opportunities in Ireland, north and south sectors include electrical, mechanical, electronic and civil engineering, as well as ICT and tech careers.

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Yours to Shape!

"Every day is different for me depending on where in the world I might be! I could be travelling to different sites for specific projects, having conference calls with different teams or attending seminars."

BIANCA WONG
BSc Hons Architectural Technology
Divisional Sustainability Manager, Kingspan

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Engineers are constantly in demand across a range of different sectors, their technical skills essential to the functioning of many sectors of industry. Our own research in the gradireland Graduate Salary & Graduate Recruitment Trends Survey shows that 20% of available graduate roles are for those from with an engineering qualification. Engineering roles themselves command an average starting salary of €32,152, so there are opportunities out there for graduates to make a solid start to an exciting, and lucrative, engineering career. For employers however, engineering is one of the skills areas that they find lacking amongst graduates. In gradireland’s Graduate Salary & Graduate Recruitment Trends Survey 2019, 36% of graduate employers said that project management skills, which graduate hires lack, are a core area of concern in terms of skills, which explains why so many employers are seeking those with engineering qualifications. There is an enormous amount of opportunity out there for engineering graduates, but you’ll need to develop the skillsets that employers need. See what’s involved in various areas of engineering in our Areas of work section on pages 8–12.

Gain experience
Depending on what type of engineering degree you have, whether it be electrical, mechanical, electronic, civil or a general engineering degree, there will be different roles available for you once you graduate. Your degree type will give you an idea of what area you want to work in, but you’ll also have to think about the skills and qualities you possess. Activities like work placement, internships and your progression through your course will help with this, as it will give you a sense of where your skills fit in the working world. It’s important to explore all your options and to research the different areas that are available to you. Once you have done that, you’ll be better able to tailor skills and experience to the area of interest. Talk to your careers service and network with others already working in the engineering sector, they will be able to help.

Work experience
According to the 2016 census there are 42,771 engineers in the Republic of Ireland alone. At the time of the census, 95% of those engineers were in employment, and increase from the previous census in 2011, when 89% were in employment, still a very high ratio considering the economic difficulties at that time. This data is from the Engineering 2018 report, published by Engineers Ireland. Every year, according to the same report, there are 6,132 undergraduate engineering graduates and 1,589 engineering postgraduates, 16% of which are female. So, the work is there for engineer graduates; however, to put yourself ahead of competition, experience is key. Gaining experience by completing an internship, you’ll not only have a more clear sense of what area you want to get involved in, but you’ll also demonstrate you are passionate about the profession. As your careers develop, earning a Chartership or Fellowship from Engineers Ireland can increase your earning status, to the tune of up between €3,000 and €5,000 extra per year.
**You have options**

67% of engineering employers surveyed by Engineers Ireland believe that there are plenty of job opportunities in the engineering sector and 79% believe that the sector is a good choice for graduates. However, with an engineering degree, your career options will not just be limited to this sector. Many other sectors will be looking for graduates with a background in logical processes, managing a project and understanding complex concepts. Some areas to look into include fire and safety, patents, technical sales and marketing, technical writing and consultancy.

Not everyone ends up in a career directly related to their degree; there is no fixed path that you need to rigidly follow. No matter if you end up being an engineer or doing something completely different, your degree will stand to you. The skills you learn through your course and working life will be valuable and transferable to a wide range of roles.

**Think international**

2018 gradireland research revealed that 16% of Irish engineering graduates planned to look for their first job abroad. A degree in engineering travels well because technical skills have a universal language. Engineers Ireland is a signatory to both the Washington Accord and the Sydney Accord, which means accredited engineering programmes are recognised internationally by other signatories. These include Australia, Canada, Hong Kong, Japan, New Zealand, Singapore, South Africa, the USA and the UK.

Even if you choose to stay in Ireland, a second language is always an advantage as there are many opportunities for travel as an engineer.

**Moving up**

30% of engineering graduates, according to gradireland research, in 2019 plan to pursue further study, either in Ireland or overseas. Gaining postgraduate and professional qualifications after your undergrad degree is often something employers will expect and require from their graduate employees in this sector. Having a postgraduate degree can mean more pay, increased responsibility and better promotion and career development opportunities.

Almost 49% of employers surveyed by Engineers Ireland believe that there was an inadequate supply of engineers entering the sector in the medium term. When asked what kinds of skills they considered important, employers responded that the ‘soft skills’, such as communication, are just as important as – if not more important than – the core technical competences.
Do your research and give yourself the edge!

Prior to graduation and the job application process, do your research and acquire as much knowledge as possible about engineering employers and what they are looking for from graduate recruits.

Before applying for a position, research the company in question extensively and tailor your application for the specific job. Employers can easily identify a generic CV, so make sure yours stands out from the crowd. Along with researching the company, make sure you fully understand the specific role you’re applying for and what it entails so you can highlight the required attributes and qualifications on your application and CV.

Knowledge of the company and role you’re applying for will help prepare you for interview. Ensure that the employer can see that not only do you have the right skills, but that you are also interested in and enthusiastic about the company, and that you have a willingness to develop within your role. Research will help you to figure out which companies are best suited for you. Decide what you want from your career so you don’t waste time applying to companies that don’t suit your requirements. Ask yourself what skills you wish to use throughout your career and what type of projects you’re interested in, and apply to the companies that can satisfy your goals and make best use of your skills.

How to research

Knowing where to begin with the research process can be daunting and confusing, but the more you can learn about a company, the more of an advantage you’ll have over other applicants. At interview, employers won’t want you to simply tell them about their company, but they will want to know how your skills align with their requirements. Investigate the following aspects of a company before application:

- The size of the company
- Its structure (are its offices in Ireland or spread across the globe?)
- The company culture (try to talk to current or past employees, or find information on LinkedIn and blog posts)
- Current projects and past achievements
- The technology employed
- Recent news announcements
- Visit gradireland.com/employers to research all the leading graduate employers.

Research questions

Interviewers will inevitably ask if you have any questions of your own, and having conducted research will ensure you can satisfy such an enquiry. Assemble a list of questions you might be asked and use your research to find the answers. Such questions might include:

- What are the services and products provided by the company?
- Where is the company located?
- Who are its main competitors?
- Who are its clients?
- What markets does it operate in?
- What graduate roles are available and what do such roles offer?
- What qualifications/degrees are required for entry?
- What are the hard and soft skills required?
- What is involved in the recruitment process?
- What are the company’s aims and values?
- Why do you want to work for this company?
How to get hired in engineering

What are engineering recruiters looking for from applicants?

A CV shouldn’t run any longer than two pages, so you need to tailor it in a manner that prioritises the skills, attributes and qualifications relevant to the position you’re applying for. For more help with this, see our article on page 4 on researching employers.

Make sure your CV is readable by using a clear font and sensible text size. Your personal, academic and career qualifications should be listed in reverse chronological order, and employers will take note of any unexplained gaps in your timeline. When listing your academic achievements, ensure all the details are correct and verifiable. While they may not be relevant at this stage, listing impressive Leaving Cert results will help demonstrate your academic record. More CV writing tips can be found at gradireland.com/careers-advice.

If you include a personal statement, make sure it’s of relevance to the position in question. Avoid vague statements like “Ambitious, highly qualified student seeks challenging role.” Instead, be more specific about your qualifications and preferred role, for example, “Civil engineering student in final year, with a particular interest in hydraulic engineering, seeks a graduate position in the construction industry.”

Today, most applications for roles in the engineering industry still take the form of CV and cover letters, but employers are increasingly adopting online application forms.

Skills employers are looking for

Your application will be judged primarily on your technical qualifications, so make sure to explain the skills you possess and how they can be applied to the position. If you completed an internship or have any relevant work placement experience, be sure to...
highlight this. If you have experience in a different sector, highlight any transferable skills (communication, report writing, technical documentation etc) you may have acquired. The most in demand skill for engineering applicants is a knowledge of and proficiency in IT. You will be expected to have a competency with standard office applications. Due to the specialised nature of engineering, knowledge of different systems and packages is often required, especially computer aided design (CAD) packages. Other common applications are digital verification packages, project management software and text editing systems.

