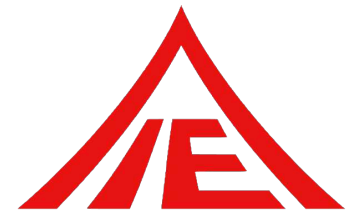



2025

July 2025 – September 2025



**Australian Institute
of Engineering**

Engineers bring dreams to reality

The AIE Bulletin

ABN: 13 612 727 143 | RTO ID: 45356 | CRICOS CODE : 03685G

ABOUT THE INSTITUTE

The Australian Institute of Engineering (AIE) is a leading education institution, providing a wide spectrum of engineering courses ranging from pre-apprenticeship qualifications like Certificate II in Engineering to post-graduate qualifications such as the Graduate Diploma in Engineering. With a commitment to industry relevance and student excellence, we offer specialized streams in disciplines such as Marine Craft Construction, Robotics, and Mechatronics, to name a few. Our rapid growth and recognition in the field of education, evident from the numerous awards we've secured, is testament to our unwavering commitment to quality and innovation in engineering education.

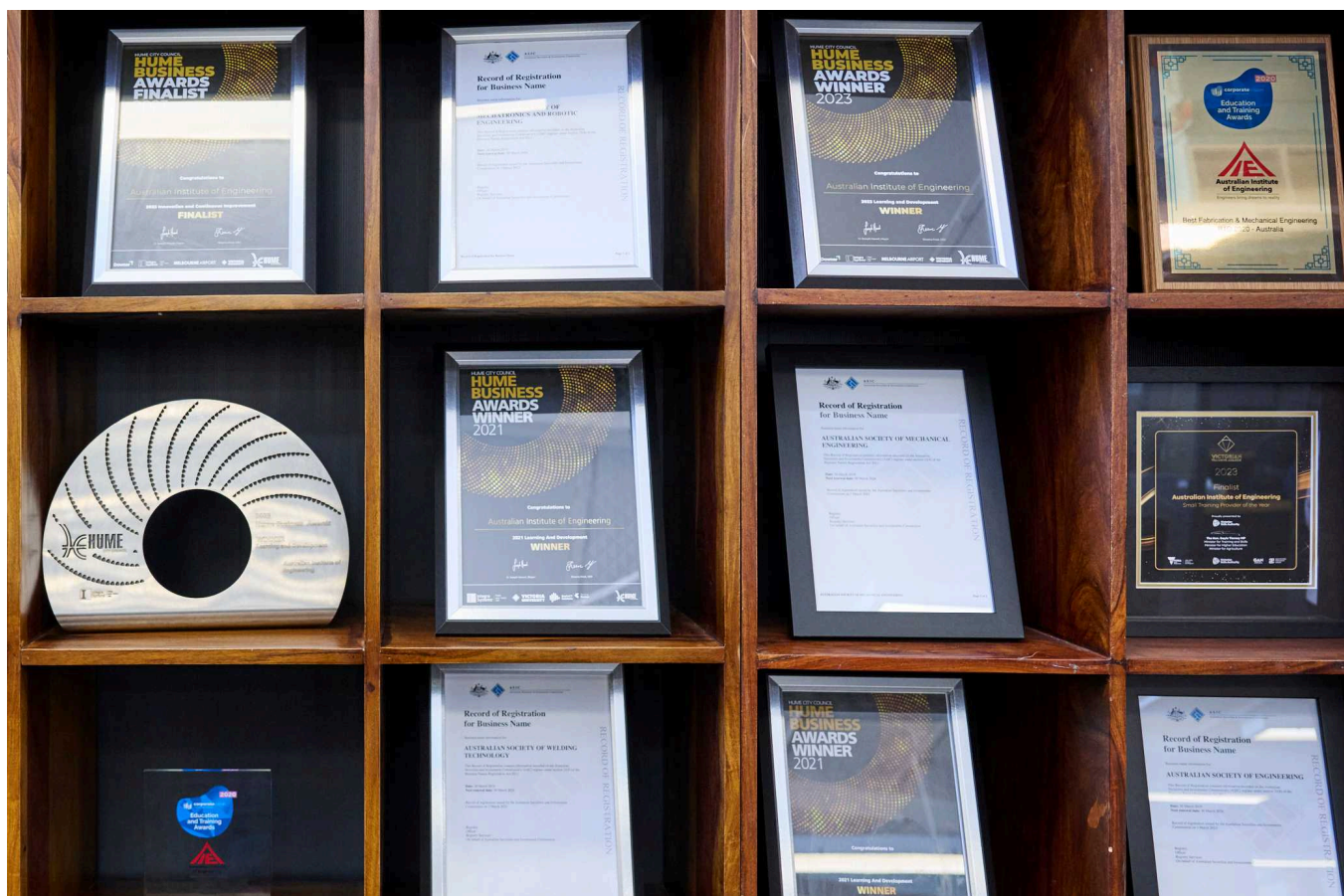


VISION

To be a global beacon of excellence in engineering education, pioneering the future of industry-centric learning, and setting unparalleled standards of academic achievement and innovation

MISSION

To empower our students with comprehensive, industry-relevant skills and knowledge, paving the way for the next generation of world-class engineers. Through collaborations with manufacturing businesses and industry bodies, we aim to continuously evolve our courses to mirror the latest in industry trends and practices.



- 01** Thinking of Hiring an Apprentice in 2025?
- 02** Apprenticeship Incentives & Support Updates – Now in Effect
- 03** National Campaign Launched: Make It Manufacturing
- 04** Building Real-World Skills: Basic Composites Workshop with Scott Compson
- 05** Apprentice Industry Visit: Precision Plating & Surface Finishing Insights
- 06** AIE at the Future in Motion Expo – Engineering Excitement & Opportunity
- 07** AIE at the Melbourne Career Expo: Sharing Space, Sharing Stories
- 08** AIE Proudly Hosted the 2025 Victorian Engineering Senate Conference
- 09** AIE Partners with Keyba Careers to Empower Students
- 10** Course of the Edition: Graduate Diploma of Engineering (MEM80122)
- 11** Coming in 2026: AIE's Industry-Ready Short Courses
- 12** Staff Spotlight: Goma Sharma
- 13** Weird but True Tech Facts

Already November — Where Has the Year Gone?

