Electrical & Electronic Engineering

Your Careers Adviser
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T U DUBLIN

OLLSCOIL TEICNEOLAÍOCHTA
BHAILE ÁTHA CLIATH

TECHNOLOGICAL
UNIVERSITY DUBLIN

Skills developed in college

You've developed a range of skills through your education, work experience and personal interests and achievements.

Understanding what skills you have to offer and like to use can help you understand what you want in a career, as well as providing key information for job or further study applications.

In terms of securing a job, academic qualifications alone will not guarantee success. Evidence-based skills sections on your CV can demonstrate the broad range of qualities you have to offer employers.

Opposite are some of the main skills you may have developed while in college:

•   Communication skills, both verbal and written
Expressing ideas effectively and conveying information appropriately and accurately. Influencing others by expressing self effectively in a group and in one to one situations. Showing a range of verbal and nonverbal signals that the information being received is understood.

•   Teamwork/working with others
Working effectively and confidently within a group to achieve a common goal or task. Including understanding your role within the team, and listening and supporting other team members.

•   Problem-solving ability
Identifying, prioritising and solving problems, individually or in groups; possessing the ability to ask the right questions, sort out the many facets of a problem, and contribute ideas as well as answers regarding the problem.

•   Time-management skills/ability to meet deadlines
Managing several tasks at once; being able to set priorities and to allocate time efficiently in order to meet deadlines.

•   Planning and organising
Establishing a course of action for self and/or others to accomplish a specific goal. Planning proper assignments of personnel and appropriate allocation of resources.

•   Leadership skills
Motivating and taking responsibility to lead other people, in order to achieve set goals and objectives.

•   Initiative & self-management
Identifying opportunities and being proactive in putting forward ideas and potential solutions. Self-disciplined and self-motivated, in the pursuit of studies and professional practice.

•   Ability to make quick decisions/work under pressure
Making decisions and taking action. Maintaining performance under pressure and/or opposition.

You may also have developed a wide range of technical/specific course related skills

Types of employers/industry sectors

Some of the main types of employers/industry sectors
in which Electrical & Electronic Eng graduates work include:
- Electronics/Communications/Manufacturing/IT: Computer Manufacturers, Consumer products, Biomedical industry, Robotics
- Process Industries: Chemicals, Pharmaceuticals, healthcare, food and drinks
- Energy Utilities, Suppliers and Providers: State Utilities, Gas/Electrical Suppliers, Independent Power Producers, Energy Service Companies, Local authorities, Renewable Energy Developers, Agents and Distributors, Original Equipment Manufacturers
- Building, Design and Development professionals: Architects, Building/Consulting Engineers, Development companies, Plant Owners and operators, Mechanical and Electrical contractors/ designers, Lighting Designers
- Building Service and Technology Providers: Air conditioning, air tightness, district heating, insulation, HVAC, lighting, heating and cooling, monitoring and targeting, motors and drives, refrigeration, compressed air, process specialists, heat recovery, ventilation
- Renewable Energy Product and Service Suppliers: Suppliers, manufacturers or consultants in the area of PV and Solar Thermal Energy, Wind Energy, Geothermal Energy, Bioenergy
- Energy Technology and Software Development Energy Management Companies
- involved in: Consultancy, Auditing, Metering, Building Energy Management Systems and Facilities Management, Bureaus, ESCOs, Energy Agencies
- Commercial, Industrial and Public Sectors: Offices, Retail Units, Hotels, Sports and Leisure Centres, Community Centres, Healthcare/ Hospitals, Pharmachem, Food and Agri, Mining, Forestry and Timber, Oilrigs, lighthouses, Electronics, Local Authorities, Third level Institutions, Waste and Water Pumping, Small and Medium Enterprises, Defence Forces, Broadcasters, Telecommunication companies, Petrochemical industries
- Transport Organisations: including road and rail networks, Electric and Hybrid Vehicles, racing cars, aircraft, air traffic control, space probes
- Financial/Banking Sector/Business Consultancy
- Logistics and Supply Chain Companies
- Professional Associations/Environmental/Government Agencies
- Education/Training bodies
- R+D companies
- Self-employed

For sector information see:
www.gradireland.com
www.careersportal.ie
www.prospects.ac.uk
www.targetjobs.co.uk

Career options with your course

Some of main occupations and job profiles secured by Electrical & Electronic Engineering graduates include:

- Electrical Engineer
- Electronic Engineer
- Power Transmission Engineer
- Energy Engineer
- Project Manager
- Trainer/Teacher
- Maintenance Engineer
- Broadcast Engineer
- Technical Sales Engineer
- Solar Operations Engineers
- Service Engineer
- Consulting Electrical / Electronic Engineer
- Manufacturing Technician
- Control Engineer
- Test Engineer
- Research and Development Engineer
- Electrical Design Engineer
- Installation and Commissioning Engineer
- Process Engineer
- Commercial and Customer Services Engineer
- Automation Systems Engineer
- Cable Technician
- Project Engineer
- Network Engineer
- Production Engineer
- Quality Engineer
- Technical Author
- Patent Author
- Electrical Estimator
- Electrical Services Engineer
- Electrical Services Designer
- Sustainable Building Designer
- Computer Engineer
- Computer Network Engineer
- Computer Support Services Engineer
- Computer Software Engineer
- Building Services Engineer
- Lighting Designer

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Employers who have recruited in your area

Companies who have recruited Electrical & Electronic Engineering graduates:

- PM Group
- Logicon
- FBD
- Benetel
- Asidua
- Cooney Manufacturing
- Rockwell Automotation
- Dornan Engineering
- Eirgrid
- ESB International
- ESB Networks
- Irish Rail
- Obelisk
- Alton Towers
- Cadalec Ltd
- CIM
- Ericssons
- Siemens

Job Hunting

It is important that you access both the advertised and hidden jobs market and use any and every means available to you to job hunt effectively.

Advertised Jobs

Most University and IT Careers Services have jobs listings on their websites:

www.tudublin.ie/jobscene
Graduate programmes and immediate vacancies

www.prospects.ac.uk & www.targetjobs.co.uk   http://www.gradcracker.com/engineering-jobs
Graduate jobs UK

www.gradireland.com
Immediate jobs/Summer/Graduate programmes

www.mondotimes.com
Local and national press

www.publicjobs.ie
www.localgovernmentjobs.ie
Public service

www.irishjobs.ie/agencies
Complete list of recruitment agencies/online recruitment sites

Company websites

www.tudublin.ie/careers

Other

- Careers fairs – Gradireland Fair – Autumn and Summer Fair, plus many others.
- Notice boards/Student email account/Lecturers
- Company Presentations
- Specialist Magazines & Publications, e.g. Engineers Ireland, Enterprise Ireland, Building Services News, Renewable Energy Focus News (on-line), www.edie.net (jobs section and newsletter), Technology Ireland

Voluntary Sector/Charities

www.activelink.ie
Voluntary Sector/Charity/NGO vacancies in voluntary sector

www.volunteeringireland.com
www.dochas.ie
Association of non-governmental development organisations

www.comhlamh.org
Volunteering opportunities

www.wheel.ie/directory
Directory of voluntary and community organisations

Unadvertised Jobs

Networking

- Networking – who is in my network? – classmates, lecturers, alumni, family, neighbours, colleagues, clubs and societies, TU Dublin Career Development Centre, professional bodies
- Job shadowing/informational interviewing/work experience
- Informational Interviewing/Shadowing
- College work – projects, thesis, placement, guest speakers, student website
- Societies – e.g. guest speakers/events
- Attend events, conferences, short courses, trade shows (e.g. professional bodies, etc), businessandleadership.com (events), cross industry events, i.e. TechBrew/ISIN events/Dublin start-up Commissioner, Engineersweek.ie (Feb), The Energy Show (March), etc.
- Join Alumni Association/Linked-in TU Dublin Alumni group//Related groups on linked-in
- Meet up groups, e.g. - 'Tech for good - Dublin'
- First Destination Reports – previous graduates - employers
- Placements – where did previous students go

Contact companies directly

- Speculative applications + cold calling. Think about your offering.
- Utilise directories – Kompass.com, IDA, professional bodies, Golden Pages
- Contact companies before holiday times – Christmas and Summer
- Get a foot in the door
- Contact companies with ideas of your own to assist their business / save them money

ENTREPRENEURSHIP

- Freelancing/Work experience/Self-employment/Start-Up
- http://www.dit.ie/careers/studentsgraduates/interestedinselfemployment/
- TU Dublin Hothouse - www.dit.ie/hothouse/
- Local Enterprise Office - www.localenterprise.ie
- The Digital Hub - www.thedigitalhub.com

Start Ups:

- Start-up companies – www.startupdublin.com, dublinstartupjobs.com
- FDI and indigenous – www.makeitinireland.com, www.itshappeninghere.ie
- https://angel.co/ - start up jobs worldwide

Track companies

- Scholarships/Competitions/Blogs / Guest lecturer
- Check out Labour Market trends, www.careersportal.ie, IDA, IBEC (Retail/Financial Services), www.tudublin.ie/careers (labour market news)
- Search newspaper business pages on-line to get success stories on businesses as they are growing – TU Dublin Careers website (labour market news)
- Check out industry award recipients,
- Best Workplaces in Ireland (download on gradireland.com)

Other proactive ideas

- Enter competitions / scholarships
- Get Work Experience / internship
- Social networking sites (facebook, twitter, LinkedIn, Facebook, Blog, Discussion Groups)
- Linked-In (set up a profile, link to others, search for companies - employees who have
- Linked-in profiles, advertised jobs)
- Follow & target companies on facebook, linked-in, twitter

For more information on how to go about finding a job and job-hunting sites, See www.tudublin.ie/careers

Interviews

For more information on how to perform in interviews, See www.tudublin.ie/careers

CVs/Cover letters and applications

For information on how to put together a great CV/Cover Letter or Application, See www.tudublin.ie/careers

Useful links (e.g. Company Databases, Professional Bodies, LinkedIn Groups)

This list contains links to some of the most useful websites for your course including professional bodies and associations, employer directories, information sources and LinkedIn groups.

General websites — useful links

- IInstitute of Engineers – www.engineersireland.ie
- The Institution of Incorporated Engineers (IIE) - www.iie.org.uk
- The Institution of Electrical Engineers - www.iee.org.uk
- Engineering Council UK - www.engc.org.uk
- www.iei.ie Institute of Engineers in Ireland – CV posting
- www.cibse.org Chartered Institute of Building Services Engineers
- www.acei.ie Association of Consulting Engineers of Ireland (ACEI)
- www.seai.ie Sustainable Energy Authority of Ireland
- www.energyireland.ie Energy Ireland
- Electro-Technical Council of Ireland Limited - www.etci.ie
- Electrical Manufacturers and Distributors Association of Ireland - www.emda.ie
- Technical, Engineering & Electrical Union - www.teeu.ie
- Power Electronics industry group - www.peig.ie
- Register of Electrical Contractors of Ireland - www.reci.ie
- The Institution of Engineering and Technology - www.iet.org.uk

- IDA Ireland (Company Search & Jobs news)- www.idaireland.com
- Environmental Engineering Vacancies - www.environmentjob.co.uk
- Energy Engineering Vacancies (US/Canada) - www.energycentraljobs.com
- Green Vacancies - www.greenjobs.ie/
- Engineering Vacancies - www.r-e-a.net
- Engineering Vacancies www.thecareerengineer.com
- Engineering Vacancies http://jobs.theengineer.co.uk/
- New Scientist Jobs (Science, Tech & Eng Vacancies) http://jobs.newscientist.com/en-gb/
- Engineering Internships UK www.e4s.co.uk
- Institute of Engineering and Technology Jobs Site http://engineering-jobs.theiet.org/
- Engineering vacancies UK and worldwide www.justengineers.net
- Top Engineering Jobs Website http://www.topengineeringjobs.com/jobs/design/
- Engineering Vacancies www.bulldog.co.uk
- Engineering website for students - www.graduatingengineer.com/
- www.construction-jobs.ie Engineering jobs in construction
- Engineering Vacancies (.ca – Canada; .com.au – Aus) www.simplyhired.ie
- Engineering Vacancies (Europe) www.euroengineerjobs.com
- European Graduate Career Guide and Job Opportunities- www.eurograduate.com
- European Job Mobility Portal (EURES) - www.ec.europa.eu/eures

Other job hunting websites for your course:

- Graduate vacancies - www.tudublin.ie/jobscene
- Graduate Vacancies Ireland - GradIreland
- Graduate Vacancies (UK) - Target Jobs
- Graduate Vacancies (UK) - Prospects
- Graduate vacancies (UK) - Milkround -
- IDA Ireland (Company Search & Jobs news)- www.idaireland.com
- Jobbridge National Internship Scheme- www.jobbridge.ie
- Engineering Vacancies - www.r-e-a.net
- Engineers Ireland - www.engineersireland.ie
- Engineering/Environmental Vacancies and News - www.edie.net
- Public Jobs - www.publicjobs.ie
- Local government jobs – www.localgovernmentjobs.ie
- Opportunities in the UK - http://www.gradcracker.com/engineering-jobs
- Process Engineering Vacancies - www.processengineering.co.uk
- Totally Engineering (Recruitment Website) www.totallyengineering.com
- Engineering Vacancies www.thecareerengineer.com
- Engineering Vacancies http://jobs.theengineer.co.uk/
- New Scientist Jobs (Science, Tech & Eng Vacancies) http://jobs.newscientist.com/en-gb/
- Engineering Internships UK www.e4s.co.uk
- Institute of Engineering and Technology Jobs Site http://engineering-jobs.theiet.org/
- Engineering vacancies UK and worldwide www.justengineers.net
- Top Engineering Jobs Website http://www.topengineeringjobs.com/jobs/design/
- Engineering Vacancies www.bulldog.co.uk
- Engineering Vacancies www.indeed.ie
- Engineering Vacancies(.ca – Canada; .com.au – Aus) www.simplyhired.ie
- Engineering vacancies www.redwood-engineering.com
- Engineering vacancies www.ttrecruit.co.uk
- Institute of Engineering Designers - Directory & Jobs www.ied.org.uk
- Association of Consulting Engineers (Directory) www.acei.ie
- Engineering Vacancies (Europe) www.euroengineerjobs.com
- Iagora (International Jobs & Internships)- www.iagora.com
- European Graduate Career Guide and Job Opportunities- www.eurograduate.com
- European Job Mobility Portal (EURES) - www.ec.europa.eu/eures
- European Affairs Jobsite - www.eurobrussels.com

There are many relevant groups on LinkedIn – do a keyword search and request to join those of interest to you. Some examples:

LinkedIn Groups: Engineers / Engineering in Dublin, Ireland, Engineers Ireland Official Group
Engineering, Manufacturing and Technical Careers UK and Ireland

Further Study

Are you considering further study or training? See www.tudublin.ie/careers for comprehensive information

Some examples of further study programmes undertaken by Electrical and Electronic Engineering graduates:
- MSc Advanced Engineering – TU Dublin
- MSc Applied Software – TU Dublin
- MSc Energy Management – TU Dublin
- MSc Business and Innovation – UU
- MSc Data Analytics – NCI
- MSc Nano Electronics - DCU
- MSc Software Engineering – NUI Maynooth

Conversion courses

Some graduates find that their primary degree did not meet their expectations, either vocationally, academically or personally, and seek change career direction. Conversion courses offer the opportunity to diversify into another chosen career area while meeting the necessary entry requirements for that discipline. However, it should be noted that this is not the case for all disciplines e.g. disciplines such as science and engineering will require an undergraduate degree in that discipline.

Careers open to all disciplines
(Including 'Paths Into…' Series)

Many graduate vacancies don't require specific degree subjects as possession of a degree is taken as evidence of intellectual ability. What is more important to the potential employer is the range of transferable skills and experience you can demonstrate.

Many graduate training programmes take final year students from a wide range of disciplines, register with the Career Development Centre's Jobsence for a full list of programmes. Here is a range of career areas that are potentially open to graduates of all disciplines. It's important to note that some of these options may require further study either on the job or beforehand.
If you are considering diversifying or changing career direction a postgraduate conversion course may be a viable option.

Some examples of career areas open to students of all disciplines:

- Teaching & Education
- Financial Services & Accounting
- Marketing, Advertising and PR
- Retail, Sales and Customer Service
- Banking, insurance and financial services
- Charities and voluntary sector
- Fund management / administration and investment banking
- Human resources, recruitment and training
- Management consulting
- Management, business and administration
- Media and publishing
- Public sector and civil service
- Social, community and youth

For further information see: www.gradireland.com/career-sectors

Self Employment

Ever thought of being your own boss? Think you have an innovative product or service idea that could have commercial value? Want to commercialise your research? See www.tudublin.ie/careers

Other Options (e.g. Time out, travel etc.)

Volunteering and working with communities with is a great way to gain valuable real world experience, to develop new skills, to meet new people, to do something worthwhile and to improve your employability. For more details, see www.tudublin.ie/careers.

Labour Market Information

For information on the latest labour market trends see www.tudublin.ie/careers.

Additional Information/Advice

For any query you might have, please do not hesitate to get in touch with us.