Postgraduate Engineering at Macquarie University ranges from a graduate certificate and master program to PhD qualifications. The coursework is designed to accelerate professional development whilst the research programs offer the opportunity to work with experienced researchers attracting competitive and industry-linked grants.

Coursework:
- Master of Engineering Management
- Postgraduate Diploma of Engineering Management
- Postgraduate Certificate of Engineering Management

Research:
- Doctor of Philosophy (PhD)
- Master of Philosophy (MPhil)

Areas of research available:
- Antennas and electromagnetics
- Guided-wave optics and photonics
- Integrated-circuit and wireless systems
- Microwave circuits and electronic devices
- Telecommunication networks

www.engineering.mq.edu.au
COURSEWORK OPPORTUNITIES
MASTER OF ENGINEERING MANAGEMENT
POSTGRADUATE DIPLOMA OF ENGINEERING MANAGEMENT
POSTGRADUATE CERTIFICATE OF ENGINEERING MANAGEMENT

DURATION
Master of Engineering Management is one year full-time
Postgraduate Diploma of Engineering Management is one year full-time
Postgraduate Certificate of Engineering Management is six months full-time

COMMENCEMENT/AVAILABILITY
Semester 1 (February) and Semester 2 (July)

ENTRY REQUIREMENTS
Bachelor degree in Engineering or related discipline from an Australian university (or equivalent) with a GPA of 2.5 and relevant work experience.

CREDIT POINTS REQUIRED TO COMPLETE DEGREE
Master of Engineering Management = 32 credit points
Postgraduate Diploma of Engineering Management = 24 credit points
Postgraduate Certificate of Engineering Management = 12 credit points

FEES
$750 per credit point in 2008. Please note that fees can possibly change after 2008.

KEY BENEFIT
• Opportunity to accelerate your professional development in engineering management and strategic leadership.

KEY FEATURES
• Many units are taught by staff from the University’s respected Macquarie Graduate School of Management (MGSM).
• Students wishing to continue their studies with an MBA may use most units completed in the coursework for credit in the Master of Business Administration offered through MGSM (subject to additional MGSM entry requirements).

SUITE FOR
Engineering graduates or those from a related discipline who are seeking to develop their skills in management and strategic leadership.

CAREER OPPORTUNITIES
Provides the opportunity to develop specialist knowledge in engineering management and is designed to give a competitive advantage and support career advancement.

PROGRAM CONTENT AND STRUCTURE

ARTICULATION
After completing units in one program, these units may contribute to advancing your studies in a higher award.

MASTER OF ENGINEERING MANAGEMENT
The program requires a total of 32 credit points comprising a selection of the following in 2008:

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<thead>
<tr>
<th>UNIT CODE</th>
<th>UNIT TITLE</th>
<th>CREDIT POINTS</th>
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<tr>
<td>ENGG801</td>
<td>Engineering Management Thesis</td>
<td>4</td>
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<tr>
<td>ITC841</td>
<td>Project and Risk Management</td>
<td>4</td>
</tr>
<tr>
<td>ITC846</td>
<td>Strategies for High Tech Industries</td>
<td>4</td>
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<tr>
<td>MGT900</td>
<td>Marketing Management</td>
<td>4</td>
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<td>MGT901</td>
<td>Accounting for Management</td>
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<td>MGT902</td>
<td>Organisational Behaviour</td>
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<td>MGT903</td>
<td>Operations Management</td>
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<tr>
<td>MGT904</td>
<td>Cross-Cultural Management</td>
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<tr>
<td>ENGG805</td>
<td>Engineering Management Thesis Extension</td>
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<td>ITC812-899</td>
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Total credit points required for this program 32

POSTGRADUATE DIPLOMA OF ENGINEERING MANAGEMENT
The program requires a total of 24 credit points comprising a selection of the following in 2008:

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<th>UNIT CODE</th>
<th>UNIT TITLE</th>
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Total credit points required for this program 24

PLEASE NOTE:
THE POSTGRADUATE CERTIFICATE OF ENGINEERING MANAGEMENT program requires a total of 12 credit points. The unit selection is the same as for the Postgraduate Diploma of Engineering Management as outlined in the table above except that only one unit is required from the following selection: MGT900, MGT901, MGT902, MGT903, or MGT904.
RESEARCH OPPORTUNITIES

RESEARCH AREA: CENTRE FOR ELECTROMAGNETIC AND ANTENNA ENGINEERING (CELANE)

