged to design their own career paths and create their own successes.

As a private company, we appreciate people with an entrepreneurial spirit and 'can-do' attitude who have an appreciation of sustainability. We seek to hire people who are innovative, technologically savvy, environmentally responsible, community minded and have a desire to make things happen through constant positive change.

"Visy's goal is to become the most successful, sustainable private company in the world."

### **Locations:**

We have more than 120 sites across Australia, New Zealand, Thailand and Vietnam and trading offices across Asia, Europe and the USA.

### **Graduate Employment Positions:**

It is unclear at this time whether employment is possible for Graduates. However, any queries regarding possible graduate employment should be directed to Leanne Draper (see details below).

### **Other Opportunities for Students:**

Visy has an Engineering Scholarship that we offer to four students per year who are part of the LITE Leadership Program.

### **Other Information:**

For more information please contact:

Leanne Draper

Visy - National Learning & Development Coordinator

Building N  
13 Reo Crescent  
Campbellfield  
VIC 3061

**Phone:** [\(03\) 9247 4706](tel:(03)92474706)

**Mobile:** [0407 115 376](tel:0407115376)

**Website:** [www.visy.com.au](http://www.visy.com.au)



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## Wood Group PSN:

Wood Group PSN, a division of Wood Group, is the largest provider of brownfield services (retrofit engineering) to the oil and gas industry.

Our global network of over 30,000 people in more than 40 countries offers high integrity services that optimise the performance of facilities, maintain production, reduce operating costs, ensure asset integrity and extend the operating life of fields.

## Key Projects and Achievements:

- ExxonMobil Malaysia EPCM (Engineering, Procurement, Construction Management) five year contact.
- Esso Retrofit contract held since 2005 which includes onshore and offshore engineering design, fabrication and construction.
- Caltex Australia since November 2012- Downstream Maintenance Management, Mechanical and Support Services for Caltex Australia Ltd
- ExxonMobil PNG LNG since July 2013 - provide brownfield EPC services, including construction and maintenance services, to ExxonMobil's Hides gas-conditioning plant located in Papua New Guinea and the LNG plant at Port Moresby.
- Woodside since 2010 - The current contract is a Master Services Agreement for the provision of Brownfield support services to Woodside Energy Ltd (Woodside) focused on their North West Shelf operations off Western Australia.
- SANTOS GLNG project since 2011 - convert coal seam natural gas (CSG) to liquefied natural gas (LNG). Wood Group PSN provides project management services.
- SEIC (Sakhalin Energy Investment Company) Russia since 2007. WGPSN provides engineering and project management of modifications to both onshore and offshore assets.
- Melbourne Water contract since 2012. WGPSN is contracted to provide mechanical, electrical and civil maintenance and low risk capital projects to Melbourne Water. Our services are grouped into Planned Maintenance, Unplanned Maintenance and Low Risk Capital Projects.

## Employee Development:

- Leadership development
- Soft skills training program over 3 years for graduates (leads to a Cert 4 in Project Management).
- Study assistance.
- Front line supervisor training.
- Reimbursement of professional memberships.

## Locations:

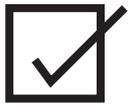
In Australia we operate in:

- Melbourne (head office for Australia & Asia Pacific region).
- Brisbane.
- Perth.

We are a global company with headquarters in the UK and operate in over 40 countries.

## Vacation Employment Positions:

The program is conducted over the summer university break and available only to penultimate year students in Engineering and on some occasions in commercial areas of the business. Students work on real oil & gas projects either at our Melbourne or Perth offices.



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## Graduate Employment Positions:

Our Graduate Development Program is designed to open up a world of possibilities for you. You'll get to work on ground-breaking projects, enjoy quality mentoring from top professionals, and be exposed to all sorts of challenges with individually-tailored support to ensure you succeed. The program structure will rotate through variety of projects to help develop both technical and behavioural skills. The program is competency based and therefore the time it takes to complete it will depend on skills, effort put in, and the way you learn.

Our three-year program will consist of five components:

1. Orientation program: The WGPSN journey begins with a three-month orientation program, which includes:

- First day induction.
- Corporate induction (company information, HR, HSE).
- Project/function inductions to understand how functions and projects work together.
- Probationary review and objective setting discussion.

2. Graduate short-course program: Our Graduate Development Programme includes a number of compulsory training modules delivered as workshops. Modules on offer include Interpersonal Effectiveness, Writing Winning Documents and Presentation Skills.

3. Technical training: In addition to the short-course program, professional development will be supplemented by specialist technical training in areas determined by the project and/or discipline.

4. Professional development programs:

- Engineering graduates will have the opportunity to become a member of the Engineers Australia professional development program (PDP).
- Designed to assist you become chartered, the program will provide you with support and guidance from WGPSN and Engineers Australia, including workshops, online support and learning materials. Engineers Australia Workshops will be held and will include information and writing sessions.
- For non-engineers, we'll provide the opportunity to achieve a relevant professional qualification.