We've officially stepped into the final quarter of 2025, and there's no doubt it's been a huge year so far across AIE. From new partnerships and student successes to industry events and national initiatives, the momentum has been strong—and it's not slowing down yet.

This edition of the AIE Bulletin brings together highlights, achievements, and a look at what's unfolding as we approach the end of the year. Let's keep the energy going and finish 2025 on a high!

1. Thinking of Hiring an Apprentice in 2025?

An external cost vs reward guide shared for your insight

As industries across Australia continue to grapple with skills shortages, there's an in-depth article from IndustrySearch that offers practical insights for business owners considering taking on apprentices. AIE is sharing this information for awareness — we are not providing direct hiring services or support for apprenticeship recruitment.

Key Insights from IndustrySearch

- Apprentices are a long-term investment, not a source of low-cost labour. The first year often sees reduced productivity from senior staff supervising them.
- Attitude matters more than initial skills. Employers can train technical skills, but work ethic and attitude are much harder to change.
- Mentor-apprentice match is critical. Pairing with patient, communicative supervisors greatly reduces dropout risk.
- Understand your compliance obligations. Australian WHS laws impose higher duties for young workers and high-risk tasks.
- Government incentives help, but they don't cover everything. These can offset some of the costs, but you should still budget for the full cost of training, mentorship, and supervision.

Cost vs Benefit Snapshot

Benefit: You mould future employees to your standards: safety, culture, quality

Cost: Supervising someone new takes up senior staff time (often 20%+ productivity loss in first 6-12 months)

Government Incentives (2025)

- Priority Wage Subsidy for priority occupations — helps with wages in Year 1
- Trainee Support Payments for apprentices to ease financial burden
- Eligibility rules are strict — check with relevant agencies before relying on incentives

Tips for Success (Based on IndustrySearch)

1. Hire for attitude and reliability (consider trial days if possible).
2. Provide a structured learning path, with regular mentoring and hands-on tasks.
3. Ensure supervisors are good teachers.
4. Maintain compliance: supervise high-risk tasks directly, record training, uphold safety culture.
5. Address performance issues early with documented feedback.