RESEARCH CONDUCTED

The Centre for Electromagnetic and Antenna Engineering (CELANE) conducts high-quality research in the areas of Electromagnetic, Antenna and Microwave Engineering. It brings together researchers and external laboratories such as CSIRO to design and develop innovative engineered materials and novel antennas for advanced wireless, medical and sensing applications. Our researchers collaborate with leading research groups across the globe and provide solutions to industry in Australia and overseas. Macquarie University has recognised the quality of the Centre's research by including it in the Concentration of Research Excellence (CORE) on Wireless Communications. CELANE is also a major part of the Centre for Microwave and Wireless Applications (CMWA). CELANE is led by its director Professor Karu Esselle, who is also the Director/Associate Dean - Higher Degree Research of the Information and Communication Sciences Division, Chair of the AusAMF Management Board and the Deputy Director of CMWA.

GROUP STRUCTURE

CELANE is one of the strongest research groups in this area, nationally and internationally. From 2002 to 2008, it has hosted six postdoctoral research fellows (three of whom are Australian Research Council Fellows), one professor and two adjunct professors, one Marie-Curie Fellow from European Framework 7, several visiting researchers and twelve research students. Our postdoctoral research activity in this area is one of the strongest amongst universities in Australia.

CURRENT PROJECTS

Current and recent research projects include the following:

- Antennas for WiFi, WiMAX, 3G and other wireless/mobile systems, diversity/MIMO systems, breast cancer detection systems, next generation multi-band satellite navigation and location systems, wireless links through body for advanced medical applications, millimetre-wave and Terahertz systems, and radio telescopes.
- Electromagnetic band gap (EBG)/PBG structures, metamaterials, frequency-selective surfaces and defect-ground structures, applications of periodic structures in buildings to confine wireless computer networks or to enhance security, and in energy-saving glass windows to improve transmission of mobile signals.
- Metamaterials with negative index of refraction/left-handedness, microwave filters and other devices based on metamaterial particles.
- A range of theoretical methods including FDTD, GA, MoM, CFEM.
- Holographic antennas, ultra-wideband (UWB) antennas and optimisation of UWB systems to operate over a range of directions, and a range of other antennas including dielectric-resonator antennas, microstrip/patch antennas, short-horn-based antennas, EBG resonator antennas, PIFAs, and multi-band printed planar antennas.

ACHIEVEMENTS

- In the last six years CELANE researchers have published over 140 papers, including 5 invited book chapters.
- CELANE has attracted funding worth nearly five million dollars since 2002 from both government and industry sources.
- The excellence of research conducted by CELANE PhD students and staff has been recognised through many external awards from organisations such as the International Union of Radio Science (URSI, Belgium), Institute of Electrical and Electronics Engineers (IEEE) Antennas and Propagation Society (USA), IEEE Microwave Theory and Techniques Society (USA), Lund University (Sweden), the Australian National Committee for Radio Science, and IEEE New South Wales Section.
- CELANE researchers won the Best Invention Disclosure Award at the Macquarie University Inaugural Innovation Awards in 2004.
- CELANE researchers frequently receive invitations from experts around the world to write invited book chapters and to give invited papers at international conferences (14 since 2003).
- Most CELANE PhD students have successfully completed their PhD in 3-3.5 years. Several international examiners rated their research in the top 10% in the world.

FACILITIES

- The Australian Antenna Measurement Facility (AusAMF, see photo this page), a collaborative facility administered by Macquarie University and hosted by the CSIRO ICT Centre, includes an anechoic chamber, a spherical scanning system, a PNA, and a computer-controlled data acquisition system.
- Software to design electromagnetic, microwave and optical devices and systems including Ansoft HFSS, CST Microwave Studio, XFDTD, IE3D, BandSolve, Cadence, Optiwave, and FDTD/GA codes.
- State-of-the-art multi-processor, high-performance computation hardware including latest ACCELERWARE hardware accelerators.
- High-quality desktop workstations are provided to our research students for individual use. When required, access to national supercomputing facilities such as ac3 and APAC is available.
- Several microwave vector network analysers and access to a Terahertz imaging system.
- Electronic and mechanical workshop facilities for the fabrication of antennas, periodic surfaces and other components.

INDUSTRY LINKS AND OTHER COLLABORATIONS

- Strategic long-term collaboration link with the closely located CSIRO ICT Centre, Marsfield (Sydney).
- Joint research with 13 universities from the USA, UK, Canada, Italy, China, and India.
- CELANE provides expert advice or solutions to several international and local companies.

