POSITION DESCRIPTION

Position Title: Senior Research Fellow / Principal Research Fellow
Organisation Unit: Centre for Water in the Minerals Industry - Sustainable Minerals Institute
Position Number: 3019737
Type of Employment: Full time, Fixed Term
Classification: Research Academic Level C or D

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://uniqest.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 Centr’e 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

The position will focus on mine waste management, and design and assessment of post-mining landforms in relation to management of water, sediments and contaminants. The position will develop and lead a research group in this area, including developing new projects, technical leadership of projects, project management and research student recruitment and supervision. The position will provide expert advice and consultancy services to the mining sector.

The appointment will be made at Level C or D depending on the qualifications and experience of the preferred candidate.
Duties

Duties and responsibilities include, but are not limited to:

Research and consultancy

- Lead research and consultancy projects including the development of proposals and project delivery as Chief Investigator or co-Chief Investigator
- Specify and implement field monitoring programs and laboratory studies
- Data interpretation, including numerical modelling and statistical analysis
- Lead- and co-authorship of scientific journal papers and project reports
- Supervise research of interns, research assistants, undergraduate students, MPhil and PhD students

Engagement

- Maintain business relationships with existing research and consultancy clients, and build new business relationships with selected prospective clients
- Participate in academic and industry meetings and conferences, including giving oral presentations and generally representing the interests of UQ
- Engage internally in UQ and in SMI, including across disciplines, to create opportunity for collaboration, and to contribute to efficient communication and processes

Leadership

- Lead a research group with staff and student number targets as agreed with line manager, including recruitment and line management of research staff
- Attend group leader meetings, and contribute to discussions about Centre and SMI operations and strategy.

Teaching

- Lead and contribute to delivery of undergraduate and postgraduate coursework modules on water and landform management.

Organisational Relationships

The position reports to the Director, Environment Centres.
SELECTION CRITERIA

Essential

- PhD in hydrology, soil science, geomorphology or closely related discipline
- Track record of successful competitive grant applications including CI roles
- Track record of attracting industry funding
- Track record of delivering research and consultancy projects including large (>250K) projects including CI roles
- Extensive peer-reviewed publication track record
- High level of computer literacy
- Experience in conducting and managing field work
- Track record of oral presentations to audiences including scientists and industry clients
- Ability to work collaboratively within a team and actively participate in team discussions
- Ability to effectively engage with industry, government and civil society organisations
- Responsible attitude to safe working practices, risk assessments and safety training
- Driving license

Desirable

- Ability and enthusiasm to spend periods of days working in the field
- Experience in the mining sector
- Experience conducting and managing laboratory work

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.