Read the full guide here:

Hiring an Apprentice in 2025: A Cost vs Reward Guide for Australian Industry

2. Apprenticeship Incentives & Support Updates – Now in Effect

As of **1 July 2025**, the Australian Government has introduced **additional financial supports** for both **apprentices and employers**, aiming to strengthen Australia's skilled workforce and ease cost-of-living pressures. These updates were shared by **Apprenticeship Support Australia** and apply to all new and recommencing Australian Apprentices in priority sectors.

For More Information

You can view the full summary of changes at:

 www.australianapprenticeships.gov.au

This update was shared by **Apprenticeship Support Australia (CCIW)**.

For further enquiries, contact:  apprenticeshipsupport@cciwa.com

3. National Campaign Launched: Make It Manufacturing

Australia's manufacturing industry has just launched a bold new campaign—**Make It Manufacturing**—now rolling out across **Victoria, Queensland, and Tasmania**. The campaign is designed to **attract new entrants into manufacturing careers** by shifting outdated perceptions and promoting modern, high-tech opportunities in the sector.

Campaign Goals

- **Modernise perceptions** of manufacturing as innovative, essential, and future-focused
- **Inspire young Australians**, parents, and educators with real career pathways
- **Support workforce sustainability** by fostering early engagement and informed decision-making

Campaign Format

The pilot will run for **three months**, featuring messaging across **digital, social, TV, radio, and industry channels**. Evaluation will be based on digital engagement, stakeholder feedback, and ongoing research—informing plans for potential national expansion.

 The campaign was developed following strong calls from employers, unions, and training providers for a unified national effort to support manufacturing workforce growth.

 **Learn more** at: makeitmanufacturing.com.au

4. Building Real-World Skills: Basic Composites Workshop with Scott Compson

In July, two apprentice groups at AIE had the opportunity to participate in an intensive **Basic Composites Workshop** led by **Scott Compson**, Trainer & Assessor at AIE. This workshop delivered practical, hands-on training in working with composite materials — essential skills for a wide range of industries.

Throughout the sessions, apprentices explored what goes into making a composite and the types of materials typically used. They developed an understanding of **safe handling and storage**, calculated **material requirements**, and learned how **incorrect mix ratios** affect curing and performance. They also explored **resin post-curing**, **material selection**, **mould preparation**, **gelcoat application**, **fiber orientation**, **core and resin preparation**, **layup scheduling**, and **quality control documentation**.

The highlight of the workshop was a capstone challenge: apprentices constructed their own **sandwich panels**, tested for **stiffness**, **impact resistance**, **weight**, and **cost-effectiveness**. The top performer was awarded a **Sundström half-face respirator kit** — reinforcing the importance of safety, performance, and precision.

A big thank you to **Scott Compson** for leading this engaging, hands-on learning experience. His expert guidance helped apprentices build confidence and real-world skills they'll carry into the workforce.



5. Apprentice Industry Visit: Precision Plating & Surface Finishing Insights

As part of their ongoing training and development, the **Victorian Electroplating Apprentices** from the **Australian Institute of Engineering (AIE)** recently visited **Precision Plating (Aust) Pty Ltd**, gaining valuable, hands-on exposure to real-world electroplating processes.

A special thanks to **Rob Legg**, Director of Precision Plating, for generously hosting the group and leading an in-depth facility tour.



From left Apprentice - Dechlan Hamilton, Rob Legg - Director, Precision Plating, Apprentice, Caleb Dean, Apprentice, Bailey Creasey, Apprentice Lucas Dale, Tim Elley - Director AISF, Brett Ambrosio - Executive Director of Education AIE

What Apprentices Learned:

- Wiring and racking of components
- Rack care and maintenance
- Pretreatment procedures
- Zinc plating and chromate conversion coatings
- Decorative copper-nickel-chrome plating
- Functional nickel plating
- Physical Vapour Deposition (PVD) coatings
- Advanced waste treatment systems

This visit provided the apprentices with insights beyond the classroom, exposing them to advanced surface finishing practices that are not commonly encountered during formal training.

