

2024 CAREERS GUIDE

MONASH ENGINEERING



ACKNOWLEDGMENTS



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The Engineering Careers Guide for this year is a testament to the tremendous amount of effort and collaboration of numerous individuals.

Firstly, a massive thank you to Irene Kim, our Careers Guide Designer who has spent countless hours bringing to life our vision for the Careers Guide. Your commitment, creativity, skill and applaudable work ethic is truly nothing short of remarkable and we couldn't thank you enough.

Thank you to the MESS 2024 committee who have volunteered their time to forge industry partnerships, share their personal experiences, and help out in various ways. Also, thank you to our friends and peers who have shared their insights into engineering specialisations, overseas study, and student experience.

Additionally, thank you to Aydin Chowdhury, MESS Industry Director, for his continual support throughout the whole process.

To our 2024 industry partners featured in this guide, we cannot thank you enough. Your contribution both here in this publication and at our MESS events throughout the year is extremely valued by so many Engineering students establishing their own career pathway. On behalf of MESS, thank you for such a strong start to our upcoming year working together; we are very excited to see what the rest of 2024 holds.

Finally, thank you for taking the time to read this year's Careers Guide! We truly hope you find this a valuable resource!

All the best,

Jess and De-arne

WELCOME



Aydin Chowdhury

Industry Director 2024

Welcome to the latest edition of the Monash Engineering Careers Guide, proudly presented by the Monash Engineering Students' Society (MESS) with the generous support of our partners at AMOG Consulting. As you delve into this comprehensive resource, we hope you can embark on a journey of exploration and empowerment, designed to illuminate the pathways to success within the dynamic field of engineering.

The industry team has worked tirelessly through the summer to create this guide for our members, and I would be remiss if I did not thank the dedicated individuals behind the scenes, particularly our Careers Guide Coordinators, Jessica Goss and De-arne Baker as well as our designer, Irene Kim. Their unwavering commitment and tireless efforts have shaped this guide into a valuable resource for all engineering students at Monash University, whether it be their first or last years of study.

At MESS, we have cultivated a strong network with our industry partners in a variety of disciplines and industries. Through this guide, we extend these networks to you, equipping you with the tools and insights needed to forge your own path towards a fulfilling career beyond Monash University.

Within these pages, you'll discover a wealth of career-related advice, alongside 'Company listings' from our esteemed industry partners. Take the time to explore these offerings, noting those that align with your values and interests. Throughout the year, MESS industry events will provide ample opportunities to connect with representatives from these companies, enriching your professional network and opening doors to future endeavours.

Moreover, this guide showcases the vibrant array of extracurricular activities available at Monash University, from clubs to student teams. We urge you to seize these opportunities to expand your skill set, gain experience, and distinguish yourself in the eyes of potential employers.

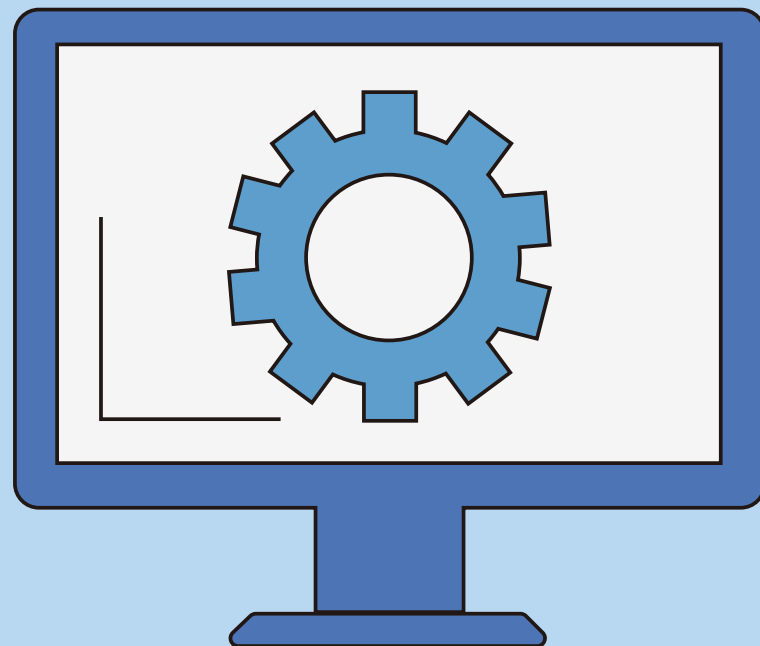
As you navigate your journey through engineering, remember to embrace every challenge as an opportunity for growth. Step boldly beyond your comfort zone, invest in continuous learning, and let passion propel you forward. The 2024 Monash Engineering Careers Guide serves not only as a resource but as a source of inspiration, encouraging you to reach ever higher in pursuit of your aspirations. On behalf of MESS, I extend my best wishes to each of you in your academic pursuits and future endeavours. May this guide catalyse your ongoing success and personal growth.

Aydin Chowdhury

Director of Industry

Monash Engineering Students' Society

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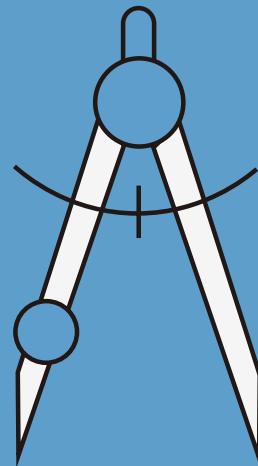
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2024 MESS INDUSTRY PROGRAM



MESS INDUSTRY PROGRAM

MESS Industry Events

Welcome to the Monash Engineering Students' Society's (MESS) Industry Programme—a gateway to unlocking exciting opportunities and insights for your future engineering career!

At MESS, we understand the importance of industry connections and real-world experience in shaping your professional journey. That's why our Industry Programme is designed with you in mind, offering exclusive access to a diverse range of events aimed at enriching your understanding of different career pathways and providing invaluable networking opportunities with industry professionals.

From engaging panel discussions to interactive workshops and networking sessions, our industry events are tailored to equip you with the knowledge, skills, and connections needed to succeed in the competitive world of engineering.

With over 1200 active members and a dedicated committee of passionate undergraduate students, MESS is committed to supporting your professional growth every step of the way. Join us at our upcoming industry events and take the first step towards unlocking your full potential as an engineer. Don't miss out on this unique opportunity to expand your horizons, connect with industry leaders, and kickstart your engineering career with MESS!

MAJOR INDUSTRY EVENTS

Beers with Engineers

MESS' most popular industry event, Beers with Engineers, is an unconventional networking-style event. Set for the 8th of May 2024, the relaxed, friendly and social atmosphere of Beers with Engineers is complemented by an off-campus venue and eliminates the formalities of traditional networking. This event creates a comfortable environment in which students can familiarise themselves with MESS' sponsoring firms, as well as networking in a more general sense. Beers with Engineers encourages genuine communication, allowing sponsor representatives to meet potential employees in an informal setting. This facilitates meaningful discussion, providing students the opportunity to discover the people behind the company.

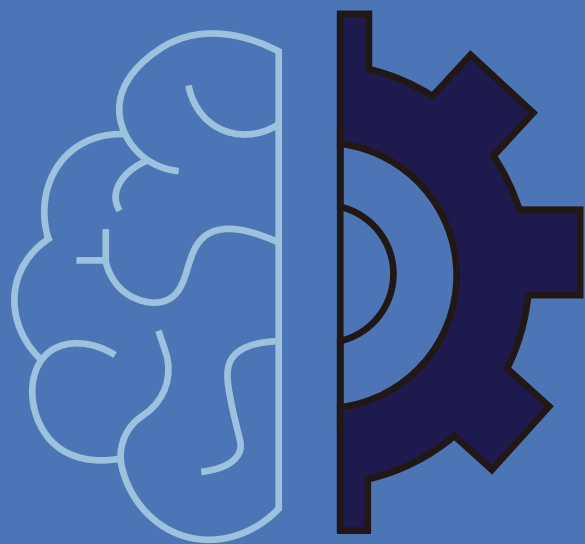
Industry Showcase

Stemming from our previous successes and feedback from students about what they found to be the most engaging from company attendance, our new event, our Industry Showcase is an opportunity for sponsors to exhibit the technologies and projects that sponsors are currently and have previously worked on. Currently set for the 6th of August 2024, the night is designed to help students get enthusiastic about the nature of the work that employers have to offer. There will be panels on major industry and engineering issues as well as sufficient space and resources for sponsors to display large and small physical elements of their operations. The event will allow companies to represent their own work and engage with students about real projects and problems. It will also encourage students to put companies that are doing interesting work and that align with their values on their radars.

MINOR INDUSTRY EVENTS

MESS also organises minor industry events throughout the year, in collaboration with sponsoring companies and clubs. Previous examples of minor events include workshops where students could learn technical skills such as Python, a TED Talk-style event where leading engineers showcased their innovations, workshops on consulting, as well as workshops where students were able to practise interview skills and polish their LinkedIn profiles. To stay up to date on other events that will pop up throughout the year, make sure to follow MESS on LinkedIn, Instagram and Facebook.

PAST STUDENT TESTIMONIALS



Rebecca O'Connell

Bachelor of Mechanical Engineering (Honours)
Bachelor of Commerce

Can you tell us a little bit about yourself?

I am early on in my career at an engineering consultancy as an Assistant Project Manager and XR Digital Designer, and I have worked on a variety of projects including Augmented Reality, visualisations and fly throughs, and real-time apps. At uni I studied a double degree of Mechanical Engineering and Marketing.

How did you decide on your specialisation?

I wasn't entirely sure what area of engineering I was interested in going into, so ultimately I chose mechanical as it was quite broad and covers a lot of things so I felt it would keep my options fairly open. This worked well as during my mechanical specialisation I found I was most interested in the 3D CAD modelling we did, which led me to pursue a career in digital engineering which then led me to where I am now.

How did you make the most of your time at university?

Getting involved in different groups and events I found really valuable both from an employability aspect and enjoying uni while I was there. This included taking a committee role at Robogals, working with a student team, and going to uni events like MESS cocktail night and things which was a great way to meet people and create memories with friends.

How have you applied what you have learnt at university outside of the classroom?

The general approach to problem solving that I learned throughout studying engineering has been very useful in my work. Also more specific things like coding and 3D modelling are skills I use in my current role, although it is generally using different coding languages/programs to what I did at uni, so it is more about applying the understanding of the structure/concepts of coding rather than the exact syntax of that language, or the concepts and names of 3D modelling functions rather than exactly where the buttons are in SolidWorks.

What is something that you wish you had known before starting your degree?

Don't be worried about finishing your degree in the minimum time, lots of people underload in their later years, and it's a good way to make time for being on a student team or just to make sure you are not overwhelmed and can still enjoy the fun parts of uni while you're there.

Final tips

Get involved and try as many things as you can, both at uni and early in your career, so that you are more likely to find something you really enjoy doing and would want to do in your job. It is much more rewarding to be passionate and interested in what you are doing.



Luigi Cortez

Bachelor of Software Engineering (Honours)

Can you tell us a little bit about yourself?

I finished a Software Engineering degree at the end of 2023. I was also one of the FaME coordinators. Outside of uni, I play the double bass in a casual jazz band, I enjoy cycling, along with playing tennis and basketball. Over the past year, I enjoyed training for and participating in a sprint triathlon.

How did you decide on your specialisation?

I selected my specialisation based on my enjoyment of units in my first-year. I selected engineering on the basis that I enjoyed motorsport and aviation. I also enjoyed mechatronics at high school. Naturally, I thought this would lead to a mechanical, mechatronic or aerospace specialisation. Having tried parts of these specialisations in first year though, I found I didn't enjoy them as much as I thought I would. Instead, I found I enjoyed software more and identified it as one of my untapped strengths. I attended seminars run by faculty and MESS to hear about each of the specialisations and their opinions aligned with what I wanted for my specialisation. The final decision came by analysing potential job opportunities in this field in Australia. The Monash IBL program (an 18 credit point internship) offered within Software Engineering only also encouraged me to select it.

How did you make the most of your time at university?

Making friends in classes is the best way to find enjoyment in university. There's nothing better to deal with the stresses of university than to complain about it with someone who is going through the same thing. At the same time, these people can inspire you, help you and encourage you to improve your performance. A lot of the time, this meant going to class even if I didn't feel like going that week. You are paying for the facilities, classes and resources, so you may as well go. While it sometimes may feel like a chore, it is very hard to get back into the groove if you avoid it for a week. You will learn a lot from talking to other people, and hearing your classmates discuss with lecturers and other students. Even just a highly insightful five minutes will make the two-hour session worth it. Think of it as doing small 1%'ers each week to help you improve. Each week those elements will add up to mean you are in a good place at the end of the year. I also found that studying primarily on campus would build a healthy separation between work and fun.

How have you applied what you have learnt at university outside of the classroom?

As good as the content of classes can be, some of the more important lessons in university relate to teaching you how to learn, and how to interact with other people. Throughout my internship and at various jobs, I have found that I have been able to build greater initial connections with colleagues as a result of university. The first few weeks of meeting new classmates and groupmates for projects in university is exactly the same as what you would see in the workplace. As lame as it may be to play two truths, one lie, or to tell an

'interesting fact' about yourself at university, these activities come up again in the work environment and can help you build rapport with colleagues. It is best to practise this as early as possible. Additionally, you may be given tasks at work that do not have a clear solution. You may need to research, ask people for advice and persevere with numerous approaches to find the solution. In the same way, at university, at times, you may feel like you're 'going through the motions', it's best to approach these tasks with enthusiasm as much as you can because you will experience similar scenarios in future.

What is something that you wish you had known before starting your degree?

It can be harder than high school. A lot of your focus up to the end of year 12 would be towards finishing and getting through the year to the best of your ability in the hope that you open up opportunities for you in future. While it is an excellent achievement, it doesn't necessarily end there. University can be harder because you have to hold yourself accountable for your own education. No one is going to chase up on your progress. If you are falling behind, you need to find the resources to help you improve. It is also up to you to find a balance between study and life. This is particularly important as you need to meet hurdles in exams and across the semester to pass a unit and progress further in your degree. That being said, university is still enjoyable.

Societies and clubs are excellent ways to meet like-minded people and have fun in university. While covid played a part in me missing what societies and clubs have to offer, I'm glad I took some time in my final year to participate on the MESS committee – it was a lot of fun and it helped improve a number of my skills.

Final tips

Keep everything within the week: as silly as it sounds, the work you are assigned should be completed in the week it is taught. That's why it is taught over 12 weeks and not meant to be crammed into the two days before the exam or final assessment. All the readings, tasks and lectures should be analysed or completed in the week it is done. You should work as hard as you can, even if it is toward the end of the week to wrap up the unit content for that week. You may say, "I'll just catch up next week", but you never will. It is a very slippery slope, and once you fall behind a bit, you will continue to fall behind and it will snowball from there. A lot of the time content relies upon the week before. As the work adds up, it can become daunting, so best to work your hardest to wrap up the weeks when you can. If you're able to keep that up, you'll avoid the dreaded cram at the end of the semester!

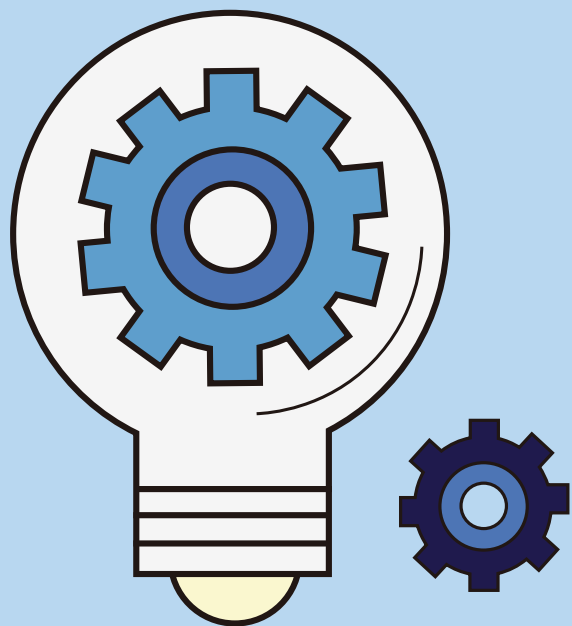
Schedule tasks in: completing tasks is best achieved if you keep yourself accountable. Try to create a schedule with times and tasks and check up on the list throughout the day. Include study and rest blocks too. During each of those times, focus solely on study or rest to maximise productivity.

Maintain a balance: it can't all be study or work. You need some downtime to be able to perform. Taking the time to relax, unwind or have some fun can refocus you and allow you to make the most of your study time. You will not be able to study 24/7. As much as you try to, you will hit a point where you are no longer being productive. Take the time to rest.

Trust yourself: amongst all the aspects of advice and opinion you may receive, at the end of the day only you can truly assess where you are. Check in with yourself to make sure you're feeling good and you're on target with your goals.

ENGINEERING AT MONASH

Are you having trouble choosing a specialisation? Are you interested in knowing more about engineering minors or postgraduate options? This section outlines the breadth of study options offered throughout your time at Monash and includes advice and testimonials from students from each engineering specialisation.



COURSE INFORMATION AND SPECIALISED ENGINEERING COURSES

Bachelor's Degree (Honours)

Bachelor of Engineering (Honours) qualifies you to be an accredited professional engineer. It develops problem solving skills and is strengthened by integrated work placement, and practical hands-on design-and-build activities. Engineers have forged some of the greatest developments in society.

Duration (single engineering degree)

- 4 years (full time)
- 8 years (part time)

Biomedical Engineering

- Accredited by Engineers Australia

- 1** Monash University is the **#1 School for Engineering in Australia and within the top 55 worldwide**
- 2** Jobs in Engineering are expected to **grow within the next 5 years**
- 3** You can choose to start in **February or July and kick start with common first year.**
- 4** For more information you can check out the Monash [Specialisation webpage](#) and [course maps](#)
- 5** All specialisations are accredited by **Engineer Australia**

AEROSPACE

“A thrilling profession in the midst of developing the next generation of flight vehicles”

Bachelor of Aerospace Engineering (Honours)

Clayton Campus

Double Degrees: Arts, Commerce, Law (Honours), Science

What do Aerospace Engineers do?

Aerospace engineering is concerned with the design, airworthiness, development and maintenance of flight vehicles. It's a multidisciplinary combination of aerodynamics, aero-structures, avionics, propulsion, materials engineering and computational simulation.

As an aerospace engineer, you'll have the skills to tackle many of tomorrow's global challenges. You may be involved in the creation of a more environmentally- friendly aircraft, or even help build a vehicle capable of exploring our solar system and beyond. Project work includes the use of wind tunnels for aerodynamic testing, computational modelling for predicting structural behaviour, advanced manufacturing, and materials and structural testing.

Your future career options

When you graduate you could work in aircraft design and maintenance, aerospace control systems, aerodynamics, sustainable energy and conservation, lightweight materials, big data analytics, or new manufacturing techniques.

You could join a large aerospace company or a manufacturer that contracts to the aerospace industry. Or work at an airline, a government aerospace laboratory or research centre. Formula One teams also employ aerospace engineers. You could also have a career in management, consulting or finance. Join a thrilling profession in the midst of developing the next generation of flight vehicles. The Airbus A350, A400M and the Boeing 787 Dreamliner are just some of the advances led by aerospace engineers.

Career specialisations include:

- Aircraft design and testing
- Avionics and control systems
- Airport operations and management
- Aircraft fleet management
- Manufacturing
- Research and development
- Defence industries
- Renewable energy
- Transportation aerodynamics
- Building and structure design and testing.

STUDENT INTERVIEW

Pablo Pleydell, 6th Year

Why did you choose this specialisation?

My whole life I have been interested in aviation and in space. I also wanted to be more specialised than a mechanical engineer.

How are you finding studying this specialisation?

The specialisation has been very rewarding, and it has been how I expected it. There are aspects and units which are more focused on aviation and aeroplane design, and there are units which are more focused on the space and orbital mechanics side. I have also enjoyed doing more specialised aerodynamics and thermodynamics work compared to the mechanical engineering specialisation.

Favourite thing about your specialisation?

The senior lecturers are very knowledgeable and there are many opportunities to do specialised research.

Least favourite thing about your specialisation?

The workload can be high and the content difficult, but I imagine this is the same for any engineering specialisation.

What are the main aspects of the common first year that have carried through to your following years of study?

Mainly the physics. There are a couple of structures units which are similar to the structures unit in First Year. The best way to get a taste of an Aerospace degree would be to do MAE2405 Aircraft Performance as a first year elective.

What's been your favourite unit? Why?

MAE2402: Thermodynamics 1. Dan is a great lecturer and the content is challenging but insightful.

If you could give one piece of advice, what would it be?

All the engineering specialisations are great and you shouldn't stress about making sure you pick the right one. I struggled trying to pick between Mechatronics, Mechanical, and Aerospace, and in the end I feel that any of them would have been just as good a choice. For example, my graduate job is closer to Mechatronics than Aerospace!

Another piece of advice is to join a student team. A lot of intern jobs will want/require you to have some sort of student team experience. They're also great fun!

Have you done any engineering work experience?

I worked for 3 years in defence. I started at Arkeus and worked as a Mechanical Intern and then as a Junior Software engineer. I did a lot of CAD and manufacturing work, and also developed geo-spatial algorithms in Rust. I then worked at Moog Space and Defence as a Junior Control Systems Engineer. I worked mainly in high precision electric motor design, control, and simulation. I also did 4 years at Monash High Powered Rocketry, ranging from a Dynamics/Simulations engineer, and also as Engineering Lead (CTO).

BIOMEDICAL ENGINEERING

“Bridge the gap between medicine and technology to transform the future of healthcare and save people’s lives”

Bachelor of Biomedical Engineering (Honours)

Clayton Campus

Only offered as a single degree

What do biomedical engineers do?

Imagine, design and build new technologies that transform the future of healthcare and change millions of lives for the better by studying biomedical engineering. You’ll bridge the gap between medicine and technology to create new types of diagnostics, monitoring tools and therapies, and build game-changing medical instruments and devices.

Save people’s lives by building a new diagnostic tool that identifies deadly diseases much faster and more accurately than before. Restore function to the body with new biomaterials that can repair and regenerate cells in ways that were previously unthinkable.

Apply AI principles to advanced monitoring tools that pick up potential problems quicker than a human ever could. Or, build your own global start-up in the growing med-tech field. Whatever you do, you’ll make a powerful impact on patients’ treatment, recovery and quality-of-life as a biomedical engineer.

Your future career options

Biomedical engineers apply engineering design skills to medical and biological sciences for the purpose of improving people’s health. 3D-printed body parts, cardiac pacemakers, 4D ultrasounds, x-ray machines, brain-machine interfaces and robotic prosthetics - these are just some of the critical technologies used around the world to save lives and promote better health outcomes, and were all designed by biomedical engineers.

With our network of industry partner, you’ll have opportunities to build your career and gain practical experience before you graduate, while the Australian-first Victorian Heart Hospital, located on the Clayton campus and opening in 2022, will offer exciting opportunities to pursue biomedical engineering research.

When you graduate as a biomedical engineer, you’ll find exciting and rewarding opportunities in the following areas:

- Medical equipment and device design and manufacturing
- Medical and healthcare services
- Biomedical instrumentation industries
- Research and development
- Med-tech entrepreneurship
- Engineering consultancy

STUDENT INTERVIEW

Anna Sherriff, 3rd Year

Why did you choose this specialisation?

Biology, chemistry and healthcare are big interests of mine, so being able to combine these areas with engineering concepts to design, develop and maintain medical technology was the perfect specialisation for me.

How are you finding studying this specialisation?

I love that it combines engineering disciplines (like electrical, mechanical, chemical and materials) with biomedical sciences, mainly physiology and molecular biology. This mix of units makes the study load manageable and sustainable - being able to focus on different interests and concepts in the same semester. I didn’t have many expectations going in, but I’ve learnt that in taking so many units with other disciplines it allows you to share knowledge and strengths, and gain a unique perspective on how engineering can be applied to medical technology.

Favourite thing about your specialisation?

The fact that we get to study units from so many different areas is incredibly interesting and gives a different perspective to be able to contribute. The smaller cohort is also really great for making friends and getting to know people of similar interests to you..

Least favourite thing about your specialisation?

Since it is a newer specialisation and you do such a variety of units from across engineering and science, it can sometimes feel like you’re not gaining a specialised knowledge of any one field -especially in classes surrounded by people doing a full load of that discipline.

What are the main aspects of the common first year that have carried through to your following years of study?

Coding, design processes, group work and the basic physics and mathematical concepts

What’s been your favourite unit? Why?

MCB2011.

it was a very well-run, well-taught unit with a good mix of lab work and theory. I found it was an engaging and interesting intro to cellular and molecular bio concepts that we have/will continue to build on as we go through our degree.

If you could give one piece of advice, what would it be?

If you love biology, chemistry and engineering, this is a great specialisation for you! Although sometimes it can feel quite disconnected studying such a range of areas, coming into units targeting people doing a full load of that one discipline, it is incredibly rewarding when the biomedical and engineering overlap. Applying the engineering knowledge to medical technology is so worth it so persevere!

CHEMICAL ENGINEERING

“As populations grow and resources and energy reserves decline, the demand for chemical engineers is increasing”

Bachelor of Chemical Engineering (Honours)

Clayton and Malaysia Campus

Double Degrees:
Arts, Biomedical Science, Commerce,
Law (Honours), Pharmaceutical
Science, Science

What do chemical engineers do?

Chemical engineering blends chemistry with engineering and other fields including biological science, environmental science, nanotechnology, pharmaceutical science, mathematical modelling, mineral processing, management and economics.

Many everyday items involve chemical engineering during some stage of their production: pharmaceuticals, computer chips, mobile phones, catalysts, food and water, and our fossil fuel and renewable energy sources, to name just a few.

Chemical engineers invent, develop, design and improve the sustainability of processes that convert raw materials into useful products, with minimal environmental impact. They're also involved with pollution control, energy generation and conservation, recovering energy from waste and renewable resources, and protection of the environment.

Your future career options

When you graduate as a chemical engineer, you could play a leading role in solving the challenge of providing society with food, energy and water. Exciting career opportunities are also available for highly trained chemical engineers in emerging industries of nanotechnology and biotechnology.

As a chemical engineer, you can:

- Develop alternative fuels and renewable sources for chemicals, pharmaceuticals and power production
- Design, develop or improve industrial processes and equipment for large-scale chemical and biochemical manufacturing
- Plan and test methods of manufacturing
- Improve energy efficiency or reduce water and resource consumption at manufacturing sites
- Develop sustainable methods for the treatment of byproducts and waste from manufacturing processes
- Devise green production processes that are safe, efficient, profitable and environmentally sound
- Research naturally-occurring chemical reactions so that these processes can be copied for human benefit
- Conduct environmental impact studies
- Develop and implement lower emission production technologies
- Research and develop new processes and products including mathematical modelling
- Design, develop and use advanced and renewable materials.

You could also have a career in law, mining, business or government.

STUDENT INTERVIEW

Anna Lofthouse, 6th Year

Why did you choose this specialisation?

I chose this specialisation because it's very much maths-based, like algebra. Chemical engineering calculations can be solved using softwares like excel, and I enjoy that process. Chemical engineering is sometimes called “process engineering”, which is a great way to describe this stream of engineering. I find it easy to follow charts and flow diagrams that describe a raw input stream with an initial composition, which then passes through a change (separation phases or reaction phases for example), to give a final product. It's very much how to get from A to B.

How are you finding studying this specialisation?

It's hard to expect a lot of what occurs in engineering! I think the biggest surprise for me was seeing how applicable chemical engineering can be. We had an assignment over a semester to convert the gas emitted from biomass (like compost) into propane which could be used as a fuel source. The fact that we designed a process using the software “Aspen” felt incredibly profound! Chemical engineering also focuses a lot on safety concerns, like how to prevent catastrophe if the maintenance alarms in a certain plant aren't operating properly. Another thing that shocked me is that oil refineries, really just separating unusable products from crude oil and producing petrol, have had a very heavy focus on carbon emission reduction. I didn't expect engineers working in oil refineries to be too focused on emissions, but the primary goal for all mining engineers is in fact gathering fuel and minerals that are still necessary for us all whilst actively reducing the impact of mining on the earth, and constantly finding ways to reuse waste materials and reduce greenhouse gas emissions. There's also a lot of physics in terms of heat and mass transfer, but it's super fun when you get to design systems where you use one stream of hot gas that you are refining to heat up another stream of a different gas!

Favourite thing about your specialisation?

I loved using simulink, and I love developing process models using maths, it's so interesting! Looking at if you have a batch of salt water and you add more salt, how a sensor for salt concentration would react in graphical terms using mathematical functions- it may not sound cool, but actually performing these simulations and using software to map what would occur in a process, and how adding one thing might change the concentration of something else, and seeing it all comes together is really neat!

Least favourite thing about your specialisation?

I would say that while some of the things you study in chemical engineering can be fairly intuitive, you're often learning lots of laws and new mathematical symbols and relationships that can be tricky. Things like understanding the difference between absorption and adsorption took my brain a while simply because they were just two very similar terms to me, so you do have to put in the work.

What are the main aspects of the common first year that have carried through to your following years of study?

I use Matlab and Excel often, and group work is still very present. There's a lot of labs and reports so get really comfortable with typing equations in word. Also equations like $PV=nRT$, assumptions like steady state and heat loss to surroundings, mass balances and energy balances.

What's been your favourite unit? Why?

CHE3162.

Process control. You learn all about valves and transmitters and how to properly design a process to stop and start at the right times by measuring flow, concentration, temperature and other variables. It's genuinely really interesting!

If you could give one piece of advice, what would it be?

Don't decide not to choose this stream just because someone else says it's hard! If you feel as though you really enjoy this stream of engineering, go for it! Also, stay on top of the content! By Sunday night, you should at least understand 60% of the content for the following week, and be able to attempt at least the first few workshop questions!

Have you done any engineering work experience?

No I have not, however when studying RSE3030: Mine Ventilation, I found it really interesting to visit some mines and actually understand a large amount of what the actual engineers were doing with their methods of ventilation of the mines! We had conversations on the same level about what types of tests would be done to control the humidity and pollutants in the mines, and what maintenance would need to occur to ensure ventilation was occurring properly. I felt confident that I could help with these aspects if needed!

CIVIL ENGINEERING

“The design, construction, maintenance and operation of infrastructure for the benefit of society”

Bachelor of Civil Engineering (Honours)

Clayton and Malaysia Campus

Double Degrees:
Architectural Design, Arts, Biomedical Science, Commerce, Law (Honours), Science

What do civil engineers do?

Civil engineers design and improve infrastructure systems and processes that allow humans and nature to coexist with minimal impact. Modern society couldn't function without them. We need civil engineers to design and build higher-capacity transportation systems. We need them to construct larger commercial and industrial complexes. We need them for water supply and pollution control. We need efficient, cost-effective and innovative repair or replacement of civil infrastructure such as roads, bridges and buildings. At Monash we help you prepare for your civil engineering career early, with a focus on the fundamentals and a taste of industry experience through opportunities in the major fields.

Specialisations within Civil Engineering

Structures:

Structural engineers design buildings, bridges, airports, railways, towers, off-shore platforms and tunnels, and ensure that the structures are structurally sound under extreme environmental conditions such as wind, waves and earthquakes.

Transport:

Transport and traffic engineers plan the future travel needs of city and country areas, investigate alternative transport technologies and maximise the safety and efficiency of existing systems.

Water:

Water engineers manage water supply systems for people, agriculture and industry, develop projects to control flood waters, design dams, spillways and pipe networks, manage rivers and develop systems to collect and treat wastewater and control and use stormwater. They also develop urban water-sensitive designs.

Geotechnics:

Geotechnical engineers advise on foundation design, support structures, stability of slopes, tunnel design and construction, and the suitability of materials for infrastructure projects.

Your future career options

Civil engineer graduates work in a myriad of areas, including designing, building and managing just about everything from a major freeway or railway, to a water storage reservoir, oil rig platform, harbour facility, or environmentally friendly structure. As a Civil engineer you could:

- Investigate, design and manage the construction of multi-storey buildings.
- Design a water supply system for a new city.
- Provide smart mobility solutions underpinned by technological advances to traffic congestion problems.
- Manage the maintenance of the large bridges that link most cities' major arterials.
- Develop new ways of tackling climate change through geological sequestration of carbon dioxide.
- Prevent contamination of soil and ground water from industrial activities.
- Develop 'green buildings' that produce more electricity than they consume.
- Design systems to control erosion in rivers and protect people from the devastation of floods.
- Design a road, freeway or tunnel and manage its construction.
- Develop ways of treating and reusing stormwater and waste water to preserve precious resources.
- Develop mathematical or physical models of systems, such as soils, water currents or traffic flows, to study behaviour and develop better management approaches for systems.
- Work with consortiums to design eco-tourism resorts.
- Work in mining extraction and processing of ores from the earth.

When you graduate as a civil engineer, you'll find challenging and rewarding opportunities in the following areas:

- Government infrastructure projects
- Private industry
- Construction and mining
- Roads and traffic industries

STUDENT INTERVIEW

Henry Blood, 5th Year

Why did you choose this specialisation?

