

# Engineering 2024



**Trends and industry innovations have made 2024 the perfect time to advance your career in engineering.**

From environmental to mechanical, job prospects for engineers look strong across a number of sectors in 2024. Opportunities and projects that require engineering expertise are arising in public infrastructure, sustainable action, and the ever-expanding field of technological innovation.

## Key takeaways from 2023



### **New public infrastructure projects demanded more engineers<sup>1</sup>**

Demand for engineering positions across Australia rose to a ten-year high in 2023. The demand for civil engineers, surveyors, and construction professionals in Australia was driven by an unprecedented investment in public infrastructure projects, and the increasing need for sustainable solutions across the industry.

While the demand for engineering professionals in previous years has been exponential, the trend shows no signs of slowing and is expected to continue until at least 2026. Population growth, urbanization, and the rapid development of new industries, such as renewable energy, are also driving the demand for skilled engineers.



### **Australia's promise of net zero emissions has been led by engineers<sup>2</sup>**

In 2021 the Australian Government announced plans to deliver net zero emissions by 2050, in 2023 the countries approach is being led by engineers dedicated to manufacturing infrastructure and technology to reduce emissions.

Engineers have been at the front line of driving sustainable change to meet net zero. Professionals across many sectors have taken on the responsibility of the design, construction, testing, and maintenance of critical systems that have wide-ranging implications for public health, safety, and the economy.

However, as the country began working towards achieving net zero it became obvious that far more engineering professionals are needed if energy targets are to be met in the coming years. Reports suggest that the engineering and building trades industries will have to grow to nearly 2 million by 2050.



# Engineering at a glance

Did you know...<sup>4</sup>



## 105K

is the average salary for an engineer in Australia



Engineering roles are expected to grow

## 10.5%

in the next 5 years

What are some of the most valued soft skills when working across sectors and industries?<sup>5</sup>

- Problem solving
- Adaptability
- Communication
- Teamwork



These four in-demand engineering roles are some of Australia's fastest-growing careers:<sup>3</sup>

+ **Machine Learning Engineers**

Employers look for skills and experience in: Machine learning, deep learning, TensorFlow

+ **Site Reliability Engineers**

Employers look for skills and experience in: Site reliability engineering, Amazon Web Services, Kubernetes

+ **Platform Engineers**

Employers look for skills and experience in: Terraform, Continuous Integration and Continuous Delivery (CI/CD)

+ **Cyber Security Engineering**

Employers look for skills and experience in: Professional Services, Financial Services, Technology and Media



Looking to advance your career in the coming years? Here are some of the fast-growing engineering jobs you could land.

If you're currently...	This could be your next job title
A Software Engineer, Data Analyst or Business Intelligence Consultant	<b>Data Engineer</b> Your new salary could be up to <b>\$130k</b> <sup>6</sup>
A Software Engineer, DevOps Consultant or System Engineer	<b>Site Reliability Engineer</b> Your new salary could be up to <b>\$140k</b> <sup>7</sup>
A Software Engineer, Data Scientist or Data Engineer	<b>Machine Learning Engineer</b> Your new salary could be up to <b>\$115k</b> <sup>8</sup>
A Software Engineer, Data Analyst or Business Intelligence Consultant	<b>Engineer Manager</b> Your new salary could be up to <b>\$175k</b> <sup>9</sup>



# What's next...



## Construction industry challenges will be addressed with innovative technology<sup>10</sup>

Productivity across the construction and engineering sector has encountered issues in recent years relating to rapidly increasing labour and supply chain costs, high inflation, and longer waiting times for equipment and material in Australia.

Despite these challenges, industry leaders suggest that organisations and engineering professionals can successfully navigate through these short-term challenges by gaining expertise in the tech of tomorrow.

KPMG reports that a rise in the adoption of technology, including mobile platforms, robotic process automation and artificial intelligence (AI), is beginning to occur and will help improve the industry's performance.