AIE and AISF: A Shared Commitment

AIE's partnership with the **Australasian Institute of Surface Finishing (AISF)** continues to play a key role in enriching student experiences. AISF has long been a champion of technical excellence, industry standards, and career pathways in surface finishing.

Collaborations like these—between AIE, AISF, and industry leaders like Precision Plating—are vital in preparing our apprentices for meaningful, future-ready careers. They also demonstrate the strength of **industry-education partnerships** in addressing workforce needs and supporting student success.

Thank You

We extend our sincere thanks to the entire team at **Precision Plating**, and especially to **Rob Legg**, for their warm hospitality, professional insights, and strong support for the next generation of industry professionals.

6. AIE at the Future in Motion Expo – Engineering Excitement & Opportunity

24th July 2025

Town Hall Broadmeadows

We were thrilled to take part in the **Future in Motion Expo**, proudly organised by **Hume City Council** — an event designed to showcase innovation, skills, and career pathways in today's rapidly evolving industries.



At the heart of our display was AIE's **robotic arm**, which quickly became a crowd favourite. Students, professionals, and tech enthusiasts alike were drawn in by its movement and capabilities, sparking curious questions and great conversations about the future of **engineering and automation**.

This vibrant event allowed us to connect with people at all stages of their career journey — from those just beginning to explore their options to others looking to upskill or transition into new industries.

We were proud to promote our **short courses in Welding, 2D & 3D Design**, and other hands-on training programs, as well as pathways including **pre-apprenticeship programs** and **our Graduate Diploma of Engineering**. With every interaction, we highlighted how AIE supports learners to build relevant skills and succeed in technical careers.

A special thanks to **Goma Sharma (Student Support Coordinator)** and **Riddhi Panchal (AIE Alumni)** and for taking the initiative to represent AIE at the expo — their energy, professionalism, and support helped create a welcoming and informative experience for all visitors.



From Left Riddhi Panchal - AIE Alumni, Goma Sharma - Student Support Coordinator

7. AIE at the Melbourne Career Expo: Sharing Space, Sharing Stories

25–27 July 2025, Melbourne Convention and Exhibition Centre

The **Melbourne Career Expo** was a fantastic opportunity for AIE to connect with future students, parents, and career seekers — and we were pleased to **share our booth** with **Boating Careers (Dan Brown)** and **Keyba Careers (Lorraine Wilson)** throughout the three-day event.



Over 15,000 attendees visited the expo, and AIE received strong interest from school groups, graduates, and parents exploring career pathways. One of the highlights at our booth was the **robotic arm demonstration**, which generated a great deal of interest from students and visitors of all ages. The movement, automation, and practical application of the robot not only drew crowds but also sparked meaningful conversations about careers in engineering, automation, and advanced manufacturing.

🌟 **Alumni Representation: Riddhi Panchal Inspires Future Engineers**

We were proud to welcome back **Riddhi Panchal**, a graduate of AIE, who joined us once again as a **brand ambassador**. Riddhi spoke with prospective students and their families, sharing her personal journey through engineering and encouraging young people — especially women — to consider a future in the trades.

Her story and enthusiasm left a lasting impression, **inspiring students to explore engineering as a rewarding and achievable career path**.

🙏 **Acknowledgements**

A big thank you to **Dan Brown** and **Lorraine Wilson** for sharing the booth with us and contributing to an engaging and welcoming environment. Events like this help connect AIE with the wider community and showcase the opportunities available through hands-on training.



From Left Riddhi Panchal - AIE Alumni, Dan Brown-Manager Education and Industry Skills at Boating Careers, Lorraine Wilson-General Manager at Keyba Careers



8. AIE Proudly Hosted the 2025 Victorian Engineering Senate Conference

In September, the **Australian Institute of Engineering (AIE)** had the honour of hosting the **2025 Annual Victorian Engineering Senate (VES) Conference**, bringing together key figures from across the state's engineering and vocational education sectors.