I was very interested in the large-scale infrastructure around me, which is what civil engineering is all about.

How are you finding studying this specialisation?

I am finding it more challenging than I expected (but that's engineering for you). I'm also finding new disciplines that I didn't know were a part of civil engineering, which has been so exciting and interesting to discover and learn about.

Favourite thing about your specialisation?

The pure scale of everything we study. It's so incredible to study infrastructure that everyone can see and use as well.

Least favourite thing about your specialisation?

A lot of theoretical calculations. The pure scale of civil engineering also means that many calculations we do are very generalised and simplified for the structure we are designing.

What are the main aspects of the common first year that have carried through to your following years of study?

Group work for sure. Studying engineering is fantastic in that you are able to meet so many fellow students through group projects. The projects can also be larger in scale as tasks are delegated, which makes the final report very satisfying to complete.

What's been your favourite unit? Why?

I enjoyed CIV2242, Geomechanics 1. The unit contained content brand new to me, and also allowed for hands-on learning with fortnightly laboratories. The labs and practicals combined made it one of the most engaging units I have done.

If you could give one piece of advice, what would it be?

Enjoy your group assignments. Working in a team is far better than on your own. The work conducted is of a much larger scale, and the potentially friends gained makes all the late night last minute crams worth it.

Have you done any engineering work experience?

I worked as an undergraduate for Spark on the North East Link tunnel. I worked in an on-site office, where I was able to visit the site and see the engineering and construction work happening with my own eyes. It's one thing learning about engineering from a lecture, but seeing it in action is completely different. This is where I have honestly learnt the most about Civil engineering.

ELECTRICAL AND COMPUTER SYSTEMS ENGINEERING

“Investigate, design, develop, test, market and manage a wide range of products and systems”

Bachelor of Electrical and Computer Systems Engineering (Honours)

Clayton and Malaysia Campus

Double Degrees:
Arts, Biomedical Science, Commerce, Computer Science, Information Technology, Law (Honours), Science

What do electrical and computer systems engineers do?

Electrical and computer systems engineering is an extremely diverse field, encompassing biomedical, computer systems, electronics, electrical power, AI, robotics and telecommunications. Electrical and computer systems engineers investigate, plan, design, develop, construct, test, market and maintain a wide range of products and systems.

Monash will give you the hands-on training and theoretical insight you need for an exciting future as an electrical and computer systems engineer.

You'll experience industry-standard reprogrammable chips in the laboratories from first year onwards. By third year you'll be building miniaturised machines with very powerful processing on board. In fourth year you may apply this knowledge to a 'product' of your own.

Your future career options

As an electrical and computer systems engineer, you can design and develop digital products such as smartphones, virtual reality systems or computer games, or maybe robotic medical devices to assist in surgery and rehabilitation. You could work locally or internationally in a wide range of industries, including:

- Power generation
- Industrial and power electronics
- Wireless communications
- Artificial intelligence
- Optical communications
- The 'Internet of Things'
- Embedded systems
- Computer programming
- Robotics
- Healthcare

When you graduate you could work for large public and private telecommunications, manufacturing and electrical-power companies, or in defence and intelligence organisations. You could also work in banking and finance, or with any organisation that creates, stores, encodes and transmits big data or manages complex systems.

STUDENT INTERVIEW

Jess Booth, 4th Year

Why did you choose this specialisation?

I wasn't exactly sure what I wanted to do after first year and electrical seemed like it had the most diverse range of applications that I had some interest in.

How are you finding studying this specialisation?

I enjoy the variation, it's not just circuits, or maths, when I started, I was expecting a lot of circuit analysis so it's nice that there's such a broad range of possibilities in the field, I think a lot of students are put off by the breadboards and circuits they see in first year, when in fact a lot of ECSE has nothing to do with circuits at all, especially as you get into some of the digital units.

Favourite thing about your specialisation?

There are a lot of practical applications and it's cool to understand how some of the major systems in our world function, from how we can decode signals to how we make a computer from simple logic.

Least favourite thing about your specialisation?

Circuits :(

What are the main aspects of the common first year that have carried through to your following years of study?

Coding and circuit analysis have been helpful but the most important thing from first year was definitely first year maths.

What's been your favourite unit? Why?

My favourite unit so far has been ECE2071. I liked getting to understand the inner workings of a computer and how code can be converted into instructions a computer can follow.

If you could give one piece of advice, what would it be?

Don't be afraid to try something because you're worried it won't be the perfect fit, there's always time to change your mind and you might discover you really like it!

ENVIRONMENTAL ENGINEERING

“Reduce the impact of human activity and protect our natural world”

Bachelor of Environmental Engineering (Honours)

Clayton Campus

Double Degrees: Arts, Commerce, Science

What do environmental engineers do?

By minimising environmental problems through sustainable development, environmental engineers make a genuine difference to our world. They help restore the environment by improving the knowledge on air, water and land quality.

Few branches of engineering have such a profound impact on our health, quality of life and the future wellbeing of the planet as environmental engineering. It's all about the implementation and management of solutions and programs in keeping with the principles of sustainable development. It involves reducing energy and resource use and both minimising and managing waste and pollution, while providing the community with the development opportunities it needs to grow.

Environmental engineering encompasses water and air-pollution control, recycling, water supply, waste disposal, land management, transport and the built environment, process engineering, and public health issues.

Environmental problems exist in all countries and industries, so your opportunities are broad and far-reaching. You could work in air-pollution control, water supply, land management, impact assessment, hazardous-waste management, energy production, stormwater and wastewater management, environmental management systems and much more.

- Working closely with a range of professionals and the community, environmental engineers:
- Develop sustainable building and transport system in harmony with the environment
- Design and implement sustainable manufacturing technologies to minimise industrial pollution
- Remediate or rehabilitate contaminated sites
- Reduce catchment soil erosion and salinity
- Evaluate, monitor, regulate and minimise the environmental risks and impacts of engineering projects
- Develop environmental management systems
- Ensure the provision and distribution of clean water supplies

Your future career options

Environmental problems exist in all countries and industries so opportunities are broad and far reaching for environmental engineers. Areas of work might include:

- Air pollution control
- Water supply and management
- Impact assessment
- Hazardous waste management
- Energy production
- Stormwater and wastewater management · environmental management systems

Organisations employing environmental engineers include

- Power generation companies
- Engineering consulting firms
- Industries that need cleaner production systems
- Private and municipal agencies that supply drinking water and treat wastewater
- Companies treating and disposing of hazardous waste
- Environmental agencies and companies responsible for mine-site rehabilitation
- Organisations helping to account for carbon and implementing low-carbon solutions
- Government agencies monitoring and regulating environmental issues
- Universities that teach and conduct sustainability research
- International agencies that aid developing nations

STUDENT INTERVIEW

Tej Kanda, 4th Year

Why did you choose this specialisation?

I chose Environmental Engineering because I was interested in a career path involving sustainability. Sustainability holds significance for me because, as we advance technologically, it's crucial to design products and processes that not only minimise waste but also enhance efficiency. The degree encompasses not only environmental engineering but also civil and chemical engineering units, providing me with exposure to various engineering disciplines and adding diversity to my core subjects.

How are you finding studying this specialisation?

Studying this specialisation is really fun! Everyone in the cohort is so friendly and nice, this extends to the staff as well. It is really easy to talk to the faculty about anything, whether it be personal areas of interests or questions relating to coursework - they are really helpful. The units themselves take a focus on both group work and individual work, you will definitely find yourself working with a lot of different people while completing this degree. The workload is not too bad, however, you do have to keep on top of it as it can creep up on you.

Favourite thing about your specialisation?

My favourite thing about Environmental engineering is that the cohort is relatively small. This makes it really easy to make friends, as you will often see familiar faces in many of your classes.

Least favourite thing about your specialisation?

You will find that the units from Civil/Chemical engineering are run and structured a bit differently than the Enviro units, however, as long as you make an effort to do all the pre-class work and ask questions in your tutorials you will get used to it.

What are the main aspects of the common first year that have carried through to your following years of study?

Group work is the main aspect that has stuck with me from first year. It is important to establish a strong work ethic and good team dynamic in every group you end up being in - especially within your units.

What's been your favourite unit? Why?

My favourite unit was probably ENE2021. There was a report we had to write about that involved us calculating the heating and cooling efficiency of our house and justify our findings, I found it insightful and engaging.

If you could give one piece of advice, what would it be?

Do your pre-readings and ask questions! Asking a lot of questions might feel intimidating but you will only disadvantage yourself if you don't.

Have you done any engineering work experience?

I am currently working in an Environmental Consultancy. The work is interesting and challenging. A large amount of the work that I do relates directly to the topics I study at Uni.

Are you doing an engineering minor?

I'm doing an Entrepreneurship minor. I enjoy learning about the subject and it was something that wasn't directly related to my degree.

MATERIALS ENGINEERING

“A ground-breaking field of research and a thriving job market for aspiring engineers”

Bachelor of Materials Engineering (Honours)

Clayton Campus

Double Degrees:
Arts, Biomedical Science,
Commerce, Law (Honours),
Science

What do materials engineers do?

Materials engineering is all about making new materials and improving existing ones. It's about making things stronger, lighter and more functional, sustainable and cost-effective. It underpins much of engineering – if we want to make things, we need to have materials with the right properties.

Whether it's a next-generation jet engine, a biodegradable tissue scaffold to grow organs from stem cells, or new types of solar cells and batteries, the structure, properties and processing of materials are crucial to the final product.

Materials engineers work with everything from the thermal protection of space shuttles to high-tech artificial hip and cochlear implants, and nanoparticles that seek and destroy cancer. Materials engineering is truly interdisciplinary. It involves physics, mathematics, biology and chemistry, culminating in a groundbreaking research field and a thriving job market.

As a materials engineer, your expertise will be sought after in the emerging fields of additive manufacturing, nanotechnology, biomedical materials, electronic materials, recycling and energy generation, the development of lightweight metal alloys and in traditional industries such as metallurgy and mining.

Your future career options

Demand for materials engineers continues to outstrip supply, with Monash graduates receiving an exceptional response in the employment market. Working across a range of exciting industries including aerospace, biomedical, mining, future manufacturing, 3D printing and recycling, materials engineers become:

- Biomedical engineers
- Consultants
- Technology managers
- Metallurgists
- Materials designers
- Energy scientists and future renewable energy engineers
- Forensic engineers, aircraft forensics and defence scientists
- Failure analysts
- Materials selection specialists (aero, auto, structural)
- Process engineers
- Corrosion or durability engineers
- Research engineers.

STUDENT INTERVIEW

Lara Ozenir, 5th Year

Why did you choose this specialisation?

I thought it would combine best with my other degree (biomed), and I found it the most interesting when doing the first year units!

How are you finding studying this specialisation?

It is what I expected, I've really enjoyed it so far. There definitely have been some units that I haven't liked, and are very niche, but overall the further you are into the degree, the better it gets. Everyone always says that the second year materials units are a bit dry but I think third and fourth get a lot more interesting. I've really liked certain areas, such as learning about biomaterials, sustainability etc.

Favourite thing about your specialisation?

The small cohort! Materials engineering isn't a very large specialisation but sometimes I feel that's actually better as in each of your units you know almost everyone and can become really great friends / make study groups for exam cramming.

Least favourite thing about your specialisation?

As it is such a small cohort there is little space for different class times during the week. A lot of the time, the department will provide us with only one class time for a workshop or applied class and you have to attend that class as it's compulsory. This can sometimes be annoying, especially if you are doing other units that might clash. I've been able to get by for most of it, but expect at least one mandatory 8am each year!

What are the main aspects of the common first year that have carried through to your following years of study?

In second year, coding carried over into a unit or two, especially those with assignments that required Matlab. Luckily, the work has never been very technical and in my third and fourth year units, I haven't done as much coding/ almost none. There is a small amount of physics in the earlier units, especially where we go over thermodynamics/ equilibrium and the mechanics of materials engineering.

However, report writing and group work is a major aspect of the degree! Expect writing lab reports, making posters or answering assignment questions after completing every lab. Likewise, there is a lot of group work, especially in the project units but I find there is a good balance between group and individual work.

What's been your favourite unit? Why?

My favourite unit was MTE3201, which I did last semester (2023, sem 2). It's known as the lawnmower unit and was really well run. Each student is in charge of dismantling an object to analyse one metal, polymer and ceramic. It involves a good amount of individual work and helps you to prepare for doing other bigger projects like your FYP the following year.

If you could give one piece of advice, what would it be?

If you're unsure about continuing materials engineering, based on completing the first set of second year units, don't give up just yet as there is a lot of interesting content to come!

Have you done any engineering work experience?

So far I've done the UROP (Undergraduate Research Opportunities Program) and have worked part time as a lab assistant in the MSE (Materials Science and Engineering) department. The UROP program places you in a research area (mine was ARMI - Australian Regenerative Medicine Institute) and you complete 4 weeks full time over summer and the rest of semester 1 part time, working in a lab with a team. I really liked this as it didn't take up my whole summer! My work in the MSE department involved stent development, which was great as it combined both Biomed and Materials engineering.

MECHANICAL ENGINEERING

“Design and develop everything from door locks to space shuttles”

Bachelor of Mechanical Engineering (Honours)

Clayton and Malaysia Campus

Double Degrees:
Arts, Biomedical Science,
Commerce, Law (Honours),
Science

What do mechanical engineers do?

Mechanical engineering is about the efficient use of energy in the design and function of all types of mechanisms, from the simplest to the most complex. It builds on physics, chemistry, materials, mathematics and biology to achieve this goal. Growth industries include advanced manufacturing, smart buildings, renewable energy, medical engineering and consulting practice.

Mechanical engineers are increasingly engaged in the design and operation of devices that require skills that cross traditional discipline boundaries. As a mechanical engineer, you could design automatic control systems, or create efficiently heated and cooled buildings. You could manage the water supply for a whole state, take charge of the operation of a smart building, design wind turbines or highly efficient, low-cost products for the developing world.

Optimise the aerodynamics of trucks and trains, work with the medical profession to create robots that can operate with greater precision than a human, or be at the cutting edge of advanced manufacturing using 3D printers to create aircraft parts with elegance and function.

Your future career options

As a mechanical engineer you will discover countless opportunities in a wide range of industries in Australia and overseas. You could pursue one or more of these specialist areas:

- Building systems engineering
- Advanced manufacturing
- Product process and design
- Consulting and project management
- Research and development
- Aerospace field and test engineering
- Mechanical design automation
- Robotics prosthetic limb and joint design
- Renewable energy systems.

STUDENT INTERVIEW

Jasmine Pepe, 4th Year

Why did you choose this specialisation?

During school I was always interested in physics and this continued throughout the first year units too. My curiosity lies in how machines and moving parts move and I really like learning the maths and science behind that. I especially enjoyed ENG1001 (now ENG1011) which focused on mechanical engineering and decided that it was the pathway for me.

How are you finding studying this specialisation?

It has certainly been a challenge. However, this has proven to be very satisfying when you finally understand something that you were previously struggling with. I also find it quite methodical when answering questions, which I quite enjoy.

Favourite thing about your specialisation?

It is so broad and covers a variety of different concepts eg. dynamics of a moving vehicle to flow rate of a solution. There is never a dull moment and you have a breadth of understanding. Additionally, it also has very real world applications so you can see what you are learning about in the world around you. For example, I now understand the background of how fridges work and can't look at one the same way.

Least favourite thing about your specialisation?

It can take several hours to just understand a single concept (not sure if that is mechanical specific or just the nature of engineering !!)

What are the main aspects of the common first year that have carried through to your following years of study?

The first year units do prepare you well in many ways and there are a lot of similarities with further units. For example, almost every mechanical unit that I've done has had a group work component to it. Usually this requires you collecting data values in the lab as a group and then writing up a lab report together. The content is also similar, so the physics and maths you learn in first year is often revisited and developed in later units.

What's been your favourite unit? Why?

MEC2404 Mechanics of fluids. I had never studied anything to do with fluids before at school or uni and thoroughly enjoyed this unit. I found the concepts fascinating and enjoyed doing the content and work for it, even when it gets tricky.

If you could give one piece of advice, what would it be?

Always attempt to stay up to date with content. The workload can accrue significantly in a relatively short amount of time and it is likely that the understanding of one concept underpins another. It is not the end of the world if you fall behind one week but do try your best to keep up otherwise you're constantly playing catch up

ROBOTICS AND MECHATRONICS ENGINEERING

“The cutting-edge of creating smarter products, robotic devices and processes”

Bachelor of Robotics and Mechatronics Engineering

Clayton and Malaysia Campus

Double Degrees:
Arts, Commerce, Computer Science, Information Technology, Science

What do robotics and mechatronics engineers do?

Robotics and mechatronics is where mechanical and electrical engineering meet, employing computer control systems to make devices smarter and more efficient. As a robotics and mechatronics engineer you could create planetary exploration rovers or robots for precision manufacturing or to assist the elderly. Alternatively, you might take a household product and turn it into a truly clever device, or design the programs that control those devices.

You'll learn how to handle vast amounts of data and creating systems that make sense of data in real time so that a fully automated manufacturing facility can operate safely and efficiently, or a car can drive completely autonomously. Robotics and mechatronics engineers are in high demand as the need for professionals in this space is increasing. They're needed in the advanced manufacturing and aerospace industries as well as by the manufacturers of robots and in data analysis.

[Specialisations within Robotics and Mechatronics Engineering](#)

Artificial Intelligence: covers neural networks and deep learning, advanced engineering design, computer vision systems, and intelligent robotics

Automation:

Allows you to develop an understanding of manufacturing operations, power systems, and changing technologies

Your future career options

You'll be equipped with the knowledge and skills to design, develop, manufacture and operate the intelligent products and complex systems of today and tomorrow. Opportunities exist in:

- Robotics and automation
- Aerospace systems and flight control
- Artificial intelligence
- Bioengineering
- Intelligent systems for motor vehicles
- Manufacturing systems and processes
- Telecommunications
- Medical systems
- Software engineering
- Mining systems and processes
- Nanotechnology.

There are also opportunities for robotics and mechatronics engineers in consulting, management and finance. You may also pursue a career in research and development, in academia, research institutions or advanced industry sectors.

STUDENT INTERVIEW

Maddy Armstrong, 5th Year

Why did you choose this specialisation?

I feel like Mechatronics is a “jack of all trades” kind of specialisation, in that you get to experience a little bit of Mechanical, Electrical and Software and build skills in all three fields. I also think it's really cool how we learn how to integrate them onto a single system.

How are you finding studying this specialisation?

I'm really enjoying it! It's about what I expected, when I chose this specialisation I was told that it'd be a bit of everything and that's exactly what I've gotten. It's really challenging obviously, but that's the fun of it I think.

Favourite thing about your specialisation?

The scope of units it offers.

Least favourite thing about your specialisation?

The exams :(

What are the main aspects of the common first year that have carried through to your following years of study?

Mostly the electrical knowledge that I got from ENG1002 (which is now ENG1013).

What's been your favourite unit? Why?

TRC3600, Modelling and Control. It was challenging and the exam was hard but the content was really quite enjoyable and I really like the unit coordinator!

If you could give one piece of advice, what would it be?

Take good notes early, knowledge from previous units is assumed so it's good to have a solid reference to go back to as you progress further (especially if you're like me and didn't do any electrical units for a whole year)

Have you done any engineering work experience?

I've been in an engineering student team for the last two and a half years, Monash Uncrewed Aerial Systems (MUAS). I'm currently the Avionics section lead and we focus on the internals of the aircraft, hardware, software and wiring - It's been really good to actually put into practice some of the theory I've learnt over the past 4 years, there aren't really many opportunities to do that unless you join a student team or do an internship.

SOFTWARE ENGINEERING

“Develop, analyse and improve software to ensure it runs effectively, safely and securely”

Bachelor of Software Engineering (Honours)

Clayton and Malaysia Campus

Double Degrees:
Arts, Commerce, Computer Science,
Information Technology, Science

What do software engineers do?

Software engineering is a field that's constantly evolving as new technologies emerge. As an engineer in this area, your skills will be critical across many functions – from dispensing life-saving medicine to controlling flight paths.

As a software engineer you'll use your expertise in computer science, engineering principles and programming languages to build software products, develop games and run network control systems. You could design systems and applications tailored to specific users and their needs, and build the underlying systems that run the technology and control networks. Solve business challenges by delivering technical solutions and assess organisation's current systems and needs to create strategies for improvement.

Your future career options

In the age of digital transformation, new roles are constantly emerging and software engineering graduates are highly sought-after around the world. You could pursue a career as:

- Software engineer or developer building products, games and network systems
- Software architect or data engineer designing specific systems and databases
- Block chain developer or engineer building software for digital identity, workforce management and data storage
- Front end engineer writing the code for a website or app
- Machine learning engineer writing personalised and predictive software
- Network administrator or security engineer making systems secure and protect from threats.

* Resources Engineering in Mining or Renewable Energy is no longer offered as a major. Check out the minors section to expand your career opportunities within this area. If you are interested in energy production and the mining industry it is recommended to major in Environmental, Chemical, Civil or Electrical and Computer Systems.

STUDENT INTERVIEW

Audrey Phommasone, 3rd Year

Why did you choose this specialisation?

I did ENG1013 and ENG1014 in my first semester and once I started to overcome the learning curve in coding, I really loved the satisfaction I got every time I saw my code work and solved a problem.

How are you finding studying this specialisation? Is what you have expected?

How or how not?

Overall I have been really enjoying this specialisation. A lot of the units don't have exams and instead are assignment based, drawing upon real world applications for their projects. This has been helpful in gaining a very thorough understanding of concepts whilst seeing them in a familiar context.

Favourite thing about your specialisation?

Being able to apply the skills learnt in the units to design and program projects that include anything from games, to websites, to iPhone apps as the assignments is incredibly rewarding and allows you to see just how much your skills can develop within a single semester.

The specialisation also has a relatively large cohort that is often mixed with people from both IT and Computer Science. It's been inspiring to meet so many extremely passionate people with a variety of interests all within the tech world.

Least favourite thing about your specialisation?

Sometimes it can be a bit intimidating talking to people who seem like they have coded since the day they were born - it can make you feel like you have so much to catch up on. Realistically though, you are not alone and regardless of that, many of those people are willing to give you advice and help to explain things if you just reach out to them and put in a bit of extra time to learn.

What are the main aspects of the common first year that have carried through to your following years of study?

Obviously there's a lot of coding in software, but other than that, many of the assignments involve group work and there are some units that require a decent amount of report writing to explain design choices or processes.

What's been your favourite unit? Why?

FIT3178 - iOS app development

The main project for this unit was to design and fully implement an iOS app of our choice. Although this was a challenging unit as a second year elective, I'm so glad I did it, as it allowed me to apply my learning to something I was really passionate about and could use in my day to day. Doing this unit also allowed me to apply concepts I was learning from other units and gain a better understanding of how everything is used together to create a finished product.

If you could give one piece of advice, what would it be?

Don't be afraid to pick this specialisation even if you've come into uni without any coding experience. Just keep putting in the work, reach out to your tutors for help, talk to other people in your units and you'll do great!

If you already know that you want to do software, try and pick FIT1045 as a first year elective, as it will make some of your second year units a little bit easier.

ENGINEERING MINORS

GENERAL INFORMATION

A minor is an optional part of your engineering single degree
(except for the biomedical engineering specialisation)

Complement your engineering specialisation with a minor and tailor your studies to explore your interests and expand your career opportunities.

If you are completing a single degree course, you can use electives to complete one of the engineering minors from a different engineering discipline and/or approved minors from Arts, Business and Economics, IT or Science.

An engineering minor will diversify your skill set and add versatility. Gain knowledge in another field outside of your chosen specialisation and understand other engineering disciplines to incorporate technical skills to deliver better solutions. You'll have a more holistic approach to project engineering and be well-positioned to communicate across specialisation areas. Skills highly valued and sought after by industry.

A minor has four units studied over at least two years and is listed on your transcript. Minors from another faculty are undertaken in year 1 and 2, and engineering minors are completed in year 3 or 4 of your studies.

BE(Hons) single degree students
(except biomedical engineering) can take:

- A non-engineering minor from Arts, BusEco, IT or Science



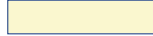
AND/OR

- An engineering minor in a discipline distinct from your engineering specialisation.

Minors Availability

Engineering Minors are not available in Biomedical and Software Engineering Specialisations. Some minors require prerequisites – see the [engineering minors framework](#) for further criteria and compatibility with specialisations.

| SPECIALISATIONS | AERO | CHEM | CIV | ECSE | ENV | MAT | MEC | TRC |
|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---|
| Artificial Intelligence | Available | Available | Available | Available | Available | Available | Available | Only available for Automation Stream |
| Civil | | | | | Available | | | |
| Entrepreneurship | Available | | Available | Available | Available | Available | Available | Available |
| Environmental | | | Available | | | | | |
| Computational | Available | Available | Available | Available | Available | Available | Available | Available |
| Micro & Nano Technologies | Available | Available | Available | Available | Available | Available | Available | Available |
| Mining | Available | Available | Available | Available | Available | Available | Available | Available |
| Renewable Energy | Available | Available | Available | Available | Available | Available | Available | Available |
| Smart Manufacturing | Available | Available | Available | Available | Available | Available | Available | Only available for Artificial Intelligence Stream |
| Sustainable | Available | Available | Available | Available | Available | | Available | Available |

| | |
|---|---|
|  | Available |
|  | Only available for Automation Stream |
|  | Only available for Artificial Intelligence Stream |

Abbreviations:

| | |
|------|-----------------------------------|
| AERO | - Aerospace |
| CHEM | - Chemical |
| CIV | - Civil |
| ECSE | - Electrical and Computer Systems |
| ENV | - Environmental |
| MAT | - Materials |
| MEC | - Mechanical |
| TRC | - Mechatronics |

ENGINEERING MINORS OFFERED

Artificial Intelligence in Engineering

Artificial intelligence (AI) is used by engineers to develop driver-less vehicles, meaningful human machine interaction and image recognition. This minor allows engineers to develop new designs involving robotics, deep learning, computer vision and autonomous vehicles. Understand how to construct computer vision systems for surveillance, robotics and medical imaging. Learn how deep learning can solve problems in classification and natural language processing and take a closer look at personal cognitive assistants and driver-less car designs. AI, machine learning and robotics are fast-growing industries with technology constantly evolving and pushing boundaries and engineers with these skills are in high demand.

Civil engineering

Civil engineers design and improve systems and processes that allow humans and nature to coexist with minimal impact. Modern society couldn't function without them. We need civil engineers to design and build higher- capacity transportation systems; to construct larger commercial and industrial complexes; for water supply and pollution control; and to repair or replace roads, bridges and other structures. The core areas of civil engineering are structural, transport, water and geomechanics. The final decision came by analysing potential job opportunities in this field in Australia. The Monash IBL program (an 18 credit point internship) offered within Software Engineering only also encouraged me to select it.

Computational engineering

Computational engineering is a new and rapidly growing multidisciplinary field that simulates the physical world using computers to solve engineering design problems. The use of computational tools is at the heart of almost all modern engineering practice. Engineers rely on computational simulation techniques to develop new technologies and shape the world we live in. Biomedical devices, submarines and wind turbines are just a few examples where computer models are used to predict how new designs will behave in reality.

Computational models are powerful, but their proper use requires an understanding of their fundamentals and their limitations. This minor will provide training in both fundamental and applied computational analysis, including optimisation, numerical methods, data visualisation, and the modeling of thermofluid and solid systems.

Design and Manufacturing

Involves applying creative problem-solving techniques to various manufacturing processes to produce any specific components required to build a product or a functional system at any scale. This minor provides the foundation for future engineers to create new products, technologies and automation techniques catering to the demands of the fast-paced world.

Engineering entrepreneurship

Developed with the Monash Business School for engineers interested in becoming entrepreneurs and innovators. Includes fundamentals of entrepreneurship such as idea creation, market validation, company structures, technology development, investment and go-to-market business model.

Environmental engineering

Environmental engineering involves the implementation and management of solutions that are in harmony with the principles of sustainable development. It's concerned with reducing energy and minimising waste, while providing the community with the development opportunities it needs to grow. Environmental engineers make a genuine difference to our world. By improving the knowledge on air, water and land quality, they help restore the environment and protect our natural world.

Micro and nano technologies

Micro and nano technologies form the basis of any modern miniaturised system including electronic devices containing computer chips, sensors and actuators in smartphones and vehicles and diagnostic systems, biomedical devices and devices for environmental monitoring. This minor equips engineers with the knowledge of the properties and applications of nanomaterials and the fabrication techniques required to engineer these materials. Learn about lithography, biomimicry and bionanotechnology-inspired nanostructures using biological building blocks in self- assembling processes.

Explore how the design properties of nanostructured materials may be exploited for every day applications, ranging from food packaging and sunscreens to sensors and energy-related areas. Get hands-on experience of working in a state-of-the-art cleanroom environment at the Melbourne Centre for Nanofabrication, where you can design and fabricate your own microdevice.

Micro and nano technologies

Mining engineering involves environmentally-safe extraction and processing of natural minerals from the earth. Mining engineers supply critical materials like copper, iron, lithium and gold, that are essential for modern society and the world's economy. They develop innovative and sustainable ways to make mining cleaner and safer, and help to sustain the future supply of the world's natural resources. Mining engineers work in all aspects of the resources industry from exploration and planning, to extraction, processing and rehabilitation. Automation and digital technologies are modernising the mining industry and transforming mining careers.

Renewable energy engineering

Renewable energy engineering focuses on the fundamental conversion of solar radiation, wind, hydro, and bioenergy resources into electricity by designing, building and operating energy plants such as wind farms, solar farms and hydro power facilities. These engineers run the large-scale energy system incorporating renewables, and they provide expert advice in the development of energy policy to facilitate the transformation of the energy system, both domestically and internationally.

Smart manufacturing

Smart manufacturing is the core of Industry 4.0. which includes cyber-physical systems, internet of things, and augmented reality. This minor equips engineers with the knowledge of modern systems of telecommunication, mechatronics, cyber-physics, and manufacturing for the new era of industry.

Have the skills and knowledge to prepare for the impending digital transformation driving the convergence of technologies that result in Cyber-Physical Systems (CPS). Understand the evolution of key technologies, transformation to digital chains and the need to seamlessly combine organisational and technological issues into a single framework.

Be introduced to underlying technologies, major components and system-wide architectures of modern telecommunication systems, such as the Internet, mobile telephony, digital TV and Digital Audio Broadcasting. Learn about design methods and tools for ideation and methodologies and undertake a team automation project to design and build a mechatronic system, based on a microcontroller with appropriate mechanical structure, sensors and actuators.

Sensory Systems in Industry 4.0

Sensory Systems in Industry 4.0 allow you to acquire the necessary knowledge and techniques to understand the analogue world, and its significance in processing and interaction within modern industries. Gain an understanding of advanced sensory systems, associated programming techniques and autonomous systems, to succeed in Industry 4.0, which integrates emerging technologies from the Internet of Things, cloud computing, machine learning, AI and more.

Sustainable engineering

The Sustainable engineering minor equips engineers with the knowledge and skills to understand the interplay between the environment and human activities. The goal is to provide solutions to the pressing environmental challenges in a sustainable manner. It takes a multidisciplinary approach based on industrial, materials, water and systems-based engineering management perspectives.

A growing multidisciplinary field of engineering, you'll be introduced to life-cycle analysis, sustainability in the built environments include passive and active technologies, and the political, social and environmental background to materials usage. Examine the impact of population, affluence and technology changes on population and ecological footprints. Understand cleaner production technologies, sustainable resource processing and environmental technologies to create engineering solutions for a sustainable future.

NON-ENGINEERING MINORS: MINORS FROM OTHER FACULTIES

A non-engineering minor takes the place of your free electives if you have them to complete in Year 1 and 2. This is only possible if you are not required to complete any foundation unit and therefore you have four free electives available. You must complete the prescribed units in the non-engineering minor. They are generally level 1 and 2 units, although there may be units at level 3 required in the minor.

You cannot undertake a non-engineering minor if you have to complete at least one engineering foundation unit.

There are non engineering minors related to arts, humanities, social sciences, business, information technology and science.

A list of approved, non-engineering minors can be found here: <https://www.monash.edu/students/handbooks/faculty-info/undergrad/eng/engineering-approved-minors>

POST-GRADUATE OPPORTUNITIES

MASTERS

Master of Professional Engineering

Clayton Campus

- 3 years full-time or 2 years full-time, depending on qualifications
- International Accreditation (Engineers Australia)

The Master of Professional Engineering provides a solid foundation for professional development and gives you an edge in the competitive graduate employment market. Build on your undergrad degree, change career direction and become an accredited engineer.

In this master's degree you can build on your undergraduate experience, diversify your skills in a different specialisation or change your career and become a fully-accredited engineer. Whether you've completed undergraduate studies in engineering or in another field, the Master of Professional Engineering is the key to a career as an internationally recognised professional engineer.

The program provides students who already have an engineering degree the opportunity to gain entry to the profession. You will build on your undergraduate experience and deepen your specialisation knowledge through core units and advanced level technical units in your discipline area.