Be sure to list any second languages you may be fluent in, as employers find this attractive.

Mentioning that you possess a driver’s licence can also make you stand out.

**Soft skills and transferable skills**
The engineering industry relies heavily on collaboration and teamwork, so employers are seeking applicants who possess a mix of technical and soft skills. Emotional intelligence, good interpersonal behaviour and the ability to form professional relationships are sought after attributes.

**The soft skills demanded by recruiters include:**

- Adaptability and resourcefulness
- Initiative and perseverance
- Communication skills: writing, speaking and listening
- The ability to identify and solve problems
- The ability to motivate yourself and others
- Project management and time management skills

You will likely have developed most of these skills while at university, and the others can be obtained. Joining a college society, volunteering with a charity, travelling and joining a sports team are all ways of honing your soft skills.

**Work experience**
Practical, on the job experience is valued by engineering employers. While your experience doesn’t have to be directly related to the role you are applying for, any knowledge of the sector you can demonstrate will be appreciated. Your university course may offer industry experience; if not, seek out a work placement with a suitable firm. Your college’s careers advisory service should be able to help you with this, and you can visit gradireland.com/work-experience for more information. At gradireland.com/get-started you can see what day to day work in the engineering sector and its related areas involves.

**Interviews and assessment centres**
Just as with other areas like finance and IT, engineering recruiters use assessment centres in their process of selecting applicants for graduate schemes. These centres are designed to test the core competencies of candidates, both technical skills and soft skills. The process usually includes interviews and group activities, and applicants may be required to make a presentation. Visit gradireland.com/careers-advice/interviews-and-tests for advice on negotiating assessment centres, and read the relevant section of the gradireland Directory.

Prior to the formal interview process, engineering firms are increasingly screening candidates through phone and video interviews. Depending on the size of the firm, you may be required to complete up to three interviews. The recruiter will use these interviews to assess the level of your technical and soft skills. You will be questioned on what you studied for your degree, so be sure to revise the subjects and areas you studied. When it comes to technical questions, there aren’t always ‘right’ or ‘wrong’ answers, and the interviewer will often just wish to see if you possess an understanding of basic engineering concepts and technical principles and how confident you are in applying them. Remember that due to the collaborative nature of engineering, an interviewer will also be assessing your soft skills, particularly your ability to relate to people and communicate effectively.
Get experience in engineering with an internship

Gaining industry experience is essential for engineering students. An internship allows you to employ the skills you’ve been taught in a practical, working environment and will prepare you for what to expect from a position in the industry. It also shows you have commitment and will make you more attractive to potential employers.

An internship will help you decide on the specific role you wish to seek in the engineering sector, and which area suits you best. It provides opportunities to network with industry professionals who can give you insights into the topics covered in your college course. Many engineering degrees will offer work placement, sometimes as an additional year. If yours doesn’t provide a placement, seek one out yourself. Opportunities for internships can be found through your college’s careers service, on company websites, and on gradireland.com’s company profiles and work experience sections. If you display genuine enthusiasm, friendliness and pleasant persistence, opportunities will present themselves.

Why take an internship?
An internship allows you to get a feel for your future career before committing to a permanent position. It offers a chance to decide on the specific role you wish to pursue and the type of company you want to work for.

Performing well on your placement can catch the attention of potential employers. Many graduate employers hire students who impress during placements, and they may even sponsor you for further study.

Your employer may offer you a position on completion of your internship. If you haven’t completed your degree you may be fast-tracked through the selection process for a graduate programme.

Even if your internship doesn’t lead directly to employment, you will have acquired valuable skills.

Think ahead
Summer and year-long internships can set deadlines as early as December, with most ending in February. Throughout the year you can find internships on gradireland.com.

Some employers may advertise ‘open deadlines’ or extend their deadlines due to a lack of applications, but it’s wise to get your application in as early as possible.

Start on the front foot
At the beginning of your internship you may feel nervous in an unfamiliar environment. Here are some tips to help you get the most from your placement:

• Be polite and punctual
• Show enthusiasm and a willingness to learn by asking questions
• Take notes so you don’t have to ask for a second explanation
• Be aware of any dress code and dress appropriately

• Accept any criticism you may receive and use it as an opportunity to learn and improve
• Don’t be afraid to ask colleagues for feedback
• At the end of your internship, ask for a reference from your employer and keep in touch; maintaining a positive relationship could lead to further opportunities.

Many engineering degrees will offer work placement, sometimes as an additional year. If yours doesn’t provide a placement, seek one out yourself.
Industrial manufacturing and industry is the biggest employment area for engineering graduates. In a manufacturing environment, engineers are responsible for the safe and efficient planning, management and maintenance of production methods and processes, often working as part of a multidisciplinary team.

The most common backgrounds are mechanical and electrical/electronic engineering, but there is a huge overlap and mobility between disciplines. There are also some primary degrees that specialise in manufacturing engineering.

Where could I work?
Within manufacturing in Ireland, there are two distinctive categories of activity: direct engineering-related products and services; and all other industrial manufacturing enterprises. The engineering sector itself is made up of a wide range of companies providing a diverse range of products and services. The three main categories are aerospace/aviation; agricultural machinery; and process engineering and instrumentation.

Aerospace/aviation
Aerospace is a high-tech industry with opportunities to work in multidisciplinary teams. Engineers will deal with structural design, software engineering and aerodynamics. Systems and electronic engineering are also key disciplines.

Other engineering activities include: specialist restoration of engines; manufacture of products such as seat covers, pillows and mobile towers for mechanical maintenance work; specialist aviation software and telecommunications, such as on-board internet access, in-flight entertainment technologies and digital documentation/wireless applications.

Agricultural machinery
Ireland has a small but strong agricultural machinery sector. Several Irish manufacturers are world leaders in specialised niche areas such as manufacturing mixer and feeder wagons for cattle or producing baling and wrapping systems. The market is almost entirely agricultural but also caters for amenity areas such as golfing. Products include grass balers, feed systems, cattle grids and dairy equipment. The sector comprises small businesses and a few larger companies.

Process engineering and instrumentation
Ireland has a highly developed process engineering sector with an excellent international reputation. This area is engineering at its most precise, refined and technologically advanced level. Activities include the design, testing, installation and maintenance of automated systems, gas analysis/detection systems and test instrumentation. An important specialism is stainless steel fabrication: storage and process vessels with large capacities are custom designed, as well as heating, cooling, mixing and pressure vessels. Another highly specialised area is the production of pipes, valves and fittings. Major clients include the fine chemicals/pharmaceuticals and food and drink sectors, among them top global companies. Other clients include the computer, electronics and automobile sectors. The presence of these international companies has been helped because the Irish process engineering sector has state-of-the-art manufacturing technology and stringent quality control practices.

Industrial manufacturing and production
Industrial manufacturing falls into three main categories: food and drink; chemicals, pharmaceuticals and plastics; and electrical/electronic/microelectronic and precision instruments. The strongest growth areas continue to be in the chemicals/pharmaceuticals sector (see page 9).

Opportunities for engineers range from the design of automated systems, rooted in electronics and software disciplines, to traditional chemical engineering roles. The jobs are continuing to develop and evolve, with growth areas including biomedical product manufacture and plastics/polymers. The current focus on research and development is set to boost the manufacturing industry and new careers are becoming available, particularly for electronic, mechanical and production engineering disciplines.

Industrial and manufacturing engineering offers many areas to specialise in. These include:
- Tool design: inventing and designing tools for machines used in manufacturing processes.
- Robotics: designing, developing and operating robotic systems for the automotive and spacecraft sector.
- Industry management: developing new production processes, analysing manufacturing systems, risk analysis, and improvements to energy and operational efficiency.
- Material process: measuring the performance of materials and components and establishing systems to plan and control manufacturing.

What degree
- Mechanical engineering
- Electrical/electronic engineering
- Manufacturing engineering.
Pharmaceutical, chemical and medical device technologies

The pharmaceutical, chemical and medical device technologies sectors are a vital part of our economy. The Republic of Ireland remains a location of choice for international companies, and most of the top pharmaceutical organisations worldwide have operations here.