Held at our campus, this influential event welcomed stakeholders from TAFEs, RTOs, and industry bodies who came together to **collaborate, discuss challenges, and set strategic direction** for the advancement of engineering education in Victoria.

Highlights from the Three-Day Conference

Day 1 – Industry Connections in Action

Wednesday, 3 September 2025

The conference opened with an **industry visit to Sutton Tools**, where **Alex Lilley** hosted a tour of the state-of-the-art facility.

- **Peter Sutton** presented “A Toolmaker’s Journey through Manufacturing in Australia”, highlighting the legacy and innovation of Australian manufacturing.
- **Jeff Bethell** and team from **C.R. Kennedy** delivered a futuristic keynote on “The Future of AI and Robots”, giving attendees a glimpse into tomorrow’s engineering landscape.

Industry Visit at Sutton Tools



*Peter Sutton – Managing Director at
Sutton Tools*



Jeff Bethell from C.R. Kennedy

Day 2 – Conference & Trade Show

Thursday, 4 September 2025

The main conference commenced with an opening address and Acknowledgement of Country by **Sam Tyagi (AIE)**, followed by a full day of impactful presentations:

- **James Nash (Nash Training Services)** – New Standards for RTOs
- **Chris Hudson (Manufacturing Industry Skills Alliance)** – Workforce Planning, Industry Feedback & Training Plan Updates
- **Alan Cooke (AFI) Metal Casting** - A Career Choice for Makers, Creators & Innovators
- **Rowland Melville (Ringwood Trade Training)** – Scored Assessment: Certificate II in Engineering Studies
- **Craig Robertson (Victorian Skills Authority)** – Victorian Skills Plan & Qualification Reform
- **Rocco Guarnaccia (VETASSESS)** – Tackling Skills Shortages
- **Greg Warren & Jim Dannock (IAG Manufacturing/VSA)** – Attraction, Retention & Secondary School Reform
- **Andrew Barnes & Will Norris (Weldclass)** – Welding Fume Safety
- **Leigh Phillips & Leigh Cook (BOC)** – Future of Welding & Gases
- **Cameron Jamieson (Industrial Laser Solutions)** – Handheld Laser Welding Fundamentals
- **Amanda Baxter (Yarrawonga Physiotherapy)** – Let's Talk Below the Belt – Men's Health Awareness
- **Luke Benson (OzCom)** – Stand-up Comedy Set: A Comedic Tour-de-Force

The evening closed with door prizes and thanks to **Mantra** and conference sponsors for their generous support.



Sam Tyagi CEO at AIE



*Rowland Melville - VET coordinator/
Engineering Trainer at Ringwood Training*



*Craig Robertson, CEO at Victorian Skills
Authority*



*Andrew Barnes, National Marketing
Manager and Will Norris, Training Manager
at Weldclass*



*Jim Dannock, Senior Skills Advisor at Victorian Skills Authority,
Greg Wareen, Executive Officer at Manufacturing industry advisory group and Victorian Skills Authority*



From Left Jim Dannock-VSA, Sam Tyagi - CEO at AIE, Shayne Wan Der Heide - Centre Manager at Ringwood Training, Craig Robertson-CEO of VSA, Craig Murphy - Trainer & Assessor at AIE, Brett Ambrosio - Executive Director of Education at AIE

Glimpse of Trade Show



Day 3 – Campus Experience at AIE

Friday, 5 September 2025

The final day of the conference kicked off with a warm welcome by **Brett Ambrosio**, followed by **a guided tour of AIE's campus**, including the **Marine Shop** and **ADAM Centre**. Attendees explored the institute's advanced training facilities and equipment.

The day concluded with a **live metal casting demo** led by **Alan Cooke (AFI)**, giving participants a hands-on view of the Foundry in a Box activity — a fitting end to a conference focused on real-world learning and industry connection.



