POSITION DESCRIPTION

Position Title: Design Engineer
Organisation Unit: Faculty of Engineering, Architecture and Information Technology
Position Number: 3038235
Type of Employment: Full time, continuing
Classification: Hew Level 8

THE UNIVERSITY OF QUEENSLAND

The University of Queensland (UQ) contributes positively to society by engaging in the creation, preservation, transfer and application of knowledge. UQ helps shape the future by bringing together and developing leaders in their fields to inspire the next generation and to advance ideas that benefit the world. UQ strives for the personal and professional success of its students, staff and alumni. For more than a century, we have educated and worked with outstanding people to deliver knowledge leadership for a better world.

UQ ranks in the world’s top universities, as measured by several key independent ranking, including the Performance Ranking of Scientific Papers for World Universities (43), the US News Best Global Universities Rankings (52), QS World University Rankings (47), Academic Ranking of World Universities (55), and the Times Higher Education World University Rankings (60). UQ again topped the nation in the prestigious Nature Index and our Life Sciences subject field ranking in the Academic Ranking of World Universities was the highest in Australia at 20.

UQ has an outstanding reputation for the quality of its teachers, its educational programs and employment outcomes for its students. Our students remain at the heart of what we do. The UQ experience – the UQ Advantage – is distinguished by a research enriched curriculum, international collaborations, industry engagement and opportunities that nurture and develop future leaders. UQ has a strong focus on teaching excellence, winning more national teaching excellence awards than any other in the country and attracting the majority of Queensland’s highest academic achievers, as well as top interstate and overseas students.

UQ is one of Australia’s Group of Eight, a charter member of edX and a founding member of Universitas 21, an international consortium of leading research-intensive universities.

Our 50,000-plus strong student community includes more than 13,000 postgraduate scholars and more than 12,000 international students from 144 countries, adding to its proud 240,000-plus alumni. The University has about 7,000 academic and professional staff and a $1.8 billion annual operating budget. Its major campuses are at St Lucia, Gatton and Herston, in addition to teaching and research sites around Queensland and Brisbane city. The University has six Faculties and four University-level Institutes. The Institutes, funded by government and industry grants, philanthropy and commercialisation activities, have built scale and focus in research areas in neuroscience, biomolecular and biomedical sciences, sustainable minerals, bioengineering and nanotechnology, as well as social science research.

V6.1 August 2017
UQ has an outstanding track-record in commercialisation of our innovation with major technologies employed across the globe and integral to gross product sales of $11billion+ (see http://uniquest.com.au/our-track-record).

UQ has a rapidly growing record of attracting philanthropic support for its activities and this will be a strategic focus going forward.

Organisational Environment

The Faculty of Engineering, Architecture and Information Technology (EAIT) has long, proud traditions of innovation and leadership across student education and research.

In just over a century, more than 27,000 Faculty graduates have gone on to use their UQ education to have significant impact on our state, our nation and across the world. We believe that lifelong success is fostered at UQ through great education – inspiring students to think differently, ask the difficult questions, be a positive disruptive influence, and fulfil every ounce of their potential.

Our research provides a rich and diverse flow of breakthrough technologies that are helping to improve communities around the world. From novel hydrogen storage and next generation polymers to biomedical engineering and mining safety, our research outcomes are solving problems for local and international communities, and our industry partners.

The Faculty recognises and values equity and diversity, and encourages applications from any individual who meets the requirements of this position irrespective of gender, sexuality, race, ethnicity, religion, disability, age or other protected attributes. The Faculty strives to provide an inclusive working environment, and along with the University is committed to supporting staff with family and caring responsibilities by providing policies, programs and initiatives to help balance work and family responsibilities.

The EAIT Faculty Workshop Group (FWG) plays a pivotal role in supporting teaching and research in design, manufacturing, electrical, electronic and instrumentation.

The FWG is structured under three teams: Skills and Design Training, Prototype Development, and Operations. The Skills and Design Training group will focus primarily on learning and includes the Architecture workshop, the Student Access Workshop (SAW), the Student Technology Centre (STC), and the proposed Student Access Laboratory. The Prototype Development group is involved with the design, development and maintenance of prototyping equipment, ranging from the manufacture of individual components to complex specialist apparatus for use in research and teaching. The group also has the capability to calibrate instrumentation and mechanical safety devices and is also available to participate in procurement activities involving laboratory and workshop equipment. The Instrumentation and Electronics workshop team will support both the Skills and Design and Prototype groups.