Every day, engineers play a vital part in the business of saving lives. They help to shape the health services through the products and processes they develop. Engineers work in many roles ranging from the research and development of new processes and products to the design, construction and management of industrial plants. Essentially they are engaged in the process of changing raw materials into finished products, often with life-saving and health-enhancing consequences.

Where could I work?

Chemical and pharmaceutical

The chemicals industry develops and manufactures the chemicals we need in everyday life in a safe, environmentally friendly and economical way. It’s a diverse industry ranging from pharmaceuticals to biotechnology. Other companies in this sector produce finished products such as adhesives, sealants, paints, fertilisers and resins. The pharmaceutical industry is about the discovery and manufacture of effective medicines and is a significant employment sector in ROI due to the large number of multinational companies based in the country. Many of the world’s top-selling drugs are produced in Ireland. Along with research and development, there are opportunities in process development and production management.

Engineers working in pharmaceuticals and chemicals can find themselves engaged in a wide range of activities, including:

- Developing and implementing processes to produce drugs and medicines, food and drinks.
- Producing new, cleaner fuels from natural resources.
- Designing pollution prevention technologies to protect the environment and human health.
- Research and development: collaborating with scientists and other disciplines in the design and implementation of new products and production techniques.
- Design and construction of chemical and pharmaceutical plants from start to finish.
- Consultancy: providing engineering services to manufacturing companies.
- Manufacturing: working in production, troubleshooting and adapting and optimising production processes.

Medical devices and medical technologies

The Republic of Ireland is a globally established medical technology manufacturing location, with over 450 medical technology companies employing over 38,000 people. The medical devices and healthcare sectors are fundamental to Ireland’s future as a leading producer and seller of high value exports. Ireland has the highest number of people in Europe, per capita, working in the medical technology sector, which is worth €30 billion in exports and €6 billion in imports to the Irish economy. The core work of an engineer in this field is the design and development of medical instruments and equipment. Products cover a broad range, including cardiac surgical implants, dialysis equipment, radiotherapy technologies and many more. Engineers working in the medical devices and technologies sector can be employed in many possible areas, including:

- Biomaterials: researching appropriate materials for implantations in the human body, such as coronary stents, pacemakers and hip and knee replacements.
- Biomechanics: applying mechanics to biological or medical problems to develop artificial human functions, such as artificial hearts and joint replacements.
- Rehabilitation engineering: designing and developing prosthetics and assistive technologies to improve the quality of life of people with disabilities.
- Clinical engineering: the determination and assessment of life cycles and capabilities of medical equipment technologies, through to their decommissioning and disposal. As well as working with medical device manufacturers, engineers can also find career opportunities in other areas, such as:

  - Government: product testing and establishing safety standards for medical devices.
  - Hospitals: advising on the selection and application of medical equipment, performance testing and maintenance, and building special devices for specific healthcare and research needs.
  - Research centres: participating in direct research activities in collaboration with other researchers from medical and science backgrounds.

What degree

- Chemical, Process, Biochemical and Biomedical engineering
- Mechanical design.
These sectors have a well-established presence in the Irish economy. They are responsible for the provision of a huge range of high-demand products worldwide: software, hardware and telecommunications.

Where could I work?
The electronics, ICT and telecommunications areas are rapidly developing, with new innovations impacting on every aspect of daily life, from healthcare to computers to transport. Each innovation brings the possibility of entirely new product developments. These are robust and exciting sectors to work in, with new specialisms constantly emerging.

ICT and telecoms
Engineers working in the computer and software field design and develop state-of-the-art computer hardware, software and information systems. As well as industry, other potential employment areas include the Civil Service, product design and development, and consultancy.

Areas of activity divide into distinctive but linked areas:
- Hardware (network engineering): designing networks, linking computers together, designing new types of chips, processors and computers.
- Software: designing, writing and testing software.
- Information systems: designing, configuring, implementing and installing complete computer systems.
- Telecommunications: designing and developing technologies for broadcast, mobile and optical communications, such as mobile phones and podcasting.

Telecommunications is one of the fastest-moving sectors in the world: telecoms providers need to innovate continually in order to remain competitive. There is a wide variety of jobs for graduates, ranging from research and project management to software development. This is a fast-paced environment which will appeal to people who thrive on challenge and change.

The work of software engineers depends on their age and experience: a junior might write basic code while more senior people are involved in designing and developing large-scale systems and applications. You will usually work at one end of the process, either creating the software or helping to test it.

Network engineers have one of the most technically demanding jobs in IT: setting up, administering, maintaining and upgrading networks. The work will vary depending on the type of company you work for and what its network requirements are.

Electronics
This is a fast-paced, forward-looking industry, offering the opportunity to work on the latest technology.

Electronics are everywhere in the modern world, so this industry encompasses many areas, including consumer goods, medical and communications equipment. There are two types of organisation: component manufacturers, who make integrated circuits and semiconductors; and original equipment manufacturers, who produce equipment such as televisions, mobile devices and other personal electronics.

Control systems and automation is another area within the electronics sector. Engineers develop equipment to aid transport and the control of automated systems in industry, including robots, navigational control systems and radars.

You are likely to be working on projects in a multidisciplinary team, developing new products using the latest technological advances. Project lengths vary depending on your role: a designer may spend a year creating a final product, but an applications engineer supports that product for its entire life, which may be ten or more years. Applications engineering tends to involve more travel, while designers are usually office based. In a product development role you are likely to work on one project at a time, while in a support role you could work on several projects a day.

What degree
- Electronic engineering
- Computer engineering
- Software engineering
- Systems engineering.
Construction and civil engineering

Civil engineers and building services engineers work for large construction companies, engineering contractors, consulting engineers and, in the public sector, for local authorities. They are involved in the design and supervision of a wide range of infrastructure projects.

There are also opportunities for graduates with companies providing engineering services to the construction industry, for example in the production of plants, tools and equipment or in servicing specialist areas such as quarrying or waste management.

Where could I work?

Civil engineering

Civil engineers design and supervise the construction of a huge range of projects including buildings, roads, railways, tunnels, bridges, power stations, dams, water supply and sewerage systems. Civil engineering offers graduates a high-tech career with the chance to travel and work outdoors, and to work on projects that involve multidisciplinary teams including architects, quantity surveyors and building services engineers.

Civil engineers can work for a wide variety of companies including firms of consulting engineers, engineering contractors, construction companies and local authorities. They are also employed by property developers, transport infrastructure companies and government departments.

Generally speaking, the work of civil and structural engineers will combine site and design work. However, consulting engineers tend to focus more on design while contracting engineers will spend more time on site.

Consulting engineers are responsible for working with clients to design, plan, manage and supervise the construction of projects. Their work involves carrying out site investigations and feasibility studies; developing detailed designs; liaising with other professionals such as architects, building services engineers and quantity surveyors; and ensuring the smooth running of projects and completion within budget and on time.

Contracting civil engineers turn the plans of designers into reality. They liaise with the design team and oversee the actual construction on site. Their work involves organising manpower and materials; observing safety standards; negotiating modifications with the designers; scheduling work; and supervising construction, including the work of subcontractors. They use specialist equipment to survey sites to ensure that the construction work is being carried out in the right place and that the structure is safe.

This career area is open to any engineering graduate, although a civil or structural background is advantageous. Numeracy is essential, as are communication skills.

Building services engineering

Building services engineers ensure that the buildings we live and work in are comfortable, safe and energy efficient. They do this by designing building services systems and supervising their installation and operation. Typically 30–40 per cent of the total construction costs in commercial and industrial buildings are associated with the provision of services such as lighting, heating, air conditioning, power, data communications, public health systems and lifts.

The work involves advising clients and architects; designing suitable systems (using computer-aided design) and supervising their installation; and liaising with structural engineers, construction managers, builders and surveyors.

Building services engineers are employed by consultancies, contractors, local authorities, the public health and healthcare sector, universities and the manufacturing industry. You will need to demonstrate strong technical competence, design skills and commercial awareness. Communication skills are essential for liaising with other professionals, as is the ability to work in a team. A good level of numeracy is needed to make complex calculations and estimates for clients.

