Improve The World We Live In

Create a Successful Career in Engineering with RMIT

Engineering at RMIT has gained an international reputation for excellence in work-relevant education. You will gain valuable skills through a variety of learning experiences with expertise across nearly all areas of engineering including electrical and electronic, automotive, sports technology, manufacturing, structures and forensics and sustainable energy.

RMIT’s unique strengths and values focus on community and industry engagement in teaching and research. Real world learning is high on RMIT’s agenda, and practical experience is a core aspect of our programs.

Engineering at RMIT has gained an international reputation for excellence in work-relevant education. You will gain valuable skills through a variety of learning experiences with expertise across nearly all areas of engineering including electrical and electronic, automotive, sports technology, manufacturing, structures and forensics and sustainable energy.

Students are both encouraged and supported to cultivate their most creative ideas with equipment and amenities that include:
- platform technologies facilities
- robotics and automation laboratories
- renewable energy park and wind tunnel
- composites laboratories
- advanced materials testing laboratories
- micro- and nano-scale development laboratories
- power systems and high voltage facilities.

Explore Your Study Options

Postgraduate Engineering Programs

RMIT’s Master of Engineering degrees are professional engineering programs that meet the requirements of the Australian Qualifications Framework (AQF) level 9. RMIT’s master degrees are either two years duration (broadening) or one year in duration (deepening, specialist). They have different entry requirements, learning objectives and levels of engineering specialisation. Students enrolled in either broadening or deepening programs have an opportunity to undertake projects in industry in Australia or internationally.

Two-Year Master of Engineering Programs

Graduates from a wide range of engineering and engineering science degrees at either AQF level 7 and AQF level 8 are eligible to apply. The two-year programs allow graduates to gain an engineering qualification at AQF level 9 by undertaking advanced engineering studies in a selected discipline. The two-year programs include a significant level of research, typically embedded in project-based learning with industry. You may be eligible for advanced standing based on industry experience or academic results in your previous studies.

Most of the programs will be submitted for accreditation by Engineers Australia inline with the accreditation timelines set by Engineers Australia. Once fully accredited, graduates of the programs will be eligible for graduate membership of Engineers Australia.

One-Year Master of Engineering Programs

The one-year Master of Engineering programs at RMIT are open to graduates from engineering degrees in the same discipline area, recognised at AQF level 8. This type of professional engineering program is typically focused on a particular engineering specialisation, directly aligned with and supported by industry.
The Advanced Manufacturing Precinct uses new industrial platform technologies to enable innovative ways of using composite materials.

Housing a range of specialised equipment, with a focus on additive and subtractive technologies, the Advanced Manufacturing Precinct provides access to cutting edge technology that can enable companies to develop new conceptual products or perform multiple design iterations, as well as developments to existing products. It offers:

- high speed multi-axis machining centres
- additive and subtractive process manufacturing in a range of materials
- reverse engineering
- highly trained technical staff.
Aerospace and Aviation is a dynamic international industry often associated with cutting edge technology, and consistently leading in innovation. The program supports employability in this high technology area and is particularly designed to reflect the needs of the international workforce in the aerospace and aviation industry.

In the last decade, increasing concerns about the effects that humankind is having on the environment have increasingly changed our priorities in many areas, and aviation is no exception. The Emissions Trading Scheme developed by the European Union, the Carbon Tax implemented in Australia, and the Clear Skies initiative by the US Federal Aviation Authority (FAA) all speak of reducing the impact of aviation on the environment.

The Master of Engineering (Aerospace and Aviation) prepares leaders to understand and implement these important changes in the industry. The program aims to apply modern engineering and technical skills covering a broad range of areas in Aerospace and Aviation. Care has been taken to reflect the international nature of the industry by ensuring the degree has relevance to students from all parts of the world.

Learning and Teaching
RMIT University is committed to providing you with an education that strongly links formal learning with professional or vocational practice. As a student enrolled in this RMIT University program you will:
— undertake and be assessed on structured activities that allow you to learn, apply and demonstrate your professional or vocational practice
— interact with industry and community when undertaking these activities
— complete these activities in real work contexts or situations.

These interactions and the work context provide a distinctive source of feedback to you to assist your learning. Any or all of these aspects of a work-integrated learning (WIL) experience may be simulated.

In this program, you will be doing specific courses that focus on WIL.

Program Structure
The Master consists of 192 credit points. The objectives of this program are to educate you as an aerospace and aviation industry professional who is able to:
— analyse complex engineering assets in the aerospace and aviation environment, and develop engineering, scientific and technological solutions to ensure problem-free operations
— find innovative solutions from an array of possibilities through systematic problem solving and engineering/technological systems design methodologies operating in the aerospace and aviation industry
— analyse and implement novel solutions for aerospace and aviation systems for challenging problems and opportunities
— communicate with a wide range of key aerospace and aviation industry stakeholders in a professional and effective manner
— build, lead and work with teams with trust and respect
— achieve results in an industry characterised by global competition and driven by rapidly changing market forces.

Student Profile

‘It was a lifelong interest in aviation that led me to study at RMIT.

‘The program has given me the ability to think incisively about the aviation world as a dynamic ecosystem, responsive to but influenced by external world forces.

‘Analysing and learning more about the background to airline and aviation operations have been highlights of my time at RMIT, together with the opportunity to work with experienced industry lecturers.

‘I have most enjoyed Airline Operations and Airport Design and Operations—these are fascinating in themselves and fundamental to any understanding of the world of aviation.

‘The program has given me the tools to understand what is happening at the coal-face of work, to think quickly and analyse events with a view to implementing effective solutions.

‘I’m looking forward to a career change and, once I’ve finished studying, working in aviation operations with an airline or airport.’

Kassem Seedat
Master of Engineering (Aerospace and Aviation)*

* Program previously named Master of Aviation Industry Management
The following is an example of courses offered:

### Year One

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>Airworthiness Management Frameworks</td>
<td>12</td>
</tr>
<tr>
<td>Engineering Risk Management in Aviation</td>
<td>12</td>
</tr>
<tr>
<td>Human Factors in Aviation Safety</td>
<td>12</td>
</tr>
<tr>
<td>Select 12 Credit Points</td>
<td></td>
</tr>
<tr>
<td>Aircraft Structural Integrity</td>
<td>12</td>
</tr>
<tr>
<td>Aviation Safety Systems</td>
<td>12</td>
</tr>
<tr>
<td>System Engineering Principles</td>
<td>12</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>Aircraft Maintenance</td>
<td>12</td>
</tr>
<tr>
<td>Airline Operations Management</td>
<td>12</td>
</tr>
<tr>
<td>Engineering Sustainability in Aviation</td>
<td>12</td>
</tr>
<tr>
<td>Select 12 Credit Points</td>
<td></td>
</tr>
<tr>
<td>Avionics</td>
<td>12</td>
</tr>
<tr>
<td>Computer Aided Aircraft Design</td>
<td>12</td>
</tr>
</tbody>
</table>

### Year Two

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>Incident and Accident Investigation</td>
<td>12</td>
</tr>
<tr>
<td>Master’s Research Methods</td>
<td>24</td>
</tr>
<tr>
<td>Select 12 Credit Points</td>
<td></td>
</tr>
<tr>
<td>Advanced Aircraft Structures</td>
<td>12</td>
</tr>
<tr>
<td>Airport Design and Operations</td>
<td>12</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>Full-time Students</td>
<td></td>
</tr>
<tr>
<td>Master’s Research Project</td>
<td>48</td>
</tr>
<tr>
<td>Part-time Students</td>
<td></td>
</tr>
<tr>
<td>Master’s Research Project Part 1</td>
<td>24</td>
</tr>
<tr>
<td>Master’s Research Project Part 2</td>
<td>24</td>
</tr>
</tbody>
</table>

Note: All courses listed may not be available each semester.

### Career

The Asian region is the key growth area in the Aviation market, where double digit growth rates in air traffic exist in China, Hong Kong and Singapore. Massive passenger growth means more aircraft, larger and more airports, and larger and new airlines. All of these lead to more aerospace engineers, and more aviation-related employees who will need more leaders as these areas grow. This program is intended to provide graduates with advanced skills to be leaders in this area.

### Entry Requirements

— An Australian bachelor degree with a GPA of at least 2.5 out of 4.0 in aerospace or mechanical engineering or aviation science, or equivalent; or

— An Australian bachelor degree from an engineering or science discipline with a GPA of at least 2.5 out of 4.0 and at least three years of relevant professional experience in aerospace/aviation industry-related company or organisation in managerial and/or engineering roles (e.g. aeronautical products design and certification, continuing airworthiness management, aircraft maintenance, aerospace research and development, air traffic control, aircraft piloting, etc.), or equivalent; or

— Experienced professionals without formal academic qualifications shall be considered on a case-by-case basis. Professional experience includes at least ten years work experience as a Licensed (Civil or Military):
  — Airline transport (or military aircraft) pilot, including management roles (e.g. chief pilot, staff officer, etc); or
  — Air traffic controller, including management roles; or
  — Aircraft maintenance engineer, including engineering and management roles (e.g. airworthiness manager, quality control/assurance officer, etc.)

### How to Apply

Apply directly to RMIT University


Please refer to How to Apply on page 31 for details.

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**Further Information**

Dr Kyriakos Kourousis, Program Director
School of Aerospace, Mechanical and Manufacturing Engineering
Tel. +61 3 9925 8066
Email: kyriakos.kourousis@rmit.edu.au

www.rmit.edu.au/aeromecheng

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**Student Profile**

‘I am fascinated by aircraft and wanted to gain an understanding of managing airports and airlines. I chose RMIT for its reputation in teaching and research within the field of aerospace and aviation.

‘So far, the highlight of my program has been the opportunity to gain first-hand experience of operations within the industry.

‘After I finish my studies, I see myself working on strategic and sustainable solutions towards the aviation industry.’

**Meenakshi Balan**

Master of Engineering (Aerospace and Aviation)*

* Program previously named Master of Aviation Industry Management
Master of Engineering (Electrical and Electronic Engineering)

The Master of Engineering (Electrical and Electronic Engineering) enables engineering graduates to advance their careers. In this postgraduate degree, you will broaden and sharpen your technical skills in electrical, electronic, telecommunication, computer and network engineering. You will also enhance your professional skills in research, communication, teamwork, leadership and management.

Learning and Teaching
Course contact is generally in the afternoon and evening to fit in with work commitments of part-time students.
Classes are taught by experts in their fields. There is a strong emphasis on laboratory work and professional engineering projects to put theory into practice and to enhance research, teamwork, leadership, communication and project management skills.

Program Structure
The Master consists of 192 credit points. Besides compulsory core courses, you have the opportunity to select technical electives in electrical, electronic, telecommunication, network and computer engineering to match your career goals. In both years of the Master you will undertake major engineering projects to apply the technical skills learnt through coursework, and to improve teamwork and communication skills.

