

#### **CAREERS SERVICE**

# Your Degree in Civil or Structural Engineering...What Next?

# "Scientists discover the world that exists; Engineers create the world that never was." Theodore Von Karmen 1881

Engineering is a field of opportunities and engineers' skills are in high demand. Civil Engineers design, construct and maintain the physical and naturally built environment, including works like roads, bridges, canals, dams, airports, buildings, and stadiums, such as Croke Park and the Aviva stadium. The Civil Engineering field includes disciplines such as transportation, geotechnical, environmental and structural engineering.

Structural engineering involves the analysis, design, construction and maintenance of structures so they can safely resist the forces to which they are subjected. Structural engineering includes knowledge of materials used in construction, ensuring that they can support the design of the structure.

Did you know that there are more qualified engineers employed in professional sectors other than their chosen specialism than from any other degree stream?

A qualification in engineering is highly regarded and valued by many employers. You have relevant, transferable skills and competencies to bring to a wide range of professional fields.

# Core skills gained from an engineering degree include:

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

# What Can I do with my degree?

Ideally you will spend a lot of your final year carefully researching your options, which includes **employment or further study.** 

# **EMPLOYMENT**

The main job opportunities are in design, planning, construction and supervision. The following five sub-categories employ civil and structural engineers: construction, structural, transportation, environmental & water and geotechnical.

#### **Employers include**:

• Building and engineering contractors, such as, Sisk, Bam, McNamara Construction, Bowen Construction, PJ Hegarty etc

- Local Authorities and Government departments
- Consultancy Practices, such as: Fehilly Timoney & Company, RPS Consulting Engineers, Malachy Walsh, PM Group and Arup
- Airports and railway companies
- Water/electricity/gas and other utility companies.

**Enterprise Ireland** lists Irish employers in the engineering sector, including an up to date engineering sector profile. <u>www.enterprise-ireland.com/en/publications</u> click on Corporate Reports and Published Strategies and Sector and Company Directories.

**The IDA** (Industrial Development Agency) has a comprehensive list of all multi-national companies in Ireland. Companies who employ engineers are listed here: <u>www.idaireland.com</u> (click on business sectors and company databases for a full profile.)

Also, check the jobs page on CIT's Careers Service website; http://www.mycit.ie/careers.

# **GRADUATE PROGAMMES**

Some large companies offer Graduate Programmes which usually range from 18 months to 2 years. This may involve just one role or a rotation of roles in the same department or different departments to learn about the company and see where your interests and skills lie. Training and mentoring is usually included. Companies offer either a full time permanent role or a fixed term contract to graduates and both are paid positions.

Competition for places is tough, as final year engineering students from all over Ireland apply for a small number of places. Companies typically recruit between October and December, so you need to be on the look-out as soon as your final academic year starts. Recent graduates can often apply too, but check with the company first.

Graduate programmes or graduate jobs are also advertised on the jobs page of other Colleges' Careers Services websites.

Register with gradireland to get email alerts on employment opportunities and job search advice, as well as information on salary levels and an A-Z of employer profiles. <u>www.gradireland.com</u>

You can get a FREE copy of the **Gradireland Careers Directory** for Ireland (north and south) in CIT's Careers and Counselling Service,  $2^{nd}$  Floor, Student Centre.

# WHAT ARE 2015 GRADUATES DOING?

| Company            | Job Role                           |
|--------------------|------------------------------------|
| John Sisk          | Civil Engineer                     |
| Arup               | Design Engineer                    |
| Will Rudd Davidson | Graduate Civil/Structural Engineer |
| GSK                | Engineer                           |
| Irish water        | Engineer                           |
| DMA construction   | Engineer                           |

# **POSTGRADUATE STUDY**

Gaining a postgraduate qualification enables you to gain further more specialized knowledge; it 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; <u>http://www.mycit.ie/careers</u>.

**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. It offers access to the job market; assists researchers in advancing their careers in another European country and supports research organisations in their search for outstanding research talent. EURAXESS is supported by 40 participating countries across Europe. <u>Search for jobs here.</u>

#### **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.

Visit: <u>www.engineersireland.ie</u> to find out more.

EI 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 <u>more</u>.

#### FURTHER RESOURCES

- Engineers Ireland <u>www.engineersireland.ie</u>
- Irish Engineering Enterprises Federation <u>www.ibec.ie/ieef</u>
- Association for Consultancy and Engineering <u>www.acei.ie</u>

For career opportunities in engineering in the UK see www.targetjobs.co.uk

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