Take advantage of the job seeker's market in civil engineering with RMIT's Graduate Certificate in Civil Engineering and Master of Engineering (Civil Engineering). The graduate certificate can be completed in as little as six months, while the master's is your gateway to in-demand leadership roles. Start your journey at a university ranked in the top 10 in Australia for civil and structural engineering.<sup>11</sup>



[Click here to learn more about the Graduate Certificate in Civil Engineering](#)



[Click here to learn more about the Master of Engineering \(Civil Engineering\)](#)

RMIT's Graduate Certificate in Engineering Management and Master of Engineering (Management) are designed to help you advance your career by gaining the skills to lead and oversee civil engineering projects. Get ahead of the projected 11.7% job growth for engineering managers<sup>9</sup> by upskilling in as little as six months with the graduate certificate or completing your industry-led master's degree.



[Click here to learn more about the Graduate Certificate in Engineering Management](#)



[Click here to learn more about the Master of Engineering \(Management\)](#)

# What's next...



## Novel sustainability technology is showing there are many ways to achieve a greener tomorrow

Sustainable technology will continue to take centre stage in 2024 and beyond as countries and organisations push for a zero emissions future. One of the keyways that this will be achieved is through sustainable action enabled by green technology.

While some of the innovations driving change are familiar and ubiquitous, such as electric cars, novel technologies and sustainability methods are also leading the way. For example, carbon capture and storage<sup>12</sup>, green cloud computing<sup>13</sup> and upcycling plastics<sup>14</sup>.

These and other emerging innovations are led by organisations and independent engineering researchers around the world. For example, a waste upcycling research project being led Associate Professor Kalpit Shah at RMIT. “Upcycling plastic with home-grown tech would enable us to draw the greatest possible value out of our limited resources and bring us closer towards a true circular economy,” said Associate Professor Shah<sup>14</sup>.

Become part of the sustainable revolution with RMIT's Graduate Certificate in Sustainable Engineering, which can be completed in just six months, or the Master of Engineering (Sustainable Energy), which will give you the skills to lead the future of sustainable energy. Learn from industry partners paving the way for tomorrow's solutions, including CSIRO, Melbourne Water and Acciona Energy, in world-class labs and facilities.



[Click here to learn more about the Graduate Certificate in Sustainable Engineering](#)



[Click here to learn more about the Master of Engineering \(Sustainable Energy\)](#)

## Sources

<sup>1</sup>ConsultANZ. 'Australia: 2023 will be a year of exceptional employment opportunities for Civil Engineers'. Published 11 January 2023.

<sup>2</sup>Engineers Australia. 'Hard to hit net zero with a shrinking number of engineers'. Published 9 October 2023.

<sup>3</sup>LinkedIn Pulse. 'LinkedIn Jobs on the Rise 2023: The 25 roles in Australia that are growing in demand'. Published 18 2023.

<sup>4</sup>Seek. 'How to become an Engineer'.

<sup>5</sup>Hays. '7 job-ready soft skills you need today' 2023.

<sup>6</sup>Seek. 'How to become a Data Engineer'.

<sup>7</sup>Seek. 'How to become a Reliability Engineer'.

<sup>8</sup>Seek. 'How to become an Automation Engineer'.

<sup>9</sup>Seek. 'How to become an Engineering Manager'.

<sup>10</sup>KPMG. '2023 Global Construction Survey'. Published 8 June 2023.

<sup>11</sup>QS Top Universities Ranking. 'QS World University by Subject 2023: Civil and Structural Engineering' 2023.

<sup>12</sup>The Guardian. 'What is carbon capture, usage and storage?'. Published 30 March 2023.

<sup>13</sup>Forbes. 'The top 5 tech trends in 2024 everyone must be ready for. Published 9 September 2023.

<sup>14</sup>RMIT University. 'From recycling to upcycling: A smarter way of dealing with plastic'. Published 21 September 2021. Correct as of November 2023