What degree

- Civil/structural engineering
- Construction engineering
- Structural engineering
- Environmental engineering
- Geomatics
- Mechanical engineering
- Electrical engineering.
Utilities, energy and renewables

Engineering is primarily about problem solving and these skills can be used in many different areas, particularly as new areas of work develop. New degree subjects such as energy engineering reflect the growing interest in fields such as environmental engineering and renewable energy.

Environmental engineering
Climate change and the urgent need for sustainable living and development at all levels have underpinned the rapid need for skilled and specialist environmental engineers. Environmental engineering currently remains within the category of civil engineering, but focuses on projects related to natural resources rather than man-made projects. It prioritises environmental protection and conservation in design and development projects. Environmental engineers can work on a wide range of projects. These could include:

- designing and developing water purification, waste-water treatment, waste management and air-control systems
- environmental impact assessment of current and future development projects
- recycling
- sustainability
- renewable energy resources.

Employers include engineering and environmental consultancies; local authorities; state and semi-state bodies, such as the Environmental Protection Agencies; and research organisations.

Utilities
This sector operates, maintains and manages the facilities and networks that supply and distribute utilities: electricity, gas, water and telecommunications. Companies in this sector aim to minimise losses and to offer customers a low-cost, high-quality service. Areas of activity include energy generation, wholesale trading, transmission and distribution, and water treatment.

The industry offers opportunities for graduates from a wide range of disciplines. You could work in operational or project management roles, or become a specialist engineer.

What degree
- Chemical engineering
- Civil/structural engineering
- Electrical/electronic engineering
- Environmental engineering
- Mechanical engineering
- Manufacturing engineering.

Clean technology
Ireland is a location of choice for this rapidly evolving sector, both nationally and internationally. Government bodies including Enterprise Ireland are promoting and investing in Ireland’s indigenous cleantech industry with the goal of establishing the island of Ireland as a global centre for green technology in niche areas, encompassing engineering, electronics, environment, construction and ICT. In fact, many Irish companies are already considered market leaders in specialist areas such as renewable energy.

Cork Institute of Technology operates a Clean Technology Centre (CTC), which has been providing innovative and effective resource efficiency solutions since 1992. The CTC is widely accepted as the leading waste prevention focused organisation in Ireland as well as being the longest established. It works with local authorities, researchers, businesses and healthcare professionals for innovative solutions in this area.

Power
Power generation and energy supply are about converting a wide variety of energy sources (e.g. oil, nuclear, wind) into energy products used by consumers (predominantly electricity).

Environmental issues are the drivers for change in this sector, particularly in the area of renewable energy. Energy engineers are involved in the research, design and implementation of new energy systems, such as wave energy, tidal energy and wind power. Much of the work is at research stage: as technological breakthroughs develop, more defined roles will emerge.

Employers include third-level and commercial research institutes and companies involved in power generation.

What degree
- Chemical engineering
- Civil/structural engineering
- Electrical/electronic engineering
- Environmental engineering.
The Intel Leixlip campus is home to a semiconductor wafer fabrication facility which produces 14nm process technology on 300mm wafers (a thin slice of semiconductor, such as a crystalline silicon, used for the fabrication of integrated circuits) – the latest generation silicon microprocessors that are at the heart of a variety of platforms and technology advancements which are essential to the way we learn, live and work today. Engineering roles at Intel range from managing mechanical systems and electrical distribution to monitoring water purity and waste management. Intel is the world’s leading producer of semiconductor products with factories located around the globe. Intelligent fabs are key to Intel’s manufacturing leadership. In order to begin your career in Intel you need to have demonstrated excellent technical ability at third level and manufacturing technicians need a two-year or four-year technical degree. This can be in electronic engineering, manufacturing, computer, mechanical, semiconductor, equipment and control, or facilities technology, or technical military training and experience in avionics, electronics, or nuclear fields. However, Intel take on graduates from many disciplines from hardware and software engineers, to manufacturing and marketing disciplines, they look for people who never stop thinking about tomorrow.

What are the main tasks you do in your job in a normal week?
My job involves maintaining a toolset. So, there’s numerous toolsets throughout the factory and I’m in charge of maintaining the tools within my area. On a daily basis I’m basically in charge of carrying out maintenance which is just the day-to-day maintenance carried out to ensure the toolsets stays healthy and reliable. I’m in charge of troubleshooting any unforeseen issues that happens on the toolset.

What skills do you need to be successful in your role?
I work in a smaller area within Intel so we’re kind of like our own separate entity in Intel in fab 24. In my work area, known as etch, there’s a team of five of us and we must obviously be able to clearly convey any occurrences to other shifts and also to our engineering colleagues if there is anything that needs their attention. So problem-solving, attention to detail and communication skills are three that I would use on a regular basis.

What do you love about your job?
It’s very interesting and it’s a challenging environment to work in. No day is the same and also there’s very a good work-life balance in Intel so although you do shift work and you work hard there is also good time off, so I do have plenty of time for my own interests and what I enjoy outside of work.

How did you get into your job?
I went to college in Tallaght and I studied mechanical engineering and I always was quite mechanically minded. I like working with my hands essentially. I had a few friends who worked in intel and there were speakers who would come to Tallaght IT and they talked to you about the job and I just thought it really sounded like a place where I’d fit in.

What skills should students develop if they are interested in this area?
I think communication is a real strong skill to have if you’re going to work in this area. If you’re doing any projects in college or you’re doing any presentations, work on that. Make sure you’re comfortable explaining yourself to people because when you’re working in a place like Intel there might be a situation where it’s very important that you can explain in a concise manner what the situation is and what the plan is and how you’re going to tackle it.
Why did you decide to study a postgraduate and why did you decide on this particular course?
I decided to study a postgraduate course as I felt that it would benefit me in both my career and my personal development. I had completed my undergrad degrees and really enjoyed the challenge. Following this I worked in the industry for some time but felt that I could develop further and be more of an asset to my company. I chose the MSc in CPM because it gave me the opportunity to develop my overall management skills and broaden my knowledge of construction management in general. I work in a consultancy and was moving into more of a management role in my company; the MSc in CPM was the perfect choice to help me develop both the soft and hard skills to effectively manage a team and multiple projects at one time.

What are the major differences, in your view, between your undergrad and postgrad?
Honestly, I would say that the difference between undergrad and postgrad is the freedom you are given to form an idea and nurture this through to form the basis of your study. There is set coursework (for a taught master’s) but you are always encouraged to think outside the box and work your ideas through to a final dissertation. With the undergrad degree, you are laying the foundations of your career that will help you to enter the industry and build your knowledge base. You can gain the necessary experience required to succeed in both your career and your personal development.

I chose the MSc in CPM because it gave me the opportunity to develop my overall management skills.

What were the biggest challenges and how did you overcome them?
I did my master’s part time while still working full-time in a busy structural consultancy. I think that the biggest challenge was juggling work, college and my personal life. I think it is often forgotten that not only do you need to succeed in your educational and professional career, but you need to have a life too. Yes, you need to further your career and education, but life happens regardless, so take time to appreciate it! I was lucky to have a partner by my side who supported me unconditionally through thick and thin, and without whom I would not have succeeded. Another challenge for me was getting back into the mentality of assignments and exams after finishing my postgrad. It was very difficult to balance my work during the day and then start into assignments and self-directed learning in the evening. Luckily, my classmates in the master’s were extremely helpful and we encouraged each other to push through; because we were doing a part-time master’s, we were all in the same boat when it came to work and college. The benefit of working as a team and supporting each other shone through and made the whole experience far more enjoyable.

What benefits did you get from the postgrad and how has it benefitted your career?
From doing the master’s I became a much better manager in my own company. I felt far more capable at managing both the team I work with and the projects that I am involved in. This has benefitted my career to no end as I am not just a better manager but a more developed person: the experience I have taken from both the industry and college will stand to me for years to come.
Tell us about your current job and what it involves?
Currently I am employed by AECOM as a graduate cost manager. AECOM is an American multinational engineering firm. I am in my second year of the graduate development programme which is designed to assist you in preparing for your accreditation exams with your chosen professional body. I am based in Dublin in our Hatch Street office. I work within the transaction advisory/cost management team. My daily role as a cost manager is varied and has included the following; cost planning, preparation of proposals and quotes, preparing initial assessment and monthly bank monitoring reports and undertaking technical due diligence reports on various buildings/sites. I have been employed with AECOM for just over a year now and I have really enjoyed it so far.