If you want to change fields and specialise in another engineering discipline or have a degree in a different field, such as science, mathematics or pharmacy and want to pursue a career in engineering, the three-year conversion course gives you the technical skills and knowledge you need to become a practising engineer.

Find out more here: <https://www.monash.edu/engineering/professional-masters/about>

Graduate study can be the foundation to a great career, it can turn an existing career into something brilliant, help you change careers, or aid in pursuing your passion.

Engineering coursework programs offer a balance of theory and practice, with an emphasis on industry-driven projects. Engineering programs, particularly at a Masters level, may include the option of a minor or major thesis component.

Check out the 2024 graduate course guide: https://www.monash.edu/_data/assets/pdf_file/0006/2904036/2024-PG-DOM-Course-Guide_v3.0f-DIGI.pdf

SPECIALISATIONS

Master of Professional Engineering

A) Chemical & Biological Engineering

Tackle our most pressing energy, environmental and healthcare challenges by exploring industrial-scale processes that convert raw materials into commercial products. Enhance your leadership capacity with advanced knowledge of thermodynamics, reaction engineering, fluid dynamics, separation processes, and much more, in units taught by industry experts. Extend your technical expertise by choosing a stream in food engineering or engineering design.

Chemical engineers are highly sought after by almost every industry worldwide, especially in emerging areas like nanotechnology, alternative energy and biotechnology. Develop cleaner biofuels to protect our environment. Improve water purification methods to counter dwindling supplies. Save lives through tissue engineering. Perform safety assessments of process plants. Advance hydrogen storage for automobiles. Make smart drug delivery even smarter. In any pursuit, you might manage a company or start up your own.

B) Civil Engineering

As the world's population explodes, we must adapt our built environment to modern life. Prepare for a top-level job in infrastructure – grow your expertise in the design of steel and timber structures, geomechanics, building technologies, bridge design, computational methods, and much more, in units taught by industry experts. Acquire the technical knowledge essential to design, construct, improve and lead infrastructure projects. Focus on a particular area by selecting a stream in structure, transport or water.

Civil engineers enjoy great employability. Build sustainable prefabricated housing. Design earthquake-resistant schools. Create systems to protect against floods. Construct highspeed railways. Devise conditions for improved traffic flow. Develop large-scale recycling schemes. Whether in private consulting practice or a construction company, a multinational company or government department, here or overseas, you can blaze the trail.

C) Electrical Engineering

In this diverse and rapidly changing technological field, you can innovate to improve our quality of life. Move to the forefront by expanding your understanding of signal processing, electronic design, electromagnetism and antennas, real-time system design, multimedia communications, smart grids, and much more, in units taught by industry experts. Put theory into hands-on practice in laboratory sessions and team-based design projects.

The demand for electrical engineers exceeds supply, affording you countless career opportunities. Develop smart power systems to keep our lights on. Help farmers optimise water use with automatic irrigation networks. Design the power electronics of electric vehicles or self-driving cars. Create advanced robotic systems that act as a surgeon's right hand. Perfect bionic eyes and ears to restore precious senses that most of us take for granted. Inspire others to change our lives for the better.

D) Materials Engineering

Make things stronger, lighter, cheaper, more functional and more sustainable. By improving existing materials, or creating entirely new ones, you lay the groundwork for broader applications and novel technologies. Advance your career by delving into polymeric materials, energy technologies, environmental durability, materials characterisation, biomaterials and biomechanics, additive manufacturing, sustainability, and much more, in units taught by industry experts.

Materials engineers find themselves in a thriving job market. Progress tissue engineering in the repair of damaged organs. Design smart fabrics that act as a sensor to control automobile function. Apply 3D bioprinting to the generation of living tissue for personalised treatments. Develop next-generation aerospace materials. Create nanoparticles that seek and destroy cancer. In this multidisciplinary field, you have unlimited options, with the potential to forge the future.

E) Mechanical Engineering

Mechanical engineers make the world go round – they turn energy into motion and power in virtually every machine or system that supports our way of life. Advance your knowledge of mechanical systems design, biomedical imaging and sensing, additive manufacturing, instrumentation sensing and monitoring, systems performance analysis, sustainability engineering, entrepreneurship, and much more, in units taught by industry experts. Gain a strong understanding of thermal and mechanical components and processes to move technology forward.

Career prospects for mechanical engineers are diverse and boundless. Design structures for space travel. Work with athletes to develop advanced sporting equipment. Refine service robotics for railways. Create prosthetic limbs. Assess the survivability of naval vessels with mechanical vibration. Reimagine sustainable energy. Wherever in the world you wish to work, you can make things happen.

POST-GRADUATE OPPORTUNITIES

MASTERS

Master of Engineering

Clayton Campus

- 1 year full-time, 2 years (part time)

Please note: This course does not provide stage 1 engineering accreditation. Students seeking this accreditation should refer to the Master of Professional Engineering.

This course will extend your technical knowledge in your chosen specialisation area and advance your leadership and complex problem-solving skills in a cross cultural environment. There are five engineering specialisations to choose from: biological, civil, electrical, materials and mechanical. Giving you the opportunity to explore your specialisation at an advanced level and pursue your career goals.

Designed to foster innovative thinking, entrepreneurship and professional development, you will be well-positioned to lead and deliver sustainable engineering solutions.

The Master of Engineering provides valuable opportunities to apply your skills through real-world projects, student teams and internships to give you the professional and industry experience that sets you apart. Open up new possibilities for your career and apply for a Work Integrated Learning program placement with our partner organisations for hands-on experience while you study

SPECIALISATIONS

Master of Engineering

A) Chemical & Biological Engineering

This specialisation allows you to engage in engineering which draws on biology to undertake transformations of materials such as: biopharmaceutical production, microbial water treatment, enzymes; fermentation and advanced biotechnology, and transformation of primarily biological materials such as cellulose and covers both fundamentals and the latest developments in the field. The specialisation will equip you with advanced skills necessary for the growing food and beverage, biopharmaceutical production, fermentation, waste reuse, water processing, bioenergy and bioplastics sectors. The specialisation is suitable for new graduates, professionals and managers who want to develop advanced theoretical and applied knowledge in biological engineering.

B) Civil Engineering

This specialisation is designed to provide an accelerated one-year path to satisfy a growing need for professionals with specialised knowledge within civil engineering. You will be able to select units from a list of core civil engineering topics and related disciplines. The specialisation highlights state-of-the-art technological advancements across civil engineering, as applied to the solution of real-world problems. The specialisation is aimed at giving you a thorough understanding of cutting-edge advances coupled with specialist technical and leadership skills so that you can lead teams involved in complex problem-solving engineering.

C) Engineering Management

This specialisation allows you to develop advanced knowledge in signal processing, communications, digital systems and electronics. The specialisation has been designed around the common theme of embedded systems; special-purpose computing systems designed for specific applications found in consumer electronics, transportation systems, medical equipment and sensor networks. The specialisation mixes theory and practice and contains significant hands-on learning in laboratories and team-based design projects. The specialisation is suitable for new graduates, professionals and managers who are keen to upgrade their existing design and management skills as well as to develop advanced theoretical and applied knowledge in the area of electrical engineering.

D) Engineering Management

This specialisation allows you to develop engineering management skills that include engaging with stakeholders, inspiring teams and developing project plans that are vital for a successful career in industry. From project managers to business leaders, your engineering management skills will set you up for future career success. There are three streams of specialist core management units being: Entrepreneurship, Project Management and Contemporary Management which have been developed with the internationally renowned Monash Business School.

E) Materials Engineering

This specialisation allows you to develop advanced knowledge and the ability to exploit the central role of materials in addressing the present technical, economic and environmental problems involved in the design and construction of engineering structures, processes and devices. The specialisation encompasses practical aspects of the key classes of materials such as metals, polymers, biomaterials, nanomaterials and energy-related materials. It particularly focuses on the most up-to-date aspects of the field, along with the utilisation of materials and their electronic, chemical and mechanical properties as underpinned by the microstructures that are revealed by modern characterisation techniques. The specialisation is suitable for new graduates, professionals and managers who are keen to upgrade their existing design and management skills as well as to develop advanced theoretical and applied knowledge in the area of materials engineering.

F) Mechanical Engineering

This specialisation allows you to develop advanced knowledge and the ability to take a system approach to the design, monitoring and performance of complex mechanical engineering systems in the fields of renewable energy, aerospace, buildings, transportation and biomedical devices. The specialisation is suitable for new graduates, professionals and managers who are keen to upgrade their existing design and management skills as well as to develop advanced theoretical and applied knowledge in the area of mechanical engineering.

G) Renewable energy engineering

This specialisation allows you to gain a comprehensive understanding of the design, implementation and integration of renewables-based systems into the energy landscape. This specialisation delivers the cutting-edge knowledge

and skills you'll need to excel in the rapidly-growing field of renewable energy, addressing global challenges in climate change and sustainable energy. With an emphasis on practical applications and industry relevance, this specialisation will empower you to make a meaningful impact on the energy landscape, contributing to the successful transition to sustainable energy resources and systems in Australia and beyond.

D) Smart Manufacturing Engineering

This specialisation explores the dynamic and transformative field of smart manufacturing offers businesses unprecedented opportunities to enhance productivity, reduce costs, and improve overall competitiveness. From this specialisation, you will learn to optimise production systems, improve efficiency and drive innovation by harnessing the power of advanced technologies like artificial intelligence, machine learning, robotics and cyber-physical connectedness.

INTERNATIONAL DOUBLE MASTER PROGRAMS WITH SOUTHEAST UNIVERSITY (SEU) CHINA

The Monash-Suzhou partnership combines academic and research excellence focused on making positive changes worldwide. There are three engineering Double Master Programs available that take 1.5 to 2.5 years of full-time study to complete (depending on the units chosen). Studies are undertaken at the SEU-Monash campus in Suzhou, China, and students also have the opportunity to undertake one semester of study at Monash University's Clayton campus in Melbourne, Australia).

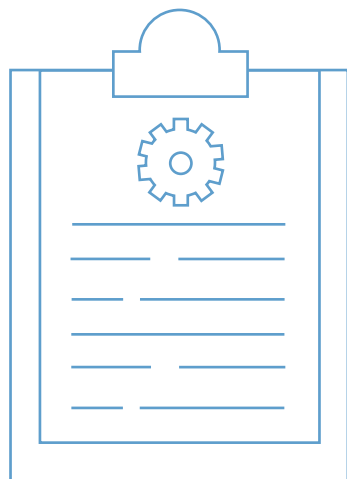
- Master of Civil Engineering
- Master of Transportation Systems
- Master of Industrial Chemical Engineering

GRADUATE RESEARCH DEGREE (PhD)

Monash Engineering is an outstanding global centre for engineering research. We carry out pioneering research that benefits society and changes the world around us. Through our graduate research degrees we are training the next generation of research leaders.

Monash Engineering's graduate research degrees give you an opportunity to conduct research that is transforming the future. Take this opportunity to make an impact and solve real world issues in a stimulating, supportive environment in areas such as climate change, transport congestion, water supply security, sustainable energy, artificial intelligence, robotics and more.

We are committed to training the next generation of research leaders and have over 1,000 graduate research students engaged in our areas of expertise.



GRADUATE RESEARCH DEGREE OPTIONS :

Doctor of Philosophy (PhD)

Duration: 3-4 years full-time

Offers you a stimulating, supportive and professional environment in which to explore engineering challenges and develop solutions for the future. The Monash Doctoral Program is a PhD for the 21st century. The program consists of extensive, independent research of a topic formulated in consultation with academic staff.

Information on how to apply:

<https://www.monash.edu/engineering/future-students/graduate-research/how-to-apply>

Master of Engineering Science (Research)

Duration: 2 years full-time

During your candidature you'll develop profound specialised knowledge and skills in a chosen research area that enables you to address national issues and global needs, and improve the way of life in the communities they serve. The degree involves the independent investigation of a research problem under the supervision of a team of leading researchers.

Information on how to apply:

<https://www.monash.edu/engineering/future-students/graduate-research/how-to-apply>

PhD and Masters by Research scholarship opportunities are also currently available with leading engineering researchers who are involved in pioneering research across 32 different research themes:

Chemical Engineering:

- [Biotechnology](#)
- [Food](#)
- [Modelling](#)
- [Nanomaterials](#)
- [Fuels and Energy](#)
- [Membrane](#)

Civil Engineering:

- [Deep Earth Energy](#)
- [Engineering for Extremes](#)
- [Model-Data Fusion](#)
- [Sensing Technologies](#)
- [Smart Structures](#)
- [Sustainable Infrastructure](#)
- [Water Sensitive Urban Design](#)

Electrical and Computer Systems Engineering:

- [Wireless Telecommunications](#)
- [Optical Communications and Networking](#)
- [Internet of Things](#)
- [Smart Power Systems](#)
- [Robotics and Artificial Intelligence](#)
- [Biomedical Engineering](#)
- [Electromagnetics and Electronics](#)
- [Optimization, Information Processing, Control and Decision Systems](#)

Materials and Materials Science Engineering:

- [Additive Manufacturing](#)
- [Biomaterials](#)
- [Functional and Energy Materials](#)
- [Metals and Alloys](#)
- [Polymers](#)
- [Materials Theory, Modelling and Characterisation](#)

Mechanical and Aerospace Engineering:

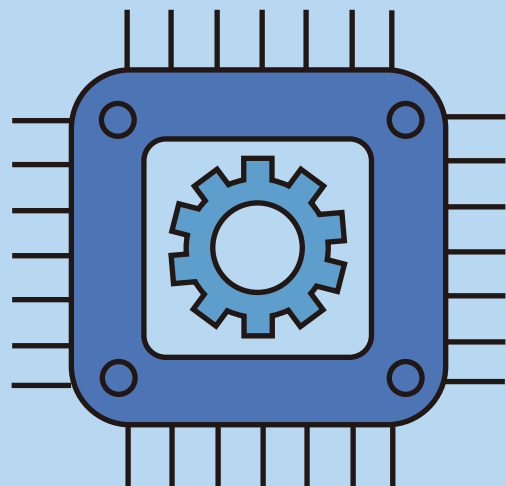
- [Advanced Manufacturing](#)
- [Micro/Nano Engineering](#)
- [Robotics and Control](#)
- [Solid Mechanics](#)
- [Thermofluids](#)

Interdisciplinary Research:

- [Defence](#)
- [Robotics](#)

FACULTY

Monash University facilitates a wide range of programs to enrich your degree. In this section, you'll find out how Monash can support you in gaining professional experience, travelling abroad, logging CPD hours and more.



THE GENERATOR

What is the generator?

Monash University's central startup hub.

This is a place for innovative thinkers, change-makers, and entrepreneurs to challenge the status quo and make good things happen. Get involved with The Generator to bring your ideas to life, unlock new talents, and be part of the growing startup community at Monash.

There are four programs available:

1. THE VALIDATOR

The Validator is a four-week program designed to help you take an idea or early stage startup and figure out your pathway to scaling up.

You'll be guided by an experienced entrepreneur and startup facilitator on startup best practice, validating your idea on the market, and what it takes to make your side-hustle a financially viable startup.

Meet other like minded Monash entrepreneurs during the program, gain rapid traction on your idea, and access other startup resources at Monash, the opportunity to have one-on-one office hours appointments and access to exclusive events.

Is the Validator Program right for you?
The answer is yes if you:

- Are an individual or team with an idea or early stage venture, and the hunger to go on the startup journey to make it a reality.
- Anywhere from ideation stage (have an idea, not sure where to take it) to prototype and early customers
- Wanting help from experienced facilitators and peers to make your vision a reality.
- And you are a Monash student, staff member or Alumni, or one of your team members is.

2. STARTUP SPRINT

This five-week intensive online program is designed to make you sprint on the progress metrics that matter the most to your startup or social enterprise. It might be; finishing your prototype fast, building and launching a minimum viable product, acquiring customers or users, nailing your marketing and value proposition or gathering strong evidence to sell your innovation to partners or investors.

Whatever your metric, the Startup Sprint is about moving fast, learning rapidly and developing the mindset of a startup founder. This program is aimed at individuals and team who have validated an idea and are looking to rapidly speed up their progress.

Is the Startup Sprint Program right for you?

- Startup Sprint is designed for individuals and teams who are actively working on an idea and can provide evidence of one or more of the following:
- Evidence of quality customer interviews (100+ for consumer products or 20+ for business, enterprise or deep tech related technology)
- A functional prototype or minimum viable product
- Current users or customers
- Deep expertise in a market related to your idea
- Failures on past ideas which have led you to this idea

3. THE ACCELERATOR

The Accelerator is a 12-week program for early-stage teams with traction committed to rapidly progressing and scaling their venture.

This program is for Monash University change-makers, innovators, and big-thinkers (current students, staff, researchers and alumni) who are working on validated ideas or early stage startups to achieve significant and sustainable growth for their venture.

Over an intensive 12-weeks, you will be guided by Entrepreneurs-in-Residence (EIRs) and mentors, provided equity-free seed funding and access to our gorgeous new co-working space to rapidly progress your startup. The program is flexibly structured to accommodate the changing needs of innovators in 2021 and adapt to the ongoing challenges of global entrepreneurship.

Is the Accelerator Program right for you?

SUITABILITY

Teams and individuals will benefit most from the program if they:

- Can show validation of the idea -- this can be an early minimum viable product, customers/users, a prototype or extensive insight through industry expertise or quality customer interviews
- Deeply care about the problem and have some domain expertise
- Are committed to growth and creating a viable venture
- Are open and willing to be guided by the coaches, mentors and advisors
- Have clarity about what they hope to gain from the program

ELIGIBILITY

At least one (1) team member with an active role or at least 10% equity in the venture must be a current student, staff member or researcher at Monash or an alumnus of Monash.

AVAILABILITY

You and your team must also be able to attend all core components of the program. At least one member of each team MUST attend each session in its entirety to remain in the program. We keep these to a minimum so you have time to deeply focus on your business.

4. RESEARCHER TO INNOVATOR

Monash researchers (Masters by Research students, PhDs, PostDocs, and Monash Academic staff) are invited to take part in the eight-week Researcher to Innovator Program to:

- Understand the founder mindset
- Learn how to evaluate the commercial opportunity in your research
- Understand the basics of intellectual property (IP) and the types of strategies used to commercialise IP
- Learn the 'ins and outs' of commercialising research at Monash
- Find out how ideas are financed, how investment and equity works and what grants and incentives apply to starting a startup
- Get insight into 'business essentials' such as structures, finance and legal
- Develop your own 'idea acceleration' plan
- Meet other researchers at Monash as part of the growing innovation community

Bonus: At the end of the eight weeks, you will also have the opportunity to pitch your project to a panel of investors and get valuable feedback on further developing your idea.

Is the Researcher to Innovator Program right for you? This is the right fit if you...

- Are a PhD, Post-Doc or Researcher currently at Monash University
- Have a genuine interest in taking your idea or research down a commercial pathway
- Have already taken steps to exploring this, from googling how to start a company, speaking with potential partners or customers or developing prototypes of your idea (napkin sketch through to functional prototype or event a patent pending)
- Have been struggling to find a community that supports entrepreneurial ventures in research
- Are motivated to work on your idea, make progress and build your unique commercialisation plan during the eight weeks

ONE-ON-ONE ADVICE

Monash students, staff and alumni have the opportunity to sit down with an Entrepreneur Advisor to talk through their idea, challenges and how to progress.

See here (<https://www.monash.edu/entrepreneurship>) for all information about The Generator.

ENGINEERING CO-OPERATIVE EDUCATION PROGRAM

What is the Co-operative Education Program?

An internship to help you get a kick-start on your future engineering career. Take time out from semester study or use the summer break to work full-time in paid roles, for periods of 3,6 or 12 months. Use Co-op internships to explore different industry sectors, develop teamwork and communication skills and apply your theoretical knowledge in a practical context.

Find all relevant information here
(<https://www.monash.edu/engineering/coop>)

BENEFITS

- **Gain practical experience:** Learn practical, hands-on engineering skills that complement your formal studies.
- **Explore your options:** Gain real life insights into engineering practice and make informed decisions about your future.
- **Graduate job-ready:** Graduate with skills, employment experience and a new professional network.
- **CPD:** Time spent in Co-op internships can be included in Continuous Professional Development (CPD) hours.

POTENTIAL ROLES

- Engineering Cadet
- Production Assistant
- Software Engineering Intern
- Undergraduate Engineer
- Computer Systems Engineering Intern

ELIGIBILITY

To be eligible for Co-op, you must:

- Be enrolled in a single or double Engineering degree.
- Have a minimum WAM of 60.
- Have completed at least 72 points of engineering studies and have more than 48 points of engineering studies remaining.
- Be eligible to work in Australia.

Note: International students can only complete Co-op internships during the summer term.

COSTS

A \$400 fee is payable once an internship has commenced and a first salary payment has been received. The fee contributes to the overall running costs of the Co-op program, including establishing and maintaining employer relationships, providing the Employability Skills Program and other administrative costs.

MITI

What is MITI?

The **Monash Industry Team Initiative (MITI)** partners multidisciplinary student teams from Monash University with leading Australian and global industry partners. Students collaborate and design innovative solutions to real issues in today's business world.

The Monash Industry Team Initiative (MITI) program offers you a unique opportunity to gain professional experience in a unique learning environment. This team based initiative will partner you with a leading industry host where you will be tasked with solving a real-world business problem. Placed in a contemporary business environment the experience will expose you to a practical and very different way of learning with students that study in different disciplines.

As an MITI team member you will be offered a scholarship to assist with living expenses for the duration of the project. All scholarships are administered by the Coursework Scholarship Unit, Monash, Clayton campus.

The relevant information can be found here: <https://miti.monash.edu/information/students>

How does it work?

Industry partners host teams of up to four students from different disciplines, to undertake a specific project over 10 to 12 weeks (full time) from December to February. The industry partner, together with the University, define the requirements for the project and the team required, ensuring students are exposed to relevant learning opportunities throughout the duration of the experience.

Students are competitively selected from a range of fields to form a multidisciplinary team. This provides them an opportunity to acquire hands-on practical experience that holds them in good stead for the future. The teams range from 2-4 in size.

Get an idea about some MITI project outcomes here:

<https://www.monash.edu/miti/media/project-outcomes/project-outcomes>

Why should students get involved in this program?

Students are able to utilise skills learnt from their study and understand how they are transferred to real working situations. Organisations can range from not for profit to private companies, and students will be also introduced to soft skills that are used in a working environment. This is also a platform for students to create professional networks in industry.

How can students get involved?

Applications for the MITI program are welcome from penultimate and subsequent year undergraduates, Masters and PhD students who meet the following criteria:

- Be an Australian or New Zealand citizen, holder of an Australian permanent resident or permanent humanitarian visa, or an international student

As a **minimum requirement**:

- Be enrolled as a full-time Monash student completing an undergraduate degree and has commenced their penultimate year of study, that is you must be currently studying in at least your second year of a three year undergraduate degree. If completing a four year undergraduate degree, then your third year is your penultimate year.

OR

- Be enrolled as a full-time Monash student completing a postgraduate qualification (coursework or research) at Masters or PhD level
- All applicants must have a credit average or above in their studies

For all graduate research (PhD) students, prior discussion with your current supervisor is advised to ensure there are no issues with workload and any existing scholarship arrangements are not affected.

FAME

FaME (**Friends and Mentors in Engineering**) is the first year mentoring program aimed at supporting Engineering students as they transition from high school into university.

All first year students are divided into groups of 20 with 2 mentors, they are senior Engineering students who will run regular catch-ups with their group throughout the semester and facilitate opportunities for the students to form resource and support networks.

Further information about the program or to apply to become a mentor can be found on the Mentoring website: <https://www.monash.edu/about/peer-mentoring/friends-and-mentors-in-engineering>

Mentors are required for semester 2 so keep an eye on your emails!

Being involved with the mentoring program enables first year students to make genuine friendships and familiarise themselves with the vast array of academic resources and extracurricular opportunities at Monash.

As a mentor, senior students take on a leadership role by providing guidance to their mentees in the form of sharing their own experiences, tips and advice in order to thrive and enjoy university.

Throughout the year, catch-ups with their individual groups are organised by the mentors as well as whole program events where everyone gets together, such as the Trivia Night and Games Night.

FaME also seeks to promote women in engineering and international student initiatives by providing networking opportunities for students to meet other senior students and share similar experiences.

Being a FaME mentor is a great experience as it allows you to share your journey with new students, helps develop critical skills such as communication and public speaking and it also counts to your CPD hours!

MONASH ENGINEERING CAREER READY SERIES

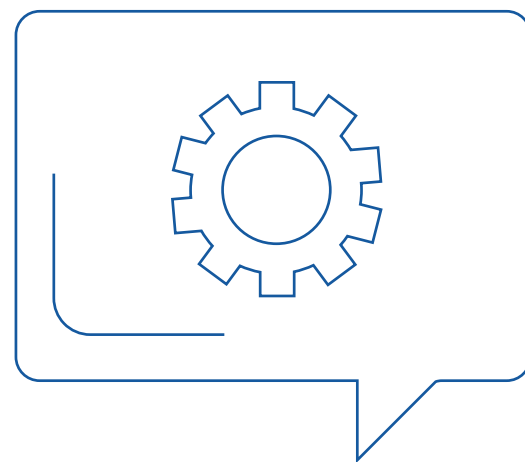
The Monash Engineering Career Ready Series has been developed to provide all Monash Engineering students with opportunities to extend their learning beyond the classroom, helping them to stand out from the crowd as they move into the workforce!

The series is structured around a range of professional development events and activities that are focused on fine-tuning each student's employability skills. The Series provides opportunities for students to

- Learn and practise workplace competencies;
- Actively participate in bespoke workshops crafted to excite and educate;
- Attend events where they will be able to engage with industry and alumni.

See more here:

<https://www.monash.edu/engineering/current-students/professional-development/monash-engineering-career-ready-series>



COMPLETING YOUR CONTINUOUS PROFESSIONAL DEVELOPMENT (CPD)

Whether you are a first year Engineering student, or a third year Engineering student, it is never too early to start thinking about completing your CPD. This section will help you make a start by providing you with an overview of CPD and the different types of CPD experiences, as well as outlining the restrictions that apply to the different experience categories.

What is CPD?

The ENG0001/ENG0003 Continuous Professional Development (CPD) unit is a compulsory professional practice requirement for all Bachelor of Engineering and Master of Professional Engineering students at Monash Clayton.

CPD is part of meeting the Engineers Australia Stage 1 Competency Standard to be a Professional Engineer. It's also an opportunity to engage in business and engineering-related experiences, build your employability skills and grow your professional networks and contacts.

You are required to complete a minimum of 420 hours of professional and Engineering-related experiences outside the classroom throughout your degree. These experiences will allow you to integrate what you are learning in the classroom with real world practice.

There are 3 components to pass the ENG0001/ENG0003 CPD unit:

- **Build your CPD experience hours:** complete a minimum of 420 hours of professional practice experiences outside the classroom
- **Submission 1 – Student Futures:** create a written record detailing how your experiences have helped you develop your employability skills
- **Submission 2 – CPD Assessment Questions:** answer 6 assessment questions reflecting on the key Engineers Australia Stage 1 competencies

It's your responsibility to find opportunities and participate in experiences, which will help you develop your job searching and organisational skills. Monash will support you to complete your CPD by sending regular communications about opportunities and providing workshops and resources.

Building your CPD experience hours

What kinds of activities and events count towards your 420 hours?

Any experience:

- that provides you with personal or professional skills and experience
- that you participate in outside the classroom
- and that takes place during the time you are enrolled in your Engineering course at Monash

These experiences could include:

- Paid work (e.g. engineering internship, casual retail job)
- Volunteering
- Virtual internships
- Unpaid work experience
- Active membership in teams, clubs and societies
- Networking
- Completing a short course online or in-person
- Attending seminars
- Project work for one of your units

A more detailed list of CPD experiences can be found on the [Monash Engineering CPD website](#)

Experience categories

There are two categories of experiences: engineering and non-engineering related experiences.

Engineering-related experiences could include: engineering work experience, engineering curriculum, or engineering professional development (e.g. Engineers Australia CPD seminars). Non-engineering-related experiences include any work, professional development or curriculum experiences that are not engineering related.

There are several restrictions that apply to the different categories of experiences:

- At least 50% (and up to 100%) of your hours must be Engineering experiences;
- No more than 50% of your hours can be non-Engineering experiences;
- No more than 70 hours can be Engineering Curriculum experiences; and
- No more than 70 hours can be Non-Engineering Curriculum experiences

More detailed information regarding uploading CPD experience submissions, Submissions 1 and 2, and supporting documents can be found on the [Monash Engineering CPD website](#)

SCHOLARSHIPS

Monash Engineering offers a wide range of undergraduate and postgraduate scholarships, designed not only to recognise academic excellence, but also to enable students from diverse backgrounds to study engineering.

For more information, see here:

<https://www.monash.edu/engineering/future-students/scholarships>

ENGINEERING EXCELLENCE SCHOLARSHIP

The Engineering Excellence award is offered to the highest achieving students entering an engineering course at Monash. Recipients must receive an ATAR score of at least 98.00.

- **Value:** \$6000 for a full-time study load (48 credit points), paid per year until the minimum points for your degree are completed, up to a maximum of 4 years.
- **Number available:** The Faculty will offer up to 10 Engineering Excellence Awards.

ENGINEERING INDIGENOUS EXCELLENCE SCHOLASHIP

The Achieving Potential Scholarship for Excellence has been introduced to support Indigenous students to excel in undergraduate Engineering degrees.

- **Value:** \$8000 per annum (48 credit points of study) for the duration of your degree.
- **Number available:** Two scholarships available.

ENGINEERING (HONOURS) MASTERS ACCELERATED PATHWAY SCHOLARSHIP

The Engineering (Honours) Masters Accelerated Pathway Scholarship is for high-achieving students intending to enrol in the Bachelor of Engineering (Honours)/Masters vertical double pathway.

- **Value:** The scholarship is valued at \$6000 per 48 credit points of study for the minimum number of credit points required to complete the Bachelor of Engineering (Honours) degree, plus an additional \$6,000 for the Master of Engineering component, with a total value up to \$30,000.

ENGINEERING INTERNATIONAL HIGH ACHIEVERS SCHOLARSHIP

Sir John Monash Fee Scholarship

The Engineering International High Achievers Scholarship is introduced to recognise high achieving international students.

- **Value:** Undergraduate - \$15,000 per 48 credit points, paid towards your tuition fees, up to four years. Postgraduate - \$15,000 per 48 credit points, paid towards your tuition fees.
- **Number available:** Undergraduate - 25 scholarships will be offered per year. Postgraduate - 25 scholarships will be offered per year.

WOMEN IN ENGINEERING SCHOLARSHIP

The Women in Engineering Scholarship celebrate the success of high achieving female students who choose to pursue a rewarding career in engineering.

- **Value:** \$6000 for a full-time study load (48 credit points) for one year.
- **Number available:** The Faculty will offer up to 20 Women in Engineering Scholarships.

UNIVERSITY-WIDE SCHOLASHIPS

In addition to scholarships offered by the faculty, Monash University also offer university-wide scholarships and bursaries. Visit the [Coursework Scholarships Website](#) for a full list of all the scholarships and bursaries available.

TO APPLY

Most of the scholarships listed above do not require an application. All eligible students who apply for an undergraduate course through VTAC will be automatically assessed.

For further information on the application process check the [Coursework Scholarship website](#).

MONASH ABROAD AND EXCHANGE

Monash offers a variety of opportunities to study overseas, from a few weeks to year-long programs.

If you want to add some variety to your studies, see the world, broaden your networks or expand your horizons in your field of study, you should consider adding a study abroad experience to your degree. We've outlined some of the available programs below. For the full list, please head to the [Monash Abroad website](#).

EXCHANGE

How does it work?

While overseas on the exchange, you will:

- Stay enrolled at Monash
- Receive credit for your overseas study towards your Monash degree
- Continue paying your Monash fees.

Am I eligible?

If studying Engineering overseas:

- You must have completed the common first year engineering units (core units plus required foundation and/or elective units)
- Have 48 credits completed at time of application; and
- Have been allocated a specialisation by the end of semester in which you apply.

If not studying engineering overseas:

- 18 credits at time of application.

Study Plan

As part of your exchange application, you will need to prepare a Study Plan by listing the units you wish to study and have credited back to your degree which are offered at your preferred partner institution. Following the exchange deadline, your faculty/ies will then review your study plan, and assess the units you have selected and how they would be credited (e.g. core, major, elective).

Tip: Core units need to be 80% similar to their corresponding Monash unit in order to be credited. If you're studying engineering, it's much easier to get technical and free electives approved!

Costs

Fortunately, studying overseas can be an affordable way to travel.

You're often eligible for scholarships, loans, grants, and under the exchange arrangements Monash has with institutions all over the world, you will not have to pay additional tuition fees - all you pay is your normal Monash home campus tuition fees. For more information, head to the [Financial Information](#) section of the Monash Abroad website.

MONASH GLOBAL CAMPUS

The Global Intercampus Program (GIP) lets you undertake one or two semesters of study towards your degree at Monash University Malaysia campus.