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Master</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Circuit and System Simulation</td>
<td>12</td>
</tr>
<tr>
<td>Computer Robotics Control</td>
<td>12</td>
</tr>
<tr>
<td>Digital Design Automation</td>
<td>12</td>
</tr>
<tr>
<td>Digital Signal Processing</td>
<td>12</td>
</tr>
<tr>
<td>Digital System Design PG</td>
<td>12</td>
</tr>
<tr>
<td>Electrical Energy Conversion</td>
<td>12</td>
</tr>
<tr>
<td>Engineering PG</td>
<td>12</td>
</tr>
<tr>
<td>Image Systems Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Mobile and Personal Communication Systems</td>
<td>12</td>
</tr>
<tr>
<td>Network Access Systems</td>
<td>12</td>
</tr>
<tr>
<td>Network Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Network Management and Security</td>
<td>12</td>
</tr>
<tr>
<td>Optical Fibre Technology</td>
<td>12</td>
</tr>
<tr>
<td>Power System Analysis and Control</td>
<td>12</td>
</tr>
<tr>
<td>Professional Engineering Project</td>
<td>24</td>
</tr>
<tr>
<td>Professional Engineering Advanced Project</td>
<td>24</td>
</tr>
<tr>
<td>Professional Industrial Experience</td>
<td>12</td>
</tr>
<tr>
<td>Project Management and Entrepreneurship</td>
<td>12</td>
</tr>
<tr>
<td>Real Time Systems Design</td>
<td>12</td>
</tr>
<tr>
<td>Renewable Electrical Energy Systems</td>
<td>12</td>
</tr>
<tr>
<td>Research Methods</td>
<td>24</td>
</tr>
<tr>
<td>RF and Mixed Signal Design</td>
<td>12</td>
</tr>
<tr>
<td>Satellite Communication Systems Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Sensors and Measurement Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Statistical Methods</td>
<td>12</td>
</tr>
</tbody>
</table>

Industry Connections
Industry plays a vital role in the development, delivery and assessment of the program through membership of the School Program Advisory Committee (PAC), which comprises industry representatives, academic staff and alumni.
In addition to the PAC, the School has extensive links with industry, particularly through laboratories that incorporate work-integrated learning through research projects, consulting and industry-sponsored student design projects.
Notable industry links for this program are:
- Dyne Industries Pty Ltd
- API (The Australian Power Institute)
- AEMO (Australian Energy Market Operator)
- United Energy
- NHP Electrical Engineering Products Pty Ltd
- SP Ausnet
- Telstra
- Ericsson
- National Instruments.

Career
Graduates are equipped with leading-edge technical knowledge, complemented by enhanced professional skills in research, communication, teamwork, leadership and management. In the private sector, they may work in the design, manufacture and supply of engineering devices, systems and services as technical experts, technical or business managers, or executive officers. In the public sector, they may develop essential services for the community in areas such as telecommunications, networks, energy, transportation, security, defence, health, education, emergency services and environment protection.
Graduates may also establish their own businesses in local and global markets, or undertake higher studies by research.

Fees and Scholarships
Please refer to Fees List on page 29 and Money Matters on page 30.

URL
www.rmit.edu.au/programs/mc180
Professional Recognition
Provisional accreditation by Engineers Australia has been granted for this Master program. Full accreditation is expected in the near future. Accreditation enables graduates to be recognised as professional engineers in all member countries of the Washington Accord.

Pathway
Graduates of this postgraduate degree may apply for higher studies by research. You may be eligible for advanced standing based on industry experience or academic results in your previous studies.

Entry Requirements
- An Australian bachelor degree with a GPA of at least 2.0 out of 4.0 in Engineering (computer, electronic, telecommunications, electrical, communication, network) or equivalent.
- International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to Apply
Apply directly to RMIT University www.rmit.edu.au/programs/apply/direct.
Please refer to How to Apply on page 31 for details.

Further Information
School of Electrical and Computer Engineering
Tel. +61 3 9925 2090
Email: eleceng@rmit.edu.au
www.rmit.edu.au/eleceng
The power engineering and energy industry sectors are experiencing steady growth worldwide. The Master of Engineering (Electrical Engineering) is designed for electrical engineering graduates who want to acquire specialised knowledge of the latest advancements in the field of power engineering. The Master is also suitable for graduates from other disciplines who want to move into the power engineering and/or energy sectors.

At all levels of the postgraduate degree you will focus on technical areas of electrical engineering, including renewable energy and high voltage systems. These technical studies are complemented by a focus on further developing professional skills in teamwork, communication and management.

Learning and Teaching

Classes are taught by experts in their fields. There is a strong emphasis on laboratory work and professional engineering projects to put theory into practice and to enhance research, teamwork, leadership, communication and project management skills.

Program Structure

RMIT University is committed to providing you with an education that strongly links formal learning with professional or vocational practice. As a student enrolled in this RMIT University program you will:

- undertake and be assessed on structured activities that allow you to learn, apply and demonstrate your professional or vocational practice
- interact with industry and community when undertaking these activities
- complete these activities in real work contexts or situations.

These interactions and the work context provide a distinctive source of feedback to you to assist your learning.

Any or all of these aspects of a work-integrated learning experience may be simulated.

In the first year of the program you will undertake the Professional Engineering Project. You will work within a team on a project under the guidance of a professional engineer (usually an academic mentor). The project will require the team to work together to achieve a working product. You will be expected to act in more than one role in the team at different times to expand your experience and capabilities.

In the second year, you will undertake the Professional Engineering Advanced Project. You will spend two semesters working on an individual project to further develop your research, design, and project managing skills.

With many of the projects you may have the opportunity to work within the local engineering industry.

These courses provide realistic work situations allowing you to learn, apply and demonstrate professional engineering practice.

In some of the core courses such as Protection and High Voltage Engineering, and Renewable Electrical Engineering Systems talks by guest speakers from the industry as well as site visits to industrial sites such as power plants and substations will be conducted as part of the course delivery.

Program Code

MC235

Campus

City campus

Duration

- 1–1.5 years full-time or equivalent part-time (with advanced standing)
- 2 years full-time or 4 years part-time (without advanced standing)

Midyear places may be available.

Fees and Scholarships

Please refer to Fees List on page 29 and Money Matters on page 30.

URL

www.rmit.edu.au/programs/mc235

The Master consists of 192 credit points. This incorporates the Graduate Diploma (96 credit points).

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Master</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Power Systems</td>
<td>12</td>
</tr>
<tr>
<td>Antennas for Mobile and Satellite Communications PG</td>
<td>12</td>
</tr>
<tr>
<td>Audio Engineering (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Bioelectromagnetism</td>
<td>12</td>
</tr>
<tr>
<td>Biosignal Processing and Computing</td>
<td>12</td>
</tr>
<tr>
<td>Circuit and System Simulation (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Computer Robotics Control</td>
<td>12</td>
</tr>
<tr>
<td>Digital Design Automation</td>
<td>12</td>
</tr>
<tr>
<td>Digital Signal Processing</td>
<td>12</td>
</tr>
<tr>
<td>Electrical Energy Conversion</td>
<td>12</td>
</tr>
<tr>
<td>Electrical Transport Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Electronic Manufacturing (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Electronic Materials</td>
<td>12</td>
</tr>
<tr>
<td>Image Systems Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Industrial Automation</td>
<td>12</td>
</tr>
<tr>
<td>Intelligent Systems</td>
<td>12</td>
</tr>
<tr>
<td>Internet Communication Engineering (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Introduction to Electrical Building Design</td>
<td>12</td>
</tr>
<tr>
<td>Medical Engineering and Instrumentation (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Microcomputer Systems Design</td>
<td>12</td>
</tr>
<tr>
<td>Microwave Circuits</td>
<td>12</td>
</tr>
<tr>
<td>Mobile and Personal Communications Systems Engineering PG</td>
<td>12</td>
</tr>
<tr>
<td>Network Design and Performance</td>
<td>12</td>
</tr>
<tr>
<td>Network Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Optical Fibre Communication Systems PG</td>
<td>12</td>
</tr>
<tr>
<td>Optical Fibre Technology PG</td>
<td>12</td>
</tr>
<tr>
<td>Power Electronic Converters</td>
<td>12</td>
</tr>
<tr>
<td>Power System Analysis and Control</td>
<td>12</td>
</tr>
<tr>
<td>Project Management and Entrepreneurship (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Project Management and Technical Risk</td>
<td>12</td>
</tr>
<tr>
<td>Protection and High Voltage Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Radar Systems 1</td>
<td>12</td>
</tr>
<tr>
<td>Radar Systems 2</td>
<td>12</td>
</tr>
<tr>
<td>Real Time Estimation and Control</td>
<td>12</td>
</tr>
<tr>
<td>Real Time Systems Design</td>
<td>12</td>
</tr>
<tr>
<td>Renewable Electrical Energy Systems</td>
<td>12</td>
</tr>
<tr>
<td>Research Methods</td>
<td>12</td>
</tr>
<tr>
<td>Research Project</td>
<td>48</td>
</tr>
<tr>
<td>Satellite Communication Systems Engineering (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Semiconductor Device Fabrication (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Sensors and Measurement Technologies</td>
<td>12</td>
</tr>
<tr>
<td>Switched Mode Power Supplies</td>
<td>12</td>
</tr>
<tr>
<td>Variable Speed Drives</td>
<td>12</td>
</tr>
</tbody>
</table>
Industry Connections

Industry plays a vital role in the development, delivery and review of the program through membership of the School Program Advisory Committee (PAC). Other members of the PAC include alumni and academic staff.

In addition to the PAC, the School has extensive links with industry, particularly through laboratories that incorporate work-integrated learning, through research projects, consulting, and through industry-sponsored student design projects.

Notable industry links for this program are:
- Dyne Industries Pty Ltd
- API (The Australian Power Institute)
- AEMO (Australian Energy Market Operator)
- United Energy
- NHP Electrical Engineering Products Pty Ltd
- Analog Devices Australia
- Futuris Automotive Interiors.

Career

Graduates of these programs will combine leading-edge knowledge and skills in power engineering with effective business skills in communication, teamwork and management. This combination ensures graduates are well prepared for career advancement and leadership roles in the power industry.

The sectors of smart grid technology and renewable energy are experiencing rapid growth. As a result, the field of power engineering has a strong employment market, offering a range of opportunities to electrical engineers.

Electrical engineers work in the electrical supply industry where their knowledge of transformers, motors and generators is needed across all areas of operations.

Public transport providers also need electrical engineers to develop and maintain the systems that keep trains running and signals operating.

With a push to modernise railway infrastructure, engineers are in demand.

Robots and automation have long been part of the manufacturing industry. Electrical engineers are now called upon to design and develop next generation control systems.

With an increasing focus on renewable energy, electrical engineers are in a position to be part of the transformation to renewable energy sources.

Pathway

You may be eligible for advanced standing based on industry experience or academic results in your previous studies.

Entry Requirements

- An Australian bachelor degree with a GPA of at least 2.0 out of 4.0 in engineering (computer, electronic, telecommunications, electrical, communication, or network), or equivalent; or
- An Australian bachelor degree with a GPA of at least 2.0 out of 4.0 in physics (electromagnetic theory), or equivalent; or
- An Australian bachelor degree in any discipline with a GPA of at least 2.0 out of 4.0 and at least five years work experience in the computer, electronic, telecommunications, electrical, communication or network engineering industry, or equivalent.

Applicants applying on the basis of work experience are expected to have skills in analysis, design, and management within the computer, electronic, telecommunications, electrical communication or network engineering industry.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to Apply

Apply directly to RMIT University

Please refer to How to Apply on page 31 for details.

Further Information

School of Electrical and Computer Engineering
Tel. +61 3 9925 2090
Email: eleceng@rmit.edu.au
www.rmit.edu.au/eleceng
Master of Engineering (Electronic Engineering)

Program code
MC233

Campus
City campus

Duration
— 1–1.5 years full-time or equivalent part-time (with advanced standing)
— 2 years full-time or 4 years part-time (without advanced standing)
Midyear places may be available.