5. Mentoring: Graduates will be matched to an experienced WGPSN employee who will provide advice and guidance on how to reach their full potential.

## Applying for a Position:

Graduate applications open via our website in March of each year for commencement early in the following year.

Vacation applications open via our website in August of each year for commencement in December of the same year.

## Other Information:

Sandro Tozzi

Graduate Program Manager

Phone: [03 9944 5663](tel:0399445663)

Email: [sandro.tozzi@woodgroup.com](mailto:sandro.tozzi@woodgroup.com)



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## Yarra Valley Water:

Yarra Valley Water is the largest of Melbourne's three water corporations, providing water and sanitation services to more than 1.7 million people and more than 50,000 businesses in the northern and eastern suburbs. Owned by the Victorian Government, our activities are overseen by an independent Board of Directors.

As a retailer, we buy bulk water from Melbourne Water. This water is mostly harvested from protected mountain catchments. We are also responsible for taking away sewage for treatment. Most of the sewage is transferred to Melbourne Water's Eastern or Western treatment plants. The balance is treated at our nine regional plants, several of which produce recycled water for use in new homes or for the irrigation of sports fields or open space.

## Key Projects and Achievements:

### Preparing for Population Growth:

- The five-year, \$650 million Northern Sewerage Project, a joint project between Yarra Valley Water and Melbourne Water, will increase the capacity of the sewerage system to service growth in Melbourne's Northern suburbs.
- Upon completion, the new sewer will extend 12.5 km from Essendon to Reservoir in Melbourne's North. It will also improve water quality in local waterways, and ultimately the Yarra River, by virtually eliminating sewer overflows during wet weather.
- We have constructed 4.5 kilometres of tunnel. The tunnel has now been fully lined and grouted. Using 27,514 cubic metres of grout, this is approximately equal to filling 11 Olympic size swimming pools!
- The Northern Sewerage Project was commissioned on 11 November 2011 at a ceremony with the Hon Peter Walsh, Minister of Water.

### Brushy Creek Class A Recycled Water:

- Yarra Valley Water has invested over \$4.5 million to upgrade the Brushy Creek Sewerage Treatment Plant in Chirnside Park.
- This investment has provided a Class A recycled water source for Melbourne's Eastern and North Eastern communities. The Class A recycled water is available to councils for the irrigation of sporting ovals and is a sustainable alternative to drinking water and can be used for a wide range of purposes.
- Our supply of Class A recycled water:
  - Ensures the Eastern and North Eastern areas of Melbourne have their own local source of Class A recycled water.
  - Decreases the amount of wastewater released into the environment.
  - Allows communities to continue to enjoy community assets such as sporting ovals through water restrictions.

## Employee Development:

Learning and development at Yarra Valley Water aims to increase the capacity of individuals to participate effectively and productively to meet the changing needs of the business. We are committed to providing staff with meaningful and effective development opportunities that assist in building a high performance business culture. Learning opportunities include on-the-job training, online training, project work, secondments, rotations, and attendance at courses, conferences and seminars.

## Locations:

Melbourne, Australia.



VAC



GRAD

# Yarra Valley Water (cont.)



## **Vacation Employment Positions:**

It is unclear whether these will be offered at this time.

## **Graduate Employment Positions:**

It is unclear whether these will be offered at this time.

## **Applying for a Position:**

These roles will be advertised on our website, and usually on university websites, as vacancies arise.

## **Advice to Students:**

Attention to detail is very important. When students are applying for roles it is easy to attach the wrong cover letter or have incorrect details within the cover letter. It is important to take a moment before submitting your application to ensure the details are correct. Also ensure that you take the time to read over your application and check for correct spelling and grammar.

## **Other Information:**

For more information please contact:

[recruit@yvw.com.au](mailto:recruit@yvw.com.au)



VAC



GRAD





# Research

# Profiles

The following section contains articles on research opportunities within the Department of Chemical Engineering.

	<b>Research Interest</b>	<b>Email</b>
<b>Prof. Sankar Bhattacharya</b>	Fossil fuel and renewable resources utilisation.	sankar.bhattacharya@monash.edu
<b>Prof. Wenlong Cheng</b>	Nano-bio interfaces and nanoparticle design for healthcare, sensing and energy applications.	wenlong.cheng@monash.edu
<b>Prof. Karen Hapgood</b>	Powder Technology - especially granulation for pharmaceutical applications.	karen.hapgood@monash.edu
<b>Dr. Lizhong He</b>	Bioengineering and nanotechnology.	lizhong.he@monash.edu
<b>Prof. Raman Singh</b>	Interdisciplinary mitigation of corrosion.	raman.singh@monash.edu
<b>Dr. Esther Ventura-Medina</b>	Engineering education.	esther.ventura-medina@monash.edu
<b>Dr. Meng Wai Woo</b>	Spray drying and food engineering.	meng.woo@monash.edu
<b>Dr. Lian Zhang</b>	Low-emission clean coal technologies for Victorian brown coal.	lian.zhang@monash.edu
<b>A/Prof. Xiwang Zhang</b>	Water treatment technologies.	xiwang.zhang@monash.edu

## Research Interests:

Efficient use of fossil and renewable resources is my research interest. My PhD students get exposure to both experimental technique and mathematical modelling improving their employability prospects. Some of the past PhD students now work in Sweden, Canada and the USA.