Monash Global Campus Intensives (MGCIs) provide you with the opportunity to attend classes based at the Prato Centre in Italy, or the Monash Malaysia campus. You'll choose from a single three-week module up to a full semester's study load with flexible module timetables and participate in cultural activities such as field trips, cooking classes and tours

As you're already a Monash student, spending time studying at another Monash campus is one of the easiest ways to see the world. This is the perfect choice if you are seeking a stimulating overseas experience that will add value to your degree, with the added benefit of Monash funding packages and in-country support services.

GLOBAL IMMERSION GUARANTEE (GIG)

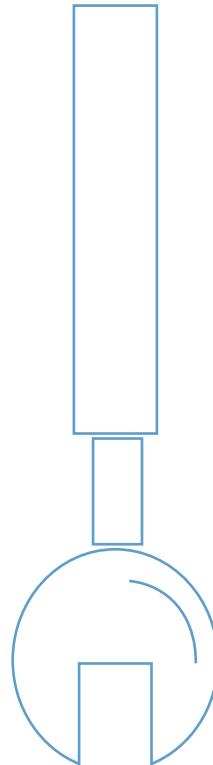
GIG is a funded fieldwork unit (12 credit points) that takes you to one of eight countries at the end of your first year.

Flights, accommodation, visas and all program costs are paid for while you're abroad - you just need to cover the MON2100 tuition fees, some food and spending money!

While abroad, learn from local leaders about how they're working to address the human impact on the environment in different local contexts, and see first-hand how to balance environmental protection, and sustainability with economic and social development.

SIMPLE STEPS FOR GETTING STARTED :

1. Read up on all the available program types to determine which one best suits you and your degree <https://www.monash.edu/study-abroad/overseas/your-program-options>.
2. Head to the Program Search on the Monash Abroad website and filter the programs based on location, duration and program type <https://www.monash.edu/study-abroad/overseas/program-search>.
3. Submit a course advice request to receive advice from your faculty about how studying abroad could work with your degree <https://forms.monash.edu/course-advice>.
4. Attend an information session for your program - you'll need to [sign up](#) first!
5. If you're going on exchange, draft your study plan
6. Submit your application by the deadline listed on the Monash Abroad website



TIPS FROM OTHER STUDENTS

Amy, Civil Engineering

University of Exeter

- Travel during your abroad experience. Take the opportunity when you can to grab new or old friends and explore all the places both near and far.
- Use your resources. Make sure you figure out what apps are useful when away from home and talk to as many people as you can about the places you are staying.
- Don't be afraid to talk to strangers! People love a good chat and you can learn so much from everyone of all cultures and backgrounds while overseas.

Anja, Civil Engineering

Technical University of Denmark (DTU)

- Be patient and give yourself time to settle in and find your rhythm.
- When communicating with Monash Abroad, go in person if you have an urgent matter as you will get a quicker response.
- Don't leave things such as visas and student accommodation to the last minute because they often become more complicated than expected; having some buffer time is good.

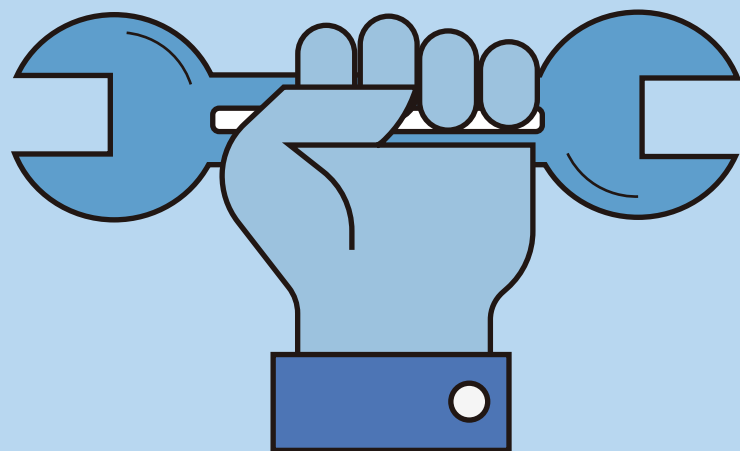
Sally, Chemical Engineering

Global Immersion Guarantee

- GIG has a very short timeline and finding the balance between putting the work into a 12 credit point unit and enjoying your time overseas can be tricky. Most assessments are outside of the trip itself so don't feel guilty enjoying yourself! It's a really incredible experience only offered to first years and will likely inspire a love of travelling for the rest of your uni experience.

MONASH CLUBS

Monash engineering clubs are the perfect way to connect with engineering students outside of your lecture theatres and labs. They run all kinds of events throughout the year, from barbeques to trivia nights to tree planting! Read on to learn more about what they have to offer...



MONASH CLUBS SUMMARY

| CLUBS | FY | AERO | BIO | CHEM | CIV | ECSE | ENV | MAT | MEC | TRC | SOFT | NON |
|-----------------------|----|------|-----|------|-----|------|-----|-----|-----|-----|------|-----|
| MESS | | | | | | | | | | | | |
| WEM | | | | | | | | | | | | |
| GLEAM | | | | | | | | | | | | |
| EWB | | | | | | | | | | | | |
| MEC | | | | | | | | | | | | |
| SMUCE | | | | | | | | | | | | |
| SMEE | | | | | | | | | | | | |
| MEES | | | | | | | | | | | | |
| MEPSS | | | | | | | | | | | | |
| MatES | | | | | | | | | | | | |
| ACES | | | | | | | | | | | | |
| MAMEC | | | | | | | | | | | | |
| MECC | | | | | | | | | | | | |
| TEM | | | | | | | | | | | | |

Click on a CLUB name to jump straight to their page. Then look out for the "Back to clubs summary" icon at the bottom right of the page to head back to this table!

Abbreviations:

- FY - First Year
- AERO - Aerospace
- BIO - Biomedical
- CHEM - Chemical
- CIV - Civil
- ECSE - Electrical and Computer Systems
- ENV - Environmental
- MAT - Materials
- MEC - Mechanical
- TRC - Mechatronics
- SOFT - Software
- NON - Non-engineering students

MESS

Monash Engineering Students' Society



The Monash Engineering Students' Society (MESS) is both Monash University's largest engineering-based club. MESS's purpose as a club is "To foster an inclusive community that enriches the experience of all Engineering students and supports their personal and professional growth throughout their university journeys, enabling them to graduate as passionate, adaptable, and respectful Engineers". MESS has four different portfolios that focus on providing different opportunities to students: Academic, Industry, Social, and W&E (Wellbeing and Equity).

Our industry portfolio's goal is to allow engineering students to network with and learn about firms operating in engineering and engineering-adjacent sectors. We manage over 45 partnerships with a variety of businesses and organisations that work in or adjacent to the engineering industry, from firms managing infrastructure projects around Australia, to some of the most prominent consulting companies in the world.

Through three annual industry events and our social media, we provide many avenues to connect students with companies offering internship opportunities and graduate roles. The three annual industry events run by MESS are the Careers Guide Launch, Beers with Engineers, and the Industry Night. The Careers Guide Launch features representatives from all organisations present in the Careers Guide, providing students the opportunity to network with the companies they will have read about. Beers with Engineers provide a relaxed environment for students to speak to industry professionals in a less formal setting. This is the perfect opportunity for younger students to try their hand at networking and forming connections before seeking roles at these companies. Industry Night is an evening of a designed to break the ice between students and employers, enabling connections to form naturally.

A brief introduction to our other portfolios:

- Our Academic portfolio aims to support engineering students through their studies. The team runs workshops, seminars, revision sessions, and creates academic resources to help with topics such as understanding CPD and choosing a specialisation in first year.
- Our Social portfolio runs all the events that MESS is most famous for. From our first year camp and our award winning cocktail night, to regular BBQs, our social team has many opportunities to connect and have fun with other engineering students.
- Our W&E portfolio supports all engineering students at Monash in areas of mental and academic wellbeing. The W&E team, and everyone else at MESS, is always striving to support all student groups, including both onshore and offshore international students, disability-affected students, female students, members of the LGBTQIA+ community, and more.

If you want more information about us, or help with anything related to engineering at Monash, either check out our social media below, or come visit us in the Moff (MESS Office) from 10am - 3pm from Monday to Thursday. If you have any questions, please don't hesitate to contact us through our social media pages.



CONTACT INFORMATION

Website: mess.org.au
 Facebook: [Monash Engineering Students' Society \(MESS\)](https://www.facebook.com/monashengineeringstudentsociety)
 Instagram: [@insta.mess](https://www.instagram.com/insta.mess)
 Email: Mess@monashclubs.org
 LinkedIn: [Monash Engineering Students' Society \(MESS\)](https://www.linkedin.com/company/monash-engineering-students-society)

UPCOMING EVENTS

OGM March 13th
 Beers With Engineers May 8th
 Industry Night August 6th

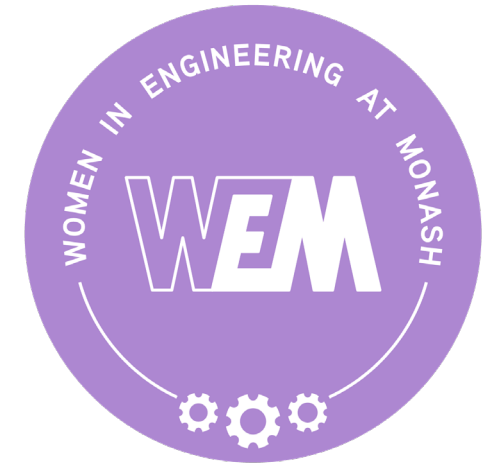
WEM

Women in Engineering at Monash



Women in Engineering at Monash (WEM) is a student oriented club that aims to support women and non-binary identifying students by facilitating connections with both students and employers in the industry, providing opportunities that inspire students to think creatively and critically. Since last year, we have rebranded from our previous title of FEM, in recognition of our 10-year anniversary!

Although our focus is on women who study engineering, we welcome anyone who supports this club and cause. WEM runs social, academic and industry events such as Cocktail Night, Powertools, High Tea Networking Night, Boat Cruise and Industry Guide Launch, just to name a few. Through these events, you will have the opportunity to get to know representatives and different opportunities available in the industry!



CONTACT INFORMATION

Website: <https://womeninengatmonash.com/>
 Facebook: [Women in Engineering at Monash or WEM.monash](https://www.facebook.com/womeninengineeringatmonash)
 Instagram: [@wem_monash](https://www.instagram.com/wem_monash)
 Email: wem@monashclubs.org
 LinkedIn: [Women in Engineering at Monash](https://www.linkedin.com/company/women-in-engineering-at-monash)

UPCOMING EVENT

WEM Trivia & Networking Night,
 WEM Bar Night, WEM Industry Guide
 Launch, WEM Boat Cruise



GLEAM

Queers in STEM



GLEAM is a student run group for Queer+ identifying students in science, technology, engineering and maths at Monash university.

We aim to provide a safe environment within Monash University for LGBTQIA+ STEM students to create lasting friendships and network with LGBTQIA+ friendly industries.

Some of our popular past social events include; Crafternoon, Pride Picnic, Queer Night Out and much more! We also provide career related resources and industry networking opportunities through our newsletters and Queer in STEM networking events.

Register to become a member (link in our Instagram bio or QR code below) and follow us on our socials to keep up to date with our events! Come say hi, we love meeting new people! :)



A look back on...
GLEAM 2023

Just a few of our many fun events this year...



Pride Picnic

Pride Centre Market Excursion





Crafternoon

Follow us on our socials!

Scan to sign up!



 @gleam_monash
  GLEAM - For Queer+ STEM Students

CONTACT INFORMATION

Facebook: <https://www.facebook.com/gleamatmonash/>
 Instagram: @gleam_monash : https://www.instagram.com/gleam_monash/?hl=en
 Email: gleam@monashclubs.org
 LinkedIn: <https://au.linkedin.com/company/gleamatmonash>

UPCOMING EVENTS

Follow our socials to stay up to date with our events throughout the year.

EWB

Engineers Without Borders



At Engineers Without Borders (EWB) Monash, our mission is to raise awareness of humanitarian engineering, and advance the social and humanitarian principles we believe should be at the centre of the modern engineering industry. To this end, we run a variety of events and workshops designed to educate our members about humanitarian design and how to use engineering to make a real difference in the world.

Some of our events include our Appropriate Technology workshops, the Ideathon, and Trivia Night Opportunities to get involved... School Outreach: High school workshops run by volunteer members which teach students about challenges faced by developing communities with hands-on activities.

Appropriate Technology: Workshops that give you an opportunity to learn more about humanitarian engineering and its design principles. EWB Ideathon: An intensive hackathon challenging its participants to apply humanitarian design to real life scenarios and problems.



 @ewbmonash
 ewb@monashclubs.org



CONTACT INFORMATION

Facebook: <https://www.facebook.com/EngineersWithoutBordersMonash>
 Instagram: @ewbmonash
 Email: ewb@monashclubs.org
 Link to sign up as a member: <https://clubs.msa.monash.edu/organisation/7621/>

UPCOMING EVENT

Follow our socials to stay up to date with our events throughout the year.

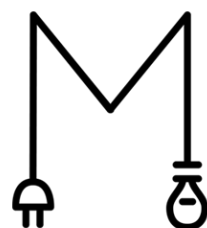
MEC

Monash Energy Club



Monash Energy Club (MEC) is a club that brings together all students interested in the Energy Industry! We welcome all different academic backgrounds, and aim to provide an opportunity to be involved in and learn about Australia's Energy transformation, covering all areas from new technologies and trends to news and policies. We have many events throughout the year, both social and educational and we provide students unique networking opportunities with our industry partners for potential internships, graduate, and PhD programs.

Some of our events this year have been: Trivia Night, EnergyHack, AGL tour, Hydrogen Masterclass, Young Professionals in Energy webinar, and our 'Grounded' webinar series which featured Energy-Industry professionals from groups such as Tesla, Climate Council, Monash University and Woodside. Oh and we also have a podcast!



MONASH

Energy Club

CONTACT INFORMATION

Website: <https://monashenergy.org/>
 Facebook: <https://www.facebook.com/monashenergyclub>
 Email: admin@monashenergy.org
 LinkedIn: <https://www.linkedin.com/company/monash-energy-club>

UPCOMING EVENTS

There will be networking nights, industry nights and a hackathon in 2024. Follow our socials to stay up to date with our events throughout the year.

SMUCE

Society of Monash University Chemical Engineers



The Society of Monash University Chemical Engineers (SMUCE) is a student-run society aiming to bridge the gap between the classrooms and the world outside the university. It serves as a link between students, academics and industry.

Throughout the academic year we host a number of academic, social and industry networking events. Academically, we collect student feedback on all Chemical Engineering Department run units which is then presented to the department at our semesterly SSLM presentation. We additionally host regular GroupUp study sessions in preparation for upcoming assessments. Socially, we host regular free food events and social outings such as our annual cocktail night. Industrially, we host an annual tri-uni Industry night with RMIT and The University of Melbourne, we host mentoring evenings, advertise job opportunities and publish an annual Chemical Engineering careers guide.



Our goal is to connect the student cohort to industry and to improve the student experience in the Department of Chemical Engineering. This coming year we have ambitious goals to host more industry and social events. The best way to get involved is to come to our events. All our events are advertised on our Facebook page and are open to all students :

<https://www.facebook.com/SocietyOfMonUniChemEng>.

If you wish to join our committee to gain professional development experience or to become better connected to the department or industry contact us by writing us an email smuce@monashclubs.org



CONTACT INFORMATION

Website: <https://www.smuce.org/>
 Facebook: <https://www.facebook.com/SocietyOfMonUniChemEng>
 Instagram: <https://instagram.com/smucemonash?igshid=MzRIODBiNWFIZA==>
 Email: smuce@monashclubs.org
 LinkedIn: <https://www.linkedin.com/company/smuce/>

UPCOMING EVENTS

Follow our socials to stay up to date with our events throughout the year.

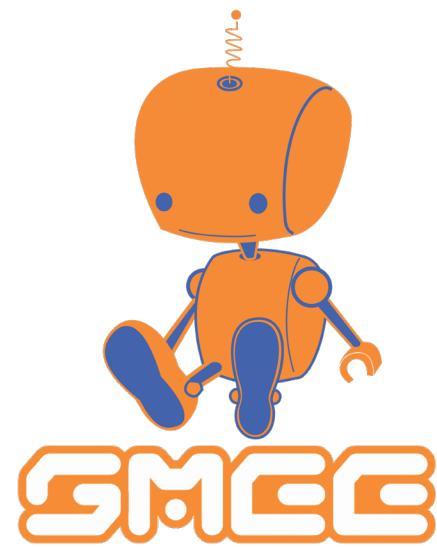
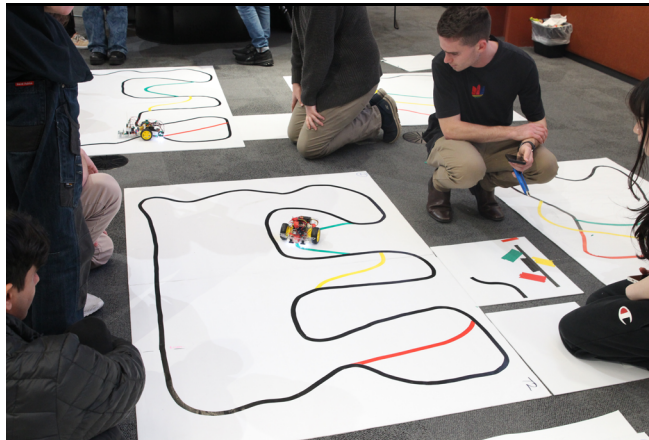
SMEE

Society of Monash Electrical Engineers



The Society of Monash Electrical Engineers (SMEE) is the official academic club under the Monash Electrical and Computer Systems Engineering (ECSE) department. We run competitions, industry nights, and all sorts of social events for students in ECSE and related disciplines, to make your time in university as fulfilling as possible. Our major events for the year are our Tech Industry Night in semester 1 and our Robot Building Competition and Industry Pathways Panel Night in semester 2. Keep an eye out for the workshops and barbeques we'll be running throughout the year as well!

SMEE also acts as an intermediary between the ECSE department and the student body; if you ever need help, or want to pass on some feedback about your learning experience, please reach out to us via email, Facebook, or Discord! You can also use our Discord server to chat with other students in ECSE and even alumni who are now working on cool stuff in the industry. You can also find us in our office, Room 111, 16 Alliance Lane (Building 35, next to the Hargrave-Andrew Library). There's usually someone there, so come in to say hey, or even just to use the microwave.



CONTACT INFORMATION

Website: <https://smee.club/>
 Facebook: <https://www.facebook.com/monashelectrical/>
 Instagram: <https://www.instagram.com/smee.club/>
 Email: smee@monashclubs.org
 Other: <https://discord.gg/4RCRvrJ4>

UPCOMING EVENTS

Follow our socials to stay up to date with our events throughout the year.

MEES

Monash Environmental Engineering Society



Monash Environmental Engineering Society is a social and informative club that wants to help you with establishing a network that begins with students and creates lasting professional partnerships. We also want to help students find a pathway to employment by providing members with important soft, and hard skills. We aim to achieve this by developing a friendly culture of student engagement across all levels of study and engaging our members in rewarding and interactive, social, and educational events.

MEES promotes interaction between its members and professionals, alumni, and students, both within Monash and externally. We attempt to facilitate this engagement through a combination of social, academic and industry initiatives.



CONTACT INFORMATION

Facebook: <https://www.facebook.com/monashenvironmentalengineeringsociety>
 Instagram: https://www.instagram.com/mees_monashuni/
 Email: mees@monashclubs.org
 LinkedIn: <https://www.linkedin.com/company/monash-environmental-engineering-society-meess/>

UPCOMING EVENTS

MEES camp/day hike, and picnic are our traditions. Please stay tuned and follow our socials to stay up to date with our events throughout the year. :)

MEPSS

Monash Engineering and Pharmaceutical Science Society

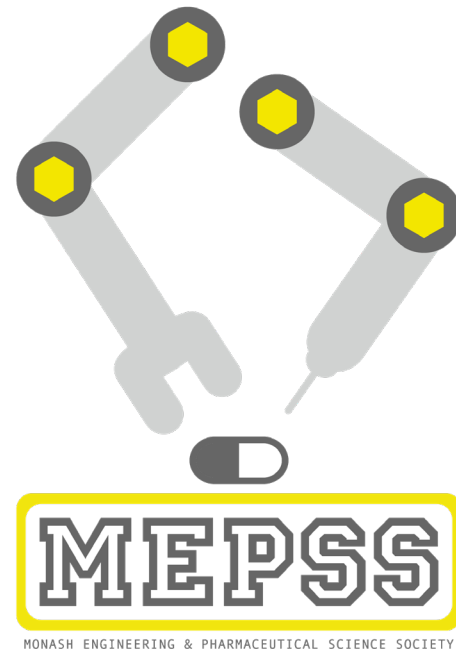
CHEM

What is Engineering/Pharmaceutical science?

Combining chemical engineering with pharmaceutical science, this double degree course is unique in Australia and rare worldwide, producing professionals capable of covering the full spectrum of the pharmaceutical product design and development process. Pharmaceutical engineers work in all wide range of jobs, from experimenting with innovative formulations to manufacturing commercialised products.

The Monash Engineering and Pharmaceutical Science Society (MEPSS) is built to provide support, representation and a social medium for all students of the Pharmaceutical Science/ Chemical Engineering double degree, and all students with an interest in the pharmaceutical engineering field. We provide social events like BBQs, pizza and other exciting nights. First and foremost, however, we are here to make sure all students of the double degree have the most enjoyable time at university! We also provide perks like alumni connections and networking opportunities in the pharmaceutical engineering field.

If you are interested in this industry, then this society is for you! We help set you up with the best opportunities and with the best people, while making sure you have the best time. Feel free to contact us about MEPSS, engineering or the course in general. These are times for you to relax with like-minded peers and make some friends, maybe winning some prizes along the way.



CONTACT INFORMATION

Website: <https://linktr.ee/mepsscayton>
 Facebook: <https://www.facebook.com/MonashEPSS>
 Instagram: [@mepss.monash](https://www.instagram.com/mepss.monash)
 Email: mepss@monashclubs.org
 LinkedIn: <https://www.linkedin.com/company/mepss/>

UPCOMING EVENT

Follow our socials to stay up to date with our events throughout the year.v

MatES

Materials Engineering Society

FY

MAT

NON

MatES is a student club that focuses on advocating for materials engineering as a specialisation and for its cohort of students.

We are entirely student-run, where our work includes things such as:

- Running social events to help materials engineering and other students develop connections throughout their degrees
- Facilitating upskilling and networking opportunities for undergraduate students, particularly those undertaking the materials engineering specialisation. These opportunities include events such as careers/industry nights or graduate panels
- Communicating with the MSE (materials science and engineering) department to serve their needs, but also as a representative student body

Through these means, we seek to achieve our goals, that is, to:

- Represent the MSE student body and advocate on their behalf with the department
- Provide students with opportunities to develop their technical and soft skills to further their employment prospects
- Supplement students' degrees with exciting social events and to help them gel with their cohorts

We are available by all of our listed social media outlets, and are particularly responsive via email, so feel free to send us a message if you'd like to get involved with our committee, volunteers are always welcome!



CONTACT INFORMATION

Facebook: <https://www.facebook.com/matesmonash>
 Instagram: https://www.instagram.com/mates_monash/
 Email: mates@monashclubs.org
 LinkedIn: <https://www.linkedin.com/company/monash-materials-engineering-society/about/>

UPCOMING EVENT

EGM - Week 2 Sem 1
 OGM - Week 9 Sem 1
 other sem 1 events TBC!
 AGM - Week 7 Sem 2



ACES

Association of Civil Engineering Students



The Association of Civil Engineering Students (ACES) is an academic club for Monash University Civil Engineering students on the Clayton campus. The club's primary focus is to bridge the gap between students and the Civil Engineering industry. We do this through a variety of different events and initiatives. ACES annually hosts events such as careers nights, industry-focused professional development sessions, various information evenings and social events; in addition to providing useful information and resources to our members. In this way, ACES aims to inform students about the Civil Engineering profession and potential opportunities for internships, vacation work, and graduate work. We pride ourselves on our reputation of regularly seeing our event attendees landing jobs as a result of our industry events.

Our flagship event is our Industry Night, where representatives from a broad range of companies visit the campus and present what their company has to offer. The night begins with presentations and is followed by a networking session, which allows students to network with practicing engineers and representatives from the civil engineering design, consultancy, and construction sectors. Both students and industry representatives agree this is professional way to gain insight into civil engineering career pathways and connect to potential future employers.

At ACES, we not only provide value for our members through in-person events, but also through our various social media pages and our annual publication: the "ACES Industry Guide". We post frequent updates regarding employment opportunities as well as information about our events, and faculty-lead programs. Please don't hesitate to follow our socials on Facebook, Instagram, and LinkedIn and become a member to receive the ACES Civil Banter newsletter.

The club also brings together like-minded students and aims to build life-lasting relationships amongst peers through social events such as barbeques, and various competitions. We strongly encourage students to join our 'Civil Banter @ Virtual HAL' Facebook page, which is an informal space that allow for communication on civil engineering-related topics from students of all year levels.



CONTACT INFORMATION

Website: <https://www.acesmonash.com/>
 Facebook: <https://www.facebook.com/MonashACES/>
 Instagram: <https://www.instagram.com/aces.monash/>
 Email: aces@monashclubs.org
 LinkedIn: <https://www.linkedin.com/company/monash-aces/>

UPCOMING EVENT

Follow our socials to stay up to date with our events throughout the year.

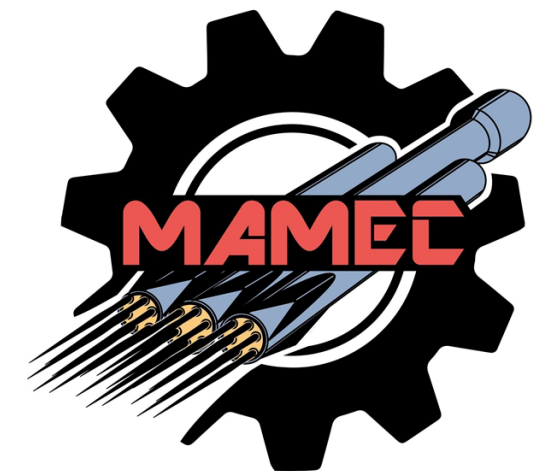
MAMEC

Monash Aerospace and Mechanical Engineering Club



The Monash Aerospace and Mechanical Engineering Club (MAMEC) is the port of call for all Monash Clayton mechanical and aerospace engineering students, both current and future. We're here to help you through every step of your journey through and beyond university. We aim to connect you to your peers and classmates, as well as industry leaders such as Boeing, Ford, BAE Systems and Worley to kickstart your career.

Not sure if mechanical or aerospace is for you? MAMEC is also here to help answer any questions and clear any concerns you may have about studying mechanical or aerospace engineering at Monash.



CONTACT INFORMATION

Facebook: <https://www.facebook.com/>

UPCOMING EVENT

Follow our socials to stay up to date with our events throughout the year.

MECC

Mechatronics Engineering Clayton Club

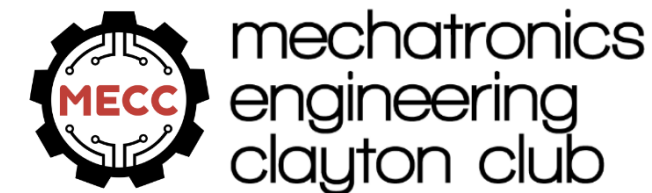
FY

TRC

Mechatronics Engineering Clayton Club (MECC) is a student-run club with a focus on Robotics and Mechatronics. Our goals are to connect students with industry, teach valuable skills and help them to discover what mechatronics has to offer. MECC assists students to develop and apply traditional classroom theory in practical fields. This is done through providing support for their projects and organising competitions, which encourage the Mechatronics way of thinking. We also promote opportunities for students to undertake industry experience and assist to strengthen the bond between university students and industry. We endeavour to act as a platform for Mechatronics students and students of other engineering disciplines to share their ideas. We run a bunch of events throughout the year for various skills levels.

Robot Building Competition :

Robot Building Competition (RBC) is a great introduction into the world of robotics, RBC teaches you valuable workflows for 3D modelling, electronics and programming, culminating in a weekend competition in small teams.



CONTACT INFORMATION

Facebook: <https://www.facebook.com/monash.mecc>
Instagram: [@mecc_monash](https://www.instagram.com/mecc_monash)
Email: mechatronics@monashclubs.org

UPCOMING EVENT

Follow our socials to stay up to date with our events throughout the year.

TEM

Transport Engineers at Monash

FY

CIV

Transport Engineers at Monash (TEM) is a club run by Civil Engineering students with a passion for Transport Engineering. TEM focuses on promoting the Transport sector to engineering students throughout all disciplines and aims to connect students with industry professionals. This is achieved in different ways, including Industry, Social and Technical Events.

Mentoring Program:

This program pairs student interested in learning about the transport sector with experienced mentors from the transport industry. The program supports students by building knowledge on the transport industry, making new connections, and improving professional skills.

Industry Events:

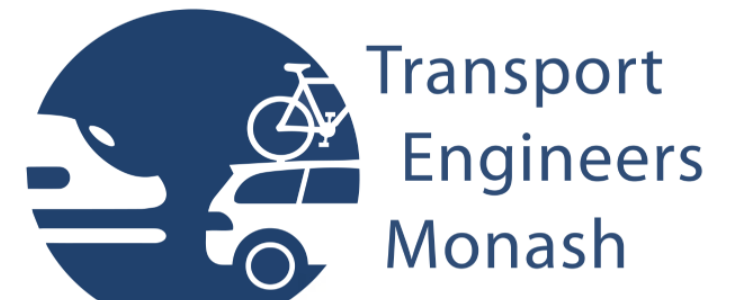
TEM holds a variety of industry events such as mock interviews and Q&A panels. These events provide the opportunity for industry professionals to engage with students to help them with general questions/advice, the transition from university to industry, recommendations on internships and information on the transport industry.

Social Events:

TEM will be holding a series of social events, including on-campus BBQs and games night, to name a few. These events allow students to find out more about TEM and engage and socialise with other students.

Technical Events:

TEM will be holding a series of technical events focused on different professions within the Transport Industry. These events aim to improve student awareness of future career options and help students discover what they are passionate about.



CONTACT INFORMATION

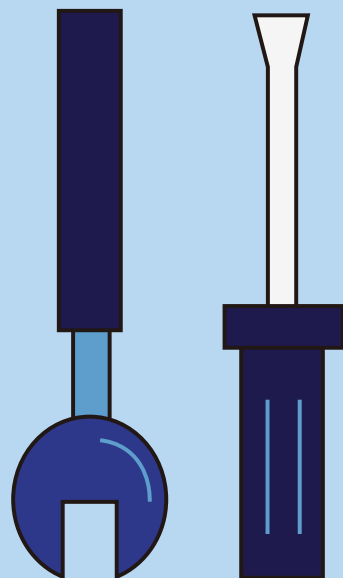
Facebook: <https://www.facebook.com/tem.monash>

UPCOMING EVENT

Follow our socials to stay up to date with our events throughout the year.

MONASH TEAMS

Student teams are the perfect way to upgrade your uni experience. With so many teams to join, you are bound to find one which piques your interest. There are so many reasons to get involved - you'll gain CPD hours, foster industry connections and benefit from practical experience. Many students also do their FYP (Final Year Project) through a student team.. If you're looking to boost your employability and find out what goes on in Makerspace, read on...



MONASH TEAMS SUMMARY

| TEAMS | FY | AERO | BIO | CHEM | CIV | ECSE | ENV | MAT | MEC | TRC | SOFT | NON |
|-----------------------------|----|------|-----|------|-----|------|-----|-----|-----|-----|------|-----|
| MNR | | | | | | | | | | | | |
| MPP | | | | | | | | | | | | |
| MF | | | | | | | | | | | | |
| MMS | | | | | | | | | | | | |
| METTA | | | | | | | | | | | | |
| SynBioM | | | | | | | | | | | | |
| Monash HPR | | | | | | | | | | | | |
| MDN | | | | | | | | | | | | |
| MUAS | | | | | | | | | | | | |
| MHP | | | | | | | | | | | | |
| MYMI | | | | | | | | | | | | |
| MC3 | | | | | | | | | | | | |
| PPM | | | | | | | | | | | | |
| MSB | | | | | | | | | | | | |
| MAPS | | | | | | | | | | | | |
| Robogals | | | | | | | | | | | | |
| MBL | | | | | | | | | | | | |
| MHH | | | | | | | | | | | | |
| Monash BEST | | | | | | | | | | | | |
| MA | | | | | | | | | | | | |
| MCAV | | | | | | | | | | | | |
| SWM | | | | | | | | | | | | |

Click on a TEAM name to jump straight to thier page. Then look out for the "Back to teams summary" icon at the bottom right of the page to head back to this table!

Abbreviations:

- FY - First Year
- AERO - Aerospace
- BIO - Biomedical
- CHEM - Chemical
- CIV - Civil
- ECSE - Electrical and Computer Systems
- ENV - Environmental
- MAT - Materials
- MEC - Mechanical
- TRC - Mechatronics
- SOFT - Software
- NON - Non-engineering students

MNR

Monash Nova Rover



Monash Nova Rover is a multidisciplinary team of Monash students passionate about designing and building analogue Mars and Lunar rovers for national and international space robotics competitions. We hail from a wide variety of faculties, including Engineering, IT, Science, Commerce and more!

