POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow
Organisation Unit: School of Chemical Engineering
Position Number: NEW
Type of Employment: Full-time, fixed term appointment for 3 years
Classification: Academic Research Level A

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.
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://uniqquest.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 School of Chemical Engineering is an international leader in the chemical engineering field and has an excellent reputation, built over many decades at The University of Queensland.

We deliver quality programs and leadership in chemical engineering education, research and development, and expert consulting to support the process industries. Undergraduate teaching within the School focuses on the disciplines of chemical, biological, environmental and metallurgical engineering and postgraduate programs are available in growing fields including water, sustainable energy and petroleum engineering.

The School's project-centered curriculum was recently recognised as an international exemplar of engineering education. Worldwide, UQ Chemical Engineering was ranked 33rd in the QS World University Rankings 2017 for chemical engineering. We also received the highest score for chemical engineering in Australia in the Excellence in Research for Australia study (2015). Central to the School’s success are our staff, specifically the academic, research and professional staff. They are engaged in pioneering teaching and research crossing traditional disciplinary boundaries, mindful of their role in addressing the big challenges that lie ahead.

As the School enters an exciting phase of building on recent successes in individual industry-linkages and international-research partnerships we are interested in new staff to join us on this journey to further increase our local and international impact in learning and discovery in chemical engineering.

The School recognises and values equity and diversity, and encourages applications from any individual who meets the requirements of this position regardless of gender, sexuality, race, ethnicity, religion, disability, age or other protected attributes. The School 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.

For more information about the School, please visit: www.uq.edu.au/chemeng

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

The University of Queensland Enterprise Agreement outlines the position classification standards for Levels A to E.
DUTY STATEMENT

Primary Purpose of Position

To collaborate on a new ARC discovery project on “Unravelling the dynamics of nitrous oxide production in wastewater systems”. You will manage and engage with research collaborators involved in this project along. A high-calibre researcher is sought to undertake ground-breaking research leading to the discovery and understanding of the microbial processes responsible for the nitrous oxide production in wastewater treatment process. The position will also play an important role in the development of novel technologies based on the fundamental discoveries.

Duties

Duties and responsibilities include, but are not limited to:

Research

- Engage in a team research program, undertake high quality research, assist with external funding applications, engage external stakeholders and publish impact papers in high quality outlets
- Develop biotechnologies, based on scientific discoveries that will lead to significant impact on the industry
- Design and conduct experiments in laboratory and/or field and operate lab-scale bioreactors
- Enrich and characterise microorganisms responsible for the nitrogen removal in engineered systems
- Disseminate knowledge to the scientific community and industry through conferences and industry workshops

Teaching and Learning

- As a ‘Research focussed’ position there is no formal requirement for undergraduate teaching. However it is encouraged that you actively seek teaching opportunities.

Service and Engagement

- Contribute to the processes that enable the academic team to manage the work of the school, including participation in school decision-making and serving on committees.
- Actively engaging and collaborating internally within the school and externally to foster the school’s relations with industry, government departments, professional bodies and the wider community.
- Take on a management role in relevant laboratories and assist in project management;
- Perform a range of administrative functions in the School
- Any other duties as reasonably directed by your supervisor
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 of 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 Dr Liu Ye, senior lecturer and director of International, School of Chemical Engineering.
SELECTION CRITERIA

Essential

- A PhD degree in Environmental Engineering or Chemical Engineering, or thesis submitted before the start date of the position
- Knowledge and experience in biological nitrogen removal processes and fundamental understanding of nitrification and denitrification, such as isotope based technology, FISH molecular methods and pilot-scale wastewater treatment
- Demonstrated experience in laboratory and modelling processes relevant to the research area
- An ability to establish effective relationships and to represent and promote Animal Science at a university and wider community level, including industry, government and professional bodies,
- Ability to design and perform experiments under well-controlled conditions and analyse data
- Evidence of high impact publications in high quality outputs in the research area
- High level interpersonal skills with the ability to work independently and collaboratively with colleagues in a multidisciplinary team
- Demonstrated time management skills and the ability to meet objectives within set deadlines

Desirable

- Demonstrated capability in project management
- Potential to provide academic supervision to postgraduate students
- Potential for contributing to research program development, including external grant applications

Qualification Verification

An appointment to this position is subject to the verification of the highest academic qualification from the conferring institution.

The University of Queensland values diversity and inclusion and actively encourages applications from those who bring diversity to the University. Please refer to the University’s Diversity and Inclusion webpage (http://www.uq.edu.au/equity) for further information and points of contact if you require additional support.

This role is a full-time position; however flexible working arrangements may be negotiated.

Accessibility requirements and/or adjustments can be directed to the contact person listed in the job advertisement.