*Brett Ambrosio - Executive Director of Education
(AIE)*



*Marine Shop Tour at lead by Scott Compson and
Murray Edward (Trainer & Assessor at AIE)*





*Advance Design and Manufacturing Centre Tour
lead by Sam Tyagi, CEO at AIE*



*Alan Cooke, Vice President at Australian
Foundry Institute presenting Foundry in a box*

Strengthening Sector Partnerships

Hosting VES 2025 demonstrated AIE's strong leadership in the engineering training sector and its commitment to **collaboration, innovation, and workforce readiness**. The conference also reaffirmed AIE's role in **shaping the future of engineering education** through strong relationships with training providers, regulators, and industry.

AIE extends sincere thanks to all attendees, speakers, sponsors, and partners who made this event a resounding success.

9. AIE Partners with Keyba Careers to Empower Students

The **Australian Institute of Engineering (AIE)** is excited to announce a new partnership with **Keyba Careers**—a collaboration built on a shared vision: connecting classroom learning with real-world career skills.



*Lorraine Wilson, General
Manager at Keyba Careers*

Through this partnership, AIE students will benefit from knowledge exchange, practical career insights, and collaborative initiatives that bridge the gap between education and employment.

What Keyba Careers Brings to AIE Students?

Keyba Careers specializes in helping individuals become job-ready through short, interactive courses designed for today's competitive job market.

Their **5 Crash Courses** cover everything students need to launch and sustain a successful career:

- **Setting Yourself Up for Success** – Build a solid career plan with practical strategies.
- **Think Like a Business Owner** – Understand employer expectations, recruitment, and job offers.
- **Navigating the World of Work** – Gain insights into workplace culture, communication, and networks.
- **How to Prepare for a Successful Interview** – Create winning resumes, ace interviews, and secure strong references.
- **Improve Your Sales Skills to Help You Get a Job** – Learn customer service, selling approaches, and how to present yourself effectively.

★ Why This Matters

By working with Keyba Careers, AIE is ensuring that students don't just gain technical expertise but also the **career-readiness skills** needed to thrive in industry. Together, we are creating opportunities for students to experience firsthand insights into employment, networking, and workplace success.

🔗 Explore More

Learn more about how Keyba Careers can support your journey:

👉 keybacareers.com.au

10. Course of the Edition: Graduate Diploma of Engineering (MEM80122)

Are you ready to elevate your engineering career to the next level?

The **Graduate Diploma of Engineering (MEM80122)** is designed for experienced engineering professionals and diploma graduates who are looking to advance their technical expertise, leadership capabilities, and strategic problem-solving skills. This nationally recognised qualification prepares you for senior roles in engineering management, design, and advanced manufacturing.

This course covers areas such as:

- Advanced engineering design and analysis
- Systems thinking and project leadership
- Research and innovation in engineering practice
- Strategic planning and process improvement

This qualification is ideal for:

- Engineering professionals seeking to progress into management or leadership roles
- Diploma-qualified technicians ready to deepen their technical and analytical expertise
- Employers looking to build advanced capability and innovation within their engineering teams

With a strong focus on applied learning, the Graduate Diploma of Engineering bridges technical mastery with real-world leadership—empowering you to lead projects, drive innovation, and make a lasting impact in your field.

Interested in advancing your career?

Visit our course page here:

 [Graduate Diploma of Engineering \(MEM80122\)](#)

or scan QR code to visit the page:



For expressions of interest or enquiries,

Please contact:  info@auie.edu.au |  **03 9302 1296**

11. Coming in 2026: AIE's Industry-Ready Short Courses

Get skilled. Get hands-on. Get industry-ready.

As part of our commitment to advancing practical training pathways, AIE will launch a suite of **targeted short courses in 2026**, designed to equip learners, apprentices, and upskilling professionals with the **real-world composite and manufacturing skills** employers are looking for.

These short courses will be ideal for pre-apprentices, technicians, and tradespeople looking to enhance specific skills or transition into new technical areas. These skill sets can be delivered as accredited units or non-accredited.

Planned Course Offerings:

1. Workplace Safety - Composites Safety, Storage, Handling and PPE

Understand the critical safety aspects of working with composite materials. Learn about correct handling techniques, environmental storage conditions, and appropriate Personal Protective Equipment (PPE) to meet WHS regulations.

