POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow
Organisation Unit: Sustainable Minerals Institute, Centre for Water in the Minerals Industry
Position Number: 3010988
Type of Employment: Full time, Fixed Term
Classification: Research 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 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’s web site at http://www.cwimi.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](http://www.uq.edu.au/current-staff/working-at-uq)

The University of Queensland [Enterprise Agreement](https://www.uq.edu.au/policies-and-manuals/enterprise-agreement) outlines the position classification standards for Levels A to E.

**DUTY STATEMENT**

**Primary Purpose of Position**

This Postdoctoral Research Fellow position will focus on hydrological and water resources assessment in mines and mine regions. The role will include developing and applying numerical models, managing field work and engaging with a range of clients and other stakeholders. The role will include assisting with developing new project proposals and project management, as well as delivering existing projects, and academic supervision of undergraduate, MPhil and PhD research projects.

**Duties**

Duties and responsibilities include, but are not limited to:

**Research and Engagement**

- Develop and apply conceptual and numerical models of water balances in mines and mine regions
- Data collection, data management and data interpretation, including statistical analysis
- Lead- and co-authorship of scientific journal papers and project reports
- Supervision of hydrological field work programs and participation in field work
- Participate in the development of research proposals
- Supervise research of interns, research assistants, undergraduate students, MPhil and PhD students
- Participate in academic and industry meetings and conferences, including giving oral presentations
- Project leadership and management as co-Chief Investigator

**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 Professor Neil McIntyre, Group Leader (Regional Water and Land Resources Group).

SELECTION CRITERIA

**Essential**

- PhD in hydrology or water engineering (near to completion candidates will be considered)
- Scientific peer-reviewed publication track record
- High level of computer literacy, including computer programming in Matlab, R or Python, and experience in using GIS software
- Experience in the development and use of water balance models
- Excellent ability to communicate in speech and writing in formal scientific/technical and informal forums
- Previous experience and enthusiasm for working in multidisciplinary team environments
- A strong ethic of project delivery and reporting to specification
- Ability to work collaboratively within a team and actively participate in team discussions
- Enthusiasm to visit field sites over periods of several days
- Responsible attitude to safe working practices, risk assessments and safety training
- Driving license

**Desirable**

- Relevant post-doctoral research or consultancy experience
- Experience in field work
- Experience in the mining sector
- Ability to spend periods working overseas
• Fluency in Spanish

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.