What's Next?

Electronic Engineering

Bachelor of Engineering (Honours) in Electronic Engineering

Electronic Engineering is small scale, low voltage, component level, microchips and programming. Electronic Engineers are behind the rapid development of information technology and create, design and develop everyday devices like mobile phones, tablets and computers. They also develop devices used in medicine, security and business. Electronic Engineers apply their expertise in the way electricity is used to control equipment.

Electronic Engineering offers a range of exciting career opportunities and challenges, including innovations and developments in telecommunications, robotics, computing hardware and electrical equipment.

Core Skills

Transferable Skills

Analysis and problem solving

Logical and mathematical reasoning

Research and analytical skills

Teamwork

Technical skills

Communication skills

ICT Skills

Degree-specific Skills

Knowledge of mathematics, physics, electrical science, engineering and engineering software

Develop software, design electronic hardware, to analyse the operation of circuits and systems, to use electronic test equipment, to debug and repair circuits, to use modern computer-based engineering packages

Contribute to the design of a component system, product or process to meet business and technical requirements

Identify and solve commonly encountered engineering problems in electronic engineering

Communicate technical information and work autonomously and as a member of a team; to take a leadership role within work teams

High ethical standards in the practice of engineering, including the responsibilities of the engineering profession towards people and the environment.

Career Options

A qualification in engineering is highly regarded and valued by many employers for the relevant, transferable skills and competencies you can bring to a wide range of professional fields.
Graduating from your engineering degree leaves you with a range of opportunities to think about and you need to spend time in your final year carefully researching your options, either graduate employment or further study.

Examples of types of roles for this qualification:

Test, develop, design electronic circuits or microchips (hardware), write programmes (software) for products, computer packages, games, mobile phone networks, provide technical support for products and R&D. Such as:

- **Microelectronics:** developing the miniaturisation of electronic systems including microchips and applying electronic engineering to medical applications to develop medical devices equipment, such as hearing aids and pacemakers
- **Personal devices:** Working on development of light electronic equipment including smartphones, tablets, game consoles, digital cameras etc
- **Control systems and automation:** the control of automated systems used in manufacturing industry, including robots, which are widely used in car and appliance manufacture

- **Transport:** Developing equipment to aid transport, including navigational control systems and radar
- **Audio-visual:** creating and advancing developments in the audio-visual aspect of the entertainment industry.
- **Telecommunications:** designing and developing

See more information on career options here:
http://www.mycit.ie/careers
www.gradireland.com
https://www.prospects.ac.uk

Employers

Examples of employers in this sector include:
- Abbott
- Ericsson
- Intel
- Ryanair
- Dell
- Siemens
- Nikon
- Liebherr
- Qulacomm
- Boston Scientific
- Jaguar Land Rover
- Analog Devices
- Three
- ESB/Electric Ireland
- Defence Forces/Naval Service

Where are CIT graduates working?

Job Role	Company
Engineer	Qualcomm
IT Analyst	Defence Forces
Naval Service Programmer	Irish Naval Service
Manufacturing Engineer	Dell EMC
Application Engineer, Trainer & Technical Support Engineer	Innovative Total Solutions and Cobots.ie
Radio Technician	Irish Defence Forces Naval Service
IT Technician	Naval Service

Starting Your Job Search

Job search takes focus, effort and commitment. It's essential that you create a strong online presence. You need to have a LinkedIn profile and work at building your network. If you blog or have a website, be sure to include links on LinkedIn and on your CV. LinkedIn is about where you want to go, not just about what you are doing now. An ideal starting point is to look for Alumni (former graduates of your college/course). You should also look up companies/industries you want to target. Aim to find the name of the HR Manager and employees in roles you are aiming for yourself, take a look back at their career journey. Follow people who are where you want to go! Make connections! Don';t wait for jobs to be advertised, actively look for roles that interest you.

Graduate programmes are a great career starting point as extra training is provided. A Level 8 degree is the minimum for entry to most programmes. Register with GradIreland:
https://gradireland.com/user

Professional Groups & Associations

Membership of a professional association is a useful way to meet new people in your field and is a good addition to your CV. Many professional bodies have jobs boards and these roles may not be advertised elsewhere. Since 2013, a Level 9 qualification is required to become a chartered engineer. Visit: www.engineersireland.ie to find out more. EI is the professional body in Ireland for engineers from all disciplines.

Relevant professional bodies include:
Engineers Ireland — www.engineersireland.ie
Institute of Industrial Engineers — http://www.iie.ie/
Association for Consulting Engineers of Ireland — www.acei.ie

Postgraduate Study

Graduates with strong results in an honours degree may apply to undertake a taught postgraduate programme leading to the award of Master of Engineering or Master of Science for example or to a research programme leading to a PhD for example. Financial support may be available to suitably qualified candidates from Enterprise Ireland, industry sources or the CIT Postgraduate Award Scheme.

For further information, go to the 'Further/Postgraduate Study' link on the Students page of our website: **http://www.mycit.ie/careers**. You can also use **www.qualifax.ie**

For information on Masters' programmes through English in universities across the EU:
www.mastersportal.eu

Going Abroad

- For career opportunities in the UK see: **www.targetjobs.co.uk; www.gradjobs.co.uk** and **www.graduate-jobs.com**
- Jobs across the EU can be seen on the EURES website and financial supports are available for relocating to another EU country, visit: **https://ec.europa.eu/eures/eures-searchengine/page/main?lang=en#/search**
- Online postgrad fairs for Engineering in UK are a useful way to link in with universities to discuss postgraduate options without the travel. Check out **targetpostrad.com/online-fairs**
- If you wish to work in the USA, Canada or Australia, check out work visa requirements first.There are graduate work visas available to the USA, a great opportunity to gain global experience in your field.
- EURAXESS — is a web portal for finding opportunities to work in research in Europe, including Ireland, and provides access to information and support services for European and non-European researchers. **https://euraxess.ec.europa.eu**