## Major Projects:

Some of my current PhD projects include:

- Chemical looping combustion of low-rank coal – with Alstom-Germany, Energy Australia, CSIRO and Lycopodium.
- Entrained flow gasification of brown coal and biomass – with Mitsubishi Heavy Industries-Japan.
- Direct Carbon Fuel Cell Development - with CSIRO.
- Life Cycle Analysis of mineral industries – with CSIRO.
- Processing of municipal solid wastes – with Jindal Steel.
- Minerals from CO<sub>2</sub> - with Jindal Steel.
- Catalytic synthesis of liquid fuels and chemicals from biomass – various industry partners.
- Biofuels production by algae using thermo-catalytic conversion.

## Major Impacts of Research:

Information from the projects is used by the partners for patenting or developing their own technologies.

## Future Endeavours:

Continue in the above areas, and in addition we have undertaken work in the recycling of waste plastics with industry partners.

## PhD and Masters Research Positions:

I will have two positions towards the end of 2015 as four of the current PhD students complete their thesis.

## Summer Research Positions:

Up to two positions will be available in December 2015.

## Applying for a Research Position:

Students are encouraged to contact me personally.



SMR



MST



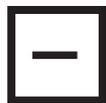
PhD



INT

## Research Interests:

My nanobionics lab research interest lies at nano-bio interface. We design nanoparticles for applications in healthcare, sensing and energy.



SMR

## Major Projects:

For details, please visit my group website below:

<http://users.monash.edu.au/~wenlongc/>.



MST

## Major Impacts of Research:

Fundamentally, my lab aims to publish research results in the highest-impact journals such as Nature. I have published 5 such papers in Nature groups.

Practically, my lab is also aiming for patentable technologies with real-world impact. My work has attracted attention from a number of world-wide media. In particular, BBC world service interviewed me and reported upon our electronic skin wearable sensor in 2014.



PhD

## Future Endeavours:

- Establish my nanobionics lab to be one of most renowned worldwide labs in the field of nanoparticles.
- Deliver real-world impacts benefiting mankind.



INT

## PhD and Masters Research Positions:

I do have 3 PhD positions available but I'm aiming for top applicants only.

## International Students Research Positions:

I do offer PhD positions for international students but I'm again aiming for top applicants only.

## Applying for a Research Position:

Write to me first by attaching your CVs and the motivation of doing a PhD.

## Research Interests:

My research interests include Powder Technology - especially granulation for pharmaceutical applications. Powders are interesting because they are so complex - they have a “memory”, and no two particles are the same which makes the behaviour of powders tricky to understand and control.

## Major Impacts of Research:

My work on how spray drops interact with the powder during wet granulation is now in many textbooks, including Perry’s Chemical Engineers’ Handbook. I have applied my research to real pharmaceuticals, including a HIV drug. All of my research is at the interface of industry and academia - I like to do work that helps industrial people understand their processes better, and that makes some sort of scientific advance that makes researchers take a fresh look as well.

## Future Endeavours:

This always depends on grant funding, but I am interested in continuing in pharmaceutical and granulation research.

## PhD and Masters Research Positions:

I will probably be taking on one (maybe two) students in 2016, as I am expecting a couple of graduations this year. I don’t know what areas these will be in yet.

## Summer Research Positions:

I am not sure summer research positions will be offered until the end of the year. In general, I don’t offer them very often as it’s my only chance to have a couple of weeks of decent holiday! If I do offer a position it will be on the official Engineering Faculty website.

## International Students Research Positions:

I offer positions for International Students if they have a scholarship.

## Applying for a Research Position:

Most Chemical Engineering Research Projects are posted on the department project website: <http://www.eng.monash.edu/research/opportunity/list.php?dept=C>

I also post them on our MAPEL website (usually on the front page): [www.mapelab.com](http://www.mapelab.com)

For further enquires about my research please email: [karen.hapgood@monash.edu](mailto:karen.hapgood@monash.edu)

To apply for a research position in general, follow the instructions at :

<http://www.eng.monash.edu.au/research/apply/>



SMR



MST



PhD



INT

## Research Interests:

I am interested in multidisciplinary research in the field of bioengineering and nanotechnology to develop products that are simple, cost-efficient and environment friendly. These work often involves bio-interfaces involving biomolecular interactions at various interfaces like solid-liquid, liquid-air and nanoparticle surfaces. One objective is to develop new and simple approaches to control biomolecule orientations at interfaces in order to have desirable attributes.



**SMR**

## Major Projects:

The current projects in my group include:

- Engineering enzymes as biocatalysts for applications including production of biofuels and valorisation of protein wastes.
- Drug-delivery using nanoparticles.
- Stimuli-responsive foams and emulsions which have broad application in the area of medical, pharmaceutical, biotechnological and food industries.