2. Basic Composites - Identification and Hand-Layup Techniques

Explore the fundamentals of composite materials, including identification of common fibres (e.g., glass, carbon), resins, and cores. Gain hands-on experience with hand-layup techniques and learn the correct steps for preparing and working with different material types.

3. Composite Repair

Learn methods of assessing and repairing damaged composite structures using practical techniques. The course covers surface preparation, scarf and patch repairs, resin compatibility, and curing methods for structural integrity restoration.

4. Advanced Composites

Discover vacuum bagging techniques used to improve laminate quality. You'll gain an understanding of vacuum systems, pressure control, bagging films, breather layers, sealing methods, and troubleshooting common defects.

5. Adhesive Best Practice

This course focuses on industrial bonding techniques, selecting the right adhesives for different substrates, surface preparation, mix ratios, curing times, and how to avoid delamination or adhesion failure.

6. Plug and Mould Making

Learn the end-to-end process of creating master plugs and production-ready moulds. Topics include surface finish preparation, release agents, layering techniques, and mould quality inspection.

7. 2D & 3D design Introduction

This course is designed for Aspiring entry-level designers or business seeking skills and knowledge required to produce 2-D & 3D drawings using computer-aided design software.

These flexible, hands-on short courses are designed to meet the needs of industry and provide **upskilling opportunities for technicians, apprentices, and production staff**. If your business has a training need reach out to AIE and see how we can assist you.

 **Interested in 2026 enrolments or partnering for delivery?**

Contact us for expressions of interest or enquiries:

 **info@auie.edu.au** |  **0393021296**

12. Staff Spotlight: Goma Sharma Student Support Coordinator, AIE

Since joining AIE in **2019**, **Goma Sharma** has been a compassionate and consistent presence in her role as **Student Support Coordinator**. Her mission? To walk alongside students through every stage of their journey — providing guidance, encouragement, and care when they need it most.

“What excites me most is the interaction with people from diverse backgrounds and being able to support them as they achieve their qualifications,” she shares.

Goma’s dedication has made a lasting impact on countless students. One memorable moment came when a female student, struggling academically and told that “welding wasn’t a woman’s job,” nearly gave up. With Goma’s one-on-one support and collaboration with the training team, the student regained confidence, completed her course, and is now **proudly working as a welder in the industry**.

“That’s the kind of change I’m proud to be part of,” Goma says.

Looking ahead, she’s eager to see how the **VET sector continues to evolve**, especially with the growing role of **AI and digital technologies** in training and education.

Outside of work, Goma finds joy in music — and dreams of one day opening an **animal shelter** to care for strays. Her compassion truly extends beyond the classroom.



*Goma Sharma - Student Support
Coordinator*

13. Weird but True Tech Facts

Here's your brain-boosting break between updates — some quirky, surprising facts from the world of tech and engineering:

-  **WD-40 was never patented** — because the creators didn't want to reveal the formula! It's still a trade secret today.
-  **The strongest magnets in the world can levitate frogs.** (Seriously. Google "levitating frog magnet.")
-  **The first battery was invented over 2,000 years ago** — the "Baghdad Battery" is believed to have been used in ancient Mesopotamia.
-  **The word "robot" comes from the Czech word *robota*, which means "forced labour."**
-  **Your body can power a light bulb.** The human body produces around 100 watts of energy at rest — you're basically a walking power source.
-  **The first 3D printer was built in 1983** — and now we can print everything from houses to human organs.
-  **The GPS system relies on Einstein's theory of relativity.** Without adjusting for time dilation, GPS would be off by about 10 km per day.
-  **NASA's space suits cost around \$12 million each.** And yes — they're tailored.
-  **Lightning can reach temperatures hotter than the surface of the sun** — up to 30,000°C.
-  **Some metals can explode in water.** Like sodium and potassium — which is why chemistry labs handle them with extreme care.

Join the AIE Community!

Whether you're a student, graduate, or industry partner — **there's a place for you at AIE.**

Get involved by:

- Attending events and workshops
- Partnering with us for training or apprenticeships
- Sharing your story to inspire others

Follow Us on



**Let's grow,
connect, and
shape the future—together.**