Electronic Engineering

About this area of study

Electronic engineering is a specialisation within electrical engineering. It is a diverse and expanding field as new electronic equipment applications are found. Electronics engineers design, develop, test and maintain electronic parts and systems used in computers, communications, navigation, industry and entertainment. They may perform the following tasks:

- design circuits for electronic control systems and instrumentation
- prepare and supervise designs, specifications, estimates, tenders and contracts
- program and operate computers to assist with complex calculations
- work out the type and arrangement of circuit parts and develop testing equipment and methods
- work out the type of installation, location, layout and transmission medium by assessing communication traffic and levels of service at installations
- work out and monitor performance, safety standards and methods for modification, maintenance and repair
- check installations to make sure they meet contract conditions
- research new applications of technology
- talk to clients, other engineers, technical officers, technicians, trades people and other workers.

Employment opportunities for graduates include consumer and industrial electronics design, automotive electronics, radio frequency (RF) system design, telecommunications, control electronics, digital signal processing and very large scale integrated (VLSI) circuit design.

Key skills that Electronic Engineering graduates demonstrate include

- technical and engineering skills
- analytical and problem-solving proficiency
- communication and interpersonal skills
- teamwork skills
- investigation and research techniques.

Courses offered by Deakin University include

- Bachelor of Engineering (major in electronics)

Labour market information

Grads online has information regarding graduate salaries and where graduates go after completing their course www.gradsonline.com.au

Job Outlook has information about the labour market outlook http://joboutlook.gov.au

Related occupations

- Computer engineer
- Electrical engineer
- Electrical or electronics engineering technologist
- Electronics engineering associate
- Electronics engineering technician
- Patent examiner
- Programmer (IT)

An industry career profile, salary and other employment information can be obtained from the My Future website www.myfuture.edu.au

Descriptions of occupations can be found at The Job Guide www.jobguide.thegoodguides.com.au

Employers

BHP Billiton www.bhpbilliton.com/graduates

IBM www.ibm.com/employment/au/graduates

Siemens www.siemens.com.au

General Electric www.ge.com/au

CitiPower/Powercor www.powercor.com.au

BlueScope Steel www.bluescopesteel.com/graduates

Ford Motor Company www.careers.ford.com.au

Worley Parsons www.worleyparsons.com/graduates

For specific employment opportunities visit the following sites

Deakin University Jobshop www.deakin.edu.au/jobshop

ITWire http://jobs.itwire.com

Jobnet www.jobnet.com.au

Gurus http://gurus.com.au

Graduate Opportunities www.graduateopportunities.com

Uni Grad www.unigrad.com.au

Seek www.seek.com.au

My Career www.mycareer.com.au

Career One www.careerone.com.au

Professional associations

Engineers Australia www.engineersaustralia.org.au

Engineers Australia (Vic division) www.vic.engineersaustralia.org.au

Association of Professional Engineers, Scientists and Managers, Australia (APESMA) www.apesma.asn.au

Technology Industry Association www.tia.asn.au

CPG Australia http://au.cpg-global.com