POSITION DESCRIPTION

Position Title: Research Officer / Postdoctoral Research Fellow in Mineral Processing
Organisation Unit: School of Chemical Engineering
Type of Employment: Full-time
Classification: Academic 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 CWTS Leiden Ranking (32), the Performance Ranking of Scientific Papers for World Universities (40), the US News Best Global Universities Rankings (42), QS World University Rankings (47), Academic Ranking of World Universities (54), and the Times Higher Education World University Rankings (66). Excluding the award component, UQ is now ranked 45th in the world in the ARWU, and is one of the only two Australian universities to be included in the global top 50.

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 53,000-plus strong student community includes more than 16,400 postgraduate scholars and more than 17,000 international students from 135 countries, adding to its proud 260,000-plus alumni. The University has more than 6,600 academic and professional staff (full-time equivalent) and a $2.15 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

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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+.

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.

Our people are our greatest asset. We offer collaborative, inclusive work and study places, which are enriched by the significant diversity of our staff, students and community. We genuinely believe that creativity and innovation flourishes in an environment where people feel supported, valued and empowered. Mutual respect, inclusivity and accountability are at the cornerstone of UQ’s culture.

The School is committed to supporting the career growth of women researchers and have a number of initiatives to support women in developing and achieving a fulfilling research career at the Centre.

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

Information for Prospective Staff

The School 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 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.
Further 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](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 Research Associate will work on two projects under the ARC Centre of Excellence for Enabling Eco-Efficient Beneficiation of Minerals: (1) Development of new polymers for controlling froth properties in flotation, and (2) Quantifying the limits of flotation separability. The person will develop fundamental understanding in the laboratory and also apply the research outcomes in industry plants. The person will work with researchers from UQ and other Australian universities.

We aim to produce high quality conference and journal papers to communicate our research outcomes and deliver high quality oral presentations and reports to industry sponsors. The Research Associate will actively participate in this publication process.

**Duties**

Duties and responsibilities include, but are not limited to:

**Research**

- Design and conduct experiments in the laboratory to define problems, formulate research questions and develop solutions.
- Operate and maintain laboratory equipment to match the industry operation and use sophisticated instruments to probe interfacial phenomena.
- Participate in the supervision of research high degree students.
- Publish scholarly papers in high quality conferences and international journals and deliver high quality reports and oral presentations to industry sponsors.
- Attend and assist in organising project review meetings and research group seminars.

**Service and Engagement**

- Participate in the management of the project and lab safety.
- Foster the School's relations with industry, government departments, professional bodies and the wider community.
- 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 Project Leader, Professor Yongjun Peng.

SELECTION CRITERIA

**Essential**

• The applicant should be within 5 years of completing a PhD in Chemical Engineering or a relevant field with experience in mineral processing, or thesis submitted before the start date of the position.

• Demonstrated strong knowledge in mineral processing and industry flotation plants.

• Knowledge and experience in using advanced polymer characterisation tools.

• Ability to generate high-impact research publications and oral presentations.

• Ability to rigorously design experiments, formulate research problems and identify solutions.

• Ability to work in a multidisciplinary team consisting of research high degree students, research assistants, industry senior technical experts and project leaders.

• Demonstrated problem-solving skills.

**Desirable**

• Demonstrated capability in project management.

• Knowledge of flotation chemistry and flotation modelling.

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.