

## **Your Degree in Electrical Engineering...What Next?**

Electrical engineering deals with electricity, electro-magnetism and electronics. Electrical Engineers are specialized in design and development of electrical systems; dealing with electricity generation, transmission and distribution; designing control systems used in cars and airplanes, and design of a range of devices, including generators, motors and transformers.

Electrical engineers may work on a range of projects and technologies, including computers and mobile phones, radars, navigation systems and robots, as well as in the design of household appliances, design of lighting and wiring for new buildings, telecommunication systems and satellite communications.

Graduates with electrical engineering degrees work with electricity in a range of industries. These include:

- Aerospace
- Automotive & Transport
- Chemical
- Construction
- Electronics & consumer devices
- Marine & Shipping
- Materials and metals
- Oil & Gas
- Pharmaceuticals
- Power Generation
- Telecoms
- Satellite & Communications systems
- Utility companies
- Defense Forces.

### **What skills have I gained from my Engineering Degree?**

A qualification in engineering is highly regarded and valued by many employers for the relevant, transferable skills and competencies you bring to a range of sectors.

#### **Core skills gained from your engineering degree include:**

- Analysis and problem solving
- Logical and mathematical reasoning
- Research and analytical skills
- Teamwork
- Technical skills.

### **What Can I do with my Engineering Degree?**

Graduating from your engineering degree leaves you with a range of opportunities to consider. Ideally you will spend a lot of your final year carefully researching your options, which include graduate employment or further study.

## Graduate Employment- types of companies

There are approximately 26,000 people employed within the engineering sector, representing 1.4% of national employment, according to the National Skills Bulletin (2014).

Over 170 engineering firms are multinational. In recent years, electrical engineering has seen a growth of +13.2% on average annually according to the National Skills Bulletin.

There are over 1200 national and multinational employers, 600 of these companies are Irish and employ over 16,000 people in sectors as diverse as medical technologies, pharmaceutical and biopharmaceutical, chemical, electrical, electronic and telecommunications, food and drink, materials handling and automation. The following are examples of companies recruiting electrical engineers:

- Analog Devices
- Irish Distillers Pernod Ricard
- Airtricity
- Eirgid
- Siemens
- Klas Telecom
- ProSys Containment and Sampling Technology
- Nano Power Generation
- Intel
- Electric Ireland
- Board Gais
- Eir
- Jones Engineering Group
- Precision
- PM Group
- MCS Group
- Nahanagan Electrical Engineering Services
- Winthrop Engineering and Contracting
- Ward Automation Ltd
- Kavanagh Engineering
- Callaghan Engineering
- Kyron Innovative Technologies.

**N.B.** Companies often advertise graduate jobs on the job page of a College/University Careers Service website as well as on [www.gradireland.com](http://www.gradireland.com)

Check the jobs page on CIT's Careers & Employability Service website; <http://www.mycit.ie/careers>.

**Enterprise Ireland** has lists of Irish employers in the engineering sector, including an up to date engineering sector profile. See [www.enterprise-ireland.com/en/publications](http://www.enterprise-ireland.com/en/publications)

**Industrial Development Agency-IDA** has a comprehensive list of all multi-national companies in Ireland. Companies manufacturing engineering products and devices in addition to all manufacturers who employ engineers are listed. See [www.idaireland.com](http://www.idaireland.com) click on business sectors and company databases for a full profile.

## GRADUATE PROGRAMMES

You may wish to apply for a place on a graduate programme. These are paid work programmes, sometimes at various locations and many also offer opportunities for further training/education.

Companies often advertise graduate programmes or graduate jobs on the job page of a College/University Careers Service website as well as on [www.gradireland.com](http://www.gradireland.com)

Register with gradireland to get email alerts on employment opportunities as well as job search advice [www.gradireland.com](http://www.gradireland.com) You can pick up a copy of the **Gradireland Careers Directory** for Ireland (north and south) at the Careers & Counselling Service, 2<sup>nd</sup> Floor, Student Centre, CIT.

**Disclaimer:** Information is provided in good faith by the CIT Careers Service. CIT, the Careers Service, and any contributing third party shall have no legal liability or responsibility for any individual's decision made on the basis of this information.

## POSTGRADUATE STUDY

A postgraduate qualification enables you to gain, more specialized knowledge of your primary degree field or develop knowledge in a complementary area. Postgraduate studies can give you a specific technical, vocational or professional qualification and facilitate you in developing a range of key skills including: research, analysis, evaluation and written communication.

For further information, go to the 'Further/Postgraduate Study' link on the Students page of our website; <http://www.mycit.ie/careers>.

See also [www.postgradireland.com](http://www.postgradireland.com) and Engineers Ireland [www.engineersireland.ie](http://www.engineersireland.ie)

## PROFESSIONAL ACCREDITATION

Engineers Ireland (EI) is the professional body in Ireland for engineers from all disciplines. Your BEng (Honours) degree from CIT is fully accredited by Engineers Ireland (EI) for membership eligibility. Since 2013, a Level 9 qualification is required to become a Chartered Engineer.

Engineers Ireland has an Electrical and Electronic division, which provides members with a professional and social network for developing their knowledge base and fostering potential business opportunities. It also has links with other professional associations and organisations, including the Conseil International des Grand Reseaux Electriques (CIGRÉ) and the Electro Technical Council of Ireland (ETCI). Visit: [www.engineersireland.ie](http://www.engineersireland.ie) to find out more.

EI also runs a programme for graduates in their first job. The graduate transition programme is called the Future Professionals Programme and is run with a number of employers. See [more](#).

## MORE INFORMATION

Engineers Ireland [www.engineersireland.ie](http://www.engineersireland.ie)

Irish Engineering Enterprises Federation – [www.ibec.ie/ieef](http://www.ibec.ie/ieef)

Association for Consultancy and Engineering [www.acei.ie](http://www.acei.ie)

Society of Manufacturing Engineers – [www.sme.org](http://www.sme.org)

Pharmaceutical Ireland – [www.pharmaceuticalireland.ie](http://www.pharmaceuticalireland.ie)

For career opportunities in engineering in the UK see [www.targetjobs.co.uk](http://www.targetjobs.co.uk)

TARGET Engineering publication and TARGET JOBS magazines are available from the Careers & Counselling Service or download it from the website above.

The Gradireland publication '*Engineering*' is available at the Careers and Counselling Service or download from [www.gradireland.com](http://www.gradireland.com)

For career opportunities in engineering in the UK see [www.targetjobs.co.uk](http://www.targetjobs.co.uk)

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