How did you get the role and what did the application process involve?
During my final year of college in Waterford Institute of Technology many organisations visited to the college in order to attract hopeful graduates/placement students to their firms. One of these organisations who visited WIT that I was very interested in was AECOM. I attended their presentation and spoke to a senior quantity surveyor, expressing my interest in the company. We swapped emails addresses and contact numbers and begun a dialogue from there. Before any interview I wanted to be sure that AECOM was a good fit for me and following numerous calls and a visit to the office, I completed an interview and later that month I was offered the role I am currently in today.

What advice would you have for someone seeking a similar role?
Start early, not only in your final year of college/university but even before this in your second and third year. I think if you focus on getting good industry experience during your placement/gap year you will put yourself in a fantastic position going forward and as you graduate. Engineering/built environment graduates are in a very lucky position at the moment as the industry is incredibly busy. I am sure many graduates will have multiple offers from great firms, however I would stress that it is very important to research and understand the company that you are hoping to work for to ensure that it is the right one for you.

What skills are key and how have you developed them?
From my limited experience I think these are some of the key skills that a QS should have to in order to the progress within the industry are; a good knowledge of construction, good financial and numeracy management skills, a good working knowledge of MS Excel and the ability to learn how to use specialist software. However, these should not limit you if you are looking for a career in this field as the skills listed above are less important than simply working hard, using your initiative and arriving to work every day with a good attitude.

How do you hope to see your career developing?
My first objective is to sit the Assessment of Professional Competency with the Society of Chartered Surveyors in November 2020 and if I am lucky enough to pass I hope to travel as a chartered QS for a number of years. I am unsure as to how my career will develop after this, I guess it is dependent on the industry in Ireland, however I would love to further my education at some stage.
Do you want to know how well you can do in standard employer aptitude tests? Use the Graduate Benchmark to get an employer’s-eye view on how your performance compares to your peers.

1) **PREPARE** with three practice tests to warm up.

2) **TEST YOURSELF** on the assessments most used by graduate recruiters: numerical reasoning, verbal reasoning and inductive reasoning.

3) **REVIEW YOUR RESULTS** in a personalised report and compare your scores to students in your uni, your year, your subject or across the whole country.

Sign in to [gradireland.com](http://gradireland.com) and go to your dashboard, or search ‘Graduate Benchmark’.
Graduate salaries in engineering

Engineering is an industry with well-defined progression routes in terms of roles and salaries, so let’s see what remuneration, on average, is currently on offer.

Our Graduate Salary & Recruitment Trends Survey 2019 shows that graduate recruits in engineering can, on average, earn €32,152 in their first job. No matter what sector of engineering you hope to focus on in your career, salaries increase as you gather experience. Like most other professions, graduate jobs start out with plenty of scope for development, improvement and subsequent salary increases as you develop your career and gain more specialised expertise in engineering.

Currently, according to gradireland research, 20% of graduate roles were suitable to those from engineering disciplines, which highlights the value which employers place on graduates with these highly sought after collaborative and technical skills.

For certain roles in the engineering industry, a postgraduate qualification is a specific requirement. When it comes to these roles, having completed a PhD or Masters will have an impact on your earning potential.

This table shows a selection from the list of the average salaries from a recent survey by specialist recruiters Morgan McKinley for different engineering roles in Ireland.

<table>
<thead>
<tr>
<th>Role</th>
<th>Years of experience</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering manager</td>
<td>0–5</td>
<td>70–80k</td>
</tr>
<tr>
<td></td>
<td>5+</td>
<td>90–100k</td>
</tr>
<tr>
<td>Manufacturing engineer</td>
<td>0–5</td>
<td>30–55k</td>
</tr>
<tr>
<td></td>
<td>5+</td>
<td>55–65k</td>
</tr>
<tr>
<td>Mechanical engineer</td>
<td>0–5</td>
<td>35–50k</td>
</tr>
<tr>
<td></td>
<td>5+</td>
<td>50–65k</td>
</tr>
<tr>
<td>Automation engineer</td>
<td>0–5</td>
<td>30–40k</td>
</tr>
<tr>
<td></td>
<td>5+</td>
<td>50–75k</td>
</tr>
<tr>
<td>Biomedical engineer</td>
<td>0–5</td>
<td>30–55k</td>
</tr>
<tr>
<td></td>
<td>5+</td>
<td>55–70k</td>
</tr>
<tr>
<td>Design engineer</td>
<td>0–5</td>
<td>45–65k</td>
</tr>
<tr>
<td></td>
<td>5+</td>
<td>55–70k</td>
</tr>
<tr>
<td>Process engineer</td>
<td>0–5</td>
<td>30–45k</td>
</tr>
<tr>
<td></td>
<td>5+</td>
<td>60–75k</td>
</tr>
<tr>
<td>Electrical engineer</td>
<td>0–5</td>
<td>30–55k</td>
</tr>
<tr>
<td></td>
<td>5+</td>
<td>55–70k</td>
</tr>
</tbody>
</table>
Your engineering career planner 2019–2020

Non-finalists

- Start applying for summer internships or placements for 2020. Deadlines can be set before your Christmas break, but employers may not wait until the deadline to start filling their positions, so don’t wait to apply.
- Get involved with clubs or societies in your university or college and try to take on a leadership role. This will help you develop invaluable transferable skills and will look good on your CV when applying to jobs and internships.

Final-year students

- Start applying for graduate jobs as early as you can. Some employers will start assessment centres as early as November. Even if deadlines are as late as Christmas, employers may not wait until the deadline to start filling positions.
- If you are looking into postgraduate study, starting applications in Autumn is ideal. Popular courses will fill up quickly and often you will need to have applied for a course before you can apply for funding.
Winter

- Keep an eye out for any remaining internships with later application dates.
- If you haven’t found an internship, start thinking of other engineering focused activities you can do during the summer break. Looking into shadowing opportunities at a local engineering firm or volunteer abroad working on a construction project.
- If you can’t find an engineering role during the summer, look for part-time work. Any position will help you develop transferable skills.

Spring

- Look into what employers might interest you, and what kind of projects they work on. If you have options for modules in your next academic year, consider what modules suit the employers you like.
- Start research for graduate jobs or internships that might interest you ahead of applying in Autumn.
- Focus on your studies and preparation for exams. A 2.1 degree will be eligible for a lot more positions than a 2.2 degree.
- Keep an eye out for any schemes or graduate jobs that have not yet closed applications yet.

Summer

- If you have secured an internship, or have taken on a job or voluntary role, keep a record of what skills and practices you are learning. This will help with further interviews and applications.
- If you have an internship, ask for a reference when you are finished to use in future applications. Enquire if the company has a graduate programme and if your time there could help with the application when you get to final year.
- If you haven’t secured a placement, work on your own engineering project like developing an app, website or energy-saving household item.
- Look out for vacancies in smaller firms who don’t run graduate programmes.
- Find graduate jobs on gradireland.com.
- Keep a look out for openings in graduate jobs from companies who struggled to fill places or who had graduates drop out last minute.
Training and career development

A career in engineering offers valuable long-term job prospects along with professional qualifications.

The long-term opportunities provided by an engineering career are excellent. It’s not uncommon for graduates to find themselves in managerial roles in their first decade after qualifying, and those who possess initiative and strong communication, teamwork and project-management skills will be rewarded with promotions. A willingness to continue your education and professional development is important.

No matter the specific field of your degree, you can expect flexibility in your career. An engineer’s core skill is problem-solving, which enables you to move between engineering sectors. Acquiring managerial experience will equip you with the transferable skills required to pursue a career away from engineering if you so desire.

Professional qualifications

Achieving accredited chartered engineer status (CEng) should be your aim as a graduate engineer, as this will give you a recognised and valued level of competences, skills and standards. Possessing a chartered engineer status increases your employability and gives you professional recognition.

Graduates seeking to develop their careers should seek out employers that run graduate programmes accredited with either Engineers Ireland or the Institution of Engineering and Technology. Such graded graduate programmes allow graduates to achieve chartered engineer status within a few years of qualifying.

