POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow
Organisation Unit: Centre for Water in Minerals Industry
Position Number: 3039172
Type of Employment: Part-time, Fixed-Term
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 (65). 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://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

One of the UQ’s eight research institutes, the Sustainable Minerals Institute (SMI) consists of some 240 staff and postgraduate students covering the areas of mining and geology, mineral processing, environment and rehabilitation, social responsibility, safety and risk, water and unconventional gas. SMI is industry-focused and consequently works with many leading global resources companies and many small-medium enterprises and suppliers. SMI interacts strongly with governments and community. A priority for SMI is the development of talent and providing an environment for successful and rewarding careers. SMI was founded in 2001 and since its inception has established a reputation as a unique institution for integrated sustainable development research in the resource sector. SMI is a truly global institute with staff and students from around the world. SMI's people are also diverse in their discipline backgrounds, which range across disciplines including anthropology, geology, soil science, sociology, hydrology, environmental science, engineering and mine management.

The Institute 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. SMI 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.


SMI comprises six major research Centres which are organised into pairs:

- SMI's Production Centres are the:
  - WH Bryan Mining and Geology Research Centre
  - Julius Kruttschnitt Mineral Research Centre

- SMI's People Centres are the:
  - Centre for Social Responsibility in Mining
  - Minerals Industry Safety and Health Centre

- SMI's Environment Centres are the:
  - Centre for Mined Land Rehabilitation
  - Centre for Water in the Minerals Industry

The Centre for Water in the Minerals Industry (CWiMi)

The Centre for Water in the Minerals Industry conducts research towards achieving sustainable water management in the mining industry. We aim to develop key technologies for the measurement, monitoring and modelling of water in the context of mine operations, their surrounding environments and regional communities.

Information about CWiMi may be accessed on the Centre web site at http://www.cwimi.uq.edu.au/#

This position will primarily work within the Regional Water and Land Resources Program. The Program conducts research and training on water and land management from site to regional scales, covering four areas of research:
1. Mine site hydrology and landscapes. This includes work on site water balances, evaporation, cover design and assessment, spoil heap hydrology and seepage assessment.

2. Regional water and land resources. This includes work on climate change impacts, rainfall modelling, groundwater recharge, groundwater use, catchment hydrology, and cumulative hydrological and water quality impacts.


4. Regional planning tools. This includes developing GIS tools and spatial data sets to elucidate the footprint, costs and benefits of mining and offsetting, in particular considering cumulative impacts.

Research methods include: laboratory work, field monitoring, applying remote sensed data sets, developing and testing new statistical and simulation models and GIS tools, applying and improving existing models, and desktop reviews. We emphasise the importance of national and international collaboration and engagement, currently focussing on Chile, Colombia, Philippines and Canada, as well as Australia.

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 engage, as a Postdoctoral Research Fellow with the Regional Land and Water Resources group, in high quality research for industry outcomes and collaboration with the Institute’s research programs, as well as performing administrative and other activities associated with the Centre for Water in the Minerals Industry.

Duties

Duties and responsibilities include, but are not limited to:

Research

- Engage in independent and/or team research program including external funding, and achieve national recognition in the research area
- Conduct research with emphasis on the topic area of quantification and numerical modelling of flows through heterogeneous pore systems and complex geological structures
- Publish scholarly papers in high quality outlets
- Contribute to an ongoing program of discovery, applied and contract research in the areas of soil science, soil hydrology, soil mechanics
- Develop relationships with industry to form research partnerships.
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
- Participate in events to attract postgraduate students to the Institute
- Contribute to supervision of honours and postgraduate students.

Industry Liaison

- Represent the University in industry or funding body forums
- Develop and deliver original presentations to Industry
- Write reports for Industry and advise on significant Industry issues
- Produce and deliver educational material for Industry
- Develop and maintain a relevant industry network.

Service and Engagement

- Perform a range of administrative functions in the Institute
- Contribute to the processes that enable the academic team to manage the work of the Institute, including participation in the Centre decision-making and serving on Institute committees
- Foster the Institute’s relations with industry, government departments, professional bodies and the wider community
- Any other duties as reasonably directed by your supervisor
- Please refer to the [Criteria for Academic Performance](#).

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 the group leader, or their delegate.
SELECTION CRITERIA

Essential

- PhD in a relevant discipline,
- Knowledge in the area of soil physics and soil hydrology,
- An ability to establish effective relationships and to represent and promote soil physical processes at a university and wider community level, including industry, government and professional bodies,
- Industry liaisons and professional contacts,
- Contribution to research, including successful external grant applications,
- Ability to work independently and collaboratively with colleagues.

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 (insert details of HR contact assisting with recruitment).