



POSITION DESCRIPTION

Position Title:	Research Fellow
Organisation Unit:	Advanced Water Management Centre
Position Number:	NEW
Type of Employment:	Full Time, fixed term
Classification:	Research Academic Level B

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 well within the top 100 universities worldwide, measured through a number of major independent university rankings: the Academic Ranking of World Universities, Times Higher Education World University Rankings, US News Best Global Universities Rankings, QS World University Rankings and Performance Ranking of Scientific Papers for World Universities, and is indeed in the top 50 in some of these rankings. In 2013, UQ attracted more Australian Research Council funding than any other Australian university or research body.

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 Australian Teaching and Learning Council Awards for Teaching Excellence 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, and a founding member of Universitas 21, an international consortium of leading research-intensive universities. UQ is also the largest university in Queensland.

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 215,000-plus alumni. The University has more than 7,000 academic and professional staff and a \$1.6 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.

Organisational Environment

The Advanced Water Management Centre (AWMC) is an internationally recognised centre of excellence in innovative water technology and management. The Centre has an outstanding worldwide reputation in urban water management and related fields, and an award winning multidisciplinary team delivers practical technological solutions underpinned by fundamental scientific discoveries.

The Centre has six interlinked programs namely, next generation urban water technologies, integrated urban water management, sewer corrosion and odour management, nexus of urban water, health and environment, resource efficient agri-industry and environmental biotechnology.

Collaborative linkages with industry are strong and solutions developed by the Centre have yielded quantifiable benefits in the order of hundreds of millions of dollars to the Australian water industry and other sectors. At the same time, the AWMC has an outstanding academic publication record, publishing on average more than 100 papers a year in high quality journals including the most prestigious multidisciplinary journals including Nature and Science, and top discipline journals such as Water Research and Environmental Science and Technologies.

The Centre has well-established process, microbiology and analytical labs. The direct collaboration with industry partners has also led to the creation of several field facilities including the Innovation Centre at Queensland Urban Utilities' Luggage Point Sewage Treatment Plant, supporting technology demonstration at larger scales and under practical conditions.

The Centre 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 Centre 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 Centre, please visit: www.awmc.uq.edu.au"Information about the Faculty (Faculty of Engineering, Architecture and Information Technology – EAIT) may be accessed on the Faculty's web site at <http://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>

The University of Queensland [Enterprise Agreement](#) outlines the position classification standards for Levels A to E.

DUTY STATEMENT

Primary Purpose of Position

The AWMC is undertaking research projects focusing on the pilot scale investigation and demonstration of next generation wastewater treatment technologies. These projects aim to develop novel wastewater treatment technologies and integrated wastewater treatment trains that can increase the bioenergy and nutrients recovery from domestic and/or industrial wastewater and reduce the capital and operating costs. The key role of the postdoctoral research fellow would be to undertake research on a range of novel wastewater technologies at the pilot scale.

Duties

Duties and responsibilities include, but are not limited to:

Research

- As part of the AWMC team, deliver research projects in the fields of wastewater treatment, renewable energy recovery and low-cost nutrient removal/recovery process applied to domestic and/or industrial wastes
- Biotechnology development at laboratory- to pilot-demonstration scale
- Perform/oversee set-up, construction, operation and maintenance of the technologies under development, including sampling and routine laboratory analysis
- Contribute to grant applications for sourcing research funding
- Publish research outcomes in the form of scientific and technical reports for project partners and high quality refereed journal publications
- Work with colleagues and postgraduates in the development of joint research projects.
- Prepare research publications and progress reports and participate in regular meetings to discuss project objectives, methodology and outcomes.
- Actively seek research funding from internal and external sources including the Commonwealth research granting agencies, the state government and industry.

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 and supervise at honours and postgraduate level and participate in events to attract postgraduate students.

Service and Engagement

- Actively engage and collaborate within the AWMC and externally to foster the Centre's relationships with industry, government departments, professional bodies and the wider community. This will include meetings with industry partners.
- Foster relations with industry, government departments, professional bodies and the wider community.
- Perform a range of administrative functions.
- Contribute to the processes that enable the academic team to manage the work, including participation in decision-making and serving on relevant committees.
- Management of scope and budget for the primary research project
- 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:

- 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 Dr Shihu Hu.

SELECTION CRITERIA

Essential

- PhD degree in environmental- or chemical engineering related to water/wastewater treatment or a closely-related field
- Experience in the development and demonstration of cutting-edge wastewater treatment processes and technologies at both laboratory- and pilot scale including problem-solving and trouble-shooting
- Demonstrated experience in performing risk assessment and management, and hazard and operability study (HAZOP) for experimental and field applications
- Track record of publication of research findings in peer reviewed journals and conferences
- Ability to develop productive, collaborative relationships with academic colleagues, industry partners and on-site operators/contractors
- Good communication and time management skills, and the ability to meet objectives and deliver milestones within project deadlines
- Experience in effective supervision of Honours and Research Higher Degree students.
- Australian Drivers License required

Desirable

- Knowledge of PLC programming techniques

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.

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