In the Republic of Ireland there are three basic requirements for chartered status: graduates must hold a masters degree; have a four year working/training period (Initial Professional Development); and must submit practice reports and written essays. Along with fulfilling the requirements of your employer-run graduate programme, you will be required to take various training courses covering the following topics: financial awareness, legislation, IT skills, managerial leadership and personal development/communication skills. Visit engineersireland.com for more information and also gradireland.com/engineering.

The criteria are very similar in Northern Ireland. The ideal scenario would see you employed by an accredited employer with an Initial Professional Development Scheme that will allow you to attain the skills and competences required by the Institution of Engineering and Technology. At least two years work must be completed, and in consultation with your line manager you will need to produce a development action plan. You will need to keep records of your competences and learning. When you feel capable, you can consult with your mentor, sponsor and management with regards to applying to register as a chartered engineer. A qualifying report on professional development (QRPD) must be prepared, and you will be required to take part in an hour-long professional review interview.
Continuous professional development for graduates

The Engineers Ireland Future Professionals Series offers structured advancement to graduates through two strands of intense and challenging professional development. Both the CPD Certificate in Professional Engineering and CPD Diploma in Professional Engineering are accredited by the Dublin Institute of Technology (DIT) as Level 9 programmes on the National Qualifications Framework.

**CPD Certificate in Professional Engineering**

Transitioning from University or college to a professional work environment requires serious application and attention from graduates. In collaboration with leading employers, Engineers Ireland have designed their CPD Certificate in Professional Engineering to give recent graduates (up to 12 months since graduating) to become quickly accustomed to the professional standards expected from members of engineering-led teams and organisations. The course will familiarise you with what is expected of you and how you should behave in a professional setting, while speeding up your professional development and increasing your career prospects. The learning objectives of the Certificate include:

- Teaching the expected approaches and behaviours of new recruits to engineering
- Ensuring participants can deliver their work on time
- Developing recruits’ ability to accept and learn from criticism, and to seek constructive feedback
- Providing frameworks for dealing with possible issues, asking the right questions and identifying the appropriate solutions for specific problems
- Developing teamwork skills, including working with clients and on projects managed by your colleagues
- Providing a suitable environment for participants to develop and improve their communication, analytical and technical writing skills
- Optimising Excel as a valuable engineering aid
- Creating an awareness of how engineering recruits are expected to behave, including how to dress appropriately, use acceptable language and show respect for others etc.

**CPD Diploma In Professional Engineering**

The Future Professionals Series’ second strand is suitable for engineers who boast between three and six years’ experience, and who display a commitment to developing their professional abilities. The CPD Diploma in Professional Engineering is a partnership that works alongside an engineering organisation, its people managers and graduates to aid and accelerate the development of semi-experienced graduates into professional engineers. The aim of the course is for participants to develop their skillsets to a level that allows them to make a valuable contribution to a workplace and become respected engineering professionals. The diploma is designed to meet the requirements of the Irish engineering industry and those businesses seeking engineering professionals with expanded knowledge, skills and proficiency.

The diploma’s learning objectives aim to provide graduates with:

- A broad and up-to-date awareness of the wider skills an engineering professional requires
- The analytical and theoretical skills needed to anticipate and cope with the requirements of engineering organisations, including project management, risk management and statistical analysis
- An understanding of the importance and nature of engineering’s financial side, including handling claims and resolving contract disputes
- An ability to predict possible issues, ask appropriate questions and identify the correct solution for specific problems
- An ability to work as part of a team or alongside clients, and contribute to other colleagues’ projects
- The necessary skills and tools for analysing problems, along with leadership, advanced knowledge management and negotiation skills
- An understanding of current developments in Lean Principles and Sustainability in the increasingly global environment of engineering
- An awareness of the competencies required to become a Chartered Engineer.

For more on these programmes visit [www.engineersireland.ie](http://www.engineersireland.ie)
While a postgraduate qualification may not guarantee you an easy entry into an engineering career, statistics show that postgraduates have superior employment prospects. Recent years have seen a growth in the number of engineering graduates who choose to pursue further study in the field, ranging from year-long postgraduate diplomas and Masters programmes to research based MPhils and PhDs. Conversion courses in engineering can also be taken, though they often require a primary degree from a relevant discipline. You can find funded Masters and PhDs advertised in the national press and on institution websites. An up to date list of courses can be found at our course database on gradireland.com/further-study.

It’s common for engineering graduates to take postgraduate diplomas or Masters in business, finance and project management in order to apply for business and engineering related positions upon graduation.

Both the Republic and Northern Ireland have seen heavy investment in Research and Development (R&D) in recent years, with both governments investing in collaborations with academia and industry to boost growth. Institutions are increasingly collaborating with industry to provide courses that combine theory and study with practical experience. For example, NUI Galway’s College of Engineering and Informatics’ PhD and MEngSc in Power Electronics and Energy Conversion are both facilitated by Galway’s Power Electronics Research Centre, which is one of six centres formed by the Programme of Advanced Technology, a partnership between government, industry and academia.

The following is a list of departments and institutions currently offering postgraduate courses in engineering:

- Technological University Dublin, College of Engineering and Built Environment – www.dit.ie/studyatdit/postgraduate/taughtprogrammes/viewbysubject/#engineering
- Dundalk Institute of Technology, School of Engineering – www.dkit.ie/courses/school-of-engineering
- NUI Galway, College of Engineering and Informatics – www.nuigalway.ie/engineering
- Queen’s University Belfast, School of Planning, Architecture and Civil Engineering – www.qub.ac.uk/schools/NBE
- University College Cork, College of Science, Engineering and Food Science – www.ucc.ie/en/sefs
- University College Dublin, College of Engineering, Mathematical & Physical Sciences – www.ucd.ie/eacollege/study/graduateschool
- University of Limerick, Faculty of Science and Engineering – www.scieng.ul.ie
- University of Ulster, Faculty of Computing and Engineering – www.compeng.ulster.ac.uk

A comprehensive, searchable course database, supplied by Qualifax.ie, can be found at gradireland.ie
Top employers in engineering

Every year, we carry out a survey of students to decide the most popular graduate employers in the country. The trendence Graduate Barometer is the largest annual career survey in Ireland and the votes decide the winners of the gradireland Graduate Recruitment Awards and the composition of Ireland’s 100 leading graduate employers. Here are the winners and shortlist for engineering.

1 Intel
2 Jaguar Land Rover
3 Arup
4 Jacobs Engineering
5 Analog Devices
6 John Paul Construction
7 Kingspan
8 PM Group
9 Bombardier
10 Aecom
Register at gradireland.com
### A–Z of employers

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<th>Career Boost Programme</th>
<th>ESB</th>
<th>Co-Innovate Programme</th>
<th>EY</th>
<th>Deloitte Ireland</th>
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### Factfinder

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<tr>
<td>Career Boost Programme</td>
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<tr>
<td>Co-Innovate Programme</td>
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<td>ESB</td>
<td><a href="http://www.esb.ie/careers">www.esb.ie/careers</a></td>
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<tr>
<td>EY</td>
<td><a href="http://www.eyirelandcareers.ey.com">www.eyirelandcareers.ey.com</a></td>
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<tr>
<td>OBC Intel Ireland</td>
<td><a href="http://www.intel.com/jobs/ireland">www.intel.com/jobs/ireland</a></td>
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### Remember to quote gradireland Engineering on your job application

And for further help with searching for jobs, go to: [gradireland.com/career-sectors/engineering](http://gradireland.com/career-sectors/engineering)
The Career Boost programme connects you to a real job with real support in either the Science, Engineering or Technology field in an innovative SME. Jobs can be based anywhere on the island of Ireland, you decide where you would like to work.

The job roles vary, but you will really matter to that business. The focus is on supporting the main management team to create and develop technologically innovative and commercially viable products and services.

Career Boost gives you a unique opportunity to step into a project manager’s role early on in your career, with the comfort of academic support throughout. The positions are for either twelve or eighteen months with 80% of graduates being offered full time positions within the company whilst others used their experience to progress in their career.

It doesn’t matter what time of year you are reading this; we are always on the lookout for good project managers!