**MST**

## Major Impacts of Research:

We have established a panel of different strategies to control interfacial properties of biomolecules. These include:

- Self-assembling of peptides at interfaces for foams and emulsion.
- Low cost immobilization of enzymes using a scalable process.
- Encapsulation of enzymes in nanoparticles.



**PhD**



**INT**

Fundamentally, we have deployed biophysical methods including neutron and x-ray scattering to reveal interfacial structure of proteins and peptides, guiding design and production of advanced products at interfaces.

## Future Endeavours:

With the establishment of platform technologies mentioned above, we are well placed to tackle important research problems including:

- How can solar energy be better harvested in order to convert CO<sub>2</sub> into fuels? Can enzymes be engineered and tailored to tackle this challenge?
- Can protein wastes such as chicken feathers, whey proteins and soy bean wastes be converted into highly valuable products? Can this objective be achieved at a low cost?

## Summer Research Positions:

We will have summer research positions for voluntary students. The scholarship will depend on availability of funding.

## Applying for a Research Position:

Just send me an email ([lizhong.he@monash.edu](mailto:lizhong.he@monash.edu)) to arrange a meeting.

## Research Interests:

My interdisciplinary research expertise comprises:

- Novel Nanotechnology and Green Approaches to Mitigation of Environment assisted Degradation (Corrosion):
  - Nanostructured Alloys,
  - Graphene: Ultra-thin Coatings,
  - Silane Coatings
- Environment-assisted cracking: Mechanism, Monitoring and Mitigation

I have particular interests in application of my research expertise in:

- Advanced and Traditional Energy Systems
- Biomedical Implant Applications
- Structural Integrity of Civil and Aerospace Infrastructures

## Major Impacts of Research:

Graphene: Ultrathin Coatings for Novel Approach to Remarkable Resistance to Electrochemical Degradation of Metals (2011 - till date):

I have led a very recent ground-breaking work, demonstrating that an ultra-thin graphene coating can remarkably improve corrosion resistance of metals and alloys. An ultra-thin (a couple of mono-atomic layers) coating of graphene has been shown to improve electrochemical corrosion resistance of copper in the highly corrosive sea water environment, by nearly two orders of magnitude.

Nanocrystalline Alloys for Remarkable Resistance to Environmental Degradation (2006 - till date):

I proposed for the first time a novel concept that nanocrystalline structure can lead to materials with extraordinary resistance to environmental degradation. My hypothesis has now been validated through my own experimental as well as theoretical investigations (an ARC Discovery project). This study has also demonstrated for the first time that it is possible to achieve similar or superior degree of stainlessness in nanocrystalline iron-chromium alloys at only 10% chromium, in comparison to 18-20% chromium required/present in conventional microcrystalline stainless steels. The novel findings of this research have potential for value-added applications, including a collaboration with the Center for Clean Energy Engineering (C2E2) at Univ of Connecticut (USA).

Mitigation of Extraordinary Electrochemical Corrosion of Magnesium Alloys (2007 - till date): Magnesium alloys are among the lightest engineering materials (lighter than aluminium alloys) and Australia has large quantities of magnesium minerals. In spite of their highly attractive prospects, use of magnesium alloys is very limited, primarily due to their poor corrosion resistance. Though an effective corrosion resistance to magnesium alloys is a serious research challenge, it is also true that unless this is surmounted, exploiting magnesium resources and use of their alloys will continue to be grossly limited. In collaboration with Flinders University, my group has developed and tested a new class of coatings for magnesium alloys. The novel coating provides nearly three orders of magnitude superior resistance than any coating in this class and the coating process is very environmentally friendly. This coating has been jointly patented by Monash and Flinders.

Novel Technique for Improved Design Data for Mitigation of Stress Corrosion Cracking (2002 - till date):

I have led a Monash team for an interdisciplinary research into successful development, validation and patenting of Circumferential Notch Tensile (CNT) testing: a new, simple and relatively inexpensive technique (c.f. 20% of the costs of the traditional techniques) for the determina



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PhD



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tion of threshold stress intensity factor (KISCC). KISCC is the most important design data for components operating in corrosive environments. CNT technique received recognition for its novelty and huge practical application and is now used in several international research groups. I collaborate with US Naval Research Lab, Oak Ridge National Lab, Defence Science and Technology Organisation (DSTO) and Welding Technology Institute.



**SMR**

**Future Endeavours:**

While continuing in most of the areas listed above, specific emphasis will be on the novel area of Graphene: Ultrathin Coatings for Novel Approach to Remarkable Resistance to Electrochemical Degradation of Metals.



**MST**

**PhD and Masters Research Positions:**

\*My supervision quota is generally full (such as I currently supervise 16 PhD students), but I am always willing to accommodate a motivated and dedicated researcher.



**PhD**

**Summer Research Positions:**

\*With the heavy PhD supervision load, I am generally unable to accommodate a summer researcher, but again, I am always willing to accommodate a motivated and dedicated student.