MORE INFORMATION AVAILABLE

Contact Professor Karu Esselle:
Tel: (61 2) 9850 9041
Email: esselle@ics.mq.edu.au or karu@ieee.org
or go to: www.engineering.mq.edu.au/research
RESEARCH OPPORTUNITIES

RESEARCH AREA: INTEGRATED WIRELESS COMMUNICATIONS SYSTEMS (IWCS)

RESEARCH CONDUCTED
The Integrated Wireless Communications Systems (IWCS) research group brings together researchers to design and develop advanced wireless technology from communication theory and techniques to systems and hardware. Research conducted by IWCS and its collaborators includes: radio frequency (RF) techniques; antennas for wireless systems; digital signal processing for wireless communications; integrated analogue design (CMOS and BiCMOS); and integrated digital design (CMOS).

GROUP STRUCTURE
This research group comprises Macquarie University staff led by Professor Tony Parker, Director of the Centre for Microwave and Wireless Applications (CMWA); Macquarie University PhD students; staff from the University of Adelaide and the University of South Australia; Professor Neil Weste of NHEW R&D; and contributions from organisations including: Australian Research Council; Cadence Inc; Intel; Peregrine; Applied Wave Research; and Jazz Semiconductor.

CURRENT PROJECTS
Current projects in this research area include:

- **Millimetre Wave Communication Systems for Consumer Applications**: this is a linkage project with NHEW R&D Pty Ltd to develop a single-chip, short-range, wireless network radio operating at 60 GHz. The innovative design flow and techniques utilise new Silicon Germanium technology to pave the way for low-cost consumer applications of such technology. The new design flow enables development of complete millimetre wave radios.

ACHIEVEMENTS
IWCS is the birthplace of Radiata, Macquarie University's most successful commercial start-up business venture in the communications and microelectronics sector. Radiata was founded by Adjunct Professors David Skellern and Neil Weste.

FACILITIES
- Full suite of microelectronic CAD tools including software from Cadence, MWA, Mentor, and Agilent. Macquarie University is one of the few universities with a Cadence licence for design of radio frequency (RF) integrated circuits.
- State-of-the-art microwave test equipment including 50GHz HP8510 network analyser, 40GHz distortion and spectrum analyser, microwave wafer-probe station, nonlinear large-signal vector analyser, and pulse IV transistor characterisation facility.
- Design and measurement tools including: the Cadence design suite; industry-standard microwave circuit stimulation and electromagnetic analysis software; design tools; integrated optics and photonics devices; and custom version of the SPICE circuit simulator.
- Wide range of commercial and in-house software tools and high-speed computing facilities for modelling and design of electromagnetic, electronic, and microwave systems.
- Excellent computing facilities are provided to our postgraduate students and when required, access to national supercomputing facilities such as ac3 and APAC is available.
- Via our research collaborators, there is access to nonlinear network analysis equipment and integrated circuit fabrication facilities.

INDUSTRY LINKS AND OTHER COLLABORATIONS
- Applied Wave Research Inc
- Australian Research Council
- Cadence Inc
- CSIRO
- Intel
- Jazz Semiconductor
- NHEW R&D Pty Ltd
- Optus
- Peregrine
- University of South Australia
- University of Adelaide

MORE INFORMATION AVAILABLE
Contact Centre for Microwave and Wireless Applications (CMWA)
Director: Tony Parker
Tel: (61 2) 9850 9131
Email: tonyp@elec.mq.edu.au
or go to: www.engineering.mq.edu.au/research

Michael Boers, PhD Student in Electronics

“As a PhD student and member of the IWCS research group at Macquarie University, I am conducting research on the design of next generation wireless networks. Applications for this technology include wirelessHD video streaming, last meter giga-bit LAN for desktops and other close range, high-speed wireless systems. The research environment at Macquarie is very motivating. The research staff and academics provide excellent advice and guidance. I find undertaking a PhD at Macquarie much more exciting and rewarding than a normal 9-5 job. This is because it provides excellent opportunities such as being a part of a great research group, the opportunity to attend international conferences, and to network with people and organisations with similar interests.”
RESEARCH OPPORTUNITIES

RESEARCH AREA: COLLABORATIVE NONLINEAR ELECTRONICS RESEARCH FACILITY (CNERF)

RESEARCH CONDUCTED
The Collaborative Nonlinear Electronics Research Facility (CNERF) investigates the nature of distortion generation in electronic communications circuits, develops tools for designing microwave transistor circuits with optimal performance, and invents accurate transistor models for use in the commercial sector. It has established several projects with external partners, and supports a world-class facility for microwave testing and measurement.