Fees and Scholarships
Please refer to Fees List on page 29 and Money Matters on page 30.

URL
www.rmit.edu.au/programs/mc233

Engineering and science are dynamic fields. The Master of Engineering (Electronic Engineering) gives graduates from electronic, telecommunications, computer, and electrical engineering or related studies the opportunity to acquire specialised knowledge of advancements in electronic engineering. Qualified technologists with relevant industrial experience are encouraged to apply.

Courses go beyond the theory of recent engineering developments, paying particular attention to developing your professional abilities, and focusing on technical, personal and business skills. As a result, you will be well equipped for leadership roles in business and industry.

Learning and Teaching

Classes are taught by experts in their fields. There is a strong emphasis on laboratory work and professional engineering projects to put theory into practice and to enhance research, teamwork, leadership, communication and project management skills.

Program Structure

RMIT University is committed to providing you with an education that strongly links formal learning with professional or vocational practice. As a student enrolled in this RMIT University program you will:
— undertake and be assessed on structured activities that allow you to learn, apply and demonstrate your professional or vocational practice
— interact with industry and community when undertaking these activities
— complete these activities in real work contexts or situations
— have a distinctive source of feedback to you to assist your learning through the above interactions and work context of the program.

Work-integrated learning (WIL) experience will be simulated during the program.

These courses provide realistic work situations allowing you to learn, apply and demonstrate professional engineering practice.

The Master consists of 192 credit points. This incorporates the Graduate Diploma (96 credit points). In the first year of the program you will take core courses on various areas of system and device design, application materials and fabrication technology as well as elective courses from an approved list. You will also undertake projects that focus on professional engineering practices.

In the second year, you will also undertake core and elective courses and project courses that are either an advancement on the professional engineering projects of year one, or a large research project. If you’re already working in an area related to your research topic, the project can be aligned to the work you are doing.

Elective courses include embedded system design, digital system design, integrated optics, microfluidics and project management. You also have the option within these electives to study project design and problem-solving.

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Master</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advances and Applications of Micro-and Nano-Technologies</td>
<td>12</td>
</tr>
<tr>
<td>Antennas for Mobile and Satellite Communications PG</td>
<td>12</td>
</tr>
<tr>
<td>Audio Engineering (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Circuit and System Simulation (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Computer Robotics Control</td>
<td>12</td>
</tr>
<tr>
<td>Digital Signal Processing</td>
<td>12</td>
</tr>
<tr>
<td>Digital System Design (PG)</td>
<td>12</td>
</tr>
<tr>
<td>EDA Tools and Design Methodologies (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Electrical Energy Conversion</td>
<td>12</td>
</tr>
<tr>
<td>Electrical Transport Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Electronic Materials</td>
<td>12</td>
</tr>
<tr>
<td>Electronic Systems for Automotive Applications</td>
<td>12</td>
</tr>
<tr>
<td>Embedded System Design (PG)</td>
<td>12</td>
</tr>
<tr>
<td>HDL and High Level Synthesis (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Image Systems Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Integrated Circuit Design (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Integrated Optics</td>
<td>12</td>
</tr>
<tr>
<td>Internet Communication Engineering (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Introduction to Electrical Building Design</td>
<td>12</td>
</tr>
<tr>
<td>Microcomputer Systems Design</td>
<td>12</td>
</tr>
<tr>
<td>Microelectronic Minor Project</td>
<td>24</td>
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<tr>
<td>Microfluidics and Lab-on-a-Chip Devices</td>
<td>12</td>
</tr>
<tr>
<td>Microsystems Technology (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Microwave Circuits</td>
<td>12</td>
</tr>
<tr>
<td>Mobile and Personal Communications Systems Engineering PG</td>
<td>12</td>
</tr>
<tr>
<td>Network Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Optical Fibre Communication Systems PG</td>
<td>12</td>
</tr>
<tr>
<td>Optical Fibre Technology PG</td>
<td>12</td>
</tr>
<tr>
<td>Power Electronic Converters</td>
<td>12</td>
</tr>
<tr>
<td>Power System Analysis and Control</td>
<td>12</td>
</tr>
<tr>
<td>Professional Engineering Project</td>
<td>12</td>
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<tr>
<td>Professional Engineering Advanced Project</td>
<td>12</td>
</tr>
<tr>
<td>Project Management and Entrepreneurship (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Research Methods</td>
<td>12</td>
</tr>
<tr>
<td>Radar Systems 1</td>
<td>12</td>
</tr>
<tr>
<td>Radar Systems 2</td>
<td>12</td>
</tr>
<tr>
<td>Radio Communication Systems Engineering PG</td>
<td>12</td>
</tr>
<tr>
<td>Real Time Systems Design</td>
<td>12</td>
</tr>
<tr>
<td>Research Project</td>
<td>48</td>
</tr>
<tr>
<td>Satellite Communication Systems Engineering (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Semiconductor Device Fabrication (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Semiconductor Physics and Materials</td>
<td>12</td>
</tr>
<tr>
<td>Sensors and Measurement Technologies</td>
<td>12</td>
</tr>
<tr>
<td>Variable Speed Drives</td>
<td>12</td>
</tr>
</tbody>
</table>
Industry Connections

Industry plays a vital role in the development, delivery and review of the program through membership of the School Program Advisory Committee (PAC). Other members of the PAC include alumni and academic staff.

In addition to the PAC, the School has extensive links with industry, particularly through laboratories that incorporate work-integrated learning, through research projects, consulting, and through industry-sponsored student design projects. Notable industry links for this program are:

— Dyne Industries Pty Ltd
— United Energy
— NHP Electrical Engineering Products Pty Ltd
— Analog Devices Australia
— Futuris Automotive Interiors
— NEC Australia
— National Instruments
— SEW-Eurodrive
— IEEE (Institute Electrical and Electronic Engineering)

Career

Graduates who complete this postgraduate degree will have extensive knowledge and skills in electronic engineering. They will have also developed complementary business skills in communication, teamwork and management. It is often stated that engineers make the best project managers.

In the private sector, graduates may work in the design, manufacture and supply of electronic products; in energy, mining, systems and services as technical experts; as business managers, and executive officers.

Graduates may choose to establish their own business operating in the local and international electronic market.

In the public sector, electronic engineers work on essential services such as telecommunications, transportation, security, defence, health, emergency services and the environment. Many graduates also undertake further studies in research and development—often continuing to PhD programs.

Pathway

You may be eligible for advanced standing based on industry experience or academic results in your previous studies.

Entry Requirements

— An Australian bachelor degree with a GPA of at least 2.0 out of 4.0 in engineering (computer, electronic, telecommunications, electrical, communication or network), or equivalent; or
— An Australian bachelor degree with a GPA of at least 2.0 out of 4.0 in physics (electromagnetic theory), or equivalent; or
— An Australian bachelor degree in any discipline with a GPA of at least 2.0 out of 4.0 and at least five years work experience in the electronic engineering industry, or equivalent.

Applicants applying on the basis of work experience are expected to have skills in analysis, design, and management within the electronic engineering industry.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to Apply

Apply directly to RMIT University
Please refer to How to Apply on page 31 for details.

Further Information

School of Electrical and Computer Engineering
Tel. +61 3 9925 2090
Email: eleceng@rmit.edu.au
www.rmit.edu.au/eleceng
The Master of Engineering (Integrated Logistics Management) is a postgraduate, vocationally oriented program for practising managers in the field of integrated logistics management. It equips you with the knowledge and skills needed to master the modern integrated logistics environment, and to successfully operate within it. The objectives of the program are to provide you with the capability to strategically review, plan and manage a logistics supply chain system with specific reference to financial, operational, control, integrated management criteria and its strategy throughout the programmed life cycle.

There is a significant growth in the manufacturing and distribution sectors in South East Asia (and Asia in general), especially in China, India and Thailand, where manufacturing and logistics industries are booming. This growth has increased the demand for integrated logistics professionals with advanced skill levels.

Learning and Teaching

The coursework and major research project are designed to give both depth and breadth to your studies. Each stage is provided in flexible delivery modes to allow you to combine continuing education with your work schedule.

Your learning experiences will contain a broad mix of study modes, including lectures, presentation seminars, tutorials and written assignments.

Program Structure

RMIT University is committed to providing you with an education that strongly links formal learning with professional or vocational practice. As a student enrolled in this program you will:

- undertake and be assessed on structured activities that allow you to learn, apply and demonstrate your professional or vocational practice
- interact with industry and community when undertaking these activities
- complete these activities in real work contexts or situations.

In addition, these interactions and the work contexts provide distinctive sources of feedback to you to assist your learning.

As part of the WIL requirement, the project dissertation will be examined and assessed by an industry practitioner in your area of research, in addition to an academic examiner. The industry practitioner will be appointed by RMIT to provide work-related assessment of your project.

Also, in the Integrated Logistics Support, Logistics Engineering and Systems and Project Management courses, assessment of your professional work will also include feedback from clients in industry and community, which provides an integral element to the experience.

The Master consists of 192 credit points. The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Master</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting for Management Decisions</td>
<td>12</td>
</tr>
<tr>
<td>Building Quality Organisations</td>
<td>12</td>
</tr>
<tr>
<td>E-business Supply Chains</td>
<td>12</td>
</tr>
<tr>
<td>Engineering Economic Strategy</td>
<td>12</td>
</tr>
<tr>
<td>Integrated Logistics Support Management</td>
<td>12</td>
</tr>
<tr>
<td>International Engineering Management</td>
<td>12</td>
</tr>
<tr>
<td>Introduction to Systems Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Logistics Engineering and Systems</td>
<td>12</td>
</tr>
<tr>
<td>Project Management</td>
<td>12</td>
</tr>
<tr>
<td>Research Investigations and Analysis</td>
<td>12</td>
</tr>
<tr>
<td>Research Methods</td>
<td>24</td>
</tr>
<tr>
<td>Risk and Technology Decisions</td>
<td>12</td>
</tr>
<tr>
<td>Strategic Marketing</td>
<td>12</td>
</tr>
<tr>
<td>Supply Chain Principles</td>
<td>12</td>
</tr>
<tr>
<td>System Simulation and Characterisation</td>
<td>12</td>
</tr>
</tbody>
</table>
Industry Connections
The School of Aerospace, Mechanical and Manufacturing Engineering maintains strong local and international links with industry through the advice of the Manufacturing and Materials Program Advisory Committee. The Program Advisory Committee has representation from manufacturing, automation systems, logistics and engineering companies, and research centres.

Career
The degree produces graduates who can contribute as professionals in the rapidly expanding field of logistics management.

Professional Recognition
The award is recognised by the International Society of Logistics (SOLE).

Pathway
You may be eligible for advanced standing based on industry experience or academic results in your previous studies.

Entry Requirements
— An Australian bachelor degree or equivalent in any discipline in engineering, science or business; or
— An Australian bachelor degree in any discipline with a GPA of at least 2.0 out of 4.0 and at least five years work experience in the manufacturing, logistics or supply chain management industry, or equivalent.
— Applicants applying on the basis of work experience are expected to have skills in analysis, design, and management of engineering projects within the industrial, manufacturing, logistics, and supply chain industry.
International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to Apply
Apply directly to RMIT University www.rmit.edu.au/programs/apply/direct.
Please refer to How to Apply on page 31 for details.