In 2018 we became the first Australian team to compete at the University Rover Challenge in Utah, we remain the only Australian team. In 2022 and 2023, we placed 2nd out of 100 competing teams from all around the world! The team also competes and is undefeated in the Australian Rover Challenge in Adelaide, three years in a row. The team utilises these annual competitions as a vehicle to develop new skills, innovate technologies and promote the opportunities of STEM-based courses and careers. Our rovers are designed to assist astronauts in Mars and Lunar missions and are equipped with a custom designed and built robotic arm, in-situ life detection and autonomous capability.

Our current rover Waratah, coloured pink as a part of our Pink Rover Women in STEM campaign has travelled to various primary and secondary schools as well as various STEM events all around Australia to promote STEM to younger generations. The campaign aims to spark conversations about the barriers and biases within STEM as well as encouraging younger female students to follow a career within STEM!

Beyond our technological goals to achieve 1st place in the URC and retain our 1st place in ARC, we also have many Outreach goals in particular our Pink rover campaign which aims to address the biases and barriers that work against women in stem, aiming to break them down and make the world of stem a more diverse place.

We also aim to encourage the younger generation to consider and pursue a career in stem through our many outreach activities that we hold at schools, in which we teach younger students to construct a miniature version of our rover in order to help them learn key engineering concepts.



CONTACT INFORMATION

Website: <https://www.novarover.space/>
 Facebook: <https://www.facebook.com/novaroverteam/>
 Instagram: <https://www.instagram.com/monashnovarover/>
 Email: novaroverteam@monash.edu
 LinkedIn: <https://www.linkedin.com/company/monash-nova-rover/>
 YouTube: <https://www.youtube.com/channel/UCCN3mHKm6v6w9vL2LSfwPgg>

UPCOMING EVENTS

Launch night 5th of March
 Women in STEM Panel - date TBD
 Recruitment - mid August

MPP

Monash Pilot Processes



At Monash Pilot Processes, we aim to create industry impact through innovative pilot scale technology. We are a team of undergraduate and post-graduate students at the heart of Monash University's research and education in processing.

Currently we are working with membrane-based intermediate-scale pilot plants, completing technical projects and facilitating teaching in Monash Engineering. Initiated in 2022, we are a small team rapidly growing to tackle some of the biggest sustainability problems.

We create an authentic engineering environment for student engineers from all disciplines to immerse themselves in. With a focus on technical skill development, project management, and research innovation, we pair with industry companies to develop unique and effective processing solutions.

Our project aims include;

- Computer modelling of our processes using data-drive AI models
- Augmented reality experiences for operation, safety, and immersive offline digital twinning
- Digitalisation of our processing plants to create smart pilot facilities
- Industry backed validation of membrane systems to meet Victorian standard of pathogen removal
- Advancing education and hands-on teaching through industry-like equipment

In 2024, we aim to create an immersive simulation of our pilot plant usable for virtual experimentation and operator training, bringing together the work being done across our technical projects. Demonstrating the value of our approaches will launch us toward creating industry impact!

Follow us on our socials to stay up to date with all of our projects including opportunities to join our team.



CONTACT INFORMATION

Website: <https://www.monashpilotprocesses.com/>
 Facebook: [@MonashPilotProcesses](https://www.facebook.com/MonashPilotProcesses)
 Instagram: [@MonashPilotProcesses](https://www.instagram.com/MonashPilotProcesses)
 Email: pilotprocesses@monash.edu
 LinkedIn: [@MonashPilotProcesses](https://www.linkedin.com/company/MonashPilotProcesses)

UPCOMING EVENTS

Recruitment open until end of Sem 1, 2024

MF

Monash Forge



Monash Forge is a student-run materials science and engineering team that uses traditional blacksmithing methods and sand-casting to produce quality metal products. Our members learn to work safely with metal, develop an understanding of traditional and contemporary metallurgy principles, and maintain sustainable practices. We strive to educate the public through delivering practical and hands-on workshops.



CONTACT INFORMATION

Website: <http://www.monashforge.com>
 Facebook: <https://www.facebook.com/monashforge>
 Instagram: <https://www.instagram.com/monashforge>
 Email: info@monashforge.com
 LinkedIn: <https://www.linkedin.com/company/monashforge/>

UPCOMING EVENT

We typically run two different recruitment rounds in a year and some workshops during the winter holidays, so stay up to date with our social media to be the first to find out about these opportunities!

MMS

Monash Motorsport



Monash Motorsport is a student-run team that designs and manufactures electric driven and driverless formula student vehicles to compete in Australia and overseas in Europe, in the world's largest engineering and design competition. Our team represents an unparalleled opportunity for students to develop hands-on engineering skills, business acumen, interpersonal skills and create networks that carry into their careers.

Our team consists of 7 different departments, who all work together towards the goal of becoming the most respected formula SAE team in the world: Aerodynamics, Business, Electrical Systems, Structures, Software, Powertrain and Vehicle Performance, and it's a great place to surround yourself with similarly like-minded, passionate people. Join the team by applying during our recruitment period in February/March each year, and become part of a high performance team!



CONTACT INFORMATION

Website: <https://www.monashmotorsport.com/>
 Facebook: <https://www.facebook.com/monashmotorsport>
 Instagram: [@monashmotorsport](https://www.instagram.com/monashmotorsport)
 Email: info@monashmotorsport.com
 LinkedIn: <https://www.linkedin.com/company/monash-motorsport/>

UPCOMING EVENTS

Recruitment:
 February and March 2024

METTA

Monash Emerging Technology Themes & Applications



Are you all about riding the tech wave and diving headfirst into the coolest innovations out there? Wanna be part of the crew shaping the future of VR, AR, and MR? Well, we've got a spot saved for you at METTA – the student-led team that's all about pushing the boundaries of VR/AR/MR research and their rad applications.

As a METTA member, you won't just be a spectator; you'll be right in the mix, working side by side with Monash University's students and researchers. We're all about cooking up fresh ideas, making cool proof-of-concepts for VR and AR, and crafting next-gen user-friendly software that'll change how we vibe with virtual worlds.

What makes METTA the place to be? It's not just about being on the cutting edge – it's also about building skills that'll impress employers. You'll get your hands dirty with real-world projects, rub shoulders with industry pros, and build a network that's pure gold.

Ready to dive in? Join us and help sculpt the future of VR, AR, and MR – it's gonna be a wild ride!

ROLES AT METTA

At METTA, we're all about diversity and inclusivity. We welcome folks from all walks of life to join our team, and we've got a special spot for those with skills in graphics design and data visualization. If you've got some know-how in AI and optimization, that's like an extra scoop of ice cream on your tech sundae. So, whether you're a coding ninja, a creative wizard, or just a tech enthusiast, METTA is the place where you can make your mark!



CONTACT INFORMATION

Website: metta.vercel.app
 Email: mettastudentteam@gmail.com or
 Erika (IT Student Teams Officer) at erika.choong@monash.edu
 Discord: <https://discord.gg/fvrcKhZ6>

UPCOMING EVENT

We are not too clear about this, but the current plan is to set up through the summer and do recruitment around March!

SynBioM

Synthetic Biology Monash



We are SynBioM, Monash's first team to compete in the AusSynBio Challenge and is comprised of undergraduate students passionate about synthetic biology/biological engineering and gaining real-life research experience. Our team's focus is on the early detection of skin cancer. We aim to use the latest biotech, like CRISPR, and fluorescence to develop a point-of-care test. We plan to participate in competitions like the AusSynBio Challenge and iGEM! Keen to be involved? Join us on our socials to follow our progress on our projects and upcoming events!



CONTACT INFORMATION

Website: <https://synbiom.wixsite.com/synbiom>
 Facebook: <https://www.facebook.com/SynBioMonash>
 Instagram: <https://www.instagram.com/synbiom/>
 Email: monashigemsocial@gmail.com
 LinkedIn: [linkedin.com/company/synthetic-biology-monash-synbiom](https://www.linkedin.com/company/synthetic-biology-monash-synbiom)
 YouTube: <https://www.youtube.com/@SynBioM/featured>

UPCOMING EVENTS

Some upcoming events for semester 1 / 2024 include a BBQ event and a possible recruitment window. Follow us on our socials for more updates on these events!

Monash HPR

Monash High Powered Rocketry



Monash High Powered Rocketry is a team of enthusiastic students dedicated towards the design, analysis and construction of high powered rockets. The team is composed of a diverse range of Monash University students studying a wide range of degrees including Engineering, Science, Commerce, Design, IT, Business and Arts; who together form the technical, business and management aspects of the team. We compete in the largest intercollegiate rocketry competition in the world, the Spaceport America Cup, and have our sights set on other competitions in the future.

We design, construct and launch rockets up to 30,000ft that are capable of reaching supersonic speeds, with experimental payloads onboard. We research and develop innovative and novel solutions to increase the performance of our rockets, implementing rigorous engineering practices in our processes. Most recently, we have been developing our student research and designed hybrid motor, Solaris, preparing it for flight. Additionally, the team runs different outreach programs for both primary and high school students to encourage participation in STEM.

Our ultimate goal is to become a well-renowned contributor to the development of the Australian space industry on the foundations of innovation and professionalism, using our platform to influence passion for rocketry in younger generations. In order to achieve this, we continually look for ways to push the boundaries of space technology and develop our members into capable, industry-ready graduates, and share our love for all things rockets, space and STEM with the community.

There are multiple opportunities to get involved with Monash HPR. Recruitment opens up at the start of the year, through a general recruitment round. Additional opportunities exist by participating in student team projects through units such as Design Methods (MEC2402) and Aerospace Design (MAE2412). Follow Monash HPR on our social media to receive updates about what the team is up to and when recruitment periods are open!

Recruitment is open to all postgraduate students, both PHD and Masters! International students are also welcome to apply!



CONTACT INFORMATION

Website: [monashhpr.com](https://www.monashhpr.com)
 Facebook: <https://www.facebook.com/monashhpr>
 Instagram: <https://www.instagram.com/monashhpr/>
 Email: info@monashhpr.com
 LinkedIn: <https://au.linkedin.com/company/monashhpr>
 X (Twitter): <https://twitter.com/monashhpr>
 YouTube: <https://www.youtube.com/@monashhpr>
 TikTok: <https://www.tiktok.com/@monashhpr>

UPCOMING EVENT

Follow our socials to stay up to date with our events throughout the year.

MDN

Monash DeepNeuron

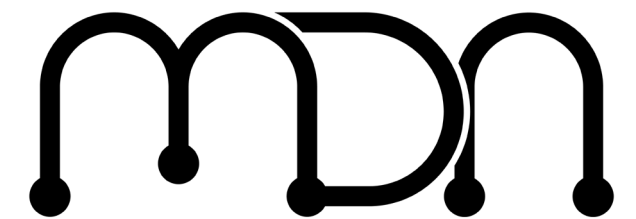


Monash DeepNeuron (MDN) is a student team focused on empowering students and researchers to use Artificial Intelligence (AI) and High-Performance Computing (HPC) through ethical, hands-on research projects.

We take on a variety of AI & HPC related projects from sources all around the university, including researchers, faculties and other student teams, as well as the occasional external project. We're a team that's completely run by students, for students; all our team members take part in our projects voluntarily, using this opportunity to learn about AI & HPC and practice their technical skills while also involving themselves in the MDN community. Our team extends beyond just a technical team, we are well versed with other non-technical sub-teams who work on everything from promoting our club, to teaching educational content to the youth.

Our goal is to develop and promote the knowledge of AI & HPC in Monash students, the wider public and the youth. Artificial intelligence often gets a negative reputation in the public's perception. Although some of their concerns may be warranted, this doesn't have to be the case. We place a heavy emphasis on using AI ethically here at MDN, and we seek to enlighten people about the capabilities of it and how to avoid misusing it.

Any student from Monash University, no matter undergraduate or postgraduate, can join MDN. We recruit once a semester, looking for anyone with an interest in AI & HPC, not just Engineering and IT students. If you want to know when we next recruit and how to apply, keep a tab on our Facebook page or visit our website



CONTACT INFORMATION

Website: <https://www.deepneuron.org/>
 Facebook: <https://www.facebook.com/MonashDeepNeuron/>
 Instagram: <https://www.instagram.com/monashdeepneuron/>
 Email: deepneuron.ai@gmail.com
 LinkedIn: <https://au.linkedin.com/company/monashdeepneuron>
 YouTube: <https://www.youtube.com/@monashdeepneuron1819/videos>

UPCOMING EVENTS

Recruitment - O-week, Week 1, Week 2
 Showcase -Week 1
 Networking Night - Week 6 (mid-April)

MUAS

Monash Uncrewed Aerial Systems



Monash Uncrewed Aerial Systems, also known as Monash UAS, are a passionate multidisciplinary student team. Focusing on drone technology, Monash UAS is a team that is harnessing the excitement about this developing field of engineering and science and aims to showcase the best of what drones have to offer. By making use of events such as competitions and community workshops, we strive to do as much as we can to further our own knowledge while giving back to the community and teaching them vital STEM skills that can help them develop further.

The team designs, builds and operates fixed-wing and multi-rotor autonomous aircraft in order to demonstrate the massive potential that drone technology has to better lives. By making use of both technological showcases, such as flight demonstrations and competitions, and organising community related efforts, such as workshops and school visits, we work to inspire and educate the next generation of STEM students as they enter the wonderful world of engineering.

We strive to promote the civilian use of RPAs and the development of low-cost systems that can be used for search and rescue missions. By focusing on the humanitarian uses of drone technology we aim to show the wider community that the potential of this form of engineering is near infinite in its ability to improve the lives of humanity.

Check out our Facebook page or our website for progress updates of our team and information on our recruitment opportunities. We run annual recruitment periods at the start of each year and welcome Monash students from all disciplines and specialisations.



CONTACT INFORMATION

Website: <https://monashuas.org/>
 Facebook: <https://www.facebook.com/MonashUAS>
 Instagram: [@monashuas](https://www.instagram.com/monashuas)
 Email: contact@monashuas.org
 LinkedIn: <https://www.linkedin.com/company/monashuas/>
 YouTube: <https://www.youtube.com/@MonashUAS>

UPCOMING EVENT

Follow our socials to stay up to date with our events throughout the year.

MHP

Monash Human Power



Monash Human Power is a student-led engineering team that designs and manufactures Australia's fastest bicycles. Since 2015 we have been pushing the boundaries of what is possible in terms of mechanical and aerodynamic efficiency as well as human performance. Essentially this means designing and manufacturing a bike that is capable of achieving maximum speeds on a flat track and capable of protecting the rider in the event of a high-speed crash.

In 2023 the team competed internationally at the World Human Powered Speed Challenge in Battle Mountain, Nevada and broke the land speed record for an Australian bicycle with a speed of 116.39km/h over a flat 8km track.

We take pride in developing industry-ready graduates through our collaborative design and manufacturing process. We believe that MHP provides a relevant and immersive framework for learning STEM and we use this framework to promote STEM and sustainability in schools.

Upon joining our team, you'll get the opportunity to join one of our six sub-teams:

- Operations: Works behind the scenes to support the technical side of the team by coordinating marketing, events, and sponsorship.
- Aerodynamics: Responsible for the design and testing of the external shell (fairing) and other aerodynamic components of the bike.
- Chassis and Drivetrain: Responsible for the design and manufacture of the chassis and all other mechanical components of the vehicle.
- Electrical: Responsible for the camera, internal display and the recording of data.
- Materials: Responsible for the prototyping and manufacture of the fairing.
- Rider Development: Focuses on maximising the performance of our riders.

For 2024 we will be designing and manufacturing our first tricycle to compete in the Victorian HPV Grand Prix Series. This event holds endurance races (6 hours or longer) along a race course and is held all over the state. During 2024 we will also be designing another bicycle with the intention of competing at the WHPSC in 2025 to break some more records!

The team is always on the hunt for enthusiastic students regardless of discipline or background. The team generally recruits annually around the mid-semester break. Follow us on our socials to learn more about us or keep an eye out for recruitment openings.



CONTACT INFORMATION

Website: <https://monashhumanpower.org/>
 Facebook: <https://www.facebook.com/MonashHumanPower>
 Instagram: [@monashhumanpower](https://www.instagram.com/monashhumanpower)
 Email: monashhpt@gmail.com
 LinkedIn: <https://www.linkedin.com/company/monashhumanpower>
 TikTok: [@monashhumanpower](https://www.tiktok.com/@monashhumanpower)

UPCOMING EVENTS

Follow our socials to stay up to date with our events throughout the year.

MYMI

Monash Young Medtech Innovators



We are an interdisciplinary organisation dedicated to achieving positive impact through medical technology, healthcare and biomedical innovation, by bringing about collaboration between undergraduates, graduates, PhDs and Early Career Researchers (ECRs) regardless of home institution, discipline, creed or experience.

We turn ideas, into projects, into medtech startups that have real world healthcare implications. We bring together faculties such as Law, Arts, Commerce, and IT into the MedTech space in events such as our flagship hackathon event MedHack.

Through our work, we:

- Build and provide a clear pipeline and network for young people to enact positive systemic change.
- Focus on facilitating and sparking interdisciplinary projects in healthcare.
- Improve access to new and essential medical and healthcare technology through sustainable practices.

We are always on the lookout for people who are passionate about medical technology! Regardless of which faculty you come from, there is always space for you. To join our team, follow on Facebook, Instagram, Twitter or LinkedIn to stay up to date on when we are recruiting. Otherwise, if you have a ground-breaking project idea that's bursting to come to life, feel free to email us at info@mymi.org.au to have a chat with us.

Postgraduate students are welcome to join our team as well as participate in our events. If any open positions in our team interests you, feel free to reach out to us and apply!



MONASH YOUNG MEDTECH INNOVATORS

CONTACT INFORMATION

Website: <https://www.mymi.org.au/>
 Facebook: <https://www.facebook.com/monashyoungmedtechinnovators/>
 Instagram: [@mymi.medtech](https://www.instagram.com/mymi.medtech)
 Email: info@mymi.org.au
 LinkedIn: <https://au.linkedin.com/company/mymi>

UPCOMING EVENT

Medhack will take place on the 18th March 2024. We will be recruiting in early Sem 1 (O-week - Week 3)

MC³

Monash Carbon Capture & Conversion

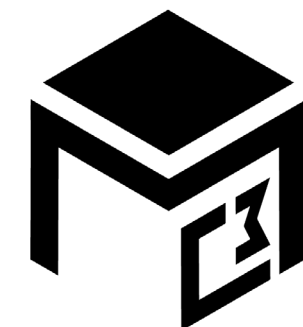


Monash Carbon Capture & Conversion (MC3) is a multidisciplinary student-run team who are working towards building a greener tomorrow. MC3 is split up of 6 technical teams (Artificial Forestry Carbon Capture, Biochar Production, ChemECCO, Cross-Laminated Timber Production, Direct Air Capture and Microalgae Carbon Capture) and 2 non-technical teams (Marketing and Operations) who are attacking the global warming crisis by analysing and producing long-term technical solutions.

Monash Carbon Capture and Conversion has been recognised in the world of sustainability. In 2022, MC3 won the XPRIZE Student Award for Carbon Dioxide Removal Technologies, founded by XPRIZE and Elon Musk Foundation, and were additionally shortlisted for the \$1M XPRIZE Milestone Award and the Global Quanser Sustainability Award. In 2023, Open Air invited MC3, one of 5 teams selected across the globe to showcase our projects in New York City in front of a panel of experts.

Monash Carbon Capture and Conversion's vision is to develop impactful and sustainability carbon capture, utilisation and sequestration solutions, CCUS, for a carbon neutral future. The team also hopes to prepare the next generation of leaders and entrepreneurs with an ideal skill set for their future careers.

We are always on the lookout for talented and passionate students from every level and field. For more information about vacancies in the team or about the team's projects, please visit our website.



MONASH CARBON CAPTURE CONVERSION

CONTACT INFORMATION

Website: <https://www.mcarboncapture.com/about-us>
 Facebook: <https://www.facebook.com/MonashCarbonCaptureConversion>
 Instagram: https://www.instagram.com/monash_carbon/
 Email: carboncapture.conversion@monash.edu
 LinkedIn: <https://www.linkedin.com/company/monashcarboncapture/>
 YouTube: <https://www.youtube.com/watch?v=3Yh5qUjvvgI>

UPCOMING EVENTS

Follow our socials to stay up to date with our events throughout the year.

PPM

Precious Plastics Monash



Precious Plastic Monash is a multidisciplinary student-run team tackling the issue of plastic pollution. We are a chapter of the global Precious Plastic movement. In 2013, Dave Hakkens designed four machines to recycle plastic and then published those designs onto the internet for free! We took the designs for the plastic shredder, injector, extruder and compression oven and modified them to create our 1x1 metre Integrated Unit (IU).

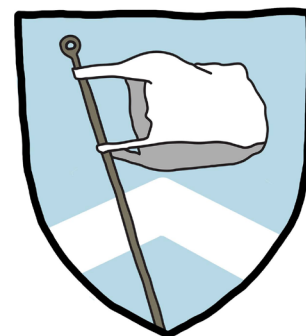
Our vision is to reduce plastic pollution by building and empowering a global community to use plastic as a precious resource. We aim to achieve this by promoting collective responsibility in the community, educating individuals to rethink their plastic use and designing solutions to repurpose plastic, replace plastic or challenge perceptions about plastic. We want more people to realise that plastic is precious, empowering them to think twice before choosing and throwing away disposable plastic products.

We prioritise research and design, community and education, and innovation and sustainability. Combining these themes, we are able to have a holistic approach to waste reduction. We save plastic from going into landfill! Our IU shreds, melts and moulds plastic into valuable products for the community. When we aren't creating exciting products

- such as stools, jewellery and plastic alternatives - we spend lots of time engaging with the community. By visiting schools and presenting at events, we spread our message as far as possible and are fortunate to meet many passionate people along the way. We are always excited to further develop our Integration Unit and design new products!

Check out our website page preciousplasticmonash.com/recruitment for recruitment opportunities! We also post gorgeous photos of our products and machine designs on our social media accounts, share details about upcoming events and share small ways that you can improve your relationship with plastic.

Let's Recycle Together!



CONTACT INFORMATION

Website: <https://www.preciousplasticmonash.com/>
 Facebook: <https://www.facebook.com/preciousplasticmonash>
 Instagram: <https://www.instagram.com/preciousplasticmonash/>
 Email: info-preciousplastic@monash.edu
 LinkedIn: <https://www.linkedin.com/company/precious-plastic-monash/>

UPCOMING EVENT

Follow our socials to stay up to date with our events throughout the year.

MSB

Monash Sustainable Buildings

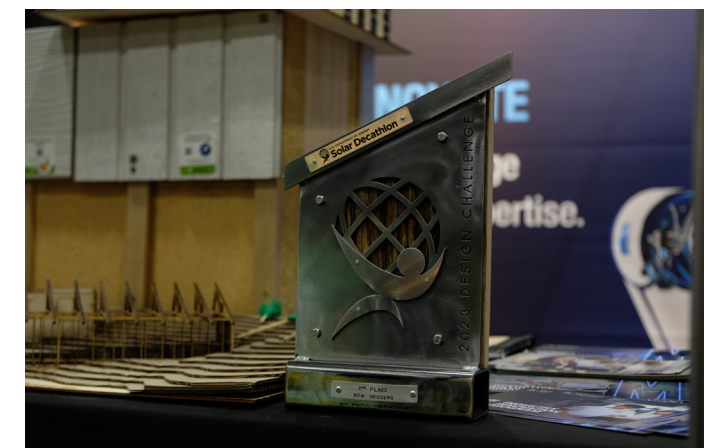


We are Monash Sustainable Buildings (MSB), previously known as Monash Solar Decathlon Team (MSDT), a multidisciplinary team comprising of engineering, architecture, and design students. We are passionate about sustainable practices and designing net-zero buildings.

Our team comprises of 3 main sub divisions: Design Challenge Team (DCH), Prototyping, and our operations team. For the past few years, MSB has been focusing on designing net zero buildings to compete in the annual US Solar Decathlon Competition in Colorado. Our designs, submitted annually to the US Department of Energy's Solar Decathlon Design Challenge, serve to provide innovative solutions to the ongoing energy crisis, inspiring our vision of a green future. We've achieved 1st, 2nd, and 3rd places in the previous years and some of our members have gotten the opportunity to fly to the US to represent the team in the finals.

MSB's vision is to educate ourselves and the world in sustainable housing principles and inspire the building industry towards a greener future. Our values are sustainability, equal opportunity, social impact, education, and collaboration. After rebranding from MSDT to MSB, we aim to branch out to other challenges and competitions around the globe with the purpose of educating and upskilling our work in sustainable building science and construction.

We do recruitment at the start of every semester. However, we prioritise our semester 2 intake as it fits with our competition timeline. We are actively engaged with the Net-zero Precinct team at Monash and encourage everyone to follow our social media for recruitment updates!



CONTACT INFORMATION

Website: www.monashsustainablebuildings.com
 Facebook: <https://www.facebook.com/monashsustainablebuildings>
 Instagram: <https://www.instagram.com/monashsustainablebuildings/>
 Email: sustainablebuildings@monash.edu
 LinkedIn: <https://au.linkedin.com/company/monashsustainablebuildings>

UPCOMING EVENTS

Follow our socials to stay up to date with our events throughout the year.

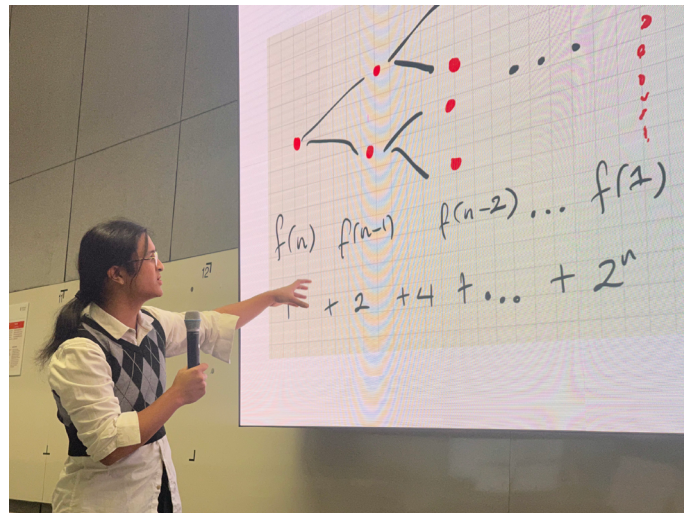
MAPS

Monash Algorithms & Problem Solving



Monash Algorithms & Problem Solving (MAPS), formerly the Monash Competitive Programming Club (MCPC), is an FIT student team around everything about programming competitions, algorithms and data structures, maths and problem solving, and much, much more. We train our members towards the annual International Collegiate Programming Competitions (ICPC) and deliver internal workshops to empower all students alike to compete at their own levels.

We run regular weekly workshops and mini-competitions throughout semesters on various programming topics. We have regular collaborations with other FIT clubs (MAC, MonSec, WIRED, etc.) to deliver content on more specific topics fun for everybody. Aside from that, we also host our big event — the Monash Collegiate Programming Competition (MCPC) with plenty of cash prizes to take home around the end of every year.



CONTACT INFORMATION

Website: <https://monashaps.com/>
 Facebook: <https://www.facebook.com/monashaps>
 Instagram: <https://www.instagram.com/monashaps>
 Email: admin@monashaps.com
 LinkedIn: <https://www.linkedin.com/company/monashaps>
 Discord: <https://monashaps.com/discord>

UPCOMING EVENT

Follow our socials to stay up to date with our events throughout the year.

Robogals



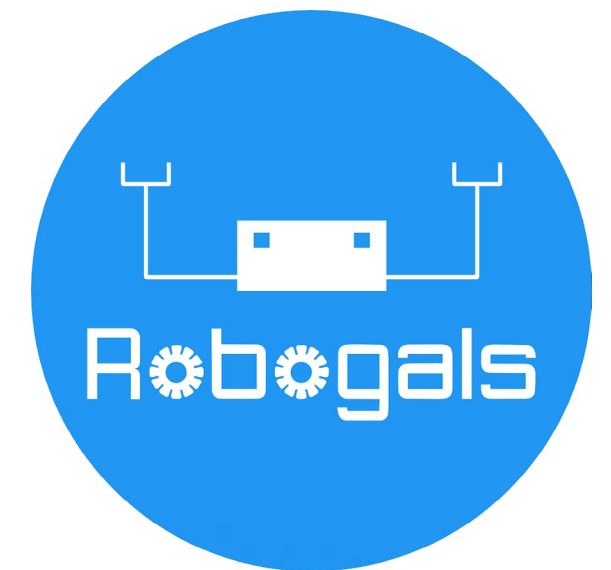
Robogals Monash is a not-for-profit, student-run organisation that aims to inspire and encourage young women to pursue STEM career opportunities. At Robogals Monash we advocate for gender equality in STEM. We aim to achieve this by running interactive robotics workshops for students at primary schools, high schools and local libraries across Victoria.

Robotics workshops will typically run multiple times each week at different locations throughout the year, so you can sign up to workshops that suit your schedule. There will be opportunities to be a workshop demonstrator, a lead volunteer, and later on, a more permanent position of workshop facilitator could be offered to dedicated volunteers. Furthermore, there are many networking opportunities with our partner companies such as industry events. On top of all that, we run heaps of social events and activities including games night and an outreach camp! We even have massive events such as Engage Engineer where we team up with other student teams to teach over 200 high school students about Engineering!

In 2024, you can:

- Volunteer: Weekly opportunities to be a demonstrator at robotics workshops.
- Network: Attend engineering industry and mentorship events with our partner companies.
- Socialise: Get to know like-minded volunteers across all degrees and make friends at Robogals Monash social events!

Sign up to be a volunteer and join our workshops! Our signup sheets are linked in our facebook About section and in our Instagram Bio.



CONTACT INFORMATION

Website: www.robogalsvic.org/
 Facebook: www.facebook.com/robogalsmonash
 Instagram: [@robogalsmonash](https://www.instagram.com/robogalsmonash)
 Email: monash.president@robogals.org
 LinkedIn: <https://www.linkedin.com/company/robogals-monash/>

UPCOMING EVENTS

Follow our socials to stay up to date with our events throughout the year.



MBL

Monash BrewLab

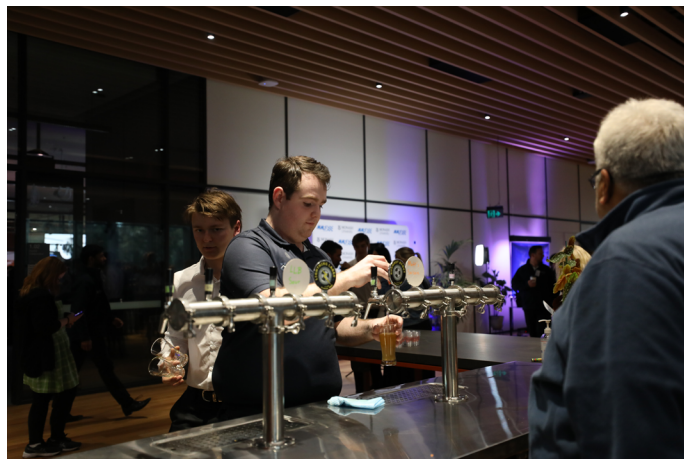


Monash BrewLab is Australia's first student-led nano-brewery, producing craft beer and kombucha. Established in 2018, we provide students with the opportunity to engage in every step of the process: from recipe development to production, to analysing our brews.

We use a food-safe laboratory to produce beer and kombucha, with a focus on the engineering and science of brewing. Our multi-disciplinary teams tackle various aspects of the production process: designing brewing equipment, using analytical chemistry to improve our recipes and procedures, to packaging and branding. Our approach gives students the freedom to learn by doing, gaining valuable hands-on experience.

As a pioneering student brewing team, we want to be the benchmark. Industry partners are turning to us to collaborate in developing new brewing technologies. You can find BrewLab beers at the taps of local bars and other teams' launch nights, and our production will be expanding to quench the thirst of even more places in 2024.

Our team accepts both Monash undergraduate and postgraduate students from a variety of faculties and specialisations. We're looking for people with special attention to detail and an entrepreneurial attitude. Follow our Facebook and Instagram pages for team updates and information on our next recruitment round. Or catch us at O-Week and other student expos!



CONTACT INFORMATION

Website: <https://www.monashbrewlab.com/>
 Facebook: <https://www.facebook.com/MonashBrewLab>
 Instagram: <https://www.instagram.com/monash.brewlab/>
 Email: brewlab@monash.edu
 LinkedIn: <https://www.linkedin.com/company/monash-brewlab/?originalSubdomain=au>

UPCOMING EVENT

Follow our socials to stay up to date with our events throughout the year.

