

# Technical Officer / Senior Technical Officer (Manufacturing) Faculty of Engineering and Computing School of Mechanical and Manufacturing Engineering Permanent Contract

## **Dublin City University**

Dublin City University (DCU) is a leading innovative European University. It is proud to be one of the world's leading Young Universities and is among the world's top 2% globally. DCU is known as Ireland's University of Impact, with a mission to 'transform lives and societies' and focuses on addressing global challenges in collaboration with key national and international partners and stakeholders.

DCU has over 20,000 students in five faculties spread across three academic campuses in the Glasnevin-Drumcondra area of North Dublin. Thanks to its innovative approach to teaching and learning, the University offers a 'transformative student experience' that helps to develop highly sought-after graduates. DCU is currently No. 1 in Ireland for Graduate Employment Rate, and for graduate income (CSO).

DCU is a research-intensive University and is home to a number of SFI-funded Research Centres. The University participates in a range of European and international research partnerships. DCU is also the leading Irish university in the area of technology transfer as reflected by licensing of intellectual property.

As a 'People First' institution, DCU is committed to Equality, Diversity and Inclusion - a University that helps staff and students to thrive. The University is a leader in terms of its work to increase access to education, and is placed in the world's Top 10 for reducing inequalities in the Times Higher Education Impact Rankings.

# **School of Mechanical and Manufacturing Engineering**

The School of Mechanical & Manufacturing Engineering has been at the forefront of Teaching, Learning, Research and Innovation in Engineering since its establishment in 1987. Current programmes include Mechanical and Manufacturing Engineering, Biomedical Engineering, Mechatronics Engineering and Mechanical and Sustainability Engineering. The School is a research-intensive school that is home to key researchers affiliated to research centres including I-Form, Insight, ESIPP, MEDeng and the Water Institute, and has particular strengths in Biomedical Engineering, Advanced Manufacturing and Sustainable Systems and Energy. At postgraduate levels, the school

offers taught Master's programmes with Majors in Biomedical Engineering, Simulation Driven Design and Mechanical and Sustainability Engineering, each also with a pathway integrated with Bachelor's degrees.

### **Role Profile**

The School of Mechanical and Manufacturing Engineering is seeking to appoint a Technical Officer / Senior Technical Officer with responsibility for manufacturing (including its Engineering Workshop) to join its team of highly skilled Technical Staff. Our manufacturing infrastructure and staff support undergraduate, masters and postgraduate students across all years and is instrumental in curriculum redevelopment, project support, research activity and outreach programmes. The technical team also supports first year project work, second year design and CAD, third year product design modules and fourth year, Masters and PhD project rig manufacture. As part of the School's contribution to the broader Faculty, the manufacturing team also supports needs (as they arise) in our sister Schools of Electronic Engineering and Computing.

Research at national and international level is also supported by our workshop staff including the SFI funded I-Form Advanced Manufacturing Programme, the new Centre for Doctoral Training (CDT) in Advanced Metallics Systems and large scale rig design and manufacture for our strategic themes of Sustainability, Advanced/Innovative Manufacturing and Bio-medical engineering. Rigs are also manufactured for open days, NRF projects, other university research centres and external clients. Recent capital investment has resulted in the purchase of specialised machining equipment (CNC 3 axis machines) and redevelopment of undergraduate project labs and specialised final year project space. 3D printing suites, CAD labs, Solid-works suites all form part of the enhanced capacity and support offered by our manufacturing team.

### **Principle Duties and Responsibilities**

The successful candidate will join the team of Technical Officers with responsibility for manufacturing in the school, while also contributing to a range of other activities.

- They will have excellent technical, communication and interpersonal skills. He/she
- Have a flexible approach to work and a willingness to assist with new developments in line with Faculty/University Strategy.
- The candidate should also have a strong record of appropriate technical competence and hands-on experience in a specialised high precision workshop environment.
- An excellent knowledge of health and safety legislation as it pertains to workshop facilities, the ability to work with faculty, researchers and students at all levels and excellent IT skills are also required.
- The ability to prioritise work, work to tight deadlines and take responsibility for project deliverables is key to this role.

The candidate will have a role in mentoring, training and teaching related to design and CAD, manufacturing, projects, creativity and innovation and student demonstrations. The appointee will

also contribute to redevelopment of technical content within programmes, offering advice on Advanced Manufacturing Techniques, Advanced Measurement methods, 3D Printing of Advanced Materials and innovative manufacturing. The appointee will be expected to contribute directly to teaching and training, supervision of CAD/Project sessions, student mentoring and advice related to capstone projects. Specifically, the successful applicant will be required to (inter alia):

- Champion continuous technical improvement, set standards and engender flexibility within the team.
- Have oversight of maintenance and operation of specialist equipment to the highest standard.
- Manage materials, stock control, tooling and purchasing formalities.
- Champion the importance of Health and Safety amongst all staff and students.
- Assess risk and put appropriate control measures in place. Ensure follow up action is taken to remove hazards and risk.
- Communicate effectively on the development needs of the workshop technical team and drive technical innovation across the team.
- Expand internal and external activities of our workshop while supporting the manufacturing needs of our Faculty.
- Interest in the design, commissioning and supervision of a student maker space.

# **Qualifications and Experience**

### **Essential Criteria**

Applicants for Technical Officer must hold an NFQ Level 8 degree or equivalent qualifications in Mechanical Engineering or have a minimum of five years' experience in a modern mechanical engineering workshop working as a Toolmaker/Fitter/Turner.

Applicants for the Senior Technical Officer must hold an NFQ Level 9 degree or equivalent qualifications in Mechanical Engineering or have a minimum of eight years' experience in a modern mechanical engineering workshop working as a Toolmaker/Fitter/Turner.

- Experience in the programming and operation of CNC machines is essential as is the ability to use 2D and 3D CAD software and CNC programming based software.
- Teaching experience and/or a willingness to generate and engage with online teaching platforms and technology assisted learning.

# The candidate should also have:

- Excellent technical, communication and interpersonal skills. He/she will also have a flexible approach to work and a willingness to assist with new developments in line with Faculty/University Strategy.
- A strong record of appropriate technical competence and hands-on experience in a specialised high precision workshop environment.

- An excellent knowledge of health and safety legislation as it pertains to workshop facilities, the ability to work with faculty, researchers and students at all levels and excellent IT skills are also required.
- The ability to prioritise work, work to tight deadlines and take responsibility for project deliverables is key to this role.

### **Further Information**

More information on the School of Mechanical and Manufacturing Engineering and its programmes can be found at <a href="https://www.dcu.ie/mechanicalengineering/school-of-mechanical-manufacturing-engineering">https://www.dcu.ie/mechanicalengineering/school-of-mechanical-manufacturing-engineering</a>

# **Essential Training**

The post holder will be required to undertake the following essential compliance training: Orientation, Health & Safety and Data Protection (GDPR). Other training may need to be undertaken when required.