All jobs advertised have different criteria however, you must have a qualification which matches the criteria of the position being advertised. For some roles, relevant previous experience in the industry can be an advantage.

How does it meet your future training needs?
You will have the opportunity to study part-time a fully funded Postgraduate Diploma in Business & Management, Queens University, Belfast.

The unique diploma will enhance your personal, professional and managerial capabilities and will provide you with the necessary and valuable business skills that will help support you as you undertake your project role.

A training budget of £1,500/€2,000 is also available. This can be used for attending events, courses, further management training or to pursue other technical qualifications related to your job role.

How do we support you?
All positions are salaried reflecting the responsibility of the role. These posts benefit from mentoring and support by leading academics from relevant universities/colleges on the island. Your academic mentor is there to help and support you throughout the twelve/eighteen months with advice, technical information and support, use of lab facilities – whatever is needed to help you achieve your goals.

What next?
If you want to gain confidence to think independently, benefit from specialist support, showcase your entrepreneurial flair, create new opportunities and boost your career today, visit intertradeireland.com/career-boost to view all current vacancies or to register your interest in the programme.
PRESENTS

graduate careers fair

02/OCTOBER/2019
Simmonscourt, RDS

discover IT

30/OCTOBER/2019
Dublin City Centre

National Student Challenge

06/FEBRUARY/2020
Main Hall, RDS

summer fair

12/MARCH/2020
Dublin City Centre

03/JUNE/2020
RDS, Dublin

Register for free entry at gradireland.com/events
Co-Innovate Programme

Each year we support businesses from the eligible regions to actively recruit up to 40 Project Associates from within Renewables, Life and Health Sciences, Agri-Food & Tech, ICT, Manufacturing and Tradable Services disciplines.

The EU INTERREG VA funded Co-Innovate Programme will facilitate 80 cross border research and innovation linkages between SME and Higher Education Institutes. Each of these academic and business partnerships will identify a unique innovative project that will be specific to the SMEs needs.

The job roles vary from business to business; but the focus is on supporting the main management team to create and develop technologically innovative and commercially viable products and services. The job roles are for a twelve-month period and it is anticipated that the company will provide opportunities for progression to enhance your career development.

Another advantage of the EU’s Co-Innovate Programme is that no matter what time of year you are reading this, we are always on the lookout for good Project Managers.

All jobs advertised have different criteria however you must have a qualification which matches the criteria of the position being advertised. If you have relevant previous experience in the industry that can also be an advantage.

What’s in it for YOU
- Salary up to €40,000 co-funded up to 50% by Co-Innovate Programme.
- Opportunity to work as Project Manager reporting directly to the Senior Management Team within the company.
- Exposure to all departments of an SME and receive a holistic overview of the company.
- On completion of the successful project it is envisaged that there may be opportunities for full time employment within the company.

Academic Support
All our Project Managers get at least two days per month support to include mentoring, coaching and overall guidance on project delivery from a leading relevant university or college. The academic mentor is there to help and support you throughout the twelve months, providing advice and guidance, access to research papers and use of facilities.

Next Steps
If you want to gain the confidence to think independently, showcase your entrepreneurial flair, create new opportunities and develop your career then visit www.co-innovateprogramme.eu/jobopportunities to view current vacancies or to register your interest.

This project has been supported by the EU’s INTERREG VA programme, managed by the special EU programmes body (SEUPB). Match-funding for the project has also been provided by the Department for the Economy in Northern Ireland and the Department for Business, Enterprise and Innovation in Ireland.
At Deloitte, it’s our people who make us succeed. Your background, skills, interests and ideas are what makes you succeed. We value you and everything you can bring to our business. Come and build your career with us.

Business relies on Technology which is why it plays the most vital role in ours. We have a dedicated team of experts working across all our service areas including Tax, Audit & Advisory, Consulting, Corporate Finance and Risk Advisory with the purpose to innovate for a better business.

Our strength consistently lies in the fact that we recruit people who look at complex issues through a different lens. The rise of our Technology Consulting, Cyber Security and Data Insight service offerings and the disruption of our Audit, Advisory and Tax services have created huge opportunities for rewarding careers within our firm. We are looking for graduates with capabilities in active learning, critical thinking, complex and creative problem-solving, all of which correlate closely with engineering graduate skills.

Deloitte is the largest professional services firm globally, with a network of 263,900 people in 150 locations, and almost 3,000 in Ireland. We have a dedicated team of experts working across five service areas: Tax, Audit & Assurance, Consulting, Corporate Finance and Risk Advisory with the purpose to innovate for a better business.

Building a career at Deloitte builds your future as a professional and gives you the opportunity to work with some of the biggest companies not only in Ireland but across the globe. We believe that the work we do, from our partners to our interns makes an impact on our clients, our people and society from Limerick to London, Belfast to Boston or Dublin to Düsseldorf.
What did you study in college?
‘I studied Masters in Electronics and Computers Engineering in UCD.’

Why did you choose the Deloitte Graduate Programme?
‘I chose Deloitte graduate program because it is a perfect mix of technical and non-technical trainings, social activities and rich culture. At one of the Deloitte graduate events, I got the opportunity to meet some of the Deloitte team, who were very open about the culture in Deloitte, work-life balance initiatives, my learning journey, social and sports clubs that one can join etc., which made me confident in choosing the right step in my early career. I knew immediately that this is the right company for me. I came to know the real assets for Deloitte is its people and community.’

What did you find most challenging about the working world?
‘I love challenges, so I take challenges in a positive manner and by overcoming them, it makes me feel stronger and confident in every step. Working with different people, with different mind-sets is another challenge that comes up quite often in the consulting world but Deloitte has various structured learning programs which helps us to understand our colleagues and clients ways of working and how to adapt our styles accordingly.’

How has Deloitte helped you build your career?
‘Deloitte has helped me build my career by giving me the right opportunities to learn and grow in each phase of my career journey. I had my own learning pathway, mandatory trainings, eLearning’s and personal trainings that I can take throughout the year. My team ensure that I had the right amount of time to complete these trainings even if you are working on a very busy client project. I have learned throughout my graduate programme that both personal and professional growth of an individual is of utmost important to Deloitte.’

Do you have any mentors and if so what is their value to you?
‘Each and every person I met in my team has in some way motivated me and helped me in growing my skills. Their value is incomparable in my life. I really value their advice and cannot thank them enough in there help towards progressing my career.’

What is the most valuable thing you have learned since you joined the workforce?
‘The most important thing I have learned since joining the workforce is that we always have to keep a positive spirit in whatever work we do. Also, Respect and integrity plays an important part when working in a team both internal and external to Deloitte. Furthermore, I have learned to ask as many questions as you want, as no question is a silly question.’

What’s the one thing you wish you knew when you finished college?
‘I wish I knew how awesome my job would be. I thought it would be a regular job with the same work done each day. But now I can say I was totally wrong, as my job includes work that is different each day, includes travel to various countries, social and sports events etc. All this makes me happy and satisfied by my choice of company after finishing college.’
Use your gradireland dashboard to make your job hunt easier

1. **Your profile**
   Keep your profile up to date. This is your career passport so it’s in your best interests to complete it in as much depth as possible. We can then send you the most relevant careers advice and jobs information possible.

2. **Shortlisted courses**
   Interested in postgraduate options? Save the courses you are interested in and revisit them at a later date.

3. **Favourite content**
   Found an article or video useful? Save it here. We recommend saving useful content throughout your career journey – from choosing a career to the day you get hired by your favourite employer.

4. **Your CV**
   Make your applications easy: save your CV to your dashboard.

5. **Recently viewed**
   Jump straight back into advice, videos, internships, jobs and events you were recently exploring.

6. **Shortlisted jobs**
   Save all the jobs you are interested in and get reminders when their closing dates are approaching.
The Graduate Benchmark
Test yourself with the three most commonly used aptitude tests, discover your strengths and compare your scores!

Recommendations
Careers advice, internships, jobs and events just for you.

Personalise your job search

Direct messages
You can now receive highly targeted messages from employers and have the opportunity to connect with them directly.

Employers send messages to specific students that they would like to talk to. This could be about a job opportunity you are a good match for or an event they would like you to attend.