Further Information
Dr Arun Kumar
School of Aerospace, Mechanical and Manufacturing Engineering
Tel. +61 3 9925 4328
Email: a.kumar@rmit.edu.au
www.rmit.edu.au/aeromecheng
Master of Engineering (International Automotive Engineering)

Increasing reliance on technology in the automotive industry has led to government and regulatory bodies imposing stringent environmental and safety standards on automobile manufacturers. As a result, there is a worldwide need to increase the knowledge and skill levels of the automotive industry.

The Master of Engineering (International Automotive Engineering) provides students with an in-depth understanding of engineering within the automotive production life cycle. It exposes students to state-of-the-art infrastructure and different work ethics by providing the opportunity to carry out work experience or research projects at multinational automotive companies worldwide.

The degree focuses on new sustainable design and manufacturing practices based on the entire life cycle (from ‘cradle to grave’) of vehicles. This incorporates the design for disposal and recycle, disassembly, life-cycle assessment, alternative fuels and powertrains, and light structures.

Learning and Teaching

The integration of classroom learning and workplace experience provides students with the opportunity to apply their knowledge and problem-solving skills in a real workplace setting. The program will provide a vibrant and active learning environment. A diverse range of resources will be available in terms of staff and infrastructure to ensure a high standard delivery of the program. The School plays a major role in the new Automotive Cooperative Research Centre (AutoCRC), whereby academic staff and full-time research staff are continuously upgrading your skills through close collaboration with industry.

You will also have access to visiting staff from overseas industry and universities, with appropriate qualifications and professional experience, and who are well-versed in current and future trends in the global automotive industry. In addition, embedded in this program (and available to you) is a comprehensive work placement program that incorporates research experience at leading automotive companies worldwide.

Program Structure

The Master consists of 192 credit points. RMIT is committed to providing students with an education that strongly links formal learning with workplace experience. As a student enrolled in an RMIT program you will:

- undertake and be assessed on a structured activity that allows you to learn, apply and demonstrate your professional or vocational practice
- interact with industry and community when undertaking this activity
- complete an activity in a work context or situation that may include teamwork with other students from different disciplines
- underpin your learning with feedback from interactions and contexts distinctive to workplace experiences

In this program, you will be doing specific course(s) that focus on work-integrated learning (WIL). You will be assessed on professional or vocational work in a workplace setting (real or simulated) and receive feedback from those involved in industry with capital intensive assets and engineering systems.

In the following courses you will work with practitioners in the automotive industry environment, using complex software and equipment, analysing real automotive design and manufacturing case studies, and proposing and evaluating new automotive designs:

- Automotive Materials
- Management of Automotive Design and Development
- Management of Automotive Manufacturing Processes
- Vehicle Noise Vibration Harshness.

The capstone Master's Research Project, which is undertaken in the second year of the Master degree, involves WIL through an industry-based project.

Fees and Scholarships

Please refer to Fees List on page 29 and Money Matters on page 30.

URL

www.rmit.edu.au/programs/mc230

Industry Connections

The Master of Engineering (International Automotive Engineering) has been approved for delivery in Singapore, and also utilises RMIT's strong links with the University ofIngolstadt, AutoCRC, Ford Australia, General Motors Holden, Pacifica, Futuris, and SAE Australasia.

Career

Graduates will be able to work effectively as automotive engineering specialists, leading technological innovation in cross-disciplinary teams. They will be able to work effectively within, and between geographically and culturally diverse settings with a broad understanding of the complex automotive supply chain and logistics involved. In catering for local and international students, this program offers the flexibility for specialisation in automotive design and development as well as in automotive manufacturing engineering processes. It develops the specialised automotive engineering skills that are currently in short supply, but are increasingly in high demand by the automotive industry.

Global Connections

The Master of Engineering (International Automotive Engineering) has been approved for delivery in Singapore, and also utilises RMIT's strong links with the University of Applied Sciences in Ingolstadt, Germany.

Students who select to pursue the RIIERP program will have the opportunity for a six-month industry placement with a major overseas automotive manufacturer or supplier such as Volkswagen, Audi, BMW, Bosch or Siemens.

Pathway

You may be eligible for advanced standing based on industry experience or academic results in your previous studies.
Entry Requirements

— An Australian bachelor degree with a GPA of at least 2.0 out of 4.0 in aerospace, mechanical, manufacturing, mechatronics, sustainable systems or automotive engineering, or equivalent; or
— An Australian bachelor degree in any discipline with a GPA of at least 2.0 out of 4.0 and at least five years work experience in the aerospace, mechanical, manufacturing, mechatronics, sustainable systems or automotive industry, or equivalent.
— Applicants applying on the basis of work experience are expected to have skills in analysis, design, and management of engineering projects within the aerospace, mechanical, manufacturing, mechatronics, sustainable systems or automotive industries.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to Apply

Apply directly to RMIT University
Please refer to How to Apply on page 31 for details.

Further Information

Dr Monir Takla
School of Aerospace, Mechanical and Manufacturing Engineering
Tel. +61 3 9925 6094
Email: monir.takla@rmit.edu.au
www.rmit.edu.au/aeromecheng

Graduate Profile

‘My experience at RMIT has given me the opportunity to put together the theory and practice of advanced conceptual engineering. At RMIT, you’re taught to be ambitious while taking a practical approach to engineering.

‘I chose RMIT because of the collaborative work and active engagement with industry. It also gave me the opportunity to work with state-of-the-art, industrial standard-scale facilities and equipment.

‘My program has given me advanced analytical skills, including an understanding of the lifecycle cost for automotive manufacturing and management. I have also gained technical skills through hands-on experience in automotive engineering design, analysis, fabrication and processes. This covered the early phases of computer engineering simulation modelling, up to applying prototyping tools and creating an actual product.

‘I’ve also enjoyed the opportunity to learn from many high-calibre academics and industry experts who have lectured as part of the program. This has ensured that all the courses are industry relevant and that project work has comprehensively covered theoretical to conceptual applications and stresses in practical aspects of engineering.

‘I’ve always been passionate about engineering, and with automotive engineering you get to work in an industry that literally moves people around the world.’

Abdul Qaiyum Alidin
Master of Engineering (International Automotive Engineering)
The International Sports Technology program aims to provide you with an in-depth understanding of scientific and engineering disciplines related to the holistic context of modern sports technology, encompassing:

— Performance enhancement with smart solutions
— Design customisation
— Injury prevention
— Sustainable design and manufacturing.

The engineering and scientific disciplines involve mechanical, materials, manufacturing, aerospace, electrical, chemical, biomedical and construction engineering, sports science, business, textile technology, media studies and mathematics.

Learning and Teaching

The program will provide a vibrant and active learning environment. The School plays a major role in the SportzEdge program under the Platform Technologies Institute, whereby academic staff and full-time research staff are continuously upgrading your skills through close collaboration with industry and sports organisations. You will learn from industry professionals from a wide range of technology and management sectors who will share their insights into the development of medal-winning products, successful Olympic bidding processes, the management and organisation of international sporting events, and innovative product design.

You will also have access to visiting staff from overseas industry and universities, with appropriate qualifications and professional experience, well versed in current and future trends in the global sports industry.

The postgraduate degree includes intensive laboratory work, from classroom-integrated projects to practical work in world-leading facilities, such as RMIT’s large industrial wind tunnel. You will gain skills in problem-solving and innovative thinking along with extensive knowledge in developing sports products, and special skills in developing methods and tools for the improvement of training and assessment of performance.

Program Structure

The Master consists of 192 credit points.

The first semester provides the foundation courses for sports technology: Sports Materials (extending to intelligent and nano-materials), Sports Analytics (including performance statistics, match analysis, and forecasting), Sports Biomechanics (including muscle and joint mechanics, and movement analysis) and Sports Management (including managing international sports events, entrepreneurship and innovation, and sports business leadership).

The second semester covers the core courses of sports technology, providing theory and hands-on experience in designing a smart cricket ball for training purposes (Sports Measurements and Instrumentation), testing and optimising snowboards and wheelchairs (Design and Mechanics of Sports Equipment), developing energy transfer shoes (Design and Technology of Sports Shoes and Apparel), and wind tunnel testing of sports balls and winter sport garments (Sports Aerodynamics and Hydrodynamics).

The third semester includes the Research Methods course, which serves as the starting point of the master thesis research project, as well as two electives (Design and Management of Sports Facilities, Sustainable Manufacturing of Sports Products, Exertion Games, or Sports Nutrition).

Alternatively the entire third semester can be completed as a placement with an international sports company or organisation.

The last semester is devoted to the Master Research Project and writing the thesis. This project can be carried out at RMIT University or at a partner sports company or organisation.

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Master</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and Management of Sports Facilities</td>
<td>12</td>
</tr>
<tr>
<td>Design and Mechanics of Sports Equipment</td>
<td>12</td>
</tr>
<tr>
<td>Design and Technology of Sports Shoes and Apparel</td>
<td>12</td>
</tr>
<tr>
<td>Exertion Games</td>
<td>12</td>
</tr>
<tr>
<td>International Industry Experience 2</td>
<td>48</td>
</tr>
<tr>
<td>Master Research Project</td>
<td>48</td>
</tr>
<tr>
<td>Research Methods</td>
<td>24</td>
</tr>
<tr>
<td>Sports Aerodynamics and Hydrodynamics</td>
<td>12</td>
</tr>
<tr>
<td>Sports Analytics</td>
<td>12</td>
</tr>
<tr>
<td>Sports Biomechanics</td>
<td>12</td>
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<tr>
<td>Sports Management</td>
<td>12</td>
</tr>
<tr>
<td>Sports Materials</td>
<td>12</td>
</tr>
<tr>
<td>Sports Measurements and Instrumentation</td>
<td>12</td>
</tr>
<tr>
<td>Sports Nutrition</td>
<td>12</td>
</tr>
<tr>
<td>Sustainable Manufacturing of Sports Products</td>
<td>12</td>
</tr>
</tbody>
</table>
Industry Connections
The global sports industry is an expanding industry worth approximately US$800 billion. Steady growth of the sports equipment sector is 2.5 times faster than the growth of general consumer spending, and the global sports industry is growing faster than the overall GDP. This postgraduate degree, the first of its kind in the southern hemisphere, provides you with the skills to undertake leading roles in the international sports industry and sports organisations, and equips you with an in-depth understanding of the engineering disciplines relevant for developing innovative sports products.

Staff have held leading positions in international sports technology and engineering organisations which include president of the International Sports Engineering Association (ISEA); members of the ISEA Executive Committee; editors-in-chief and editorial board members of international sports technology and engineering journals; organisers of international sports technology and engineering conferences; and co-founders of the Australian Sports Technologies Network.

Throughout the program, you will work on industry-based projects with leading sports equipment companies such as Mizuno, Asics, Adidas, Nike, Kookaburra and Burton, as well as local and international sports organisations such as the Australian Institute of Sport, Cricket Australia, Tennis Australia, the AFL, and the International Paralympic Committee.

Career
Considering the size of the rapidly growing global sports market, graduates will be able to work effectively as leading sports technology specialists in multi- and trans-disciplinary teams within the global sports industry and sports organisations, and between geographically and culturally diverse settings. The flexible approach to sports technology will cater for specialisation in:

- sports industry: leading and senior positions in research and development departments, or in product development and management
- sports organisations: high-performance managers, head coaches or senior biomechanists (capable of innovative product and method design and development).