**INT**

**International Students Research Positions:**

Yes, my group has several international students.

**Applying for a Research Position:**

It will be best for the interested students with high chances of getting faculty/department support to discuss their options with me first.

## Research Interests:

My interests are broadly in the area of engineering education. More specifically, I research the undergraduate domain of curriculum development, professional skills development and teaching and learning methods (EBL, eLearning).

## Major Projects:

The two major projects I am currently working on are aspects of social media and its use in the educational context and also on professional skills development (teamwork, problem solving and critical thinking) through a variety of teaching methods.

## Major Impacts of Research:

From my work with social media I found some interesting results regarding students' perception about the role of social media in their studies. This helps academics/teachers to make use of these tools in a more effective way in the context of teaching and learning. My work on skills development has helped us understand how students operate in teams and what level of support they might need to become more effective team players –normally it is assumed that students know how to operate in a team but the reality is different. Also, my work on skills development has shown students have high levels of engagement in learning activities when we use scenarios that replicate well authentic industrial situations.

## Future Endeavours:

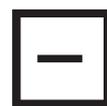
I will continue to work on the social media project as this is a very new area with many unanswered questions from the learning perspective. I will also continue working on research and development of activities on Skills Development which is critical for employability.

## Applying for a Research Position:

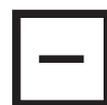
The normal route for summer research positions is through the faculty but it is always good to approach the staff beforehand. The same applies for post-grad positions.



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MST



PhD



INT

**Research Interests:**

My research is on spray drying and food engineering.

**SMR****Major Projects:**

The current projects that my team is working on are below:

- Antisolvent vapour precipitation of ultrafine particles.
- Counter current spray drying to make functional particles.
- The robot mouth for sensory analysis.
- Spray drying agglomeration.

**MST****Major Impacts of Research:**

My team pioneered the antisolvent vapour precipitation technique in spray drying. We have also recently discovered a unique phenomenon pertaining to the condensation of vapour into droplets. From the capabilities developed in my research, I have been providing consulting to the industry particularly in the area of computational fluid dynamics, helping the industry to develop their processes.

**PhD****Future Endeavours:**

On top of developing the areas highlighted above, my team is certainly looking forward to develop more projects in the area of food engineering.

**INT****Summer Research Positions:**

Every year, we take in between 5-8 summer students. These positions are on a volunteering basis. The aim here is for the students to get a feel for research.

**International Students Research Positions:**

We offer summer research and postgraduate positions to international students without a permanent residency visa.

For postgraduate positions, the students will have to proceed with a student visa application.

For summer research, we prefer international students whom are already in Australia with a student visa and are eligible to remain in the country for the period of the summer research.

**Applying for a Research Position:**

Interested students can contact Dr. Meng Wai Woo:

**Email:** [meng.woo@monash.edu](mailto:meng.woo@monash.edu)

**Phone:** 03 9905 9344

More information on our research can be found in our group website: [www.wai-research.com](http://www.wai-research.com).

## Research Interests:

My primary research interest is the development of low-emission clean coal technologies for Victorian brown coal. In detail, our research interests covers high-temperature combustion and gasification process including in-situ diagnosis, computational fluid dynamics (CFD) modelling, ash slagging and fouling, production of value-added products from pyrolysis of Victorian brown coal, and fly ash utilisation.

## Major Projects:

All my research projects are industry-driven and supported through both industry and Government sources such as Australian National Low Emission Coal (ANLEC) R&D, Brown Coal Innovation Australia (BCIA), Australian companies (Coal Energy Australia, Energy Australia, GDF DUEZ, Latrobe Magnesium), and overseas companies (Shanghai Boiler Works Co Ltd, Hubei Yihua Chemicals).

## Major Impacts of Research:

- Successful deployment of low-emission oxy-fuel combustion for Victorian brown coal in a 3 MWth pilot-scale combustion facility.
- Successful development of advanced silica-based sorbent and its commercial tests in industrial boilers for the minimisation of ash slagging and fouling in coal-fired boilers.
- Clarification of the Cr<sup>3+</sup> oxidation mechanisms from the molecular level using synchrotron-based X-ray absorption spectroscopy (XAS) facility.

## Future Endeavours:

- Deployment of low-emission oxy-fuel combustion technology for Victorian brown coal in the Latrobe Valley, to reduce its carbon emissions in the near future.
- Promoting the commercialisation of mild pyrolysis technology for Victorian brown coal to produce export grade products in the near future.
- Clarification of the molecular structures of ash-forming metals through molecular dynamic simulation.
- Development of an advanced computer modelling tool for the prediction of ashformation behaviour upon the combustion and gasification of Victorian brown coal, under either conventional or advanced low-emission combustion mode.

## PhD and Masters Research Positions:

We would have around 4 PhD scholarships next year.

## International Students Research Positions:

International students need to secure a tuition fee scholarship from Monash to cover their tuition fees. The project only allows me to pay a living allowance (~AUD 26,000 pa per student).