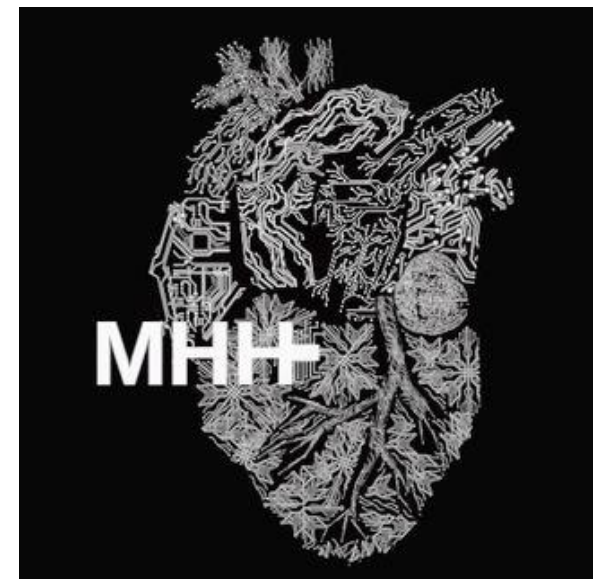
MHH

Monash Heart Hackathon Team



We are the Monash Heart Hack team! We are an interdisciplinary team who are designing and building our very own novel Total Artificial Heart. The MHH team is comprised of chemical and mechanical engineers and biomedical scientists who all work together to design, evaluate and prototype a novel total artificial heart.

We recently competed in the ISMCS Heart Hackathon competition in Texas and placed second and look forward to competing in the 2023 competition in Japan. Our goal is to design a total artificial heart is a pump which is placed in the chest to replaces damaged heart ventricles and valves. We have many positions on our team and would love for you to join us if your interested in biomedical engineering within the cardiovascular field.



CONTACT INFORMATION

Instagram: [@monashhearthack](https://www.instagram.com/monashhearthack)
 Email: kim.dao@monash.edu
 LinkedIn: [@Monash Heart Hack Team](https://www.linkedin.com/company/monash-heart-hack-team)

UPCOMING EVENTS

Follow our socials to stay up to date with our events throughout the year.

Monash BEST

Monash Boring Excavating Student Team



Monash Boring Excavating Student Team, affectionately known as Monash BEST, stands proudly as Australia's premier student-run team dedicated to the cutting-edge design and construction of Tunnel Boring Machines (TBMs). Born in 2022 with a modest team of final-year project students, we've rapidly evolved into a dynamic force. Today, our expanded team collaboratively works on innovating TBM designs, leaving a lasting impact on the ever-evolving tunnelling industry. At BEST, we are at the forefront of engineering state-of-the-art Tunnel Boring Machines (TBMs) designs. Our mission goes beyond designing; we aspire to compete in prestigious international competitions, pushing the boundaries of TBM innovation, sustainability, and efficiency.

In 2024, each of our subteam aims to:

- **Structure:** Create immersive and interactive experiences using VR and physical models. Using that as a catalyst for groundbreaking discoveries, the Structure subteam is poised to redefine the landscape of structural innovation within Tunnel Boring Machine (TBM) construction and operation.
- **Automation:** Fine-tune and elevate the existing Cutterhead design, and dive headfirst into the creation of an extraordinary soil extraction system. That's just the beginning – envision a future where Artificial Intelligence seamlessly takes the reins in TBM management. The Automation subteam is on the verge of engineering wonders that will redefine the very essence of tunnelling technology.
- **Propulsion:** Engineer a groundbreaking TBM propulsive system with a touch of genius. Artificial Intelligence again plays a crucial role, as the subteam envisions a future where the machine can adapt to its underground conditions in real time.
- **Research & Development:** Our Research & Development subteam

is dedicated to continuous exploration and intellectual discovery. By meticulously curating cutting-edge research, we propel BEST's innovations to the forefront of the industry, ensuring that our endeavours remain synonymous with excellence and forward-thinking in the ever-evolving landscape of Science and Technology.

- **Operations:** At BEST, our commitment to excellence extends beyond technological frontiers. The Operations subteam is poised for an impactful journey, dedicated to achieving unparalleled efficiency in supporting and managing the team's multifaceted operational demands. Through strategic optimization and meticulous planning, we aspire to redefine the benchmarks of operational excellence, ensuring that every aspect of our team functions seamlessly and with maximum efficacy.

Curious about cutting-edge tunnelling projects and engineering breakthroughs? Follow our social media for upcoming recruitment opportunities! Stay in the loop with our latest progress updates, design prototypes, and insightful news about the Australian Tunneling Industry. Join us for a front-row seat to innovation and success in the future of tunnelling!



CONTACT INFORMATION

Website: <https://www.monashbest.com>
 Facebook: <https://www.facebook.com/monashBEST/>
 Instagram: [@monash_best](https://www.instagram.com/monash_best)
 Email: best-info@monash.edu
 LinkedIn: <https://au.linkedin.com/company/monashbest>

UPCOMING EVENT

Mid-year Recruitment window
 (subject to change): 7 July - 21 July

MA

Monash Automation



Monash Automation (MA) is a new student team with a focus on Robotics and AI. Operating out of Monash Smart Manufacturing we use modern collaborative robots and cutting edge additive manufacturing technology to provide services and develop innovative technologies. Our overall aim is to engage education, research and industry through Robotics, AI and Automation based projects and ventures.

Our first project is the development and operation of an A to B automated printing service. Our goal is a streamlined process where users can follow along via a Digital Twin and collect their jobs from a Robot. We aim for this platform to be the springboard for many future research projects and innovative ideas.

Keep an eye out on our website and follow our socials for future recruitment. As we are a new team we have opportunities in both technical and operational roles for undergrad and postgrad students across the university. Final year projects and postgrad research projects are other ways to get involved through the research division.



CONTACT INFORMATION

Website: monashautomation.com
 Facebook: <https://www.facebook.com/MonashAutomation/>
 Instagram: [@automation_monash](https://www.instagram.com/automation_monash)
 Email: automation@monash.edu
 LinkedIn: <https://www.linkedin.com/company/monash-automation>
 YouTube: <https://www.youtube.com/channel/UC-A9u1wU4D13SND8eDFBQIQ>

UPCOMING EVENTS

Follow our socials to stay up to date with our events throughout the year.

MCAV

Monash Connected Autonomous Vehicle



MCAV is the premiere engineering student team developing autonomous vehicle and intelligent transport technologies, with a vision to create a more efficient, safe, and sustainable future by revolutionising the transportation industry.

Our development projects include:

- Urban Autonomy: software and hardware R&D to achieve SAE Level 4 autonomy with MCAV's StreetDrone Renault Twizy and Nissan e-NV200 vehicles.
- Intelligent Transport Systems: development of connectivity and autonomous co-operative driving technologies to maximise wide-scale transport network efficiency.
- ESDA: custom-built Electric Self Driving Automobile for the Intelligent Ground Vehicle Competition in Michigan, USA.
- MCAV X: moonshot projects with the goal of pioneering different technologies, including virtual reality, software co-simulation, and other applied research.

By joining the team, you gain invaluable hands-on experience in cutting-edge technology, work in cross-functional interdisciplinary teams, build your network through industry partnerships and academic collaborations, and contribute to a more sustainable future.

We often run recruitment for many technical, engineering, and operations roles for undergraduate and post-graduate students in all disciplines. All recruitment and other events are promoted on our social media pages.



CONTACT INFORMATION

Website: monashcav.com
 Facebook: [facebook.com/MonashCAV/](https://www.facebook.com/MonashCAV/)
 Instagram: [instagram.com/monashcav/](https://www.instagram.com/monashcav/)
 Email: info@monashcav.com
 LinkedIn: [linkedin.com/company/monashcav](https://www.linkedin.com/company/monashcav)
 Youtube: [youtube.com/@monashcav](https://www.youtube.com/@monashcav)

UPCOMING EVENT

We typically run recruitment at the beginning of each semester. Events such as industry nights, demo nights, and hands on activities are held annually. All events will be promoted on our social media pages.

SWM

Sustainable Water Monash

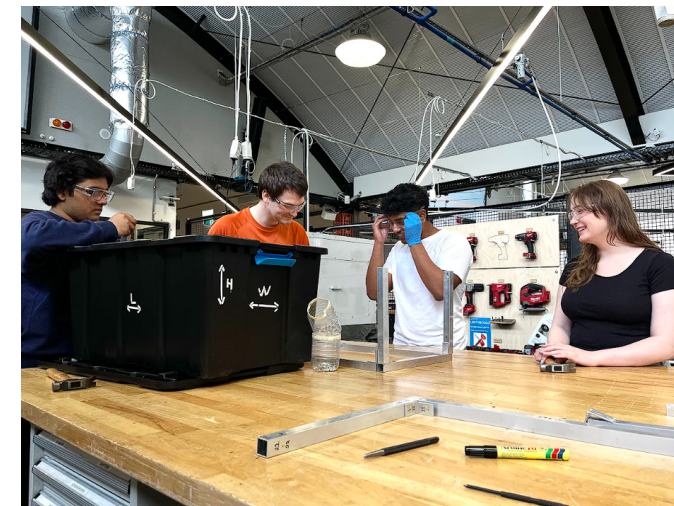


Sustainable Water Monash is a student-lead team that aims to tackle the issues of water security and scarcity in Australia and beyond. As a new team, we are excited to see what we can achieve!

Our current focus is rural indigenous communities. Access to safe drinking water is a basic human right that all Australians are entitled to. Individuals who do not have this access are stripped of the opportunity to lead a long and healthy life. This is a real and pressing issue that Aboriginal and Torres Strait Islander people living in remote areas face daily. We aim to provide a sustainable, portable, economical, and reliable purification system that improves their quality of life.

We also strive to protect country, and empower Aboriginal and Torres Strait Islander peoples and their culture. As a multidisciplinary engineering team, Monash Solar Water endeavours to provide students a chance to learn, grow, and try, enriching their degrees and providing hands-on experience.

If you'd like to know more, or are curious about how we're going, reach out to us on our socials below!



CONTACT INFORMATION

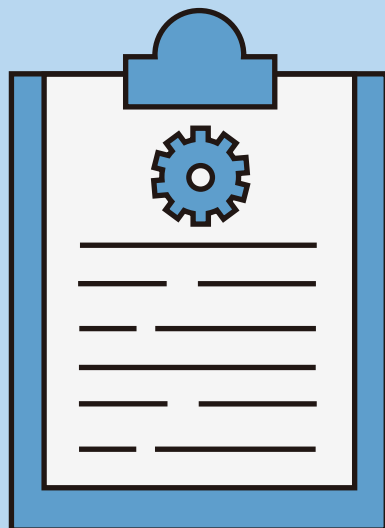
Facebook: <https://www.facebook.com/sustainablewatermonash>
 Instagram: <https://www.instagram.com/sustainablewatermonash/>
 LinkedIn: <https://www.linkedin.com/company/sustainablewatermonash/>

UPCOMING EVENT

Recruitment round in semester 1 (approx. start of April), for all teams. To be confirmed, keep an eye on our social media!

COMPANY LISTINGS

Looking to expand your horizons beyond the classroom? Our sponsoring companies provide the gateway to an exciting career! From networking events to internships and graduate roles, they offer a range of opportunities to complement your academic journey. Explore the company profiles to discover their values, goals, key dates for applications and more...



COMPANY LISTINGS

PLATINUM SPONSORS

- [AMOG](#)
- [AEMO](#)
- [IMC Trading](#)
- [Lockheed Martin](#)

GOLD SPONSORS

- [AECOM](#)
- [Beveridge Williams](#)
- [JVAT](#)
- [Wood](#)

SILVER SPONSORS

- | | | |
|--|----------------------------------|---|
| • ACCIONA | • Jane Street | • RecordPoint |
| • Agilent Technologies | • Monash Talent | • Rockwell Automation |
| • Beca | • Mott MacDonald | • TBH |
| • Engineers Australia | • NDY | • Telstra |
| • Exxon Mobil | • Neo-Bionica | • TTW |
| • Invetech | • OneMileGrid | • Viva Energy Australia |
| • Jacobs | • PwC | |

Click on a COMPANY name to jump straight to their page. Then look out for the "Back to company listings" icon at the bottom right of the page to head back to this table!

DISCIPLINES

| COMPANY | FY | AERO | BIO | CHEM | CIV | ECSE | ENV | MAT | MEC | TRC | SOFT | NON |
|-----------------------|------|-----------|------|------------|--------|-------|-------|--------|------|------|--------|------|
| ACCIONA | | | | | Yellow | Green | Green | | Pink | Pink | | Grey |
| AECOM | | | | | Yellow | Green | Green | | Pink | Pink | | Grey |
| AEMO | | | | Light Blue | | Green | | | Pink | Pink | Purple | Grey |
| Agilent Technologies | | | | Light Blue | | Green | | | Pink | Pink | Purple | |
| AMOG | | Dark Blue | | Light Blue | Yellow | | Green | | Pink | Pink | Purple | |
| Beca | | | | Light Blue | Yellow | Green | Green | | Pink | Pink | | |
| Beveridge Williams | | | | | Yellow | | | | Pink | Pink | | |
| Engineers Australia | Teal | Dark Blue | Blue | Light Blue | Yellow | Green | Green | Orange | Pink | Pink | Purple | |
| Exxon Mobil | | Dark Blue | | Light Blue | Yellow | Green | Green | Orange | Pink | Pink | | |
| IMC Trading | | Dark Blue | Blue | Light Blue | | Green | | | Pink | Pink | Purple | |
| Invetech | | | Blue | | | Green | | | Pink | Pink | Purple | |
| Jacobs | Teal | Dark Blue | | Light Blue | Yellow | Green | Green | Orange | Pink | Pink | Purple | Grey |
| Jane Street | Teal | Dark Blue | Blue | | Yellow | Green | | | Pink | Pink | Purple | Grey |
| JVAT | | Dark Blue | | Light Blue | | | | | Pink | Pink | | |
| One Mile Grid | | | | | Yellow | | | | | | | |
| Monash Talent | Teal | Dark Blue | Blue | Light Blue | Yellow | Green | Green | Orange | Pink | Pink | Purple | Grey |
| Mott MacDonald | | | | Light Blue | Yellow | Green | Green | Orange | Pink | Pink | Purple | Grey |
| NDY | | | | | Yellow | Green | | | Pink | Pink | | |
| Neo-Bionica | | | Blue | | | Green | | Orange | Pink | Pink | Purple | |
| PwC | Teal | | | Light Blue | Yellow | Green | Green | Orange | Pink | Pink | Purple | Grey |
| RecordPoint | | | | | | Green | | | Pink | Pink | Purple | |
| Rockwell Automation | Teal | | | | | Green | | | Pink | Pink | Purple | Grey |
| TBH | | Dark Blue | | Light Blue | Yellow | | Green | | Pink | Pink | | Grey |
| Telstra | | | | Light Blue | | Green | | | Pink | Pink | Purple | Grey |
| TTW | | | | | Yellow | | | | | | | |
| Viva Energy Australia | | | | Light Blue | | Green | | | Pink | Pink | Purple | Grey |
| Wood | | | | Light Blue | Yellow | Green | | Orange | Pink | Pink | | |

Abbreviations:

- FY - First Year
- AERO - Aerospace
- BIO - Biomedical
- CHEM - Chemical
- CIV - Civil
- ECSE - Electrical and Computer Systems
- ENV - Environmental
- MAT - Materials
- MEC - Mechanical
- TRC - Mechatronics
- SOFT - Software
- NON - Non-engineering students

INTERNSHIP PLACEMENTS

YES

NO

| COMPANY | Do you offer internships for undergraduate students? | Number of positions | Application period (for internships) |
|-----------------------|--|---------------------|---|
| ACCIONA | NO | | |
| AECOM | YES | 100 | July |
| AEMO | YES | 15 | Ad hoc throughout year |
| Agilent Technologies | YES | 8 | June - July |
| AMOG | YES | 4 | Open June |
| Beca | YES | 10 | July - August |
| Beveridge Williams | YES | 2 | July - August |
| Engineers Australia | YES | | * (see note below) |
| Exxon Mobil | YES | 1 | TBC - expected 3Q 2024 for the 2025 program |
| IMC Trading | YES | 40 | 19th February - 1st June |
| Invetech | YES | 8 | June |
| Jacobs | YES | | July |
| Jane Street | YES | | |
| JVAT | YES | 1 | July onwards |
| Monash Talent | YES | | |
| Mott MacDonald | YES | 35 | 1st April - 31th July |
| NDY | YES | 2 | |
| Neo-Bionica | YES | | |
| PwC | YES | 80 | 26th February - 22nd March |
| RecordPoint | NO | | |
| Rockwell Automation | YES | 2 | February |
| TBH | NO | | |
| Telstra | YES | 20 | August - September |
| TTW | YES | 6 | 1st March |
| Viva Energy Australia | NO | | |
| Wood | YES | 5 | 29th July - 25th August |

* See the EA jobs board for all available opportunities - <https://yea.engineersaustralia.org.au/jobs-board>

GRADUATE ROLES

YES

NO

| COMPANY | Do you offer roles for engineering graduates? | Number of positions | Application period (for graduate roles) |
|-----------------------|---|---------------------|---|
| ACCIONA | YES | 70 | March and September |
| AECOM | YES | 120 | March |
| AEMO | YES | 15 | February - March |
| Agilent Technologies | YES | 2 | Vary each year |
| AMOG | YES | 4 | Open March |
| Beca | YES | 40 | 6th March - 1st April |
| Beveridge Williams | YES | 3 | July - August |
| Engineers Australia | YES | | * (see note below) |
| Exxon Mobil | YES | 1 | ** (see note below) |
| IMC Trading | YES | | |
| Invetech | YES | 2 | November |
| Jacobs | YES | | March |
| Jane Street | YES | | |
| JVAT | YES | 2 | July Onwards |
| Monash Talent | YES | | |
| Mott MacDonald | YES | 65 | 12th February - 1st April |
| NDY | YES | 3 | |
| Neo-Bionica | YES | | |
| PwC | YES | 100 | 26th February - Late March |
| RecordPoint | YES | 5 | July - August |
| Rockwell Automation | YES | 1 | March |
| TBH | YES | 4 | April - October |
| Telstra | YES | 50 | March |
| TTW | YES | 6 | 1st March |
| Viva Energy Australia | YES | | TBC. Plan to go to market Mid 24th March |
| Wood | YES | 5 | 4th - 25th March |

* See the EA jobs board for all available opportunities - <https://yea.engineersaustralia.org.au/jobs-board>

** Graduate positions are typically filled from our intern program

OTHER OPPORTUNITIES

YES

NO

YES - always allowed to work from home

YES - hybrid

Depends

No - only in person

| COMPANY | Do your workplace offer flexible working conditions? | Opportunities for postgraduate students? | Opportunities for international students? |
|-----------------------|--|--|---|
| ACCIONA | YES | NO | YES |
| AECOM | YES | Can apply for the graduate program | YES |
| AEMO | YES | YES | YES |
| Agilent Technologies | YES | Sometimes | YES |
| AMOG | YES | Apply via our website | NO |
| Beca | YES | Can apply for the Beca Graduate Development Program | YES |
| Beveridge Williams | ** (see note below) | NO | YES |
| Engineers Australia | * (see note below) | * (see note below) | * (see note below) |
| Exxon Mobil | YES | YES | YES |
| IMC Trading | YES | NO | NO |
| Invetech | YES | NO | YES |
| Jacobs | YES | *** (see note below) | YES |
| Jane Street | YES | YES | YES |
| JVAT | YES | YES | NO |
| Monash Talent | Depending on organisation | YES | YES |
| Mott MacDonald | YES | Yes, via regular graduate role application | YES |
| NDY | YES | YES | NO |
| Neo-Bionica | YES | NO | NO |
| PwC | YES | Can apply for the graduate program | ^^ (see note below) |
| RecordPoint | YES | See the Careers page on our website | YES |
| Rockwell Automation | YES | YES | YES |
| TBH | YES | YES | Limited |
| Telstra | YES - always allowed to work from home | Can apply for the graduate program | ^^^ (see note below) |
| TTW | YES | We have roles, but no program specifically for postgraduate students | YES |
| Viva Energy Australia | YES - hybrid | NO | NO |
| Wood | YES | NO | YES |

* See the EA jobs board for all available opportunities : <https://yea.engineersaustralia.org.au/jobs-board>
There is also a dedicated section for International Students on the Internship Hub : <https://yea.engineersaustralia.org.au/internship-hub-students>
<https://yea.engineersaustralia.org.au/internships-information-international-students>

** BW supports a hybrid working environment; however, it is strongly encouraged for graduates to work in the office to take advantage of learning opportunities from Senior Engineers

*** The Jacobs Graduate recruitment program is designed for undergraduates who are looking to enter the workforce. However, we do consider graduates who have 1-2 years' experience for some positions

^^ Currently, if you're not an Australian or New Zealand citizen, or have Permanent Residency in Australia, you will need to provide the following:
- Your visa notice.
- One of the following: (IELTS, OET, TOEFL, iBT, PTE or CAE)

^^^ International students who have a valid visa that enables them to work in Australia without any work restrictions are eligible to apply to our technical pathways.

AMOG

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AMOG Consulting

Company Information

AMOG is an engineering solutions provider to the offshore energy, onshore energy, mining, defence, transport, and maritime sectors.

Our team thrives on the use of advanced analysis techniques and design practices, applying our skills in the areas of; floating production systems including offshore wind turbines (moorings, risers, turrets and platforms), aged fixed production platforms, subsea architecture (pipelines and submarine cables), defence assets, renewable energy, safety/risk/human factors engineering, mining bulk material handling equipment, and major hazard facilities. We also invest heavily in R&D.

Our Industries

- > Renewable Energy
- > Defence
- > Offshore Energy
- > Civil Maritime & Ports
- > Mining
- > Rail & Transport
- > Onshore Energy & Major Hazard Facilities

What We Do

- > Marine & Offshore Engineering
- > Integrity Management
- > Safety & Risk Engineering
- > Structural Engineering
- > Mechanical Engineering
- > MHF & Process Safety Management
- > Digital and IoT Solutions
- > Legal & Expert Witness
- > Modelling Analysis
- > Field Economics & Economic Studies
- > Verification
- > Forensic Engineering & Failure Investigation

Our Vision

Our vision is to engineer innovative solutions to complex technical challenges.

Our Mission

Our mission is to intimately understand the engineering challenges faced by our clients and provide innovative, technically robust solutions that best meet their needs.

Our Values

Teamwork

Working collaboratively with respect and equality. Honouring our responsibilities and commitment to our colleagues, our clients and our profession.

Professionalism

The quality of our service delivery defines us. We pride ourselves on our professional courtesy, conduct and presentation.

Honesty and Integrity

Personal and corporate integrity underpin our professional reputation. We provide honest advice delivered with respect.

Technical Excellence

Attention to detail and engineering rigour will always take precedence over commercial expediency.

Embracing the Challenge

Applying our deep skills and knowledge in scientific and engineering principles in innovative ways to produce the best possible solution within the available cost and time constraints.



"[Vacation employment with AMOG] has given me the opportunity to learn new skills and challenge myself with several difficult tasks and projects."

Madeleine Henry

Vac Student in the summer of 2014-15; joined as a Graduate Engineer in 2016 and became author of a peer-reviewed technical paper presented at an international conference the same year; currently a Lead Engineer in AMOG Melbourne.

"I found my vacation work at AMOG to be an invaluable learning experience which really gave context to my studies at University."

Kanishka Jayasinghe

Vac Student in the summer of 2011-12; joined as a Graduate Engineer in 2012; currently a Principal Engineer and heads up our IIoT initiatives in AMOG Melbourne and was appointed as an Associate Director in 2022. Kanishka is also the head of the AMOG Digital team.

"AMOG has a very positive and successful way of encouraging young engineers to personally and professionally grow by giving them challenging projects to work on, while providing excellent support through management and technical expertise."

Craig Dillon-Gibbons

Vac Student in the summer of 2005; joined AMOG Melbourne as a Graduate Engineer in 2010 and transferred to Houston office in 2012 and has progressed his career there; currently a Lead Engineer and Vice President of Operations, as well as recently appointed Associate Director, in AMOG Houston.

"AMOG has provided me many opportunities to learn and develop technical and professional skills early in the graduate program, including critical thinking and a resourceful and adaptable approach to solving problems."

Claire Lazarides

Joined as a Graduate Engineer in 2021; seconded to AMOG UK for over 6 months to work on the EuropeWave Phase 1 program for AMOG Sea-Saw Wave Energy Converter; currently a Senior Engineer in AMOG Melbourne.



AMOG Consulting

Graduate Program

Each year, AMOG seeks Engineering Graduates to work in our Melbourne Head Office in Notting Hill and Perth office located in West Perth. We look for individuals with:

- > Outstanding academic credentials
- > Strong communication skills
- > A desire to think laterally to engineer solutions for our clients

AMOG's 2-year Graduate Program in Melbourne incorporates:

- > Opportunity to work with different technical engineering teams; maritime, systems & safety, structural, process & assurance, and digital systems
- > Opportunity for a 90-day secondment to one of our other offices (Perth, or Houston TX)
- > Possibility of local, interstate and international short-term roles
- > Exposure to R&D projects
- > Weekly "lunch 'n' learn" sessions
- > Structured approach to development of professional engineering skills including:
 - Mentoring by senior staff
 - Progression towards CPEng status
- > Active social committee and regular social events

Most importantly, we have a well-earned reputation for offering our Graduates real opportunities for professional, technical and personal development through working directly on actual projects for our clients.

Summer Vacation Program

AMOG's Summer Vacation placements are a paid internship in our Melbourne and Perth Offices. They focus on one or more of our key projects, over the summer break. Eligible students also have the opportunity for AMOG support of any industry-relevant final year projects.

Key Dates

- > 2025 Graduate Positions (mid-year and end of year intakes)*
Applications open March and close May 2024
- *2024 Mid-year vacation and additional Graduate Positions are available for eligible students
Applications open March and close May 2024
- > 2024-25 Summer Vacation
Applications open in June and close in September 2024

These dates are subject to change and will close if positions are filled earlier - please check our website and follow AMOG on LinkedIn for updates.

Mid-Year Vacation Program

AMOG's Mid-year Vacation placements are a paid internship in our Melbourne and Perth Offices. They focus on delivering a specific project or parcel of work within one of our technical engineering teams.

Project-Based Internships

From time to time, we work on projects (client solutions and/or R&D) that are ideally suited to a paid internship for a student undertaking a particular engineering course of study. These opportunities are advertised on AMOG's website and promoted via LinkedIn.

AMOG Consulting Grundy & Potts Memorial Scholarship

Monash University annual top-up stipend to support a PhD student to pursue engineering research in topics such as; wave energy, hydrodynamic loading, moorings/ riser dynamics, VIV, structural fatigue or corrosion.

How to Apply

If you think you have what it takes to help us realise our vision and engineer innovative solutions to complex technical challenges, you can apply at www.amog.consulting by submitting your cover letter, CV and academic transcript (as a single PDF document).

Come join our team



Engineering Graduate & Vacation Student Recruitment



Mechanical | Aerospace | Mechatronics | Electrical | Computer Systems | Naval Architecture | Chemical | Structural

Scan for more information



To find out more about what we do, visit us at www.amog.consulting or follow us on

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**CALLING ALL**

Electrical and Mechatronics Engineering Graduates and Final Year Students

Join our industry first grid
connection graduate program
for the 2025/2026 Program

Register your interest [here!](#)



Work That Matters

ENERGISE YOUR CAREER WITH
AEMO'S GRADUATE PROGRAM

2-year rotational program at the heart
of the energy transition

Bring your degree in:

- Engineering
- IT/Digital
- Analytics

Build your career with AEMO as we
shape a better energy future for all
Australians!

**DISCOVER OUR GRADUATE
OPPORTUNITIES HERE!**

PLATINUM SPONSOR

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DISCOVER THE WORLD OF TRADING & ENGINEERING WITH IMC

IMC is a leading global trading company. Around the world, we're constantly innovating and improving, combining creativity, open feedback and rapid iteration to make things happen today and do them better tomorrow. Our success is made possible by our talented people. That's why we hire the brightest, most ambitious future Traders and Engineers and give them unrivalled opportunities to make a real difference.

OUR PROGRAMS

Insight Programs

Launchpad: Two-day program giving 2026/27 grads the chance to gain an exclusive insight into life as a Trader or Engineer at IMC while developing hands-on technical skills. Top performers are fast-tracked to final-round internship interviews.

Women in Trading & Engineering:

Exclusive one-day program for ambitious female and non-binary students in their penultimate or final year. Deepen your understanding of trading and engineering at IMC through workshops, desk shadowing and networking sessions.

Internship Program

Discover the fast-paced world of trading and engineering with our 10-week Summer Internship program. Whether you're interested in software, hardware or trading, you'll experience classroom training, hands-on projects, trading simulations and more. Most importantly, you can expect meaningful work that has a real impact on IMC's overall business strategy.

But it's not all work, no play. You will get to know the IMC culture, and your future colleagues, through a broad mix of social and networking events.

Global Traineeship Program

Put your skills to the test by mixing with the best in the business. Your graduate journey begins with our Global Traineeship, led by current IMC Traders and Engineers.

Trading School: Take your first steps into the financial markets, guided by current IMC Traders.

Development School: A varied program setting you up for success as a Software Engineer at IMC.

FPGA School: Adapt your skills to IMC's unique environment and best-in-class low-latency hardware.

This is a global program where you'll spend part of your training in one of our global offices in Amsterdam, Chicago or Sydney, while rubbing shoulders with trainees and experienced IMCers from around the world. After the Global Traineeship, you will continue your development on a customised local training program here in Sydney.

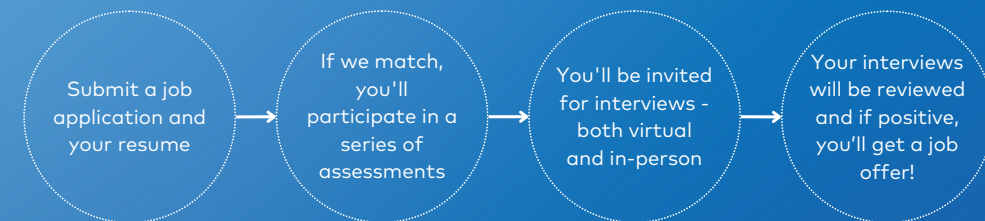
NEXT STEPS...

The Minimum Requirements

For all our programs, you'll need:

- Academic background in Engineering, Computer Science, Mathematics, Statistics, Physics, Actuarial Studies, Finance, Economics or equivalent
- Minimum Distinction average
- Working rights in Australia or New Zealand
- Genuine interest in financial markets (though no prior knowledge required)

The Application Process



Hear From Our Current Graduates

To learn more about life at IMC, explore our blogs featuring our current graduates:

- [Alex's journey from Intern to Graduate](#)
- [The day in the life of a Site Reliability Engineer](#)
- [From Intern to India: Keegan's career journey](#)
- [Luke's IMC experience from Launchpad to Graduate](#)



GOLD SPONSOR

AECOM

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Work with us. Change the world.

We believe infrastructure has the power to uplift communities and improve people's lives.

GRADUATE CAREERS

Delivering a better world



Graduates – with their fresh thinking and passion for reimagining what’s possible – are critical to our success.

We are a team of over 56,000 specialists working in 120 countries to deliver some of the world’s most influential and transformational infrastructure projects.

56,000+

Team members worldwide

Together, across our regional communities and thriving metropolitan centres, we deliver a better world.

3,500

Team members across Australia

Whether we’re delivering city-shaping infrastructure or enabling clean and stable water supply to far-flung places many of us may never visit, our work makes a difference.

18

AECOM offices in Australia

On every project and for every client, our talented teams pride themselves on big ideas, positive change, and on leaving lasting legacies that build communities.

7

Fortune’s “World’s Most Admired Companies” seven years in a row.

We pride ourselves on our commitment to client service and excellence in project delivery.

What are our opportunities?

We are seeking applicants from a wide range of disciplines, including civil, electrical, environmental, geotechnical, mechanical, structural, building services and chemical engineering, as well as design, planning, and program and cost management fields.

You’ll have the chance to work alongside industry leaders on exciting projects that help shape and connect our cities and communities.

In addition to our Graduates, we recruit many students for internships over the summer, offering fantastic insight into the industry and real-world experience

How we select

Your application for a graduate role will be assessed through a staged approach, including initial application review, online strengths based assessment, followed by a face to face / online interview.

Equal opportunities

AECOM is an equal opportunity employer. Our Australian business is just one of 141 across Australia to be recognised by the Workplace Gender Equality Agency (WGEA) as an Employer of Choice for Gender Equality.

We have made a public commitment to close the gap between Aboriginal and Torres Strait Islander peoples and other Australians through our Reconciliation Action Plan.

Apply online

aecom.com/australia-new-zealand-graduate-careers/
Graduate Applications open 7th March 2024, closing 7th April 2024.
Summer Internships open July 2024.

GOLD SPONSOR

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MAKE A DIFFERENCE

be supported & create a career at
JVAT

Want to work at a young, agile organisation that puts people first? You should work at JVAT.

JVAT may not be a household name (yet), but we are growing fast. Will you be part of our journey to grow as a leading global company in innovative engineering solutions?