Global Connections
Options for study abroad are:

- International Industry Experience 2 under RIIERP with a one-semester placement in sports industry or sports organisations [www.rmit.edu.au/riierp]
- Master research project: one-semester placement in sports industry or sports organisations involved in research collaboration with RMIT University
- Double master degree program with a European university, studying two semesters at RMIT and two semesters at a European partner university, earning a master degree from each university.

This program supports student and staff mobility between RMIT and collaborating universities worldwide (e.g. University of Applied Science in Vienna, Austria; German Sports University, Cologne).

Professional Recognition
The International Sports Engineering Association (ISEA) is currently developing an international accreditation system for sports technology and engineering courses. Graduates of this program are likely to be accredited on graduation.

Pathway
You may be eligible for advanced standing based on industry experience or academic results in your previous studies.

Research Story
RMIT University, in collaboration with Kookaburra and Cricket Australia, is developing a smart cricket ball that targets the improvement of bowling skills and provides a multitude of previously unassessable performance parameters.

‘This research and, in general, the development of smart sports equipment at RMIT University, will put Australia at the forefront of shaping the future of sport, preparing future generations of elite athletes, encouraging participation in sport, improving health and lifestyle, providing exciting spectator experiences, and identifying talents.’

Professor Franz Konstantin Fuss
Program Director
Master of Science (International Sports Technology)

Entry Requirements
To enrol in the Master of Science (International Sports Technology), a bachelor, master or doctoral degree in one of the following areas is mandatory:

- Engineering—BEng or MEng or PhD
- Science—BSc or MSc or PhD in the areas of human movement, exercise and sport science, physical education, sport coaching, physiotherapy, disability, nursing, biology, mathematics, pure sciences, applied sciences
- Medicine—MBBS, MD.

Relevant work experience in industry or sports organisations, or sports experience as an athlete or coach is also desirable but not compulsory. International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to Apply
Apply directly to RMIT University [www.rmit.edu.au/programs/apply/direct].

Please refer to How to Apply on page 31 for details.

Further Information
Professor Franz Konstantin Fuss, Program Director
School of Aerospace, Mechanical and Manufacturing Engineering
Tel. +61 3 9925 6123
Email: franz.fuss@rmit.edu.au
[www.rmit.edu.au/aeromecheng]
Master of Engineering (Management)

The Master of Engineering (Management) prepares graduates for leadership roles in the management of engineering and technology-based organisations.

The program is tailored to individual needs, allowing students to develop skills and expertise in a broad range of engineering management practices. The degree’s major strengths come from a focus on thinking strategically, addressing problems from a new point of view, challenging established practices and norms, developing innovative approaches, understanding how to manage an ever-changing technology base, and developing a systems approach to problem and/or opportunity definition.

You will develop an understanding of the many facets of contemporary engineering management and the impact of new technology and technological change on engineering and technology-based organisations.

You will also be exposed to real-world issues in the areas of risk and feasibility, managing innovation, developing systems thinking approaches, quality management, environmental management systems, cleaner production, strategic planning, financial management, performance management, international issues, and technology management.

Learning and Teaching

The program has been designed to broaden your thinking by enabling you to have maximum interaction with your lecturers as well as your classmates. Your learning experiences will contain a broad mix of study modes, including lectures, presentation seminars, tutorials and written assignments. Lectures and tutorials are typically delivered in the evenings throughout each semester with occasional weekend workshops. Active engagement in class discussions is strongly encouraged, along with small group-based activities.

Program Structure

Students can focus their studies in the following areas: technology management, environmental management, performance management, risk management, engineering economic strategy, international engineering management, project management, quality management, logistics management, and systems engineering. Specialisations from other areas within RMIT are also available.

RMIT is committed to providing you with an education that strongly links formal learning with workplace experience. As a student enrolled in this RMIT program you will:

— undertake and be assessed on structured activities that allow you to learn, apply and demonstrate your professional or vocational practice
— interact with industry and community when undertaking these activities
— complete these activities in real or simulated work contexts or situations.

In this program, you will be doing specific courses that focus on work-integrated learning (WIL). You will be assessed on professional or vocational work in a workplace setting (real or simulated) and receive feedback from those involved in our industry.

The Master’s Research Project involves WIL through an industry-based project.

The Master consists of 192 credit points. This incorporates the Graduate Diploma (96 credit points).

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Master</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Quality Organisations</td>
<td>12</td>
</tr>
<tr>
<td>Engineering Economic Strategy</td>
<td>12</td>
</tr>
<tr>
<td>Industrial Systems and Environment</td>
<td>12</td>
</tr>
<tr>
<td>Management of Technology</td>
<td>12</td>
</tr>
<tr>
<td>Project Management</td>
<td>12</td>
</tr>
<tr>
<td>Risk Management and Feasibility</td>
<td>12</td>
</tr>
<tr>
<td>Elective 1</td>
<td>12</td>
</tr>
<tr>
<td>Elective 2</td>
<td>12</td>
</tr>
</tbody>
</table>

Program code
MC226

Campus
City campus

Duration
— 1–1.5 years full-time or equivalent part-time (with advanced standing)
— 2 years full-time or 4 years part-time (without advanced standing)

Midyear places may be available.

Fees and Scholarships
Please refer to Fees List on page 29 and Money Matters on page 30.

URL
www.rmit.edu.au/programs/mc226

Program code
MC226

Campus
City campus

Duration
— 1–1.5 years full-time or equivalent part-time (with advanced standing)
— 2 years full-time or 4 years part-time (without advanced standing)

Midyear places may be available.

Fees and Scholarships
Please refer to Fees List on page 29 and Money Matters on page 30.

URL
www.rmit.edu.au/programs/mc226
Career
The program is intended to prepare individuals who will assume management responsibilities in engineering and technology-based enterprises and organisations.

Pathway
You may be eligible for advanced standing based on industry experience or academic results in your previous studies.

Entry Requirements
— An Australian bachelor degree with a GPA of at least 2.0 out of 4.0 in aerospace, mechanical, manufacturing, mechatronics, sustainable systems or automotive engineering, or equivalent; or
— An Australian bachelor degree in any discipline with a GPA of at least 2.0 out of 4.0 and at least five years work experience in the aerospace, mechanical, manufacturing, mechatronics, sustainable systems or automotive industry, or equivalent.
— Applicants applying on the basis of work experience are expected to have skills in analysis, design, and management of engineering projects within the aerospace, mechanical, manufacturing, mechatronics, sustainable systems or automotive industries.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to Apply
Apply directly to RMIT University www.rmit.edu.au/programs/apply/direct.
Please refer to How to Apply on page 31 for details.

Further Information
Dr Milan Simic
School of Aerospace, Mechanical and Manufacturing Engineering
Tel. +61 3 9925 6223
Email: milan.simic@rmit.edu.au
www.rmit.edu.au/aeromecheng

Graduate Profile

‘Having worked on global projects, I found that many of the leading technologies were being developed outside of Australia. This led to my thesis investigation into what it is that Australia can do differently to become a globally recognised technology leader, and I compared Australia to some of the current technology leaders. By strengthening Australia’s core competence, the latest technology can be developed successfully in the “lucky country”.

‘I have successfully been accepted by the RIERP (RMIT International Industry Experience and Research Program) group and I am currently waiting to be allocated to an overseas company. I look forward to gaining valuable industry experience by making use of the opportunity that RMIT provides to its top-achieving students. It makes all the hard work well worth it.’

Roberto Giannetti (cover image)
Master of Engineering (Management)
Master of Engineering (Manufacturing)

Program code
MC224

Campus
City campus

Duration
— 1–1.5 years full-time or equivalent part-time (with advanced standing)
— 2 years full-time or 4 years part-time (without advanced standing)
Midyear places may be available.

Fees and Scholarships
Please refer to Fees List on page 29 and Money Matters on page 30.

URL
www.rmit.edu.au/programs/mc224

The environment of manufacturing companies is undergoing dramatic change worldwide. New technology, customer expectations, and global competition have combined to force new approaches to automation, factory design and manufacturing systems.

As the pace of change accelerates, it creates demand for trained professionals versed in new technologies and modes of manufacturing to apply them strategically in industry. While manufacturing companies use computerised information systems, the need to achieve true systems integration requires adoption of ‘whole enterprise’ modelling approaches. Production machines and processes are increasingly under computer/microprocessor control, and this means more sophisticated approaches to maintenance management must be adopted.

The Master aims to provide you with the knowledge and skills to lead the introduction of new operating practices in manufacturing businesses.

Learning and Teaching
Teaching and learning activities are designed to develop the capabilities required by the contemporary manufacturing environment.

The Master of Engineering (Manufacturing) has been restructured to include new courses in additive manufacture to capture the establishment of the new Advanced Manufacturing Precinct at the City campus and its focus on additive manufacturing technologies.

Program Structure
RMIT is committed to providing you with an education that strongly links formal learning with workplace experience. As a student enrolled in this RMIT program you will:
— undertake and be assessed on structured activities that allow you to learn, apply and demonstrate your professional or vocational practice
— interact with industry and community when undertaking these activities
— complete these activities in real or simulated work contexts or situations.

In this program, you will be doing specific courses that focus on work-integrated learning (WIL). You will be assessed on professional or vocational work in a workplace setting (real or simulated) and receive feedback from those involved in your industry. The Master’s Research Project involves WIL through an industry-based project.

The Master consists of 192 credit points.

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Master</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Manufacturing Technologies</td>
<td>12</td>
</tr>
<tr>
<td>Computer Integrated Manufacturing</td>
<td>12</td>
</tr>
<tr>
<td>Design for Manufacture</td>
<td>12</td>
</tr>
<tr>
<td>Enterprise Modelling</td>
<td>12</td>
</tr>
<tr>
<td>Intelligent Materials and Processes</td>
<td>12</td>
</tr>
<tr>
<td>Lean Manufacturing</td>
<td>12</td>
</tr>
<tr>
<td>Maintenance and Reliability</td>
<td>12</td>
</tr>
<tr>
<td>Manufacturing Strategy and Planning</td>
<td>12</td>
</tr>
<tr>
<td>Master’s Research Methods</td>
<td>24</td>
</tr>
<tr>
<td>Master’s Research Project</td>
<td>48</td>
</tr>
<tr>
<td>Project Management</td>
<td>12</td>
</tr>
<tr>
<td>Risk and Technology Decisions</td>
<td>12</td>
</tr>
</tbody>
</table>

Career
The Master is aimed at professionals in supervisory or middle management levels in the global manufacturing industry. Graduates from the program will develop the potential to take a leading role in management and technology development in their organisation.

At the completion of the program you will be equipped to pursue a senior position in manufacturing engineering, operations, or consultancy; for example, as:
— team leader implementing new technology and operational strategies
— operations manager responsible for the competitive performance of a manufacturing unit.
— consultant providing specialist technical advice to manufacturing industry.

Pathway
You may be eligible for advanced standing based on industry experience or academic results in your previous studies.

Entry Requirements
— Applicants applying on the basis of work experience in manufacturing, industrial, mechanical, aerospace, automotive, shipbuilding, or automation and control engineering, or equivalent.
— Graduates from other relevant engineering and science disciplines with a GPA of at least 2.0 out of 4.0 will also be considered.
— Applicants applying on the basis of work experience will be assessed on a case-by-case basis. The applicants are expected to have work experience in manufacturing, automotive, aerospace, or other relevant industries.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to Apply
Apply directly to RMIT University
www.rmit.edu.au/programs/apply/direct
Please refer to How to Apply on page 31 for details.