## Applying for a Research Position:

Please discuss with Ms Lilyanne Price in the general office of Chem Eng. She is the best person knowing every detail about the scholarship application. Lilyanne is also the first person to screen the applicants prior to informing the supervisors.



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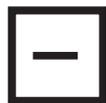
PhD



INT

**Research Interests:**

My research interests focus on the development of innovative technologies for water treatment, including photocatalysis of nanostructured materials, filtration of functional membranes, adsorption of nanostructured sorbents and advanced oxidation process.

**SMR****Major Projects:**

Two main projects funded by Australian Research Council:

- Development of Solar-induced, Dark-active Photocatalytic Membranes for Water Disinfection, A\$ 390,000, ARC Discovery Project, 2014-2016.
- High Performance Multifunctional Hierarchical Structured Membrane for Water Processing, A\$ 513,270, ARC Discovery Project. 2011-2015.

**MST****Major Impacts of Research:**

The key impacts of my research are increasing the water treatment efficiency and advancing the development of environmental functional materials.

**PhD****Future Endeavours:**

To further improve the performance of nanomaterials based water treatment technologies.

**INT****PhD and Masters Research Positions:**

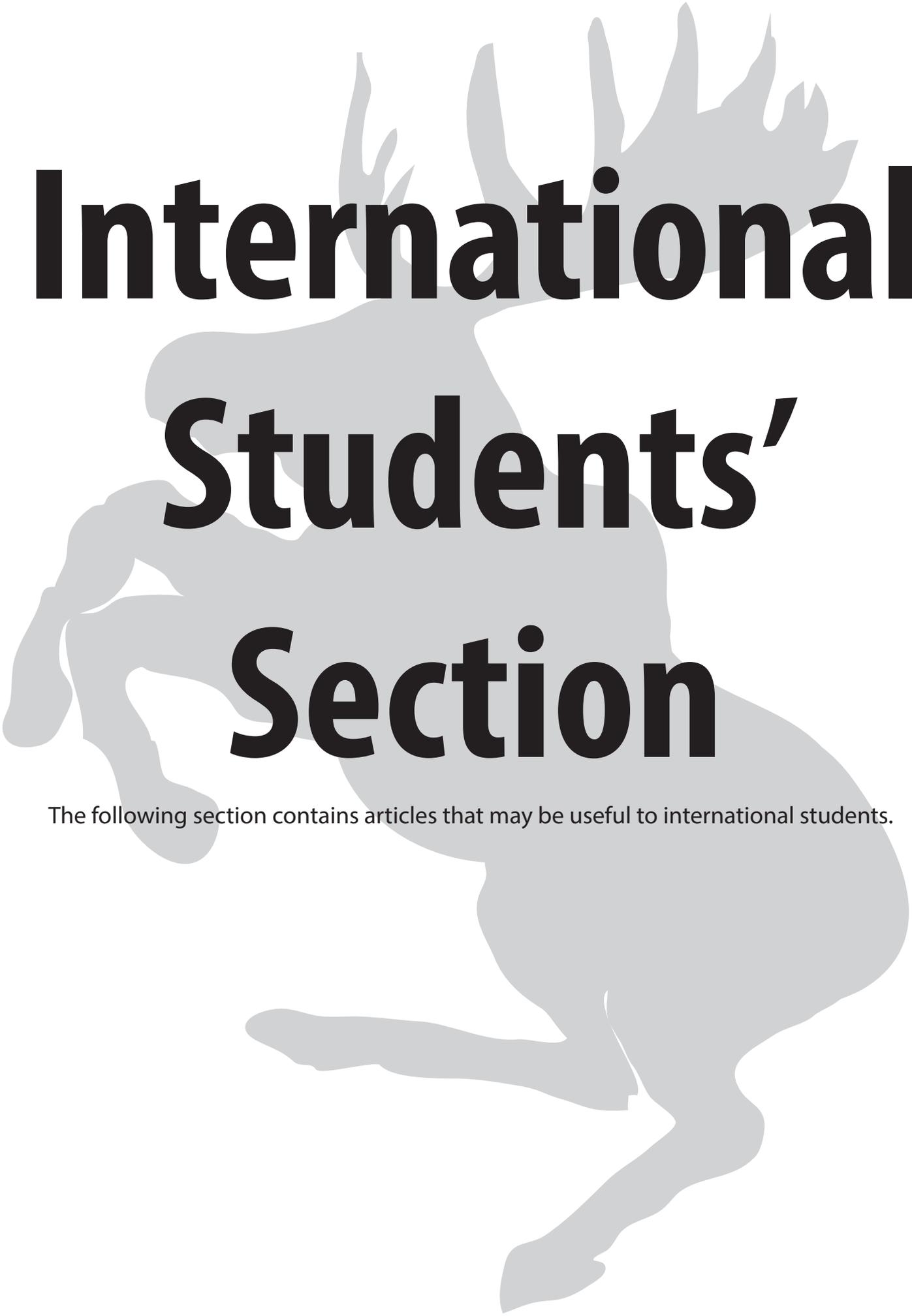
I anticipate two PhD positions.