For more information about the Faculty, please visit: www.eait.uq.edu.au

Information for Prospective Staff

Information about life at UQ including staff benefits, relocation and UQ campuses is available at - http://www.uq.edu.au/current-staff/working-at-uq

DUTY STATEMENT
Primary Purpose of Position

The primary purpose of this position is to assist staff and students in the Faculty to achieve their teaching and research needs via the design and manufacture of products, prototypes, equipment and instrumentation. You will establish with the clients whether the jobs are best done within the FWG, by an external provider or by a combination of both.

Duties

Duties and responsibilities include, but are not limited to:

Technical

- Define the requirements of the design and build task with the client
- Facilitate the development of detailed designs to meet the client’s requirement
- Ensure designs meet statutory requirements
- Cost the project for the client
- Manage projects or elements of projects in consultation with the FWG Manager, to ensure delivery of project outcomes, value for money and best practice are achieved
- Maintain effective liaison and communication with internal and external stakeholders

Administration

- Support the FWG Manager with scheduling of tasks and workload, considering priority and capacity
- Ensure record keeping is adequate to meet legislation, policy, and cost recovery needs

Occupational Health and Safety:

- Authorise & monitor staff and visitor activity in the workshop for safety and security, providing OH&S information, training and supervision including providing correct and acceptable work procedures and practices
- Ensure workshop inductions are performed for all new staff, students and visitors;
- Perform Risk Assessments on activities undertaken to fulfil the role in accordance with the University’s Risk Management System (see the University’s website at http://www.uq.edu.au/ohs/index.html?page=29960)
- Ensure application of appropriate risk control measures and standard operating procedures
- Comply with requirements of Queensland occupational health and safety (OH&S) legislation and related OH&S responsibilities and procedures developed by the University or Faculty Unit
- Enforce use of appropriate safety systems and personal protective equipment, and
- Comply with safe working procedures and Environmental policy/legislation

Other

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including but not exclusive to:

- the University’s Code of Conduct
• requirements of the Queensland occupational health and safety (OH&S) legislation and related OH&S responsibilities and procedures developed by the University or Institute/School
• the adoption sustainable practices in all work activities and compliance with associated legislation and related University sustainability responsibilities and procedures
• requirements of the Education Services for Overseas Students Act 2000, the National Code 2007 and associated legislation, and related responsibilities and procedures developed by the University

Organisational Relationships

The position reports to the Faculty Workshop Group Manager.

The position has no direct reports but will indirectly supervise workshop staff who have been tasked with Design projects.

SELECTION CRITERIA

Essential

• An Engineering, architectural, robotics or industrial design degree in a relevant field with extensive relevant design and/or management experience in an engineering workshop environment or an equivalent combination of qualifications/training and/or experience
• Demonstrated understanding of:
  o engineering design principles
  o contemporary manufacture and fabrication methods using a range of materials
• Extensive Experience in one or more of the following:
  o creation of designs necessary for prototyping
  o initiating, directing and supporting small engineering and/or architectural design and manufacture projects
• Knowledge and expertise in one or more of the following:
  o instrumentation and electrical and electronic systems
  o new product/concept design and development
  o the manufacture of apparatus for a variety of applications
  o embedded systems design and operations
• Knowledge and experience in the OHS safety requirements of a workshop environment
• Demonstrated Project Management experience
• Ability to
  o work independently and as part of a team
  o effectively communicate with people at various levels including academic staff, students and contractors
  o adapt to working within a wide variety of disciplines
  o be thorough in the approach of tasks, possession of good organisational skills and a commitment to producing high quality work

Desirable

• Relevant supervisory or front-line management training
• Familiarity with workflow management systems
Experience in a tertiary teaching and/or research environment

The University of Queensland values diversity and inclusion.

Applications are particularly encouraged from Aboriginal and Torres Strait Islander peoples.

Applications are also encouraged from women.
This role is a full-time position; however flexible working arrangements may be negotiated.