Further Information
Dr Songlin Ding
School of Aerospace, Mechanical and Manufacturing Engineering
Tel. +61 3 9925 6198
Email: songlin.ding@rmit.edu.au
www.rmit.edu.au/aeromech
Master of Engineering (Structures and Forensics)

Program Structure
You will collaborate on practical projects and research-based learning in areas of urban, commercial and civil infrastructure, specialising in:
- design of future urban infrastructure
- practice of advanced structural assessment, refurbishment and retrofitting existing structures
- structural failures, forensics engineering and lessons learned
- dynamic response of structures and post-elastic performance under extreme loading environments
- systems engineering for structural engineers and asset managers to analyse complex systems
- ethics, liability and law.

By doing so, you’ll extend your views of the role of future structural engineers in designing, maintaining and assessing resilient and sustainable urban infrastructure.

You will conduct an industry-relevant and industry-supported research project to produce the final thesis, specialising in one of the above areas of your choice.

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Master</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Structural Assessment</td>
<td>12</td>
</tr>
<tr>
<td>Design of Tall Buildings and Urban Habitat</td>
<td>12</td>
</tr>
<tr>
<td>Ethics and Legal Studies</td>
<td>12</td>
</tr>
<tr>
<td>Forensic Engineering (Structural)</td>
<td>12</td>
</tr>
<tr>
<td>Research Methods</td>
<td>12</td>
</tr>
<tr>
<td>Research Project</td>
<td>24</td>
</tr>
<tr>
<td>Structural Refurbishment and Retrofitting</td>
<td>12</td>
</tr>
<tr>
<td>Systems Engineering for Civil Engineers</td>
<td>12</td>
</tr>
<tr>
<td>Vibration and Dynamic Response of Structures</td>
<td>12</td>
</tr>
</tbody>
</table>

Program Code
MC207

Campus
City campus

Duration
1 year full-time or 2 years part-time.
Midyear places may be available.

Over the past 50 years, structural engineering has focused on creating new landmark structures including bridges, buildings, dams, seaports and tunnels. However, during the past decade, a need has emerged to manage existing infrastructure; predict and extend life expectancy of structures; and minimise risk of failure and associated catastrophes.

This program addresses this gap in knowledge and will open up new career opportunities to you, enriching employment opportunities, professional development and career stability by specialising your structural engineering qualification.

Master of Engineering (Structures and Forensics) explores ways of dealing with complex structural engineering challenges. It is specially designed to up-skill your existing structural engineering capabilities by specialising in emerging advanced methods of structural materials and design practices, acquiring expertise in structural forensics and methods of extending the life expectancy of existing structures.

Learning and Teaching
This program blends lectures and workshop sessions, online forums and team-based activities. Lectures and tutorials are typically delivered in the evening.

Pathway
You may be eligible for advanced standing based on industry experience or academic results in your previous studies.

Entry Requirements
- An Engineers Australia accredited four-year Bachelor of Engineering degree, in Civil Engineering, at AQF8 level, or equivalent, that satisfies Engineers Australia’s Stage 1 competency standards with a GPA of at least 2.0, out of 4.0, or equivalent; or
- An Engineers Australia accredited four-year Bachelor of Engineering degree, in Civil Engineering or equivalent, that satisfies Engineers Australia’s Stage 1 competency standards, and a minimum of one year of relevant industry experience, or equivalent. The grade and discipline will be considered on a case-by-case basis; or
- A four-year international Bachelor of Engineering degree, in Civil Engineering, or equivalent, recognised by the Washington Accord, where qualifications are considered equivalent to Australian engineering programs fully accredited by Engineers Australia, with a GPA of at least 2.0 out of 4.0; or
- A four-year Bachelor of Engineering degree that satisfies the above condition, but the title does not specify the specialisation is in Civil Engineering, however, relevant Structural Engineering prerequisites have been completed in undergraduate studies. Such applicants will be considered on a case-by-case basis.

How to Apply
Apply directly to RMIT University
www.rmit.edu.au/programs/apply/direct
Please refer to How to Apply on page 31 for details.

Further Information
Dr Saman De Silva
School of Civil, Environmental and Chemical Engineering
Tel. +61 3 9925 3235
Email: saman.desilva@rmit.edu.au

RMIT University | 2014 Postgraduate | Engineering
Master of Engineering (Sustainable Energy)

The Master of Engineering (Sustainable Energy) provides a pathway for engineers and scientists, and those with an alternative acceptable qualification and significant industry experience, to gain a qualification in the burgeoning area of sustainable energy. Sustainable energy embraces technologies and practices in economically viable ways to improve efficiency and reduce adverse environmental and social impacts of conventional energy sources, and use alternative renewable energy sources.

With increasing concerns about climate change, energy security, rising and fluctuating energy prices, and pollution associated with energy production and consumption, managing the transition towards a more sustainable energy sector has become a priority for governments, the private sector and the general community. As a result, there is a rapidly growing demand, in Australia and internationally, for engineers and scientists with a postgraduate specialisation in sustainable energy.

**Learning and Teaching**

The learning and teaching approach used in this program is designed to assist you in developing skills as an independent and lifelong learner. The major styles of teaching and learning you will experience throughout your program will include, but are not limited to, the following:

- classroom teaching and/or online Blackboard collaborate sessions that include class presentations, group discussion and student-led discussion
- laboratory activities
- problem-based learning
- site visits
- real and simulated work-integrated learning (WIL) activities through assignments and projects
- training provided by industry experts that help the students gain hands-on experience in their fields of interest.

**Program Structure**

In this program you will work on practical projects in a real or simulated work environment that focus on WIL. You will then be assessed by and receive feedback from highly-experienced academics and/or those involved in relevant industries. The Master’s Research Project course involves work-integrated learning where an external company, governmental or other organisations may involve in the project. The program can be tailored to suit your personal interests, as can the research project. The Master consists of 192 credit points. This incorporates the Graduate Diploma (96 credit points).

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomass and Solar Fuels</td>
<td>12</td>
</tr>
<tr>
<td>Energy Efficiency and Demand Management</td>
<td>12</td>
</tr>
<tr>
<td>Master’s Research Methods</td>
<td>24</td>
</tr>
<tr>
<td>Master’s Research Project</td>
<td>48</td>
</tr>
<tr>
<td>Photovoltaic Systems</td>
<td>12</td>
</tr>
<tr>
<td>Sustainable Energy Fundamentals</td>
<td>12</td>
</tr>
<tr>
<td>Sustainable Energy Systems and Design</td>
<td>12</td>
</tr>
<tr>
<td>Sustainable Hydrogen Systems</td>
<td>12</td>
</tr>
<tr>
<td>Sustainable Thermal Systems</td>
<td>12</td>
</tr>
<tr>
<td>The Economic, Social and Environmental Context for Sustainable Energy</td>
<td>12</td>
</tr>
<tr>
<td>Wind and Hydro Power</td>
<td>12</td>
</tr>
</tbody>
</table>

**Career**

Graduates will be able to take a lead role in their organisations in:
- developing and implementing plans to improve energy efficiency and productivity to cut fuel bills and reduce greenhouse gas and other pollution emissions in order to meet regulatory and other requirements
- researching, developing, demonstrating, commercialising, designing and evaluating innovative solar, wind, biomass, hydrogen and other sustainable energy supply, storage and utilisation technologies
- devising innovative sustainable solutions to current problems associated with adverse environmental and social impacts linked to energy supply, distribution and consumption
- maintaining and optimising the performance of installed sustainable energy technologies and systems
- managing consultative processes with social groups impacted by energy-related projects and developments.

Graduates have the opportunity to work in a number of industries both locally and internationally. They will work on sustainable energy projects as energy managers, project managers and consultants.

**Pathway**

You may be eligible for advanced standing based on industry experience or academic results in your previous studies.
Entry Requirements

— An Australian bachelor degree with a GPA of at least 2.0 out of 4.0 in engineering or science with exposure to physics and/or chemistry of energy (e.g. thermo-fluid science), or equivalent. Relevant disciplines include mechanical, aerospace, manufacturing, automotive, chemical, electrical and power, or electronics engineering; or science in physics or chemistry; or
— An Australian bachelor degree with a GPA of at least 2.0 out of 4.0 in any discipline and relevant professional work experience in the field of sustainable energy, or equivalent. International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to Apply

Apply directly to RMIT University
Please refer to How to Apply on page 31 for details.

Further Information

Dr Petros Lappas
School of Aerospace, Mechanical and Manufacturing Engineering
Tel. +61 3 9925 8084
Email: petros.lappas@rmit.edu.au
www.rmit.edu.au/aeromecheng
Master of Sustainable Practice

This program brings together people with similar questions to work together to explore issues of sustainability. Problems are defined as projects. By working together on similar projects—for example, in areas of water usage, energy, food, liveable cities, waste management, climate management or risk management—you explore the complexities of sustainability problems with people who have similar interests but come from a range of backgrounds. The program provides opportunities for action learning at work or other individual contexts.

The program extends your views of sustainability and sustainable practice by:

— exploring your views of sustainability, what it means for you, what it might mean for your employer and the project, and encouraging you into action around change
— recognising the Long Now: that the precise moment individuals are in grows out of the past and is a seed for the future
— recognising that we can create realities by first imagining them
— recognising that being here includes more than work and home; that the Big Here could be the wider local community, Australia and the world, and
— developing sustainable practice as a process of continual change based on reflective practice.

Consistent with RMIT’s approach, the program develops capabilities to enable more sustainable practice by:

— communicating coherently across disciplines and with the broader community
— identifying and defining sustainability problems—researching
— developing proposals
— leading, managing and participating effectively in change processes
— evaluating activities undertaken for efficacy
— being aware of self, others and processes used.

Learning and Teaching

Classes are held in intensive mode—normally three or four full days per semester (mostly Saturdays). Elective courses may run as evening classes.

Students are also supported via online resources and discussion forums between classes.

Program Structure

The program interdisperses sustainability project courses with sustainability body of practice courses. The sustainability project courses are in the form of a workshop series that supports you through structured inquiry, providing the opportunity to share your learning with other participants.

The sustainability body of practice courses explore a range of different practices from different disciplines that can be used to move through the problem-solving/managing cycle. These courses are built around case studies and are also delivered in intensive mode. You may also select electives from an extensive range across RMIT University—from renewable energy technology through to environment and planning courses. An exegesis or critical interpretation of the project and program is required for the Master of Sustainable Practice.

The Master consists of 192 credit points. This incorporates the Graduate Diploma (96 credit points).

<table>
<thead>
<tr>
<th>Master</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability Body of Practice 1</td>
<td>12</td>
</tr>
<tr>
<td>Sustainability Body of Practice 2</td>
<td>12</td>
</tr>
<tr>
<td>Sustainability Body of Practice 3</td>
<td>12</td>
</tr>
<tr>
<td>Sustainability Exegesis</td>
<td>12</td>
</tr>
<tr>
<td>Sustainability Project 1</td>
<td>12</td>
</tr>
<tr>
<td>Sustainability Project 2</td>
<td>12</td>
</tr>
<tr>
<td>Sustainability Project 3</td>
<td>12</td>
</tr>
<tr>
<td>Sustainability Project 4</td>
<td>12</td>
</tr>
</tbody>
</table>

Career

Graduates will be able to lead change in sustainability issues within an organisation, as they will have an expanded view of sustainability and how this can be practised, through projects, case studies and critical evaluation.