**International Students Research Positions:**

Yes - most of my students are from overseas.

**Applying for a Research Position:**

Write to me and attach your CV.



# **International Students' Section**

The following section contains articles that may be useful to international students.

## About MUISS:

The Monash University International Students Service (MUISS) is a division of the Monash Student Association (MSA) that advocates the interests, rights and welfare of all undergraduate international students enrolled at Monash University, Clayton campus.

MUISS aims to promote interaction between international students and local students, and engagement with the broader community, through different activities which are organised throughout the year. It also aims to empower international students and help them develop skills that will help them throughout their journey in university and into the future.

MUISS is run by a seven-member committee comprised of elected students, and has a general committee, comprising of up to 20 appointed members who work towards achieving the overall goal of MUISS. MUISS is divided into the following six portfolios: Services and Welfare, Education, Activities, Publication, Treasury, and General Secretary. MUISS is staffed by a part-time Divisional Support Officer who helps in facilitating MUISS operations.

Additionally, MUISS provides a comfortable lounge on the first level of Campus Center for international students to relax, engage with each other and meet new people.

## Getting Involved:

Students become involved in MUISS by attending its activities, joining the committees, or volunteering for events. MUISS runs a variety of services for international students and there is a very busy calendar of affordable social activities throughout the year to help enrich the international student experience.

Skills that you can gain include: intercultural competence; communication; leadership; organisation; teamwork; event time management; and many others. It's about working as a team, finding friends from different countries, and having fun along the way.

Some of our events and programs that you can get involved in, both as participant or volunteer, include:

### 1. International Students Welcome Event

An opportunity for new International Students (Undergraduate and Postgraduate) to network and find out ways in which they can get involved in campus life.

### 2. Free Breakfast & BBQ

Breakfast is available weekly and BBQs are run two or three times a semester

### 3. Permanent Residency Seminar

A free event where a practising lawyer and migration agent are available to advise you on Permanent Residency matters and answer all your queries.

### 4. Free Food For Feedback

An open table where MUISS committee members are available to listen to international students' feedback and suggestions.

### 5. International Students Care Service

An after-hour service, where you can have a chat with one of our committee members when you are facing personal problems or just need a listening ear or friend to talk to.

### 6. International Students Career and Leadership Program

An event where you will be able to gain skills that will prepare your transition into work life and to become a future leader.

### 7. One World Festival

A week-long joint-event run by MUISS, TeamMonash, Monash Abroad and Campus Community Division (CCD), with plenty of activities, free food and performances, celebrating Monash's diversity.

## 8. Let's Chat

Unlike your average teacher-to-student English Class, Let's Chat is a conversational English program where you get to talk to and hang out with other international students in a fun environment through games and exciting activities.

## 9. Public Speaking

A training program tailored for international students who wish to improve their public speaking skills.

## 10. MUISS Camp

Involves team-bonding, meeting new friends, and having fun with other international students.

## 11. MUISS Week

Fairy floss, popcorn, jumping castle, and bungee run... de-stress and take a break during MUISS week!

## 12. MUISS Olympics

Social sport and tournament with prizes to win

Aside from the events that MUISS organises, MUISS also advocates for the welfare, education and rights of international students by being part of a number of student and university committees. MUISS represents international students on several official occasions, and voices the concerns and issues that international students may be facing at Monash Clayton. This year, we're starting an International Student Advisory Committee, where you will get the chance to voice your concerns and we will help you present them to University's senior staff and departments.

MUISS encourages all feedback, suggestions and concerns from students to cater for their needs and settle any issues they may encounter. The MUISS office is located on the first floor of Campus Centre, Airport Lounge, next to Monash Radio.

For more details and stay in touch with the latest news, follow MUISS's social media platforms:

**Facebook:** like us on [facebook.com/MUISS.Monash](https://www.facebook.com/MUISS.Monash)

**Instagram:** [muiss.monash](https://www.instagram.com/muiss.monash)

**Website:** <http://monashstudentassociation.com/.../International...>

## Contact Us:

Tel: (03) 9905 4143

Email: [muiss@monash.edu](mailto:muiss@monash.edu)

Address: 21 Chancellors Walk (Campus Centre) Monash University Clayton VIC 3800

# Fatema Abbas Husain's Advice

My name is Fatema Abbas Husain and I'm doing my final year of chemical engineering. I hail from Bahrain, a small island in the Persian Gulf. As an international student, my first year at university wasn't smooth sailing; getting used to the learning style was challenging, however there are many support services at university which have been very helpful in that regard.

I started off my university degree by focusing solely on studying, that is to get good grades. I soon realised that I was not getting much out of my university experience, and most importantly, employers look for well-rounded individuals, not bookworms!



