

Building the next generation of engineers in WA

Engagement opportunities to support our engineering undergraduates

An important foundation in the development of our engineers is the exposure to professional engineering practice during their university degree.

Operating companies, government departments, local governments, engineering consultants, constructors, fabricators, research businesses, public authorities, and other organisations all play a critical a role in developing our engineering workforce by providing opportunities for this exposure.

There is currently a shortage of opportunities for Western Australia's engineering undergraduates to obtain this experience.

This is affecting the flow of graduating engineers and is creating a disincentive for potential engineering students, negatively impacting the engineering pipeline.

We are looking for increased engagement from all stakeholders in providing opportunities that will ensure the next generation of engineers gain this practical engineering experience and take their place in building the future.

Why do we need you and your organisation involved?

Industry plays a critical role in developing engineering students' skills and education.

With improved professional practice opportunities during tertiary studies, our future workforce will be more:

- work-ready understanding the professional engineering environment;
- productive and independent;
- able to creatively approach challenges and problems;
- dynamic and innovative thinkers; and
- able to actively contribute to the diversity of the workplace.

Organisations will also benefit by avoiding experience gaps in engineering teams and graduates, maintaining a productive and cost-effective workforce, and providing development of leadership skills in staff who supervise undergraduate engineers.

engineersaustralia.org.au

How can you and your organisation get involved?



Bring professional practice experiences to the classroom

An important foundation in the development of our engineers is the exposure to practical, real-world engineering practice during their studies. Industry can help deliver this in the classroom by working with universities in a number of areas:

- Assist with academic projects
 - Provide industry aligned, real-world research or design project topics
 - Supervise student projects
 - Consultation services
- Provide mentors for students
- Organise site visits hosted by professional engineering leaders
- Collaborate with academic staff to provide real-world case studies and learning activities
- Deliver guest lectures or masterclasses
- Join assessment panels for presentations and other activities to provide industry perspective feedback
- Support the Virtual Work Integrated Learning Modules (an ongoing federally funded project - ecm.uwa. edu.au/vwil)



Offer student work experience placements

It is generally accepted in Western Australia that the optimum student practicum is 12 weeks of professional engineering experience, undertaken in parallel with the formal course work, and this is reflected in the graduation requirements of the local universities. This is most commonly achieved through work experience placements provided by industry or government organisations.

Organisations can offer:

- a full twelve-week work placement over a single period, split periods, part-time during the academic term or other combinations; or
- a partial placement, less than twelve weeks, where experience is instead gained across multiple organisations.



Provide alternative professional experience opportunities

Other opportunities to get involved include:

- Individual or group projects that include exposure and experience in a professional workplace.
- Providing students with a scholarship that is linked to a practicum placement
- Participating in university and industry engagement projects



University contacts

Contact a university to get involved:

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