Pathway

You may be eligible for advanced standing based on industry experience or academic results in your previous studies.

Entry Requirements

— An Australian bachelor degree in any discipline; or
— Evidence of experience that demonstrates you have developed knowledge of the field of study sufficient to undertake the program.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to Apply

Apply directly to RMIT University www.rmit.edu.au/programs/apply/direct . Please refer to How to Apply on page 31 for details.

Further Information

Edmund Horan
School of Civil, Environmental and Chemical Engineering
Tel. +61 3 9925 2208
Email: edmund.horan@rmit.edu.au
www.rmit.edu.au/civilenvirochemeng

Fees and Scholarships

Please refer to Fees List on page 29 and Money Matters on page 30.

URL

www.rmit.edu.au/programs/mc240
Master of Engineering  
(Systems Support Engineering)

Program code  
MC228

Campus  
City campus

Duration  
— 1–1.5 years full-time or equivalent part-time (with advanced standing)
— 2 years full-time or 4 years part-time (without advanced standing)
Midyear places may be available.

Fees and Scholarships  
Please refer to Fees List on page 29 and Money Matters on page 30.

URL  
www.rmit.edu.au/programs/mc228

The Master of Engineering (Systems Support Engineering) is a new qualification developed for an emerging profession. This postgraduate degree enables you to create and improve systems including technical, management and operational systems.

Systems support engineering is the design, implementation and delivery of systems to support organisations’ key assets. Organisations are moving from traditional maintenance-based approaches to one that is increasingly sophisticated, performance-based and cost effective. Organisations with major assets are developing key positions in systems support engineering to support their operations. The professionals to perform these roles require extensive knowledge, skills and competency in:

— systems and service design
— performance based logistics and supply chain support
— system capability enhancement
— asset management.

Learning and Teaching

The program is designed so that you will experience:

— an industry-led learning environment that draws heavily on case studies from industry partners
— a collaborative approach involving academic educators, researchers as well as industry experts
— an action-oriented learning environment where you will develop your own case study directly related to the issues you are facing in your workplace
— a holistic approach where you will be introduced to the major elements in the systems support business model in the first course
— a flexible delivery mode designed to accommodate mobile and busy professionals.

The program is offered in a flexible delivery mode designed to accommodate full-time postgraduate students as well as mobile and busy professionals. The program will be offered in full-time mode when the courses are taught in face-to-face sessions during RMIT semesters.

Program Structure

In this program, you will be doing specific courses that focus on work-integrated learning (WIL). You will be assessed on professional or vocational work in a workplace setting (real or simulated) and receive feedback from those involved in industry with capital intensive assets and engineering systems.

In the following courses you will work with practitioners in capital-intensive industry and complex equipment analysing real industry case studies, and proposing and evaluating new support system designs.

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Master</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Endurance Systems</td>
<td>12</td>
</tr>
<tr>
<td>Integrated Logistics Support Management</td>
<td>12</td>
</tr>
<tr>
<td>International Engineering Management</td>
<td>12</td>
</tr>
<tr>
<td>Introduction to Systems Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Logistics Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Maintenance and Logistics Services</td>
<td>12</td>
</tr>
<tr>
<td>Master’s Research Methods</td>
<td>24</td>
</tr>
<tr>
<td>Master’s Research Project</td>
<td>48</td>
</tr>
<tr>
<td>Risk Management and Feasibility</td>
<td>12</td>
</tr>
<tr>
<td>Service and Support Operations</td>
<td>12</td>
</tr>
<tr>
<td>Supply Chain Management</td>
<td>12</td>
</tr>
<tr>
<td>Support Environment</td>
<td>12</td>
</tr>
<tr>
<td>Support Solution Architecture</td>
<td>12</td>
</tr>
<tr>
<td>System Engineering Principles</td>
<td>12</td>
</tr>
<tr>
<td>System Simulation Characterisation</td>
<td>12</td>
</tr>
<tr>
<td>System Support Project 1 &amp; 2</td>
<td>48</td>
</tr>
</tbody>
</table>

Industry Connections

The Master degree has strong industry support from BAE Systems, Saab Systems and ASC. Industry input provides valuable case studies and assists with the development of course material. Government funding supported the development of the degree enabling world-renowned professors from the University of Cambridge to develop two courses.

Career

As a graduate of this program, you will offer highly valued skills and expertise to operators of complex infrastructure and assets in industries such as:

— Defence
— Energy
— Health Services e.g. government departments
— Logistics
— Manufacturing
— Mining
— Ports and maritime
— Transport.

Professional Recognition

This program does not yet have accreditation by Engineers Australia. However, accreditation will be sought for this program as soon as it is feasible to do so within the accreditation time lines set by Engineers Australia. Once fully accredited, graduates of the program will be eligible for graduate membership of Engineers Australia.

Pathway

You may be eligible for advanced standing based on industry experience or academic results in your previous studies.

Entry Requirements

— An Australian bachelor degree with a GPA of at least 2.0 out of 4.0 in aerospace, mechanical, manufacturing, mechatronics, sustainable systems or automotive engineering, or equivalent; or
— An Australian bachelor degree in any discipline with a GPA of at least 2.0 out of 4.0 and at least five years work experience in the aerospace, mechanical, manufacturing, mechatronics, sustainable systems or automotive industry, or equivalent.

— Applicants applying on the basis of work experience are expected to have skills in analysis, design, and management of engineering projects within the aerospace, mechanical, manufacturing, mechatronics, sustainable systems or automotive industries.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to Apply

Apply directly to RMIT University  

Please refer to How to Apply on page 31 for details.

Further Information

Professor John Mo  
School of Aerospace, Mechanical and Manufacturing Engineering  
Tel. +61 3 9905 8279  
Email: john.mo@rmit.edu.au  
www.rmit.edu.au/aeromecheng
The Master of Engineering (Telecommunication and Network Engineering) is for people wishing to:

— develop expertise in the analysis, design, implementation and operation of telecommunication devices, systems, networks and services
— enhance their professional development in research, communication, teamwork, leadership and management
— advance their career in telecommunication and network industries.

Rapid developments in global telecommunication and network technologies in the twenty-first century present exciting career opportunities for graduates of this program.

Learning and Teaching

Classes are taught by experts in their fields. There is a strong emphasis on laboratory work and professional engineering projects to put theory into practice and enhance research, teamwork, leadership, communication and project management skills.

Program Structure

RMIT University is committed to providing you with an education that strongly links formal learning with professional practice. As a student enrolled in this program you will:

— undertake and be assessed on structured activities that allow you to learn, apply and demonstrate your professional or vocational practice
— interact with industry and community when undertaking these activities
— complete these activities in real work contexts or situations.

In addition, these interactions and the work context provide a distinctive source of feedback to you to assist your learning. Any or all of these aspects of a work-integrated learning (WIL) experience may be simulated.

The Master consists of 192 credit points. This incorporates the Graduate Diploma (96 credit points).

The following is an example of courses offered:

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antennas for Mobile and Satellite Communications PG</td>
<td>12</td>
</tr>
<tr>
<td>Circuit and System Simulation (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Computer and Network Security</td>
<td>12</td>
</tr>
<tr>
<td>Computer Robotics Control</td>
<td>12</td>
</tr>
<tr>
<td>Digital Design Automation</td>
<td>12</td>
</tr>
<tr>
<td>Digital Signal Processing</td>
<td>12</td>
</tr>
<tr>
<td>Digital System Design (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Electrical Energy Conversion</td>
<td>12</td>
</tr>
<tr>
<td>Engineering Project Design and Management</td>
<td>12</td>
</tr>
<tr>
<td>Enterprise and Cloud Networks</td>
<td>12</td>
</tr>
<tr>
<td>Image Systems Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Microcomputer Systems Design</td>
<td>12</td>
</tr>
<tr>
<td>Microwave Circuits</td>
<td>12</td>
</tr>
<tr>
<td>Mobile and Personal Communications Systems Engineering (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Network Access Systems (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Network Design and Performance</td>
<td>12</td>
</tr>
<tr>
<td>Network Engineering</td>
<td>12</td>
</tr>
<tr>
<td>Network Management</td>
<td>12</td>
</tr>
<tr>
<td>Network Services and Internet Applications (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Optical Fibre Communication Systems (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Optical Fibre Technology (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Professional Engineering Project</td>
<td>12</td>
</tr>
<tr>
<td>Professional Engineering Advanced Project</td>
<td>12</td>
</tr>
<tr>
<td>Project Management and Entrepreneurship (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Project Preparation, Planning and Problem Solving</td>
<td>12</td>
</tr>
<tr>
<td>Radar Systems 1</td>
<td>12</td>
</tr>
<tr>
<td>Real Time Estimation and Control</td>
<td>12</td>
</tr>
<tr>
<td>Real Time Systems Design</td>
<td>12</td>
</tr>
<tr>
<td>Renewable Electrical Energy Systems</td>
<td>12</td>
</tr>
<tr>
<td>Research Project</td>
<td>48</td>
</tr>
<tr>
<td>Satellite Communication Systems Engineering (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Semiconductor Device Fabrication (PG)</td>
<td>12</td>
</tr>
<tr>
<td>Sensors and Measurement Technologies</td>
<td>12</td>
</tr>
<tr>
<td>Wireless Sensor Networks</td>
<td>12</td>
</tr>
</tbody>
</table>
Industry Connections
Industry plays a vital consultative role in the program through membership of the School Program Advisory Committee (PAC). Other members of the PAC are alumni and academic staff.

In addition to the PAC, the School has extensive links with industry, particularly through laboratories that incorporate work-integrated learning, through research projects, consulting, and through industry-sponsored student design projects.

Notable industry links for this program are:
- Telstra
- Ericsson
- ITC Global
- RFS (Radio Frequency Systems)
- Juniper
- National Instruments
- Analog Devices
- Agilent Technologies.

Career
Graduates will have gained leading-edge technical knowledge and skills. They will have enhanced their professional skills in areas of research, communication, teamwork, leadership and management. As a result, they are well prepared for career advancement and leadership roles in telecommunication and network industries. In the private sector, graduates may work in the design, manufacture and supply of telecommunication and network devices, systems and services. In the public sector, they provide the community with essential services in areas such as networking, telecommunications, transportation, security, defence, health, education, emergency services and environment protection. Others may establish their own business or undertake higher studies by research.

Pathway
You may be eligible for advanced standing based on industry experience or academic results in your previous studies.

Entry Requirements
Successful completion of an Australian bachelor degree in science or engineering in computer, electronic, telecommunications or electrical disciplines, or relevant industrial experience as a qualified technologist.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to Apply
Apply directly to RMIT University www.rmit.edu.au/programs/apply/direct.

Please refer to How to Apply on page 31 for details.

Further Information
School of Electrical and Computer Engineering
Tel. +61 3 9925 2090
Email: eleceng@rmit.edu.au
www.rmit.edu.au/eleceng
Research Programs

You will undertake a research project under the guidance of your supervisor, culminating in the submission of a thesis or project. A master by research is completed over four semesters full-time, while a PhD is completed over eight semesters full-time.

