



THE UNIVERSITY OF
MELBOURNE

Melbourne School
of Engineering



ELECTRICAL ENGINEERING CAREER PATHWAYS

➤ For more information, visit
eng.unimelb.edu.au

ELECTRICAL ENGINEERING AT MELBOURNE

Electrical engineering offers diverse career options in areas such as telecommunications, electronics, biotechnology, manufacturing, automation, transport, defence, mining, information technology and consulting services.

The Melbourne School of Engineering is the leading provider of engineering and IT education in Australia*, and ranked No.1 in Australia for Electrical Engineering.#

Our professional Master of Engineering program is the first graduate program in Australia to offer accreditation from Engineers Australia and EUR-ACE®, enabling graduates to practice as engineers in Australia, Europe, the US, Singapore, Japan, and more.

The Master of Engineering (Electrical) provides depth, breadth and flexibility to a curriculum taught by world-class educators, access to industry based learning opportunities, and a generous program of scholarships.

Our electrical engineering programs include:

- » [Master of Engineering \(Electrical\)](#)
- » [Master of Engineering \(Electrical with Business\)](#)
- » [Master of Telecommunications Engineering](#)
- » [Master of Philosophy \(Engineering\)](#)
- » [Doctor of Philosophy \(Engineering\)](#)

Accelerate your own startup

Since completing a Master of Engineering (Electrical) and a stint with the Melbourne Accelerator Program (MAP), David Mah has gone on to launch two business startups. He is co-founder of the highly successful retail app Bluesky; the most popular mobile catalogue shopping app in Australia.

His more recent startup venture, Kepler Analytics, is a real-time analytics tool for customer behaviour in bricks and mortar stores. He attributes his time as an engineering and MAP student as pivotal to his success.

“The University of Melbourne was a top choice for me to study electrical engineering, because of its positive culture and highly innovative environment. Looking back, I don’t think I would have considered my own startup company, if it were not for my experience studying at Melbourne and my involvement with the Melbourne Accelerator Program.”



Specialisations

As an electrical engineer, you will have a range of specialist skills in the design, testing and maintenance of electrical and electronic systems.

You could specialise in areas including electrical power systems, electronic system design, electronic instrumentation, control systems and automation, system engineering, embedded systems and communications systems and networks.

Job Outlook

Engineering professionals are in demand, not only in Australia, but across the globe. With a rapidly growing population, the need for engineers will become more critical than ever to ensure our cities have adequate transport, power, water, telecommunications and healthcare.

Students are advised to begin building their employability skills whilst at university, to give themselves the best start to their careers. Visit the University Careers Service to find out more: careers.unimelb.edu.au

For more information about the job outlook for this sector, please visit the Australian Government’s Employment Projections and Job Outlook website: joboutlook.gov.au

For information about salaries, see: graduateopportunities.com

*No.1 in Australia; No.28 in the world. QS World University Rankings by Subject 2017.
#QS World University Rankings by Subject 2017.

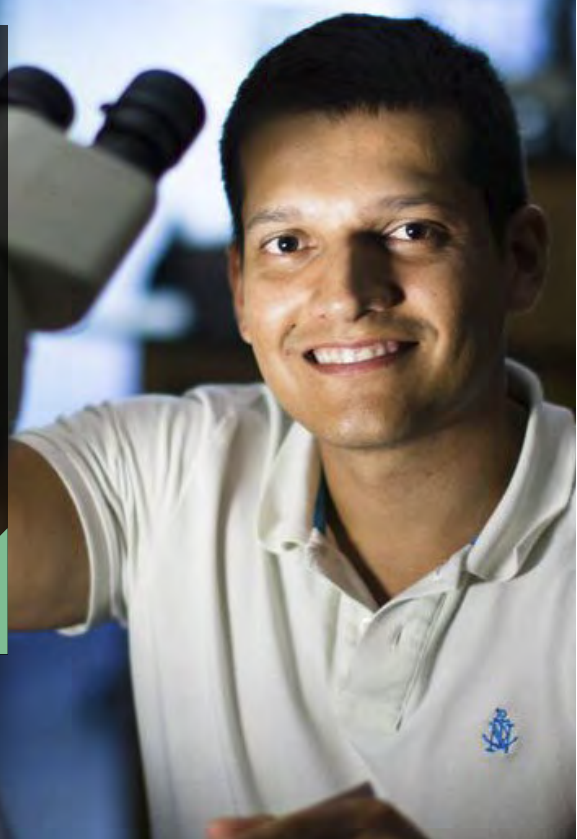
Learn at the cutting edge of technology

Fernando Jurado decided to study telecommunications engineering because it is a fast growing field that is making a big contribution to technological development.