I had a resolution to get out of my comfort zone and get involved in university life. I joined AIESEC Monash, a large student organisation, at which I worked on things that are completely different to engineering and learned how to manage my time effectively. The following year I joined SMUCE and MUISS and got involved in my residential hall. SMUCE has been special as it allows me to work on things that I find of good value to benefit students. I also had great opportunities to connect with people from industry and build relationships with them. Attending networking events has been valuable in getting a headstart in the profession, and for an international student, I found this is an excellent method in doing so. One summer, I did summer research at university, for which the faculty of engineering offers scholarships to annually. I found this was an easier way of getting work experience while at university. I also completed various work experience programs in Bapco, the national petroleum company back in my home country.

My involvements in university have led me to receiving the Joint Victorian Chemical Engineering Student Encouragement Award for Monash University in 2014. Some people like to call these involvements a good line in the CV. Even though they are more than that, the statement is absolutely true! We need good lines in our CVs. Being international students already puts us in a disadvantage during job hunting, hence distinguishing ourselves in any way possible is the absolute key to securing a good future in this tough market.

# Yanjun Ou's Advice



My name is Yanjun Ou and I come from a southern region of China. I have recently finished my four year chemical engineering degree at Monash University.

Finding an internship in Australia could be a really challenging task for international students. Holding an Australian citizenship or permanent residence is a requirement from some companies. Although some other companies do accept international candidates, most of my friends from university still could not get a position. Monash University, however, offers summer research scholarships and an integrated industrial program for chemical engineering students. This provides great opportunities for both local and overseas students.

In the second semester of my third year, I applied for summer research scholarship offered by the Faculty of Engineering. My supervisors were Dr. Lian Zhang, his PhD student Mr Baiqian Dai and a research visitor from China Dr. Xiaojiang Wu. I was working on the effect of ash-forming metals in the pyrolysis and char oxidation reactivity by testing raw and acid-washed coals. I got a lot of help from my supervisors. This experience gave me a good idea about what it's like to do research work and PhD studies. Applying for a summer research scholarship through the Monash website is not the only way you can get involved in research. You can send an email to your lecturers or talk to them directly. Explain that you are interested in their research areas and you are willing to be a part of their teams during summer break. This is not a scholarship type of research, but it tends to be an easier way to get a summer research position.

In the first semester of fourth year, I was doing my placement at GlaxoSmithKline (GSK) in Port Fairy. My project was about measuring the carbon footprint of morphine production in GSK Port Fairy. In this project, I needed to gather information from different people across various departments. One of my supervisors at GSK was in the United Kingdom. Therefore, communication was the core part in my placement. From this experience, I learned how to present my progress, how to ask questions and learned who the right person to ask. I applied for the integrated industrial program in the second semester of third year and my placement was from this program. I was interviewed by three of academic staffs from chemical engineering faculty. During my interview, interviewers focused more on how I will deal with certain situations instead of asking me academic questions. I think they are looking for students who can handle intense work from both company and university. Also, they appreciate those students who have the ability to solve problems and know how to deal with stress.

I strongly recommend students should have both research and industrial working experience. This can help you to find out what you would really like to do after your graduation: whether you want to continue your studies as a PhD student or if you'd rather work in industry.

# Amanda Sim's Advice

Let me start off by introducing myself. My name is Amanda Sim and I am from Penang; a little sunny island located in West Malaysia, commonly known as Pearl of the Orient. Coming from a public school in my hometown, my decision to study at Monash University in Clayton in another country was a big step for me. Despite this, I have managed to recently complete my four-year Bachelor Degree in the field of Chemical Engineering as an international student.

Being an international student means that it is very challenging to find any kind of engineering-related internship in Australia. All is not lost if you start thinking about ways to make yourself shine in the early years of your course. I was very fortunate to be given an opportunity to start my first internship at the end of my second year at B.Braun, an internationally-recognized healthcare-products manufacturer from Germany which has a plant right in my hometown. The first working experience I gained taught me to adapt to a new working environment and to be bold enough to take on any new challenges given. These traits can differentiate you as a motivated individual who is passionate for their job compared to an average student or graduate.

At the end of my third year, I completed another internship at Shell in Malaysia. My stint with Shell was more engineering-related and was steered towards project management. I was given the opportunity to take part in small-scale projects in the downstream engineering sector.

Prior to completing the 2nd semester of my third year, I was selected to undertake the Industrial Based Learning (IBL) program. I was delighted when I was first offered the opportunity, as it also comes with a scholarship and only a handful of students are selected every year. My placement in the first semester of my fourth year was at GlaxoSmithKline (GSK) located in Boronia. My project involved engineering risk-management, mainly in mitigating the risks involved within the manufacturing plant by lowering the scores of safety issues to "As Low As Reasonably Practical" (ALARP).

My experience with working for a world-leading pharmaceutical company allowed me to improve my stakeholder engagement skills by facilitating meetings and working with a diverse group of people. The experience also taught me the importance of attempting to overcome all challenges, no matter how difficult this may seem. I am very thankful for all the help that I received from my colleagues and Monash during the course of this internship.

I recommend trying to gain work experience related to your course as early as you can, as it is extremely valuable in complimenting your chosen career path.