RMIT’s modern laboratories, sophisticated industry-standard equipment and collaborative environments will enable you to deliver practical solutions to real-world challenges. You will be connected with RMIT’s research institutes, international research institutions, and partner organisations such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Master and PhD by Research

Aerospace, Mechanical and Manufacturing Engineering

- Advanced aerospace technologies
- Industrial systems
- Renewable energy systems
- Sports technology innovation
- Sustainable automotive technologies
- Virtual engineering platforms

Civil, Environmental and Chemical Engineering

- Innovative structures and materials
- Rheology and materials processing
- Water technologies and tools

Electrical and Computer Engineering

- Biomedical engineering
- Communication technologies
- Complex systems and information processing
- Micro/nano materials and devices
- Power, energy and control

You can find further details about individual programs by typing in the specific URL listed above.

To find out about research programs, supervision and entry requirements visit www.rmit.edu.au/graduateresearch.

You can find full details about application processes and key dates at www.rmit.edu.au/programs/apply/research.

To Start Your Career in Research:

1. Complete your bachelor degree with high grades.
2. Complete an honours degree or a master degree by research.
3. If you excel in your honours degree or master degree by research, you can continue your research in a doctorate (PhD). This involves four years of research under the supervision of a senior researcher.

For further information about entry requirements and the application process for postgraduate by research programs, please refer to the How to Apply section of this brochure.
# Fees List

The table below shows a student’s annual tuition fee for a full-time study load in 2014, for students in a full-fee place.

For information about full-fee places and other fees and expenses refer to Money Matters on page 30.

<table>
<thead>
<tr>
<th>Program Code</th>
<th>Award Title</th>
<th>Full-time Duration</th>
<th>2014 Annual Program Fee</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC225</td>
<td>Master of Engineering (Aerospace and Aviation)</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>6</td>
</tr>
<tr>
<td>MC180</td>
<td>Master of Engineering (Electrical and Electronic Engineering)</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>8</td>
</tr>
<tr>
<td>MC235</td>
<td>Master of Engineering (Electrical Engineering)</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>10</td>
</tr>
<tr>
<td>MC233</td>
<td>Master of Engineering (Electronic Engineering)</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>12</td>
</tr>
<tr>
<td>MC227</td>
<td>Master of Engineering (Integrated Logistics Management)</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>14</td>
</tr>
<tr>
<td>MC230</td>
<td>Master of Engineering (International Automotive Engineering)</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>16</td>
</tr>
<tr>
<td>MC190</td>
<td>Master of Science (International Sports Technology)</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>18</td>
</tr>
<tr>
<td>MC226</td>
<td>Master of Engineering (Management)</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>20</td>
</tr>
<tr>
<td>MC224</td>
<td>Master of Engineering (Manufacturing)</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>22</td>
</tr>
<tr>
<td>MC207</td>
<td>Master of Engineering (Structures and Forensics)</td>
<td>1 year full-time</td>
<td>$26,880</td>
<td>24</td>
</tr>
<tr>
<td>MC229</td>
<td>Master of Engineering (Sustainable Energy)</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>26</td>
</tr>
<tr>
<td>MC240</td>
<td>Master of Sustainable Practice</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>28</td>
</tr>
<tr>
<td>MC228</td>
<td>Master of Engineering (Systems Support Engineering)</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>30</td>
</tr>
<tr>
<td>MC234</td>
<td>Master of Engineering (Telecommunication and Network Engineering)</td>
<td>1–1.5 years full-time (with advanced standing)</td>
<td>$26,880</td>
<td>32</td>
</tr>
</tbody>
</table>

* Fee listed is based on a full-time study load.

The tuition fees vary according to each program and are adjusted on an annual basis. You are encouraged to confirm fees for 2014 on the fees web page (available from October 2013) [www.rmit.edu.au/programs/fees](http://www.rmit.edu.au/programs/fees) prior to making an application.

RMIT reserves the right to adjust fees for full-fee places on an annual basis by an amount that will not exceed 7.5% each year (subject to rounding). For higher education fees, tuition fees are rounded up to the nearest $10 per credit point increment. The absolute fee increase may exceed 7.5%.

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### Student Profile

‘My educational background is in electrical engineering with a major in electronics. Carrying out advanced research in renewable energy will equip me with the necessary experience to achieve high quality findings, to help cope with the current environmental challenges such as pollution, radiation, and environmental degradation.

The intention of my research is to boost the sustainable energy industry in Australia. It aims to generate a viable perpetual energy source for the urban environment predominantly for low power applications. The success of this project will help reduce the carbon footprint of buildings in an urban setting. The expected impact of this work is to transcend boundaries of several industries such as manufacturing, construction, renewable energy, software and systems integration.’

**Negin Shariati**  
Doctor of Philosophy (PhD) (Electrical and Computer Engineering)
Money Matters

Coursework Degrees
What you pay will depend on whether you are offered a Commonwealth supported place (CSP) or a full-fee place. Financial assistance is available to eligible students regardless of the type of place they enrol in.

Commonwealth Supported Places (CSP)
A Commonwealth supported place is a place at university where the tuition fee is jointly paid by you and the Commonwealth Government. Your share of the fee, called the student contribution, is determined by the discipline area you are studying. This table shows a student’s annual fee for a full-time study load in 2014.

<table>
<thead>
<tr>
<th>Student Contribution Band</th>
<th>Maximum Student Contribution for a Place in 2014*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 1: humanities, behavioural science, social studies, clinical psychology, foreign languages, visual and performing arts, education, nursing</td>
<td>$6,044</td>
</tr>
<tr>
<td>Band 2: mathematics, statistics, computing, built environment, other health, allied health, science, engineering, surveying, agriculture</td>
<td>$8,613</td>
</tr>
<tr>
<td>Band 3: law, accounting, administration, economics, commerce, dentistry, medicine, veterinary science</td>
<td>$10,085</td>
</tr>
</tbody>
</table>

* Subject to the passage of legislation.

If you undertake more or less than a full-time study load, or you study courses from a combination of the above categories, you will be charged the proportionate student contribution.

For more information visit www.rmit.edu.au/programs/fees/highered/css.

Full-Fee Places
Students in full-fee places are required to pay a tuition fee that covers the full tuition costs of their program.

Only students who are Australian citizens, New Zealand citizens or hold an Australian Permanent Resident Visa are eligible for a domestic full-fee place. Students who do not meet these citizenship and residency requirements may be offered a place as an onshore international student.

Fees for 2014 are listed in a table on page 29.

Research Degrees
If you are an Australian citizen, Australian permanent resident or New Zealand citizen you may be eligible for a Research Training Scheme (RTS) place where your tuition costs are funded by the Commonwealth Government and you therefore have full exemption from tuition fees.

Acceptance in an RTS place is very competitive and places are granted on the condition that you meet progress requirements and complete within the allotted time for your program and your status as a part-time or full-time candidate.

www.rmit.edu.au/graduateresearch

Other Fees and Expenses
In addition to tuition fees, you may be charged a student services and amenities fee (SSAF) which is indexed annually. Eligible students can defer payment of the fee through SA-HELP. For more information visit www.rmit.edu.au/programs/fees/ssaf.

You may also be required to purchase items related to your program, including field trips, specified textbooks and equipment. These material fees are not compulsory and students may choose to purchase these items independently. These expenses vary from program to program. Please contact the relevant school directly or visit www.rmit.edu.au/programs/fees.

Financial Assistance

Scholarships
Before you let financial constraints or living arrangements get in the way of your decision to study, find out about the range of discipline-specific and general RMIT scholarships available for postgraduate students.

Scholarships Office
Tel. +61 3 9925 2811
Email: scholarships@rmit.edu.au
www.rmit.edu.au/scholarships

HECS-HELP
HECS-HELP assists eligible students in a Commonwealth supported place to pay their student contribution. To learn more about HECS-HELP visit www.studyassist.gov.au to obtain a copy of the Information for Commonwealth supported students booklet.

FEE-HELP
FEE-HELP is an optional loan scheme that assists eligible students to pay all or part of their tuition fees. To learn more about FEE-HELP visit www.studyassist.gov.au to obtain a copy of the FEE-HELP Information booklet.

Income Support
The Commonwealth Government has approved a number of RMIT University postgraduate programs for student income support payments. The approved programs are listed at www.rmit.edu.au/programs/fees/highered/masters.

Income Tax Deductions
Students may be eligible to apply for income tax deductions relating to the education expenses that are linked to their employment. The Australian Taxation Office (ATO) website at www.ato.gov.au provides guidance on the taxation treatment of your fees.
How to Apply

Coursework Degrees

Entry Requirements
To be considered for admission, you must meet University entry requirements. In addition, you must also meet program entry requirements to be considered for admission.
Refer to the URL listed under individual program entries for entry requirement eligibility before applying.

Direct Application
Apply online at www.rmit.edu.au/programs/apply/direct.
Timely applications for coursework programs are due by:
— 10 November each year (for Semester 1 start), and
— 31 May each year (for midyear Semester 2 start).
Midyear applications open 1 May, visit www.rmit.edu.au/midyear.
Applications will continue to be accepted until all places have been filled.
You are encouraged to lodge your application early.

Research Degrees

Entry Requirements
Refer to the URL listed under postgraduate by research programs for entry requirement eligibility before applying. Also refer to www.rmit.edu.au/programs/apply/research.

Finding a Supervisor
All applicants need to find a supervisor with similar research interests as themselves and discuss a research proposal with them. Before you apply, it is recommended that you contact the Higher Degrees by Research Coordinator in the School to which you are applying. The research proposal must be included in your application.
www.rmit.edu.au/research/searchsupervisors

Application Process
Application for candidature involves three steps:
1. Find a program and confirm eligibility
2. Seek academic advice
3. Complete and submit application form and all supporting documents.
For detailed information visit www.rmit.edu.au/programs/apply/research or contact the School of Graduate Research.

Application Timelines
You are encouraged to lodge your application early and consider the scholarships closing date if you also wish to apply for a scholarship.
Applications for 2014 scholarships are open from 1 September until 31 October 2013.
Applications for 2014 Research Training Scheme (RTS) places are open from 1 September until 31 March 2014. Early offers will be made in December to applicants that apply by 31 October 2013. Applicants who submit their applications after 31 October will be advised of the outcome from early January.
Applications for midyear 2014 RTS places are open 1 May until 31 August 2014. Early offers will be made in June to applicants that apply by 31 May 2014. Applicants who submit their applications after 31 May will be advised of the outcome from early July.

Further Information

Info Corner
330 Swanston Street (cnr La Trobe Street)
Melbourne VIC 3000
Tel. +61 3 9925 2260

Information for Prospective Students
Information sessions are run throughout the year.
For details visit:
— the College of Science, Engineering and Health postgraduate studies page www.rmit.edu.au/sez/research
— the RMIT University Eventbrite web page http://rmituniversity.eventbrite.com.au
This guide is designed for Australian and New Zealand citizens and permanent residents of Australia

RMIT University
Info Corner
330 Swanston Street (cnr La Trobe Street)
Melbourne VIC 3000
Tel. +61 3 9925 2260
Email: study@rmit.edu.au
www.rmit.edu.au

Disclaimer: The information contained in this guide is subject to change without notice. It is the responsibility of the student to check and confirm all general and specific program information prior to lodging an application for enrolment. For the most up-to-date program information, please refer to the RMIT University website. Visit www.rmit.edu.au. This guide is designed for Australian and New Zealand citizens and permanent residents of Australia. TAFE programs are delivered with Victorian and Commonwealth funding for eligible students.