GROUP STRUCTURE
The research group structure comprises Macquarie University staff led by Professor Tony Parker, Director of the Centre for Microwave and Wireless Applications (CMWA); Postdoctoral Research Fellow Peter Blockley; representatives from companies such as Agilent Technologies and Mimix Broadband; and collaboration with the University of Waikato (New Zealand).

CURRENT PROJECTS
- Overcoming Transistor Performance Issues for Emerging Millimetre-Wave Applications: this is a linkage project with Mimix Broadband to investigate the operation of transistors for emerging millimetre-wave applications, such as point-to-point communications and automotive radar. The resulting new circuit design methodologies extract better performance from a given fabrication process. Transistor operating range, linearity, and characterisation have been enhanced and are being incorporated in the commercial design flow. This partnership with Mimix Broadband was Highly Commended at the 2007 Macquarie University Innovation Awards.
- Achieving high linearity over broad bands in transistor circuits for communication applications: This project will deliver techniques for designing transistor circuits with low distortion for broadband microwave and millimetre-wave applications such as wireless networks, telemetry, and communications.

ACHIEVEMENTS
- CNERF is a pioneer of the arbitrary-pulse semiconductor parameter analyser. Pulse testing gives a low-cost measure of what a signal sees. It is vital to the ongoing investigation of anomalous transistor behaviour.
- A venture with Agilent Technologies resulted in the development of software and hardware for an instrument that enables next-generation broadband communications systems. The software implements a full calibration traceable to the national standards laboratories. The instrument has immediate applications in developing power-efficient, low-cost base stations for the deployment of telecommunications infrastructure. As a result, the team won the 2005 Macquarie University Innovative Partnership Award.

FACILITIES
- Full suite of microelectronic CAD tools including software from Cadence, MWA, Mentor, and Agilent. Macquarie University is one of the few universities with a Cadence licence for design of radio frequency (RF) integrated circuits.
- Microwave measurement equipment up to 50GHz (few locations in Australia can deal with frequencies above 30GHz), including wafer probing and network and spectrum analysers.
- Wide range of commercial and in-house software tools and high-speed computing facilities for modelling and design of electromagnetic, electronic and microwave systems.
- PhD students are given the opportunity to gain work experience in the R&D laboratories of our collaborating partners.
- High-quality desktop workstations are provided to our research students for individual use. When required, access to national supercomputing facilities such as ac3 and APAC is available.
- Via our research collaborators, there is access to nonlinear network analysis equipment and integrated-circuit fabrication facilities.

INDUSTRY LINKS AND OTHER COLLABORATIONS
- Agilent Technologies Inc
- Applied Wave Research Inc
- Mimix Broadband Inc
- University of Sydney
- University of Waikato (New Zealand)

MORE INFORMATION AVAILABLE
Contact Centre for Microwave and Wireless Applications (CMWA) Director: Tony Parker Tel: (61 2) 9850 9131 Email: tonyp@elec.mq.edu.au or go to: www.engineering.mq.edu.au/research

DR SIMON MAHON, DIRECTOR OF MMIC DESIGN, MIMIX BROADBAND, NORTH SYDNEY

“Over the last four years, Mimix Broadband and staff from the Department of Electronic Engineering at Macquarie University have worked together on aspects of non-linear behaviour in gallium-arsenide transistors and diodes. This has provided students with access to world-class expertise in circuit design and applications, and the opportunity to have test circuits fabricated in a major commercial foundry. A number of process technologies have been explored, and non-linear models are under development for applications in amplifiers and mixers. Several PhD students are now working on related projects under scholarships funded partially by Mimix Broadband.”
RESEARCH OPPORTUNITIES

RESEARCH AREA: GUIDED-WAVE OPTICS & PHOTONICS RESEARCH (GWOPR)

RESEARCH CONDUCTED

Guided-wave optics and photonics are fundamental to most broadband telecommunications and sensing systems, from optical interconnects for integrated circuits and high-speed computing to optical spectroscopy for environmental and biomedical sensing. Key challenges for the future are to reduce the cost of such systems whilst increasing functionality and robustness, and to develop optical devices and systems which can adapt to changing circumstances. Novel polymer materials and mass-production of microstructured waveguides and integrated optical devices are believed to be key elements in meeting these challenges and therefore, are currently a major research focus of the GWOPR group at Macquarie University. The group also has expertise in ultrashort pulse and multiwavelength fibre lasers, nonlinear guided-wave optics (eg optical supercontinuum generation), microwave photonics (eg terahertz beamforming, and radio-over-fibre systems), medical imaging (eg optical coherence tomography), and design and numerical modelling of optical devices and systems. GWOPR research targets applications in telecommunication and sensing systems.