We are a Leading Global Partner in Innovative and Trusted Engineering & Assurance Solutions.

Since JVAT's inception, it has grown to over 100 employees and associates with local offices in Melbourne (Head Office), Brisbane, Sydney, Adelaide and International offices in the UK and USA.

We take a pro-active approach to delivering Engineering and Assurance solutions. Seeking to de-risk program and project delivery across the Defence, Energy and Transport & Infrastructure Markets.

Our company culture is what really sets us apart. We firmly believe in fostering a positive and open culture between our team and clients using a collaborative working relationship to maximise efficiency and productivity.

Our team consists of professional, certified, security cleared Subject Matter Experts with specialist Land, Air, Maritime, Cyber and Space knowledge. We will focus on giving you exposure to these knowledge areas when you work with us.

ARE YOU OUR NEXT GRADUATE CONSULTANT?

At JVAT, we want you to discover a career path that excites you.

Our team is trusted to help solve the hardest problems for our global partners down to small start-ups.

Working with us, you'll be able to experience multiple projects for different clients. Getting experience quickly from different industries, skill sets & knowledge areas such as:

- System Engineering
- System Safety
- Cyber Security
- Software Assurance
- Human Factors
- Digital Engineering
- Management Consulting

You will build upon your technical expertise to add value, support the delivery of exciting projects and successfully provide consulting solutions for clients, while being supported to ensure you reach your full potential.

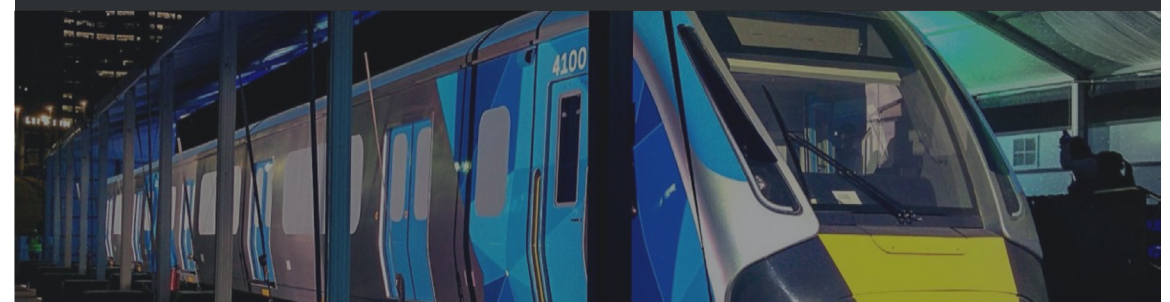


WHAT WE OFFER

- An innovative and collaborative culture focused on your learning and development.
- A chance to be exposed to and lead solutions for our clients.
- A structured consulting experience.
- A clear career pathway that allows you to grow within a supportive environment.
- Competitive remuneration and wellbeing packages.
- An environment that places people at the heart of our operations.

WE ARE LOOKING FOR

- Creative problem solvers who are seeking a challenging and rewarding career.
- People who want to make a meaningful difference & challenge the status quo.
- Someone who connects with our JVAT values - Dedication to success; Innovation that matters; Trust, Responsibility and Transparency.
- People with the ability to analyse and solve problems, provide valuable insight and offer innovative solutions.
- Graduates with a Bachelor's degree in Engineering or a related field.



To find out more, visit www.jvat.com.au or contact careers@jvat.com.au



GOLD SPONSOR

Wood



Transforming challenges into solutions.

The need for change has never been greater. In our industries, in the way we treat our planet, and in how we live.

To challenge the status quo we must be brave – it's having the courage to forge new answers. We're 35,000 inquisitive minds, on a quest to unlock solutions to critical challenges across energy and materials markets.

United by our mission to create a sustainable future as the world evolves to a cleaner planet. Our bold spirit drives us to lead the charge, our actions transform challenges into solutions, and our curiosity keeps us pushing, innovating, making the impossible... possible.

Because we understand the time for talk is over. Because the world needs new answers to old challenges. Because at Wood, we are future ready, now.

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Experts in designing a better planet

Have you considered a career in the **Construction Industry?**

Interested in our Graduate Program? Scan the QR code to find out more

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Agilent Technologies



Transforming Labs That Transform the World

Some of our customers are fighting cancer. Some are fighting to maximize the efficiency, performance and economic potential of their labs. Whatever their battle, we are in it with them.

Join our passionate team and help us provide the right innovations, solutions, expertise and services to enable our customers as they work to improve the world around us.

Apply now at [agilent.com/go/careers](https://www.agilent.com/go/careers)

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See how your qualifications align with jobs at Agilent.



My Degree

My Career

| | Electrical Engineering | Mechanical Engineering | Chemical Engineering | Chemistry | Materials Science | Physics & Mathematics | Biological Sciences & Bioengineering | Computer Science & Engineering | Information Technology & Software Engineering | PhD in Natural Sciences, Engineering, Technology | Industrial Design, Product Design and UX | Business Studies | |
|--|------------------------|------------------------|----------------------|-----------|-------------------|-----------------------|--------------------------------------|--------------------------------|---|--|--|------------------|---|
| Account Manager | | | | | | | | | | | | | |
| Application Engineer | ● | | ● | ● | | | ● | | | | | | |
| Application Specialist/Scientist | | | ● | ● | ● | ● | | | | ● | | | |
| Business Planner/Analyst | | | | | | | | | | | | | ● |
| Customer Service/Support | ● | | ● | ● | ● | ● | ● | | | | | | ● |
| Customer Support Engineer | ● | ● | ● | ● | ● | ● | ● | | | | | | |
| Data Analyst | | | | | ● | | | | | | | | ● |
| Electrical Engineer | ● | | | | | | | | | | | | |
| Field Service Engineer | | | ● | ● | ● | ● | ● | ● | ● | | | | |
| Financial Analyst | | | | | | | | | | | | | ● |
| Firmware Engineer | ● | ● | ● | | | ● | | ● | ● | ● | | | |
| Hardware Engineer | ● | ● | ● | | ● | | ● | ● | | | | | ● |
| Inside/ Field Sales | | | ● | ● | | | ● | ● | ● | | | | |
| IT Solutions Associate/ Specialist | | | | | | | | ● | ● | ● | | | ● |
| IT Application Developer | | | | | | | | ● | | | | | ● |
| Manufacturing Development/Engineering | ● | ● | ● | ● | ● | ● | ● | | | ● | ● | | |
| Marketing Content Editor/ Marketing Communications | | | | | | | ● | | | | | | ● |
| Materials Engineer | ● | ● | | | ● | ● | | | | | | | |
| Mechanical (Design) Engineer | | ● | | | | | | | | | | | ● |
| Online Sales Specialist | | | ● | ● | | | ● | ● | ● | | | | |
| Planning/ Material Procurement | | | | | | | | | | | | | ● |
| Process/Mechanical Engineer | | ● | | | | | | ● | | | | | |
| Product Marketing | ● | ● | ● | ● | ● | | ● | ● | | | | | ● |
| Product/Test Engineer | ● | | | | | ● | | ● | | | | | |
| Quality & Reliability Engineer | ● | ● | | | | | | | | | | | |
| Quality & Test Engineer | ● | ● | | ● | ● | ● | ● | | | | | | |
| Remote Engineer | | | ● | ● | | | ● | ● | ● | | | | |
| R&D Engineer | ● | | ● | | ● | | ● | ● | | ● | | | |
| Sales Engineer | ● | | ● | ● | | | ● | ● | | | | | |
| Sales/Marketing Development | ● | | ● | ● | ● | | ● | ● | | | | | ● |
| Service Product Sales Specialist | | | ● | ● | | | ● | | | | | | |
| Scientist | | | | | | | | | | ● | | | |
| Software Design/Development/Engineer | ● | ● | ● | ● | ● | | | ● | ● | | ● | | |
| Supply Chain Engineering | ● | ● | ● | | | | | ● | ● | | ● | ● | |
| Management Technical Consultant | ● | ● | ● | ● | ● | | | ● | ● | | | ● | |
| Web Developer | | | | | | | | ● | | | ● | | |

The above are examples of job titles typically found at Agilent for a variety of degrees. Variations are possible, therefore we encourage you to explore our careers portal for your specific background/discipline: [agilent.com/go/careers](https://www.agilent.com/go/careers)

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Beca



Be involved, be heard and belong at Beca!

Beca is one of Asia Pacific's largest, employee-owned advisory, design and engineering consultancies.

Our story is 100 years in the making, and our team of 4,000+ people, across 25 offices make incredible outcomes the reality in projects that touch more than 70 countries.

Keen to make a positive, real world difference? We offer careers across the following disciplines and more:

- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Environmental Engineering
- Mechanical Engineering
- Mechatronics
- Structural Engineering

Beca Graduate Development Program

Our Graduate Development Program runs for two years and has everything you need to build an incredible career and drive your own success within a positive and supportive environment.

We believe the best place to learn is on the job, so you can expect to work on real jobs for our clients, right from the start! You'll get ongoing support from experienced mentors, development opportunities, support towards professional memberships, networking events and access to an active graduate social community.

You'll also get exposure to a huge range of markets, from defence, education, healthcare, transportation and infrastructure, to food and beverage, power and water – helping you

to discover different angles and decide what interests you!

There really is no better place to kick-start your career and make everyday better in our communities.

**Graduate Applications:
6 March – 1 April 2024**

Start date: February 2025

**Intern Applications:
July – August 2024**

Start date: November 2024



See how you can build an **incredible** career here!

4,000+
employees

55 years
in Australia

25 offices
across Asia
Pacific

6 offices
in Australia

**make
everyday
better.**

Engineers Australia



Free Student Membership. Invaluable Benefits.

Find your real potential as an engineer with Engineers Australia.



Meet, learn and share with some of the most influential people in your field.

As Australia's national body for engineering, we're the voice and champion of our 120,000-plus members.

Ultimately, what we do is simple. We support the engineering profession and everyone in it to do their best work to advance society.

What free student membership gets you:

Events

YEA quiz nights, networking events and webinars put you in touch with peers, technical experts and industry leaders.

Jobs Board

Our member-only Jobs Board has the latest opportunities for graduates from Australia's top employers.

Internships Hub

All you need to know about finding and completing an internship as part of your studies.

Virtual Work Experiences

Get a taste of what its like to work in each discipline with real-world tasks to try your hand at.

Work-Ready Series

Bridge the gap between your study and working life with our Work-Ready video content.

On-Demand Content

Our streaming platform with engineering presentations to build your knowledge base and explore your future.

Post Nominals

(StudIEAust) means peers and employers instantly recognise your commitment to the profession.

Library

World Conference proceedings, research and technical papers and bibliographic database references are a click away.

Engineering News

Regular industry news, events, video content and job opportunities delivered to your inbox.

Discounts and rewards

Access loads of offers and discounts including training & resources, car hire & fitness.

Join FREE Today →

engineersaustralia.org.au/membership/student



SILVER SPONSOR

Exxon Mobil

AERO CHEM CIV ECSE ENV MAT MEC TRC



Build your career with us and use your energy to change the world



Our program

ExxonMobil is one of the world's largest publicly traded energy and chemical companies, and our vision is to lead the industry in innovations that advance modern living and a net-zero future. In our Australian businesses we are focused on delivering energy that improves quality of life and meets society's evolving needs, and we are powered by a unique and diverse workforce with pride in what we do and what we stand for.

ExxonMobil Australia offers challenging internship opportunities to students across various engineering disciplines, with the program typically running from March through to November.

What we offer

- A foundational on-the-job experience to expand your knowledge and solve real-life business challenges
- Professional insights into a world-leading global organisation via interactions with industry experts and leaders
- Technical and personal development with access to a world-class suite of training courses
- A dedicated support system of buddies and mentors providing you with regular and structured feedback.



Meet Lucy Levecke, Carbon Capture and Storage Environmental Lead

"I've had an incredible journey at ExxonMobil. My time as an intern is where I discovered my potential as an engineer. The opportunity to contribute to real projects during my internship made me feel valued and whilst it was challenging, I had plenty of support from my mentors who have geared me towards success in my career."



How to join us

Sign up for notifications for upcoming programs via the link or QR code <https://www.exxonmobil.com.au/company/career-opportunities/exxonmobil-australia-internship-program>

Supporting Diversity, Equity and Inclusion

ExxonMobil is an equal opportunity employer and values diversity of background and thinking. We encourage applications from all suitably qualified people, and offer excellent benefits and conditions to enable a strong work life balance and support the needs of our employees throughout their career. ExxonMobil Australia acknowledges the Gunaikurnai, Wurundjeri and Bunurong peoples as the Traditional Custodians of the land on which we operate.



Jacobs

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Jacobs Challenging today. Reinventing tomorrow.

Your Jacobs Journey

At Jacobs, we deliver impactful global solutions to create a more connected, sustainable world — from intelligence to infrastructure, cybersecurity to space exploration. Our 55,000 employees across 40 countries work every day, challenging the expectations of today to reinvent the way we'll all live tomorrow.

As part of our ANZ Jacobs Graduate or Internship Program, you'll work on real projects, bids and tenders from the get go. Under the guidance and mentorship of our experts and industry leaders you'll find new and inventive ways to help our clients make the world a better place. No matter what drives you, you'll discover how you can cultivate, nurture and achieve your goals — all at a single global company.

Graduate Development Program

Our Graduate Development Program runs for up to two years and is designed to develop a core set of professional competencies to equip graduates to become exceptional consultants.

Applications open: March 2024

Start date: January 2025

Jacobs Internship Program

The Jacobs Internship Program offers students the opportunity to work with us for 12 weeks during the Summer.

Applications open: July 2024

Program dates: November 2024 to February 2025

To find out more information visit: au.gradconnection.com/employers/jacobs



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Jane Street

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- TRC
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Work where your mind matters.

Apply to Jane Street today!

Jane Street is a global trading firm with offices in New York, London, Hong Kong, Singapore, and Amsterdam. Our approach is rooted in technology and rigorous quantitative analysis, but our success is driven by our people.

We are always recruiting top candidates and we invest heavily in teaching and training. No background in finance is required to apply. If you have an inquisitive mind and a collaborative spirit, we have a feeling you'll fit right in.

Take a look at some resources to learn more:

- [Get to Know Us](#) video series
- [Tech Blog](#) and [Signals and Threads](#) podcast
- [Programmes and Events](#)

Apply to our internship program:






Monash Talent



Casual jobs. Internships. Industry Experience.
Graduate roles. We'll find your perfect industry match at Monash Talent.

WHAT IS MONASH TALENT?

Monash Talent is a free, easy to use employment service for Monash University students and graduates. The dedicated team of graduate recruitment experts are here to increase your chances of finding work that's related to what you studied.

HOW CAN MONASH TALENT HELP?

Our team of industry engagement specialists search high and low for exciting and meaningful graduate and student opportunities. Our team is committed to connecting you with industry partners via a digital streamlined platform and providing insights to a world of career opportunities. Let us be the direct link to a range of employers from different industries who are looking to hire job-ready candidates just like you!

BENEFITS

- A range of part-time, full-time, permanent, or project opportunities.
- Roles for domestic and international students.
- Relevant job opportunities directly to you via email or phone.
- Application and recruitment support, tailored interview advice, and post commencement check-ins.

HOW DO I SIGN UP?

The registration process is quick and easy. Simply create a profile by entering your contact details, skills and qualification. After that, applying for future jobs is just a few clicks away. Registering allows one of our friendly team members to contact you regarding suitable roles.

Scan the QR code to learn more about Monash Talent. Create your profile and upload your CV to start receiving updates about current jobs and Industry Experience placement opportunities.



#1 

RANKED #1 IN AUSTRALIA FOR ENGINEERING

Times Higher Education (THE) World University Rankings 2024.

#54 

RANKED #54 IN THE WORLD FOR ENGINEERING

Times Higher Education (THE) World University Rankings 2024.

CONTACT US

For more information, please reach out to us or visit our website

graduates@monashtalent.edu
monash.edu/talent

CRICOS Provider Number: Monash University 00006C.

SILVER SPONSOR

Mott MacDonald

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- CIV
- ECSE
- ENV
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Enter a new opportunity space.

We're a global engineering, management and development consultancy.

Our purpose is to improve society by considering social outcomes in everything we do, relentlessly focusing on excellence and digital innovation, transforming our clients' businesses, our communities and employee opportunities.

Applications for our Australia and New Zealand graduate program are open from 12 February 24 to 1 April 24. Summer internship applications are open from 1 April 2024 to 31 July 24.

These programs offer you an opportunity to utilise your skills on projects that make a difference to the communities that we live and work in across a wide range of sectors including Project Strategy and Delivery, Transport, Environment and Society, Energy, Water and Built Environment with a focus on sustainability, decarbonisation and social outcomes.

If you are interested in joining our diverse team, or wish to know more about our graduate program visit www.mottmac.com/careers/anz-early-professionals.



NDY

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YOUR GRADUATE PROGRAM

WHEN YOU JOIN NDY, YOU BECOME PART OF A UNIQUE, TALENTED TEAM OF ENGINEERS, WHO STRIVE TO MAKE A POSITIVE IMPACT ON OUR COMMUNITIES.

NDY offers a culture where you have the freedom to be yourself, are trusted to work autonomously and take initiative, are encouraged to express your opinions and ideas and have a sense of belonging.

At NDY we celebrate individuality and diversity, and we want to fully equip you as a graduate engineer with the knowledge and skills to build your career by offering you a comprehensive two-year development program.

You will experience a program that offers:

- Work on real world projects from day 1
- Structured development workshops
- Rotation through various engineering disciplines
- Potential international rotations
- Internal development opportunities
- Support by an online learning platform
- The opportunity to lead community projects supporting various charities

- The support of exceptional coaches, mentors and leaders.

The foundations of your development journey are designed to support you throughout the Graduate Program to build your experience to become an established consulting engineer.

By developing multi-faceted skills, you will have the opportunity to become a respected member of a team of consultants who are focused on providing our clients with professional service and technical excellence while meeting project goals.

You will have the opportunity to network and be exposed to leading industry experts to help further your career in the engineering profession including:

- Project Managers
- Architects
- Engineers
- Contractors
- Regulatory Authorities.

JOINING NDY

OUR AIM IS TO MAKE THE EXPERIENCE OF JOINING NDY AS VALUABLE AND STREAMLINED AS POSSIBLE.

We have designed the process to give you an opportunity to showcase your capabilities as a graduate; including the following elements:

ONLINE ASSESSMENT

You will be asked to demonstrate your verbal, numerical and abstract reasoning capabilities. If successful, you will be invited to the next stage.

VIDEO INTERVIEW AND BEHAVIOURAL ASSESSMENT

We want to get to know you and hear how you can add value as a graduate. We also want to hear about how you prefer to work to ensure that we are a good fit for each other.

ASSESSMENT CENTRES

This is our first chance to meet you in person! You will have the opportunity to showcase your strengths and skills in group and individual activities. If successful, you will be invited to attend an interview.

APPLICATIONS FOR 2025 WILL OPEN 26 FEBRUARY 2024. VISIT NDY.COM/GRADUATES FOR MORE INFO.

For further information about NDY go to www.ndy.com or follow us on social media.



SILVER SPONSOR

Neo-Bionica



One Mile Grid



We turn medical device ideas into clinical reality

HISTORY

Created in 2021, Neo-Bionica is a joint venture between the Bionics Institute and the University of Melbourne.

WHAT WE DO

Specialising in neurotechnology and bioelectronics, Neo-Bionica encompasses;

- Product definition
- Lead & array innovation
- System integration
- Pre-clinical models
- Design & engineering
- Hermitization & verification
- Supply chain prototyping
- Contract manufacturing

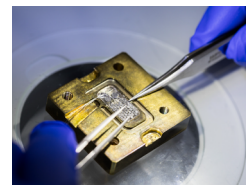
Our team has successfully translated multiple ideas into neurotech and bioelectronic success with ISO-13485 certification, including hearing implants, epilepsy monitoring, and vagus nerve stimulation devices.

RECRUITMENT

We always welcome promising new talent, and are looking to expand our team with engineers and technicians. Please don't hesitate to contact us!

ACHIEVING BETTER OUTCOMES FOR PATIENTS

We bridge the gap between research and the clinic, providing world-class engineering expertise and links to leading clinicians to create life-changing medical device solutions. Our team of engineers and technicians deliver medical device prototype development, from concept and rapid prototyping, to certified prototypes for clinical trials.



STATE-OF-THE-ART FACILITIES



Our world-class ISO7 cleanrooms and engineering facilities are located within the St Vincent's Hospital campus in Melbourne, Australia. This supports collaboration with leading clinicians and researchers.

OUR TEAM

Our global team consists of highly talented mechanical, electrical and biomedical engineers and technicians, supported by an excellent leadership team with years of experience in MedTech development.



CONTACT NEO-BIONICA

- enquiries@neo-bionica.com
- connect with us on LinkedIn
- www.neo-bionica.com

Want to know more about our latest projects?



Visit our website



About Us

onemilegrid is a boutique traffic and transport engineering and waste management consultancy founded in 2014.

Whilst being a young organisation, **onemilegrid** have already proven to be leaders in the traffic, transport and waste management fields representing developers, land owners, and numerous Council's on projects throughout Australia.

Working With Us

Here at **onemilegrid** we offer an engaging, dynamic and supportive environment for our staff and encourage a relaxed approach to the workplace. Our office is modern and located in the eclectic inner city suburb of Collingwood.

onemilegrid offers flexible work hours to suit the needs and commutes of individual staff members. We provide our staff with the option to work from home twice per week, and take flexi-Fridays when they're after a long weekend.

When we hire, we are looking for someone who's got a personality, good for the role, a great fit for the business and will be an asset to **onemilegrid**. In return, we can offer you a workplace that supports your growth in addition to an attractive salary package.



How to Apply

onemilegrid is always on the lookout for fresh faces to add to the team.

To apply, please send your resume with a cover letter to: hr@onemilegrid.com.au. In your cover letter, we want to know about you, what your interests are and what you can bring to **onemilegrid**.

For further information, visit our website at www.onemilegrid.com.au or using the QR code below.



onemilegrid.com.au • Wurundjeri Woiworong Country • (03) 9939 8250

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Today's world isn't simple. The challenges facing business and society are complex. At PwC, we know those challenges need to be looked at from a new angle. With your human ingenuity, passion and experience combined with the latest technology, these problems become easier to tackle.

We focus on your skills and passions, not just your degree and CV. With our diverse range of businesses and variety of work, you'll discover a unique way to help us solve important problems together.



So what type of solver are you? Take our quiz to find out!

So what type of solver are you?
Take our quiz to find out!



© PwC. See [pwc.com/structure](https://www.pwc.com/structure) for more on the PwC network of firms.

RecordPoint

- ECSE
- TRC
- SOFT

The world needs more transparent data management. RecordPoint needs you.

RecordPoint helps highly regulated organisations ensure their data is right where it should be – safeguarded for privacy, security, and governance.

Program overview

Your development is important to RecordPoint, and our graduate program involves three 4-month rotations working across a variety of teams, ensuring you gain a deep understanding of our company, products, and customers. By the end of the program, you'll move into a junior position on one of the teams at RecordPoint — over half of our current engineers started out in our graduate program.

What you'll do

- Learn the intricacies of the software development lifecycle
- Design, develop, and support new features from week one
- Gain experience with Agile methodologies
- Contribute to and benefit from our culture of learning and teaching

What you'll get

- The opportunity to share in our passion for technology and innovation
- Professional development through our mentoring program
- Access to our employee stock options plan
- A flexible work schedule in a laid back, casual working environment
- Plenty of office snacks!

Who you are

- Graduating with a computer science, computer engineering, software engineering, or equivalent degree
- A passion for technology and learning
- The ability to communicate technical concepts with ease

When to apply

Application opens: July 2024
 Application closes: August 2024
 Program starts: February 2025



recordpoint.com



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Rockwell Automation



expanding human possibility™

Our strategy is to bring the Connected Enterprise to life

We integrate control and information across the enterprise to help industrial companies and their people be more productive and sustainable.



SERVING CUSTOMERS FOR 120 YEARS

Search Rockwell Automation Jobs on LinkedIn.

\$9.1B FISCAL 2023 SALES
29,000 EMPLOYEES

100+ COUNTRIES

For the makers, innovators and problem solvers who believe in creating what's possible, Rockwell Automation offers a dynamic community where you can build a thriving career through solving complex, real-world problems that expand human possibility. Join us!

We connect the imaginations of people with the potential of technology to expand what is humanly possible, making the world more intelligent, more connected and more productive.

Check out Rockwell Automation's Company Culture here [#Life@ROK](#)

Join our Talent Network today! Scan the QR Code



TBH



WE BUILD CAREERS

- Project Controls
- Risk Management
- Cost Management
- Project Management
- Planning & Scheduling
- Strategic Advisory Services
- Claims & Dispute Resolution
- Governance & Portfolio Advisory
- Organisational Change Management



TBH's Graduate Program

Joining TBH as a graduate is an opportunity to shape your career in unique and practical ways you might have never imagined.

The TBH Difference

- ✓ Our unique mentoring program
- ✓ Various employee resource groups
- ✓ Monthly internal & external social events
- ✓ Permanent employment opportunities



For more information, please visit TBH's [Website](#) or [LinkedIn](#) page.

“ Build your career as a graduate at TBH developing industry skills and knowledge. ”

Career for life

At TBH, we hire graduates to become the leaders of tomorrow. To support this, we provide our graduates with permanent positions, emphasising continuous learning and professional growth.

Our graduates gain experience in a variety of industries, such as infrastructure, energy, ICT, building and construction, education, and defence.

Australia | Asia | United Arab Emirates | Kingdom of Saudi Arabia

tbhconsultancy.com

SILVER SPONSOR

TTW

CIV

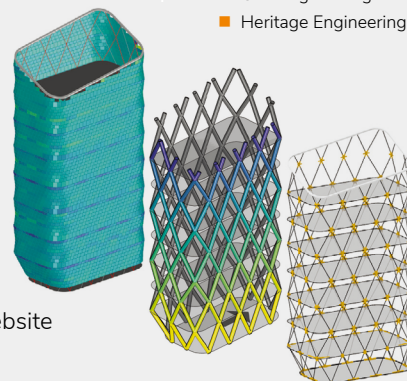


Your Career at TTW will see you work on insightful, complex and rewarding projects. We champion diversity and new ideas, encouraging our engineers to continually think outside the square – to attack challenges head-on with ingenuity, and seek clever ways to deliver solutions.

We are a team of more than 350+ engineers who welcome the challenge of realising visionary and sustainable design into efficient, elegant and functional solutions.

We acknowledge the increasing importance for conscious design and the need to provide support and industry leadership, therefore we are on a journey embedding sustainability throughout our business.

To apply for one of our programs, please visit our website ttw.com.au/careers



The Graduate Program

Our engineers work on a wide range of projects gaining experience in a variety of fields from high rise office buildings on the city skyline to sculptures, major road re-designs and much more.

Each graduate is guided through our Emerging Engineers Program and they are trained in all technical aspects of design as well as how construction sites run. By the end of the scheme, the engineer will have all the tools and experience to enable an application for the Engineers Australia CEng accreditation.

The Industrial Training Program

We understand and value the need to train and mentor our future leaders. We take in penultimate undergraduate students annually for their compulsory industrial training.

Students that excel are then offered a 12-month part-time job in their final year with a prospect of a position with us upon graduation.

Students are selected 6-months in advance and are trained in both design and construction aspects of:

- Structural Engineering
- Civil Engineering
- Heritage Engineering
- Digital Engineering
- Facade Engineering
- Traffic Engineering
- Construction Engineering

Key Dates

- 1 Mar – Applications open
- 17 Jun – Applications close
- Jun / Jul – Interviews
- July / Aug – Offers made
- Nov / Dec – Training commences

Viva Energy Australia

CHEM

ECSE

MEC

TRC

SOFT

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Start your graduate journey with Viva Energy

Your future is our energy. Join us as we build a secure and sustainable energy future, and be part of our journey as we become Australia's largest mobility and convenience network.

Set your career destination and we'll help you get there.

What we offer:



Two year program in an inclusive, supportive culture



Build your network through our senior leadership mentor program



Minimum two rotations to build your professional capabilities



Tailored structured professional development



Apply now for the Viva Energy Graduate Program
vivaenergy.com.au/careers/graduate-program



Company FAQs

ACCIONA

Do you have opportunities to travel abroad?
Yes.

Do you have any specific employment requirements?
Bachelor's Degree.

AECOM

Do you have opportunities to travel abroad?
Yes. Interstate opportunities in graduate program and then global once outside of graduate program.

Do you have any specific employment requirements?
Completing or completed course by the end of 2024.

AEMO

Do you have opportunities to travel abroad?
No.

Do you have any other opportunities?
Yes.

Agilent Technologies

Do you have opportunities to travel abroad?
Yes.

Do you have any other opportunities?
Sometimes PhD students or provide support for final year projects.

Do you have any diversity, inclusion, or wellbeing accreditations?
Great Place to Work Certified in 27 countries, Women@agilent, Rainbow Employee Network Group, DE&I Group, Sustainability/Green Team, RAP (Reconciliation Action Plan).

Do you have any specific employment requirements?
2nd or 3rd year engineering students.

AMOG

Do you have opportunities to travel abroad?
Yes, AMOG has an office in Perth as well as staff based in Sydney and Canberra. We also have an office in Houston, TX (USA).

Do you have any other opportunities?
The AMOG/Grundy/Potts memorial scholarship is open to Engineering PhD students.

Beca

Do you have opportunities to travel abroad?
Yes - Beca has offices within Australia and international offices. As part of the Beca Graduate Program you will have the opportunity to travel to our Auckland office for a Graduate Connect Event.

Do you have any diversity, inclusion, or wellbeing accreditations?
Beca has a commitment to RAP and has an active diversity and inclusion committee with mandatory in-house training for all employees.

Do you have any specific employment requirements?
Eligibility to work in Australia and the correct qualifications

Beveridge Williams

Do you have opportunities to travel abroad?
No.

Do you have any other opportunities?
Civil, Traffic & Transport, Water Resources.

Do you have any specific employment requirements?
Bachelor of Engineering or graduating this year.

Engineers Australia

Do you have any specific employment requirements?
See the EA jobs board for opportunity requirements <https://yea.engineersaustralia.org.au/jobs-board>

Exxon Mobil

Do you have opportunities to travel abroad?
While we do not offer overseas opportunities to our interns, as a global company employees have opportunities to work.

Do you have any specific employment requirements?
Penultimate and final year engineering students from the following disciplines: Aerospace, Chemical, Civil, Electrical and Computer Systems, Environmental, Materials, Mechanical, Robotics and Mechatronics. Working rights in Australia.

IMC Trading

Do you have opportunities to travel abroad?
No.

Invetech

Do you have opportunities to travel abroad?
Potentially - we have 2 US locations and there may be opportunity for travel, as projects require. Additionally, as part of Fortive, a large US company, there are sister-companies located globally where opportunities may open up.

Do you have any other opportunities?
We open most of our vacant roles internally and externally.

Jacobs

Do you have opportunities to travel abroad?
Jacobs GO (Global Opportunities) Program is a six-month secondment program which is available for our early-career employees with two to five years' experience. The Program facilitates inter-regional and international short-term secondments across our business, providing the opportunity for you to work, adapt and thrive in a different location and culture.

Do you have any other opportunities?
The Jacobs Graduate recruitment program is open to Bachelor, Masters and PhD students who are just entering the workforce. We do employ graduates who have experience in the business on an as-needed basis.

Jane Street

Do you have opportunities to travel abroad?
Yes.

Do you have any other opportunities?
Yes, we host in-house programs in our offices.

Do you have any specific employment requirements?
We don't expect you to have a background in finance or any other specific field—we're looking for smart people who enjoy solving interesting problems. We're more interested in how you think and learn than what you currently know. Please see job descriptions for more detailed requirements.

JVAT

Do you have opportunities to travel abroad?
Yes.

Do you have any specific employment requirements?
Eligibility for Security Clearances.

Monash Talent

Do you have opportunities to travel abroad?
No.

Do you have any other opportunities?
Yes, we support all students to secure opportunities.

Mott MacDonald

Do you have opportunities to travel abroad?
Yes, 19,000 staff globally with 160+ offices across the globe. In Australia/NZ, we have offices in Melbourne, Sydney, Brisbane, Adelaide and Perth, as well as Auckland and Wellington.

Do you have any other opportunities?
We have 65 grad roles across Australia and 16 in Melbourne. 35 intern roles in Australia and 10 in Melbourne. These numbers may change due to project requirements at the time of intern/grad start dates.

Do you have any diversity, inclusion, or wellbeing accreditations?
Inhouse MHFA instructor, Work180 Endorsed Employer, Diversity Council of Australia Member, partnered with Future Women Jobs Academy, CareerTrackers and CareerSeekers.

NDY

Do you have opportunities to travel abroad?
Yes, we have international offices.

Do you have any specific employment requirements?
Australian working rights.

Neo - Bionica

Do you have opportunities to travel abroad?
No.

Do you have any diversity, inclusion, or wellbeing accreditations?
ISO-13485.

PwC

Do you have opportunities to travel abroad?
Yes.

Do you have any other opportunities?
Trainee program.