We send you an alert to let you know there is a message waiting for you within your dashboard.

Once you’ve read the message, you decide whether or not you would like to continue to talk directly to the employer about the content of the message, ie to find out more about the company or role, or to attend the event.

If you would like to continue the conversation, we will send the employer your gradireland profile, including contact details but excluding sensitive data, so they can contact you directly.

Direct messages within gradireland are the best way to build your network and land your perfect graduate job!
ESB is Ireland’s foremost energy company. We have been supplying power to industry, communities and individuals for over 90 years. Our mission is to bring sustainable and competitive energy solutions to all customers and communities we serve by leading the transition to reliable, affordable, low-carbon energy.

Working at ESB
ESB has a highly trained and committed workforce of more than 7,000 people operating across our diverse and innovative business units. We value each member of our team and we are very proud of our culture of collaboration, innovation and teamwork.

We pride ourselves on our commitment to creating and promoting a positive and inclusive work environment that fosters collaboration and creativity, where all employees feel that their contribution is recognised and valued.

ESB Graduate Development Programme
The objective of our Graduate Programme is to launch you on a fast track to career success. A career with ESB will allow you to shape your future career through challenging and rewarding work enhanced by continuous learning and development.

We have developed our Graduate Development Programme based on the following pillars:
• structured rotations
• challenging assignments
• a supportive Graduate Network
• competitive salary and benefits package
• robust learning and development
• experience working on a wide range of major projects
• exposure to different areas of our business
• a dedicated mentor who will guide you on your career journey

At ESB, your graduate life is about more than just a Graduate Programme. Whichever part of the business you work in, we want you to enjoy being part of our community. We organise regular sports and social activities including sponsored runs, tag rugby, summer barbeque, 5-a-side World Cup and Cross Company Power Challenge.

We have a strong culture of giving back and Corporate Social Responsibility is an embedded part of our company and our culture. We allocate over €1m annually to support organisations working in the areas of suicide prevention, homelessness and educational disadvantage. We support local community groups and we encourage staff to take part in initiatives such as Time to Read and Time to Count schemes for local schools.

We have a number of opportunities for graduates to join our Graduate Development Programme, commencing in September 2020, across the following disciplines:
• Engineering – Electrical, Mechanical, Civil
• IT
• Business
• Finance
• Marketing
• Human Resources

Apply to the ESB Graduate Development Programme at: www.esb.ie/careers/graduates
COMPREHENSIVE CAREERS ADVICE AND JOBS FOR ALL SECTORS

Register at gradireland.com

BRIGHT CAREERS BETTER FUTURES
Everybody has a natural talent. At EY, we want to help you develop yours, naturally.

Have you ever sailed a boat? It takes concentration, creativity and quick thinking. Maybe you’re more of a cyclist? That takes an open mind, a free spirit and imagination. What about playing music? That’s all about interpreting data and following patterns. Whatever your natural talents, at EY we help you develop them naturally into a meaningful career where you can use them to excel.

Why engineering graduates excel at EY

Engineers have to be supremely numerate, original thinkers, with a flair for innovation and imagination. That’s why the natural talent that brought them to engineering, is perfect for the EY Graduate Programme in Audit, Tax, Transactions, Advisory and even IT, Data Analytics & Cyber. We look for engineering graduates to help us create a diverse workforce, with an array of skills and new ideas that can help us build a better working world.

Start your career journey with EY

We’re looking to take your natural talent and develop it across one of our five graduate programmes:

• Assurance (Audit) – become a Chartered Accountant, providing solutions to help our clients make informed decisions that increase stakeholder confidence.
• Advisory – become an experienced Consultant, providing expert knowledge to advise on a broad range of issues across a variety of industries for companies looking to grow, change or improve performance.
• Tax – become a qualified Chartered Tax Advisor, predicting how tax will evolve and advising our clients on how to best react to those changes.
• Transactions (Corporate Finance) – become a Chartered Accountant, advising clients on when and how to buy, sell or merge companies in order to improve growth, competitiveness and profitability
• IT, Data Analytics & Cyber – become an expert in your field, test-driving market-leading analytical software, taking part in knowledge-sharing sessions, working on client proposals, identifying gaps in the market and pitching exciting new solutions.

You’ll join a firm that offers world-class coaching and career development. While there will be a certain focus on building your technical skillset, we also want you to gain the skills needed to manage your workload and create a healthy work/life balance.

The EY Graduate Programme is your career incubator, you’ll become one of the most employable young people in Europe. Quite simply, it’s the perfect foundation to develop your natural talents, naturally.

If you’d like to join Ireland’s most successful graduate employer (winning 10 gradireland awards in three years), we’d love to have you!

Whatever your talent, apply it at EY.
ORIGINAL THINKER

EY Graduate Programme

NATURAL TALENT, DEVELOPED NATURALLY.

Whatever your talent, talk to us...
Who we are?

Think Intel is just a chip maker? Think again. From drones to wearables, makers to gamers, cutting-edge science to sports – Intel is helping innovators of all kinds make the world a more interesting place and experience amazing things. Are you ready to rethink the impossible? With Intel power at the helm, we’re helping to push science and creativity into an exciting new realm.

Making Amazing Experiences Possible

At Intel, we’ll provide you with a mission and a culture that brings your inner passion for innovation and business to life.

Intel is able to innovate because we continually search for new, bold ideas that can disrupt, transform and change companies, markets and the world.

From hardware and software engineers, to manufacturing and marketing disciplines, we look for people who never stop thinking about tomorrow. We value the curious, brilliant, the ones who won’t take “no” for an answer.

At Intel Ireland, we are interested in helping you find work that is just right for your skills and aspirations. Because when you find a career that fits, inspiration accelerates.

Our Leixlip campus is home to a semiconductor wafer fabrication facility which produces 14nm process technology on 300mm wafers – the latest generation silicon microprocessors that are at the heart of a variety of platforms and technology advancements which are essential to the way we learn, live and work today.

Movidius, an Intel company, is transforming the future of computer vision and artificial intelligence (AI). By delivering low-power, high-performance SoC platforms for accelerating perceptual computing, Movidius is at the forefront of a new era of computing that enables new levels of intelligence for drones, robots, cameras, virtual and augmented reality, and other devices at the edge.

Intel Shannon has grown into a core European R&D site for Intel’s Communications and Intelligent Systems businesses. These businesses are quickly evolving from fixed function and isolated embedded applications towards new categories like intelligent systems and software defined infrastructure (SDI).
“Originally from Surrey, one of the problems I faced was settling into, not only a new job but a new country. The supportive culture within Intel was a major help in overcoming this which extended beyond the workplace. Through Intel I have taken part in networking events such as nights out and 5 a side football which have helped me to settle in.

My primary duties include daily equipment monitoring, improving processes and ensuring the operational stability of the toolset. This presents me with a role which offers me variety, challenges and the opportunity to learn on a daily basis. However, during my breaks you can regularly find me chilling by the pool tables.”

Name: George Green  
Education: Loughborough University, BEng in Automotive Engineering  
Position: Graduate Technician  
Date joined: April 2018

“Since joining Intel nearly 3 years ago, I have been offered the opportunity to increase my knowledge of the industry and have been supported in the development of my career within the company, through the numerous training and development classes available on-site. Intel is a workplace which is very fast moving and allows its engineers to continuously grow and improve with the process. In Intel it is all about the work/life balance. Throughout my time here I have been involved in the WIN (Women in Intel Network) where I have helped organise events celebrating International Women’s day and fundraisers for our site charities. Just recently I took part in ‘Intel’s Lip Sync Battle’ raising over €10,000 for our site charities and meeting new friends along the way.”

Name: Katherine Lawrenson  
Education: Queens University Belfast, MEng Chemical Engineering  
Position: Process Engineer  
Date joined: August 2015
6 February 2020
Main Hall, RDS
Dublin 4
12pm – 5pm

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“Every day is different for me depending on where in the world I might be! I could be travelling to different sites for specific projects, having conference calls with different teams or attending seminars.”

BIANCA WONG
BSc Hons Architectural Technology
Divisional Sustainability Manager, Kingspan

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