GROUP STRUCTURE

The GWOPR group is led by Professor Graham Town and currently includes four postgraduate research students. GWOPR is a member of the University’s MQPhotonics Research Centre, and also participates in the Quantum Information Science and Wireless Applications concentrations of research excellence at the University.

CURRENT PROJECTS

- Guided-wave polymer optics: novel polymer-based materials, clever design, and low-cost fabrication methods to develop inexpensive and adaptive polymer optical waveguides and devices such as optical fibres, optical filters, and integrated optical sensors and switches.
- Optical continuum generation: generation of extremely broadband optical noise, sometimes described as having “the bandwidth of a lightbulb, and the brightness of the sun” for applications in sensing systems.
- Optical device design by inverse scattering: design of grating filters and other guided-wave devices using the mathematical approach of inverse scattering.
- Terahertz beamforming: electro-optic generation and direction of terahertz radiation for ultra broadband telecommunications.
- Radio-over-fibre systems: development of low cost systems for distribution of broadband wireless signals.
- Microstructured polymer optical fibres: design and fabrication of “holey” or microstructured optical fibres with controlled nonlinearity and/or dispersion.
- Telecommunications regulations: Collaboration with Macquarie University staff in Law and Financial Studies on studying the impact of regulations on broadband availability and take-up in Australia.

ACHIEVEMENTS

- Patents in the area of microstructured fibre fabrication and processing
- Highly cited and influential publications

FACILITIES

- Two fibre optics and photonics laboratories equipped for the development and testing of broadband active and passive optical devices and fibre-based systems, eg with various lasers, microwave and optical spectrum analysers, and optical network analysis to 20GHz
- Polymer fibre drawing system used to fabricate custom polymer optical fibres
- A comprehensive set of software design tools including:
  - the Cadence design suite for integrated electronics
  - the Olympios design suite for integrated optics
  - the OptiWave suite for design and modelling of optical devices and systems
- Access is available to the following University facilities:
  - Class 100 clean room
  - Wet laboratory for polymer materials fabrication and processing
  - UV laser, femtosecond tunable laser, and other associated equipment in the Centre for Lasers and Applications

INDUSTRY LINKS AND OTHER COLLABORATIONS

- ACORN (ARC Communications Research Network)
- Australian Nuclear Science and Technology Organisation (ANSTO)
- CSIRO
- DSTO (Defence Science and Technology Organisation)
- Mimix Broadband
- Optus
- Peregrine Semiconductor
- The GWOPR group has strong links to several university research groups in Australia and Europe

MORE INFORMATION AVAILABLE

Contact Professor Graham Town:
Tel: (61 2) 9850 9145
Email: gtown@ics.mq.edu.au
or go to: www.engineering.mq.edu.au/research

PROFESSOR GRAHAM TOWN

Graham Town is an electrical engineer with 8 years experience in the Australian electronics industry and 20 years experience in tertiary education and research. He was responsible for setting up Macquarie University’s first engineering degree, and is currently the Engineering Program Director and Head of the Department of Electronic Engineering. Graham’s experience and interests are diverse, including microwave and antenna systems for telecommunications and avionics, medical imaging systems, and fibre optics and photonics for applications in telecommunications and sensing. He has over 130 refereed research publications in these areas. At Macquarie University Graham leads the Guided-Wave Optics and Photonics Research group.
RESEARCH OPPORTUNITIES

RESEARCH AREA: QUEUEING THEORY AND PERFORMANCE ANALYSIS

RESEARCH CONDUCTED
Queueing theory and performance analysis involves the use of mathematical, probabilistic and statistical theory and techniques to understand and improve the operation of systems. The types of systems this research covers include those systems typically found in communications networks and computing systems. In particular, the research concentrates on multiserver queueing systems, point process theory, heavy-tailed distributions and resource allocation techniques. Projects in all these areas are available.

GROUP STRUCTURE
The research group is led by Dr Rein Vesilo.