Do you have any diversity, inclusion, or wellbeing accreditations?
MHFA Skilled Workplace (Gold), WGEA Employer of Choice for Gender Equality, 2022 Australian Platinum Employer LGBTIQ+ Inclusion.

Do you have any specific employment requirements?
We accept people from all degree backgrounds and life experiences. To be eligible for our Graduate Program you'll need to: be in your final year of study, or have completed an undergraduate or postgraduate degree and have full-time working rights within Australia at the commencement of the program.

RecordPoint

Do you have opportunities to travel abroad?
Yes.

Do you have any other opportunities?
Yes.

Rockwell Automation

Do you have opportunities to travel abroad?
Yes.

Do you have any diversity, inclusion, or wellbeing accreditations?
Work180, Best Place to Work 2022, Finalist in Australian HR Awards 2023.

Do you have any specific employment requirements?
Eligible work rights.

TBH

Do you have opportunities to travel abroad?
Yes - opportunity dependent.

Do you have any other opportunities?
Yes

Do you have any specific employment requirements?
Valid working rights.

Telstra

Do you have opportunities to travel abroad?
Telstra has over 3,000 employees based in more than 35 countries outside of Australia, with a significant headcount in Asia. While typically graduate roles are based within Australia, there are many opportunities to work internationally within Telstra after these programs.

TTW

Do you have opportunities to travel abroad?
No.

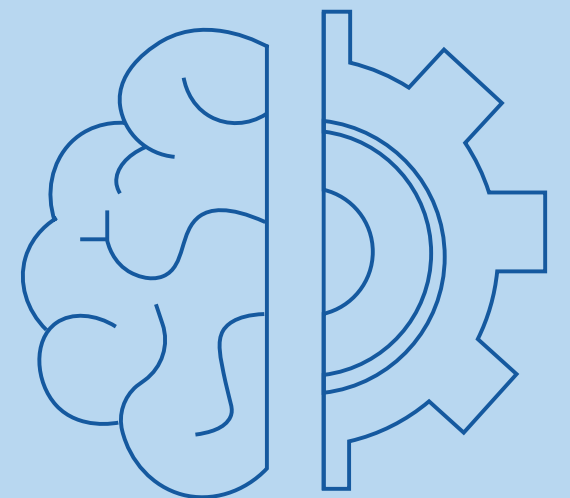
Viva Energy Australia

Do you have opportunities to travel abroad?
No.

Wood

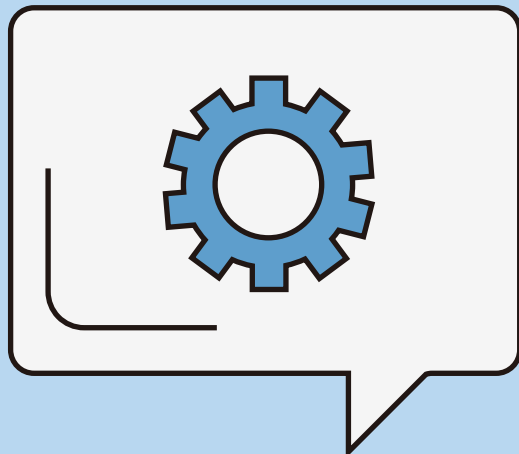
Do you have opportunities to travel abroad?
Not during the grad program but later most definitely.

Do you have any specific employment requirements?
WAM of 65 or higher.



GETTING THAT JOB

Are you interested in applying for a job but not sure where to start? This section outlines how to approach your CV, cover letter and LinkedIn profile. It also includes anecdotes from representatives of a variety of sponsoring companies, offering insights into recruitment processes and life as a working engineer.



SAMPLE COVER LETTER

An employer reading a cover letter written by an Engineering graduate will be looking to learn about the applicant's work readiness (i.e. skills, abilities, experiences and personal qualities), how well they match the requirements of the position and why they want to work for the organisation. Outstanding cover letters are those that are well written, free from spelling or grammatical errors and most importantly, make a connection with the hiring manager.

You should always re-write your cover letter for every job application. This is because each needs to be strategically targeted at the position and the organisation you're applying to. The structure and content of your letter must deliver key information to the employer in an efficient and effective way.

See below a sample cover letter example for hypothetical engineering firm Elite Engineers to give you an idea of what recruiters may be want to see.

Dear Ms Rachel Recruiter,

Emily Engineer
1234 567 890
emily@gmail.com

As a second year Environmental Engineering student at Monash University, I am seeking work experience in resources/mining engineering over the summer holiday period 2022/23. My first preference is the Elite Engineers summer internship program which caught my attention due to my interest in working in the mining sector, specifically copper mining. I am passionate about working in a company where cooperation to achieve success is a core value as you have outlined on your website.

I have maintained an average mark of a distinction level and am actively involved in other areas of university including my current role on the Engineering Committee as Secretary. This position involves managing all payments, transfers, sponsorships and general finances for the Committee. My time in this role has seen a 10% increase in our bank account balance. Additionally, this position has a big workload and high level of responsibility which has developed my organisation and independence.

Elite Engineers' strong commitment to waste reduction, as stated in your mission statement, provides further incentive to work for the company. Minimising my environmental footprint is high on my agenda as demonstrated through my volunteer position for the Goodbye Waste charity over the past 3 years. My time spent working with Goodbye Waste has provided me with strong communication and technical skills for waste reduction, both of which I believe will be relevant at Elite Engineers.

Please find my resume attached with an overview of my previous experience. You can contact me on 1234 567 890 at your convenience with any question or to discuss further.

Yours sincerely,
Emily Engineer

In general, your cover letter should be no longer than one A4 page, in a clear font size 10-12. Make sure that the structure is approachable and easy to read, with plenty of white space in margins and between paragraphs.

The first paragraph should introduce you and your interest in the position. Make sure you make it clear that you have researched the company and position and are not sending a generic cover letter which could be sent to any company.

The next paragraphs should persuade the reader of why you should be selected over other candidates. Touch briefly on your skills and relevant experience.

Wrap up your cover letter with a professional sign off and an action of what you want to happen next.

Remember that recruiters potentially read hundreds of cover letters, so if there are silly mistakes or a clear lack of effort put into yours, it will probably be seen through immediately and not receive a call back.

SAMPLE RESUME

See below a sample resume for hypothetical engineering firm Elite Engineers to give you an idea of what recruiters may be wanting to see.

Emily Engineer
emily@gmail.com | +61 1234 567 890

A passionate and well-rounded Environment Engineering student, with a special interest in resources/mining engineering, who aspires to enrich the wider community. I hope to apply my technical skills, hard-working attitude and devotion to my future career to make an impactful and meaningful contribution to the lives of others.

Education
Bachelor of Engineering, Environmental Engineering, Monash University (2020-2024)

- Maintained Distinction average (70+)
- Minor in Resource and Mining Engineering

Diploma of Languages, French Studies, Monash University (2020 – 2024)

- Maintained High Distinction Average (80+)
- Currently completing proficient level French

Experience
Treasurer (2021 – present), Engineering Committee, Monash University

Engineering Committee (EC) is Monash’s largest student committee. The EC committee is divided into four distinct portfolios dedicated to enriching the experiences of Monash Engineering students.

- Preparing the budget for the 2021 – 2022 and 2022 – 2023 financial years
- Approving expenditure and managing club income and grants
- Contributing to executive decision-making that affects the club’s current and future operation

Waste Management Team Member (2022 – present), Recycling and Resources Student Team

- Researching different and innovative methods for recycling plastic.
- Collaborating with a team of over 80 students to reduce waste at Monash University Clayton Campus

Start your resume with your name and important contact details - phone number and email. Your address is not necessary to include, some recruiters may have biases towards applicants closer to the position.

It is a good idea to start with an introductory paragraph. This is a good spot to highlight if you have a passion area - perhaps something relevant to the role you are applying for!

Next you should include your current and past education at the top of your CV.

This should be followed by your work experience from most recent to least;

- Consistent formatting should be used across work experiences. Include the organisation name, your role and the dates you worked there.
- Bullet points are a good approach to keeping things brief.
- Include brief, relevant details from each of your work experiences. For engineering this may include programs that you have used or are proficient in.
- Remember that even if the job is not directly related to the role you are applying for, you can discuss specific skills which may be transferable to this new position.

Goodbye Waste Volunteer
(2020 – present)

- Generating waste reducing methods that can be implemented by local primary schools.
- Being the primary point of contact for relevant stakeholders including school principals.

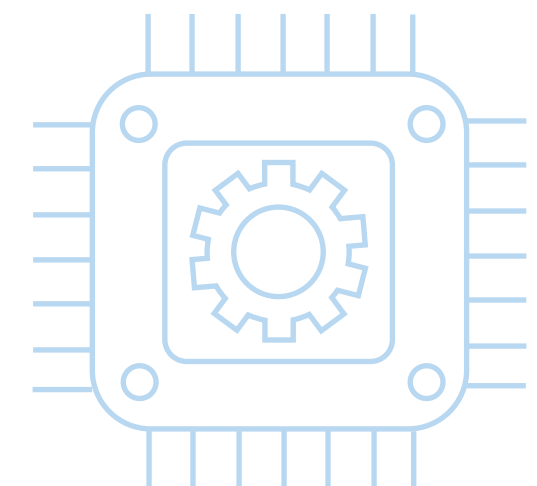
Coles Team Member
(2019-2021)

- Senior manager - in charge of directing floor team
- Strong emphasis on collaboration and customer service skills

Referees
Available upon request

Note: if you do not yet have relevant work experience, do not mention this!! Use other experiences to show why you would still be a good fit!

End off your resume by mentioning your references. There’s no need to include their details yet - the organization will ask for this if they want them, and this will give you an opportunity to give your references a heads up before they get contracted.



INTERVIEWS WITH RECRUITERS

TIPS AND TRICKS FOR SUCCESSFUL JOB APPLICATIONS



Aoife McCarthy (she/her)

Campus Recruiter

How can candidates best prepare for an interview?

Research the Company:

Understand its products, mission, culture, and recent news about the company, this will help tailor your answers.

Review the Job Description:

Make sure you understand how your skills align with the requirements and prepare examples.

Practice Common Interview Questions:

Anticipate questions about your strengths, weaknesses, previous experiences, and how you handle various situations. Practise your responses, but avoid sounding rehearsed.

Prepare Questions for the Interviewer:

Ask thoughtful questions to show your interest. This demonstrates your enthusiasm and helps you evaluate if the company is the right fit.

What impresses/stands out to you when you're looking for a candidate?

Candidates who exhibit genuine passion and enthusiasm for the company, industry, and role often leave a lasting impression on employers. This enthusiasm reflects a high level of motivation, adaptability, and willingness to go the extra mile to achieve success. Candidates who showcase strong problem-solving abilities are highly valued by employers. They demonstrate the capacity to think critically, analyse situations, and devise solutions to overcome challenges, which is essential in today's dynamic work environment.

Adaptability and flexibility are traits interviewers look for. The ability to quickly learn and adapt to new situations, as well as thrive in a rapidly changing work environment, indicates resilience and versatility. Employers appreciate candidates who can seamlessly integrate into teams and collaborate effectively with others. Sharing examples of successful teamwork experiences or demonstrating the ability to work collaboratively during the interview process can significantly impress employers.

Finally, cultural fit plays a pivotal role in the hiring decision. Employers not only assess candidates based on their skills and qualifications but also evaluate how well they align with the company's values and mission. Candidates who resonate with the company culture are more likely to thrive and succeed within the organisation. Therefore, showcasing alignment with the company's culture during the interview process can significantly enhance a candidate's application.

Are there any common mistakes that you see in your applicants (interviews, cover letters, resumes etc)?

Lack of Research:

Failing to research the company thoroughly before the interview or not customising application materials to fit the company's culture and values.

Delay in response:

If you're not checking your emails on a regular basis, you might miss out on deadlines (e.g not completing online testing within the required timeframe), your application will be rejected.

Overly Long Resumes:

Including irrelevant or excessive details in resumes that make them overly long and difficult to read. Recruiters typically spend only a few seconds scanning each resume, so it's important to keep it concise and focused on relevant experience.

Lack of Specific Examples:

During interviews, candidates may fail to provide specific examples of their skills and experiences, instead offering vague or general responses that do not demonstrate their qualifications effectively. Try to use the STAR interviewing model to structure your answers.

Lack of Enthusiasm:

Failing to convey genuine enthusiasm for the role or the company during the interview can make candidates seem disinterested or unmotivated.

What does your recruitment process look like? Do you think it aligns with the standard recruitment process?

Our application process is typical 7 steps:

- 1) Apply online and submit relevant documentation (resume, academic transcript, evidence of working rights)
- 2) Online technical test (1 hour)
- 3) Behavioural phone screen (30 mins)
- 4) First round interview (1 hour)
- 5) Two back to back interviews (2 hours total)
- 6) Final check in with our Head of Department (1 hour)
- 7) Offer

Any advice for students looking to apply for internships/graduate roles?

Start Early:

Begin your search and application process well in advance of when you hope to start your internship or graduate position. Many companies have early application deadlines, so it's important to give yourself plenty of time to research opportunities.

Build a Strong Resume:

Tailor your resume to highlight relevant coursework, projects, internships, volunteer work, and extracurricular activities. Emphasise skills and experiences that are directly relevant to the positions you're applying for.

Network:

Take advantage of networking opportunities, both online and in person. Attend career fairs and networking events to connect with professionals in your field of interest.

Prepare for Interviews:

Practise common interview questions and prepare specific examples of your skills and experiences to share during interviews. Use online resources such as Reddit and Glassdoor to get an insight into interview questions. Research the company and be prepared to ask thoughtful questions about the role and organisation.

Stay Persistent and Positive:

The internship and job search process can be competitive and sometimes discouraging, but don't give up!

INTERVIEWS WITH RECRUITERS

TIPS AND TRICKS FOR SUCCESSFUL JOB APPLICATIONS



Alexandra Valades (she/her)
HR Manager

How can candidates best prepare for an interview?

Research the company:

Use tools like company websites, articles, LinkedIn and GradConnection. Then practice how you will weave your research into your answers. Refer to the company values, working style, projects or activities they are involved in.

Know your own 'elevator pitch':

What makes you stand out as a candidate. This will make the daunting 'tell us about yourself' question much easier. Structure your answers. The STAR method is a fantastic tool for this. STAR stands for situation, task, action, result. Sometimes we can accidentally assume interviewers have details or context to a scenario, using this method helps to strengthen responses and create a narrative.

Punctuality and presentation:

There are a lot of stats about first impressions, and if we like it or not, they often stick. Being organised and attending interviews on time and being presentable always helps. If you have a virtual interview, you can test the link or connection early, make sure you have a tidy background and are in a quiet place. If your interview is in person, make sure you know how to get there, prepare to arrive slightly early (five minutes is usually enough) and know who to ask for at reception.

What impresses/stands out to you when you're looking for a candidate?

Some ways to help your application stand out:

- Tailor every CV and application for the role you're applying for. Yes, recruiters and hiring managers can tell when you use a generic CV, especially if you refer to wanting to work for a different industry or even company. Refer to the job ad, why you're interested in applying, how it is relevant your interests and skills.
- Use easy to read CV templates. Recruiters are often looking at hundreds of CVs, if you use small fonts or hard to read colours, they may have difficulty connecting with your application.
- For graduate recruitment, recruiters know you might have limited work experience. If this is relevant for you, detail any work or volunteer experience you do have, relevant university experience or extra-curriculars.

Assuming you've nailed the above tips about being prepared, other tips are:

- Communication skills – being an active listener in interviews, maintaining eye contact and nodding when appropriate to show you understand. This can be especially important for virtual interviews where non-verbal cues are limited.
- Thoughtful questions – we always ask our candidates if they have any questions, and it usually shows great insight into what a candidate is interested in, and what they value.

Are there any common mistakes that you see in your applicants (interviews, cover letters, resumes etc)?

Not tailoring your CV and application to the job ad and company you're applying with.

Cover letters:

Recruiters tend to have lots of opinions about cover letters. My thoughts are if you have the opportunity to provide a cover letter do so. However, make sure your cover letter adds value to your application. The cover letter is an opportunity to add information about why you're a great fit for the company.

Understanding the position and company:

Similar to the above, do your research into a company and role before applying.

Formatting and styling:

Make sure everything reads well is consistent. Save your documents as a PDF. It is also helpful to have someone read over your application with a fresh perspective and confirm everything makes sense.

Interview questions:

if you've been asked for an example of a skill or situation and you don't have lived experience, acknowledge you don't have that experience and then say what you would do in the scenario or how you will gain that skill. Also, don't try to make prepared answers fit to a question if it isn't relevant. Remember your skills and experiences, not entire answers.

Academic transcripts:

Don't provide your transcript with no context. If you're comfortable, explain any gaps or failures.

What does your recruitment process look like? Do you think it aligns with the standard recruitment process?

I would consider TBH's recruitment process to be standard for the graduate market. We typically hire twice per year, one intake early in the year and then a mid-year intake.

The below is TBH's recruitment process:

1. Advertise on LinkedIn, Seek, GradConnection and university pages
2. Screen and shortlist candidates
3. Phone-screening
4. First interview – with HR and a senior consultant
5. Psychometric assessments and background checks
6. Second interview – with a senior manager
7. Decision and offer

Any advice for students looking to apply for internships/graduate roles?

- Try and give yourself as much time as possible to prepare your CV and application.
- Determine what you're passionate about, what companies match these passions.
- Follow the companies you're interested in on LinkedIn to see when they advertise.
- Consider if you can connect with anyone in the companies you're interested in. This will help you get a better understanding of the company and the role.

WORKING WOMEN IN ENGINEERING

It's no secret that engineering remains a male-dominated field. Just 11% of working engineers are women, according to a report published by Engineers Australia in 2022. In this section, we won't endeavour to determine why this is, or how it should be addressed.

if you're interested, we recommend you read the report! Instead, we are hearing from a range of women from our sponsoring companies.

What is your current role and what does it involve?

My Role is Principal ICT & Security Consultant with AECOM and I am also the Operation Control System Discipline Lead for M80 Ring Road as part of the North East Link project.

What advice do you have for women and non-binary people entering the engineering workforce for the first time?

Embrace your true self, as there's no need to conform to others' opinions, and always remain open to continuous learning.

What can people do to foster a supportive and inclusive workplace?

Be swift to hear and measured in speech. Often, we neglect the art of listening, prioritising being heard ourselves, which hinders our ability to truly comprehend others.

Have you had women or non-binary people to look up to in your engineering field?

Regrettably, no, which is why I am working hard to be a role model for younger engineers and my daughter.



Cynthia Suminto (she/her)
Principal ICT and Security Consultant

How have you maintained a work-life balance? Do you seek workplaces with flexible working arrangements?

I've learned the importance of saying no and prioritising what matters most to me and my family. Instead of solely seeking workplaces with flexible schedules, I prioritise environments where I can grow personally and professionally, both at home and in my career.

What challenges have you come across in your career?

The field of engineering is heavily dominated by males, making it challenging for me to engage in casual conversations outside of work to foster relationships with my male colleagues. Additionally, finding time for networking is a constant balancing act due to my family responsibilities, which limits the time I can allocate to both work and networking activities.

Have you ever considered changing careers? Why or why not?

I have considered changing careers. However rather than completely changing my career, I rather focusing on revolutionising how my career advances. I derive immense satisfaction from the field of engineering I've chosen and find fulfilment in my work.

Describe an achievement or a moment when you were grateful that you chose engineering.

With my engineering endeavours, I aim to enhance the living environment for individuals. For instance, I contributed to the development of a new railway station by devising security strategies and implementing them through a multi-disciplinary approach. This approach aimed to mitigate anti-social behaviours and foster a sense of community among users, ultimately reducing crime rates and enhancing overall feelings of safety.

Have you had any experiences of discrimination through your study or working career? How did these affect you and do you have any advice for women or non-binary people experiencing the same situation?

Subtly, yes.

This realisation has led me to embrace my uniqueness, recognising that I offer diverse perspectives outside the conventional norms, thereby enhancing my value to the people who I work with. My advice is people tend to belittle those they perceive as superior. Therefore, continue to progress and be the best you can be.

How have you navigated conversations surrounding promotions and pay rises? Do you have any advice for those who are unsure of how to approach these topics?

Yes, Knowing your worth and preparation is the key.

What role does mentoring have in supporting gender-inclusive cultures in the workplace?

Mentoring plays a crucial role in supporting gender-inclusive cultures by empowering women, challenging stereotypes, and promoting diversity and equity in the workplace.



Maddison McFadden (she/her)
Future Fuels Lead and Senior Process Engineer at Viva Energy

What is your current role and what does it involve?

I'm the Future Fuels Lead and Senior Process Engineer at the Viva Energy Geelong Refinery. It's an exciting role in which I'm responsible for developing the Geelong Refinery's long-term strategy, helping to set the direction for our future. This includes acting as the technical lead for the non-fossil feedstock program, where I review waste streams and biogenic feedstock, assess their different processing technologies and understand how we can integrate the biofuel products with our existing network. I am particularly excited to be working on a project to help recycle soft plastics – diverting tens of thousands of tonnes of soft plastic from landfill each year and closing the loop in the plastics circular economy. I am designing the infrastructure that will inject the plastic pyrolysis oil into the process where it will be converted into recycled polymer, ready to be turned back into packaging.

What advice do you have for women and non-binary people entering the engineering workforce for the first time?

I found it really beneficial to form a good friendship with my fellow graduates (only 2 graduates started per year when I joined) and the graduates in the year above us. It was a good way of sharing information we had found and networks we had built, and to share thoughts about being a graduate in a big company with real work to do.

Have you had women or non-binary people to look up to in your engineering field?

In my time, I've been able to look up to female asset managers, female engineering managers, and female members of the Refinery Leadership Team. There is also a number of very experienced female operators, trades and shift team leaders at the Refinery. It has been amazing to see women being supported in all fields of work at the Refinery, all of which have traditionally been male-dominated areas of work; it's shown me that I'll have support on my career path, no matter where it takes me.

How have you maintained a work-life balance? Do you seek workplaces with flexible working arrangements?

Some roles are just harder to do remotely, or from home. Sometimes, you need to be on site to speak with operators face-to-face, or to go outside to the equipment and look at something urgently. There may also be times in operating facilities where a turnaround or maintenance event requires around-the-clock attention and you move to shift rotations. But don't let times like these scare you off – they are such amazing learning experiences and have been some of my favourite work experiences in my career. In my new role, I have a lot more freedom to work from home or from the head office, as I'm not directly involved in the running of the plant.

What challenges have you come across in your career?

It is quite easy as a young engineer to feel like everyone around you knows more than you. I struggled with confidence in my early years, and it took me some time to realise that my contributions and ideas are just as good as anyone else's. It was through the support and feedback of managers and peers who reassured me that I was a good engineer, which helped me find my confidence and feel more energised in my work.

Have you ever considered changing careers? Why or why not?

I have had the privilege of expressing where I want to go next and being supported to try new pathways.

In my five years at Viva Energy, I've tried Design Engineering and Project Management, I've covered as a Scheduler who blends all of the gasoline fuel from the Refinery for distribution around the country, and I've been the Operations Engineer for several process units containing huge reactors, furnaces and distillations columns – I've used every part of my engineering degree. I can still see that there is room for me to grow at Viva Energy.

How have you navigated conversations surrounding promotions and pay rises? Do you have any advice for those who are unsure of how to approach these topics?

For both of these, you need to really show off the good work you do. It's important to document all of your achievements, perhaps by setting 10 minutes aside at the end of each week to reflect on what the wins were. Try to quantify your output – did you execute a high risk task safely, or did your work reveal a big cost saving for the company? When it comes time to have these conversations, you have a list of examples ready to go.

Sometimes if a pay rise isn't possible, there may be an option to ask to attend a training course or to seek out extra development that your workplace could support. These are still a big investment in you. I've been fortunate enough to complete a large range of training courses over the years, and am being currently supported to complete my Masters of Sustainable Energy.

Be open with your manager about what you want in your career and where your trajectory is heading. If you don't know the exact role, or don't have visibility on what roles are out there, then describe the kind of role or skills you are looking to develop. One way of doing this is looking at the IChemE or EA chartered engineer frameworks, which can help to identify where your knowledge gaps are.

What role does mentoring have in supporting gender-inclusive cultures in the workplace?

Having a mentor can be a game-changer in your early career – someone to share feedback, advice, and stories from their own days as a young engineer. I'm really looking forward to stepping into the mentor role for upcoming engineers in the years ahead!



Jenny Zhou (she/her)
Electrode Fabrication Lead at Neo-Bionica

What is your current role and what does it involve?

I am an electrode fabrication lead, responsible for overseeing the fabrication process of electrodes. This involves coordinating with team members, ensuring quality control, and optimising production efficiency.

What advice do you have for women and non-binary people entering the engineering workforce for the first time?

Embrace your uniqueness, trust in your abilities, seek out mentors, and don't be afraid to speak up and advocate for yourself.

How have you maintained a work-life balance? Do you seek workplaces with flexible working arrangements?

Achieving a work-life balance can be challenging. Prioritising personal life is crucial for overall well-being and maintaining a healthy balance. Establishing a routine and setting boundaries between work and personal time can help manage expectations and reduce burnout. Remembering to prioritise tasks based on importance and allocating time for self-care and relaxation are essential to maintaining a balanced lifestyle.

Describe an achievement or a moment when you were grateful that you chose engineering.

I'm grateful for experiencing the success of an experiment achieving its research goals with the electrodes I fabricated. Knowing that my work could potentially change people's lives in the future adds even more significance to my achievements.

How have you navigated conversations surrounding promotions and pay rises? Do you have any advice for those who are unsure of how to approach these topics?

Focusing on continuously improving your skills and demonstrating increased value to the organisation is an effective way to justify requesting a pay rise. When your skillset aligns with higher responsibilities or industry standards, it's important to advocate for fair compensation. Confidence in your abilities and contributions is key when discussing pay rises with your employer.

What role does mentoring have in supporting gender-inclusive cultures in the workplace?

Having both an internal mentor within your workplace and an external mentor can provide a well-rounded support system for your professional growth. An internal mentor can offer guidance on day-to-day tasks, company culture, and career advancement within the organisation. Meanwhile, an external mentor can provide a fresh perspective, offer advice on broader career decisions, and help navigate complex situations. Having a combination of both types of mentors can offer diverse insights and support tailored to your specific needs and goals.

LINKEDIN GUIDE

LinkedIn is the world's largest professional network on the internet. It is a platform that enables individuals around the world to connect and create professional relationships - often assisting in job finding and career development.

LinkedIn Basics

A range of functions can be performed via LinkedIn. From building connections to sharing your perspectives on relevant issues and topics, this platform plays an important role in allowing individuals to advance in their careers.

LinkedIn can be beneficial to both employees and employers. As job seekers, you can display your unique experiences and skills to employers whilst also researching companies and reaching out to hiring communities. As employers you can seek new talent through member profiles as well as through recruitment advertisements.

When used effectively, LinkedIn can expand your network and provide a range of opportunities that will connect you with like-minded individuals and enable you to further your career aspirations.

Managing & Navigating a LinkedIn Account

Building Connections

Building your network is a crucial step on LinkedIn that enables you to have meaningful conversations and create professional connections with others. Don't be afraid to connect with others - this isn't Facebook - you can connect with people you aren't familiar with to expand your network!

Interacting with Posts

Participating & interacting with posts and conversations allows you to share your perspective on relevant issues and topics with others. Commenting on posts can additionally show your support towards peers and colleagues.

LinkedIn Pages & Groups

You can join LinkedIn groups to maximise networking potential and utilise the ability to contact other group members who share common interests, experiences and/or aspirations.

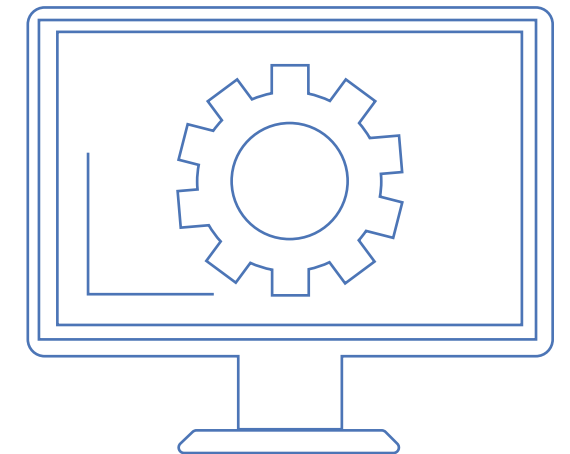
You can follow LinkedIn pages to further show your interests and keep up to date with relevant news from the respective companies or sites.

Updating Your Privacy Settings

You can set your privacy settings so that when you view other members' profiles you are displayed as an "anonymous LinkedIn member" instead of LinkedIn notifying other members that YOU viewed their profile. If you don't want your connections to see when you make updates to your profile, you can also turn off your activity broadcasts.

Further information about how to update your privacy settings can be found here:

[Managing Your Account and Privacy Settings](#)
[| LinkedIn Help](#)



CREATE YOUR LINKEDIN PROFILE:

1 Create an account via www.linkedin.com and follow the prompts to get started

2 Ensure to add education, work experience, volunteering, spoken languages

3 Add a profile photo: Ensure you use a neutral/non-busy background that takes up most of the frame. Smart-casual attire is commended: however, the photo should still be a true representation of you.

4 Write a summary which can include:

- What you are currently studying
- Areas of professional interest
- What you are passionate about
- Present and future ambitions
- Unique skills / qualities

Example:

I am a ____ year _____ student with experience in _____.

I am passionate about _____, and _____.

Through my experience in _____, I have been able to _____.

5 Add skills to your page: ensure to add a mixture of hard and soft skills that define your experiences and contributions

6 Add projects to your page: these showcase how you have used your skills in practice!

Example projects include case competitions as well as projects from working in a student team

7 Add descriptions for roles, experiences, projects

8 Get endorsements & recommendations!

9 Make your profile visible: By completing your profile you are making yourself visible and ensuring you will appear in LinkedIn search results

Some advice from the industry sponsors

- Focus on highlighting your value to potential employers or connections whilst being your authentic self. Be sure to clearly articulate what sets you apart from others in your field, highlight your skills, experiences and achievements.
- Make sure you update your current position to something employers will search! (e.g. Final Year Electrical Engineering Student). Your current position is the first thing employers will see when scanning the LinkedIn market for future talent.
- Recruiters in every industry look for different attributes depending on what position they are looking to fill. Find someone's profile who has the job you want and try to grab inspiration from what is on their profile.
- Make sure you place keywords in your profile so that it's easy to find.
- Your LinkedIn profile is more than just a resume and there are plenty of places to show other professions interest areas. You should also keep your profile active – it's not a set and forget – update your experiences and activity on the site.

What to avoid...



It's important to ensure your profile is professional. Here are some things to avoid:

- An incomplete profile
- Inappropriate photos (No selfies, family photos or cropped party pictures)
- Incorrect spelling & grammar
- Make sure your profile isn't an exact replica of your resume.
- Avoid using buzzwords and jargon. Instead, be clear and specific about your accomplishments.

What stands out in a good profile?



- Any form of relevant experience! Whether it is from internships in a relevant field or project-based work that is relevant to the industry you are applying for.

CHOOSING THE RIGHT COMPANY FOR YOU

Where do your personal values fit?

As well-rounded engineers, we understand that it is important to work at a company that aligns with our core values. This may include considering a company's environmental credentials, diversity of workforce, and transparency in claims.

For this reason, we have provided a list below of tools and strategies we encourage you to use when doing your own research into a company.

What to look for in the company's website:

Read the 'About Us' section and mission statement;

- Do these values align with your own and represent something you would like to be a part of?
- What claims have been made and are these backed up by reports proving that there are actions or initiatives in place to maintain these commitments?

Check where they are located;

- If desired, are there options to travel interstate or overseas?

Check credentials/ accreditations to ensure legitimacy;

- Is there an industry body that they are members of? Eg. For a food manufacturer, the company should be a member of the Australian Packaging Covenant Organisation (APCO). If a mining company, is it a member of the Minerals Council of Australia (MCA)?

Check if they have a statement of their Corporate Social Responsibility (CSR). If present, companies will make this clear on their website;

- If unaware, CSR is the idea that a company should play a positive role in the community and consider any environmental and social impacts of a business decision
- Is there an action plan or examples of their CSR currently in place and not just a claim?

Check if they have an environmental sustainability report;

- Are there goals, targets, and/or actions already implemented to show transparency in any environmental claims?

If a mining or resource company, check their relationship with Australia's First Nations communities;

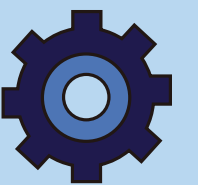
- Does it state their support for the constitutional recognition of First Nations Australians through a Voice to Parliament?
- Research if there is any past history of disrespecting local cultures or sacred land and if they recognised, responded and apologised for their actions.

If a public company, take time to read through their annual report;

- Do they have reports on diversity or sustainability?

Checking LinkedIn:

- Reading posts to get an understanding of how they want to portray themselves and what they consider worth documenting
- Does the people section show a singular demographic of people or is there diversity in their highest-ranked employees?



DESIGNED BY
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