

# THE CENTRE OF ENGINEERING EXCELLENCE



# **FLINDERS ENGINEERING**

# **CONNECT WITH INDUSTRY**

#### Longest industry placement in Australia

Undergraduates are offered 20-week industry placement in their third year.

Postgraduates have opportunity to undertake 12-week industry placement.

We have developed close relationships with more than 200 local, national and international organisations including:

- SAGE Automation
- KPMG
- BAE Systems

#### Professional accreditation

All core UG and PG programs accredited by Engineers Australia at level of professional engineer.

Recognised internationally by Washington Accord.

#### Industry-led curriculum

Strong connections with industry informing course content, research areas and industry placements.

#### Interact with industry

Opportunity to collaborate with industry during degree, including:

- Cisco Network Academy
- Flinders Medical Device Research Instititute
- Centre for Nanoscale Science and Technology
- New Venture Institute
- Flinders Autonomous Shuttle Trial

# **POWERED BY CREATIVITY**

#### Orby

In a world-first study led by Flinders' lecturer, David Hobbs, Orby is an awardwinning accessible gaming system and controller for people with hand impairments, including children with cerebral palsy and stroke patients.

#### Baxter

Baxter is one of our demonstration and training robots designed by Rethink Robotics, a world leading technology company founded by Flinders graduate Professor Rodney Brooks.

#### **Driverless vehicles**

The Flinders Autonomous Shuttle Trial is a collaboration between project partners Flinders University and RAA, together with eight industry partners.

#### Hexapod robot

This award-winning robot, led by Flinders' Dr John Costi, was developed to enhance understanding of 3D performance of normal and diseased joints and their artificial replacements by simulating complex joint motion.

#### Serval mesh

The Flinders-led project team has developed a secure and inexpensive postdisaster deployment for remote locations.

#### Autonomous underwater vehicles

Associate Professor Karl Sammut's team are developing a system to launch and recover unmanned rescue vessels in open seas around the world.

# **CULTURE OF COLLABORATION**

#### **Innovation district**

Flinders is the first university to establish a campus at Tonsley, Australia's first innovation district.

**Tonsley campus** 

Industries located at Tonsley include:

- **Tesla Service Hub:** local technicians will monitor and service the world's largest lithium ion battery, along with the superchargers installed across SA
- **Siemens Service Centre:** Ranked 63 on Fortune Global 500, this facility maintains turbomachinery equipment across Australasia
- Aurrigo Driverless Technology: a division of RDM Group, Aurrigo design, manufacture and deploy autonomous vehicles globally

#### **Flinders at Tonsley**

World-class \$120 million teaching and research facility.

Home to over 150 staff and 2,000 students across engineering, computer science, and mathematics programs.

#### **Specialised labs**

Tonsley has 28 specialist laboratories including:

- Biomechanics and Implants Lab
- Al and Robotics Research Lab
- Advanced Control Systems Lab
- Large Scale Materials Testing Lab
- Serious Gaming and Haptics Lab

# **COURSE AND ENTRY REQUIREMENTS**

	()	COURSE DURATION	INTAKE - SEMESTER	ENGLISH REQUIREMENTS			ACADEMIC REQUIREMENTS				
	2018 FEE (AUD)			IELTS (ACADEMIC)				(RD	<u>ب</u>		SC
				OVERALL	SPEAKING	WRITING	A LEVELS	INDIAN CENTRAL BOARD	INDIAN STATE BOARD	NEPAL PCL AND HSEB	CRICOS
BACHELOR DEGREES											
Bachelor of Engineering (Biomedical) (Honours)	32,200	4	S1/S2	6	6	6	8	75	80	75	083439D
Bachelor of Engineering (Civil) (Honours)	32,200	4	S1/S2	6	6	6	8	75	80	75	083441K
Bachelor of Engineering (Computer and Network Systems) (Honours)	32,200	4	S1/S2	6	6	6	8	75	80	65	058294B
Bachelor of Engineering (Electrical) (Honours)	32,200	4	S1/S2	6	6	6	8	75	80	65	083443G
Bachelor of Engineering (Electronics) (Honours)	32,200	4	S1/S2	6	6	6	8	75	80	65	083444G
Bachelor of Engineering (Mechanical) (Honours)	32,200	4	S1/S2	6	6	6	8	75	80	65	083446E
Bachelor of Engineering (Maritime) (Honours)	32,200	4	S1/S2	6	6	6	8	75	80	65	093433B
Bachelor of Engineering (Robotics) (Honours)	32,200	4	S1/S2	6	6	6	8	75	80	65	083449B
Bachelor of Engineering (Software) (Honours)	32,200	4	S1/S2	6	6	6	8	75	80	85	083450J
Bachelor of Engineering Science	32,200	3	S1/S2	6	6	6	6	65	70	65	063694B
MASTERS DEGREES											
Master of Engineering (Biomedical)	33,600	2	S1/S2	6	6	6					055942K
Master of Engineering (Civil)	33,600	2	S1/S2	6	6	6					091861A
Master of Engineering (Electronics)	33,600	2	S1/S2	6	6	6					061252G
Master of Engineering (Materials)	33,600	2	S1/S2	6	6	6					088514B
Master of Engineering Science (Biomedical)	33,600	2	S1/S2	6	6	6	App	094010J			
Master of Engineering Science (Civil)	33,600	2	S1/S2	6	6	6		094010J			
Master of Engineering Science (Electrical and Electronic)	33,600	2	S1/S2	6	6	6		094010J			
Master of Engineering Science (Materials)	33,600	2	S1/S2	6	6	6					094010J
Master of Engineering Science (Software)	33,600	2	S1/S2	6	6	6					094010J

# **SPECIALISATIONS**

Bachelor of Engineering - flexible entry allows students to start their engineering degree but defer making decision about a specialist area until the end of their first year.

We also offer a Bachelor of Engineering Science as a pathway to full, accredited engineering degrees.

# Biomedical

Flinders was the first university in Australia to offer this accredited degree.

#### Civil

Research strengths include future traffic systems and construction design.

#### **Computer and Network Systems**

Blend of electronics, computer networks and computer science to design and analyze hardware systems and algorithms.

#### Electrical

Niche areas include renewable technologies and electrical drive systems.

## Electronics

Strengths include embedded systems and instrumentation.

## Maritime

Specialise in naval architecture, ocean engineering, marine and offshore sytems.

#### Materials

Materials connects to a number of research areas including nanotechnology, chemical sciences, and civil engineering.

## Mechanical

Niche areas include fluid dynamics and maritime applications.

## Robotics

Only SA robotics course based on electronics and autonomous intelligent systems.

## Software

Students can focus on either electronics or computer science.



# FOR MORE INFORMATION **FLINDERS.EDU.AU/ENGINEERING-EXCELLENCE**