CURRENT PROJECTS
Current projects include:
- the analysis of multiserver queueing systems in distributed computing systems
- the analysis of multiserver queueing systems with heavy-tailed service times
- scheduling in wireless systems

ACHIEVEMENTS
Achievements include:
- key theoretical results in the understanding of long-range dependence in point processes
- the analysis of size-based job scheduling in server farms
- the impact of service time moments on the performance of multiserver queueing systems

FACILITIES
- Wide range of commercial and in-house software tools and high-speed computing facilities for modelling

INDUSTRY LINKS AND OTHER COLLABORATIONS
The group has collaborations with researchers at:
- Australian National University
- Carnegie Mellon University (USA)
- CSIRO ICT Centre, North Ryde (Sydney)
- EHSAL University (Brussels, Belgium)
- Wroclaw University (Poland)

MORE INFORMATION AVAILABLE
Contact Dr Rein Vesilo:
Tel: (61 2) 9850 9133
Email: rein@ics.mq.edu.au
or go to: www.engineering.mq.edu.au/research

PETER BLOCKLEY, POSTDOCTORAL RESEARCH FELLOW

“I have completed both my undergraduate and PhD studies at Macquarie University. For my PhD I worked on advanced measurement systems for next generation wireless communications systems in collaboration with Agilent Technologies. Completing my PhD at Macquarie provided me with the opportunity to excel through connections with leading companies, resources, and skilled supervision. This experience enabled me to publish 7 papers, win a best paper award at an international conference and also a Macquarie University Innovation award. Now that I have completed my PhD, I have become a postdoctoral Research Fellow at the university, researching a new generation of high power transistor suitable for mobile phone base stations. Macquarie is recognised for its expertise in high-frequency transistors and the research group is rapidly expanding. These reasons attracted me to continue my research at Macquarie.”
DEPARTMENT OF ELECTRONIC ENGINEERING
RESEARCH PROFILE

Research conducted by the Department of Electronic Engineering at Macquarie University is based on a history of engagement with industry and international partnerships. Past ventures with Hewlett Packard and CSIRO seeded the expertise and research culture in telecommunications that has resulted in the growth of the several highly regarded research groups namely: the Centre for Electromagnetic and Antenna Engineering (CELANE); the Collaborative Nonlinear Electronics Research Facility (CNERF); and Integrated Wireless Communications Systems (iWCS) which together comprise the Centre for Microwave and Wireless Applications. In addition, there is the Guided-Wave Optics & Photonics Research group (GWOPR), and the research work conducted in Queuing Theory and Performance Analysis.

The pioneering contribution to wireless computer networking developed in collaboration with the CSIRO is a significant highlight. This culminated in the creation of Radiata, Macquarie University’s most successful commercial start-up business venture in the communications and microelectronics sector. It was eventually acquired by Cisco Systems. Adjunct Professors David Skellern and Neil Weste, the founders of Radiata are still active within the Macquarie University community. David is the Chair of the Department of Electronic Engineering’s Industry Advisory Committee, and Neil still conducts wireless research at the University.

A successful strategy of the research groups in the Department is to focus on problems of interest to partners in industry and other research institutions. This has successfully provided engagement with industry and international partnerships which includes industry linkage funding, and a level of support normally associated with larger groups.

Our graduates have secured excellent industry positions or very competitive research fellowships, and their research excellence has been recognised by national and international awards.

OPPORTUNITIES FOR PhD STUDENTS AT MACQUARIE UNIVERSITY

- Broaden your network and experience by working with key industry people and potential employers
- Unique opportunity to be a member of an outstanding research team
- Career development by earning a PhD
- Opportunities to collaborate with and meet international researchers
- World-class research facilities available
- Supportive research environment

SCHOLARSHIPS

Several full-time scholarships are available and most cover tuition fees and an excellent living allowance that is tax-free. They include:

- APA scholarships for domestic (Australian and New Zealand citizens) PhD and Master students
- EIPRS scholarships for international (not Australian or New Zealand citizens) PhD and Master students
- MQRES scholarships for PhD students of any nationality

FOR MORE INFORMATION ABOUT ELECTRONIC ENGINEERING POSTGRADUATE OPPORTUNITIES

Department of Electronic Engineering – Student Support Services
Tel: (61 2) 9850 9500
Fax: (61 2) 9850 9102
Email: enquiries@engineering.mq.edu.au
www.engineering.mq.edu.au

Disclaimer: This publication is correct at time of printing: July 2008. Macquarie University reserves the right to change program details at any time. Program fees are set on an annual basis and may vary from the fees published here.

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