“The Master of Telecommunications Engineering has provided me with analytical, design, communications, teamwork, research and technological skills to solve problems related to telecommunications and engineering.”

During his course, Fernando did a research project with the Melbourne Networked Institute Society (MNSI), which helped him apply theory learnt in the course, to a real world setting.

“My research project with MNSI has helped me to better understand telecommunications engineering in Australia.”
Fernando completed his bachelor’s degree in electronic engineering at the Universidad del Valle in Cali, Colombia.



Sectors & Employers

ELECTRICAL ENGINEERING SECTORS & INDUSTRIES		EXAMPLES OF EMPLOYERS	
Automation	Industrial Instrumentation	Nokia	Microsoft
Aviation	Power Generation and Transmission	Boeing Aerostructures	NEC
Broadcast/Sound Engineering	System Engineering	Chevron	NHP Electrical Engineering
Consulting – Technologies and Management	Telecommunications	Deloitte	Products
Electrical Equipment		Ericsson	Orica
Electronics		IBM	Origin Energy
Government Departments and Agencies		Jacobs Engineering	Siemens
			Telstra

Career Progression

GRADUATE	3-5 YEARS EXPERIENCE	10 YEARS
Graduate Electrical Engineer	Electrical and Instrument Engineer	Electrical Engineer – Water/Waste Water
Graduate Electronic Engineer	Electrical Asset Engineer	Electrical Engineer/Control Systems
Graduate Electrical Services Engineer	Electrical Design Engineer	Electrical Field Engineer
Graduate Electrical Systems Engineer	Electrical Engineer	Electrical/Instrumentation Engineer
Graduate Electrical Design Engineer	Electronic Engineer	Electrical Engineer – Hazardous Area
Graduate Engineer Electrical/ Mechatronics	Electrical and Controls Engineer	Electrical Maintenance Engineer
Junior Electrical Engineer	Electrical Engineer – Building Services	Electrical Project Engineer
	Electrical Engineer – Energy	Electrical Reliability Engineer
	Electrical Engineer – Mining Services	Electrical Risk Engineer
	Electrical Engineer – Electrometallurgy	Electrical Site Engineer
	Electrical Engineer – Oil and Gas	Electrical Telco Engineer
	Electrical Engineer – High Voltage Power Supply	Electrical and Instrumentation Engineer
	Electrical Engineer – Power Generation	Field Electrical Engineer
	Electrical Engineer – Power Systems/Control Systems	Traction Electrical Systems Design Engineer
	Electrical Engineer – Secondary Substation Design	
		Lead Electrical Engineer
		Principal Electrical Engineer
		Senior Electrical Engineer



Alternative Careers

An engineering degree at the University of Melbourne gives you a solid technical and design foundation combined with strong analytical, problem solving and communication skills valued across a range of industries. Other areas our graduates have moved into include:

- » Management consulting
- » Finance, economics and banking
- » Business analysis
- » Project management
- » Technical sales, marketing and communications
- » Intellectual property management
- » Technical writing
- » Government and policy

Careers in Research

If you are passionate about a field of electrical engineering and would like to advance your research skills, enrolling in a graduate research degree could be a great option for you. Graduate research enhances your ability to problem solve, think autonomously and creatively, and analyse. Careers in research are diverse and may include:

- » academic positions at universities;
- » policy-making or research positions at public sector organisations;
- » private sector research and development projects;
- » self-employed consulting positions on technical or policy issues in your area of expertise.

Employability Services and Industry Links

Students undertaking our programs have access to a range of employability services, and benefit from a curriculum that offers excellent opportunities to connect with industry through:

- » an elective internship subject
- » student projects partnered with industry
- » guest lectures led by industry leaders and experts
- » site visits hosted by key organisations
- » industry networking events
- » career panels featuring industry representatives
- » career question drop-in service
- » an online jobs and internships portal



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