POSITION DESCRIPTION

Position Title: Senior Mineralogy Analyst/Research Technician
Organisation Unit: Julius Kruttschnitt Mineral Research Centre (JKMRC)
Position Number: 3017530
Type of Employment: Full Time, Fixed Term
Classification: HEW Level 6

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 $11 billion+ (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.

Information about the Institute may be accessed on the Institute’s web site at http://www.uq.edu.au/smi.

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 **Julius Kruttschnitt Minerals Research Centre (JKMRC)** is a world-renowned research and postgraduate education organisation, located at Indooroopilly in Brisbane, approximately 7 km from the main University of Queensland campus. It was established in 1970, and now forms part of the University's Sustainable Minerals Institute. The mission of the JKMRC is to deliver world-class, customer-focused education, research and technical services to the world minerals industry and allied sectors. The JKMRC has an international reputation for applied research in the areas of mineral processing and geometallurgy. It specialises in ore characterisation, mineral processing unit operations such as comminution and flotation, applied mineralogy, and the interface between mining and
processing. Its emphasis on systems analysis by mathematical modelling and process simulations has led to major new methodologies in the design and optimisation of mineral processing operations. It works closely with the international minerals industry and with other research providers in Australia and overseas. It has graduated in excess of 200 Masters and PhD students, and won many awards for its research. It has a proven record of technology transfer through JKTech, which has significant experience in the commercial delivery of JKMRC research outcomes, particularly in simulation software and ore characterisation methodologies.

Further information on the JKMRC may be accessed via http://www.jkmrc.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

DUTY STATEMENT

Primary Purpose of Position

To manage and oversee the activities associated with the mineralogical characterisation facility at the JKMRC in support of both academics and students.

Duties

Duties and responsibilities include, but are not limited to:

Research/Technical

- Manage and effectively use analytical systems housed in the facility (including Mineral Liberation Analysers (MLA) X-ray tomography, optical microscopy and associated sample preparation equipment) to produce high quality quantitative mineralogical data
- Manage laboratory space occupied by the facility for sample preparation and analytical tools
- Manage data storage and archiving
- Oversee equipment maintenance and repairs and ensure compliance with relevant safety standards
- Lead the development new methods for sample preparation
- Provide training, advance level of guidance and supervision to Research Higher Degree students and Research Staff in the use of laboratory analytical equipment associated with the facility

Occupational Health and Safety

- Perform risk assessments on activities undertaken in accordance with the University’s Risk Management System
- Pro-actively ensure that the highest standards of occupational health and safety are maintained
- Comply with requirements of Queensland occupational health and safety (OH&S) legislation and related OH&S responsibilities and procedures developed by the University or Institute.

**Administration**
- Maintain the supply of laboratory consumables
- General administrative duties within the group
- Attend professional non-technical courses as required

**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 Senior Research Fellow responsible for the mineralogical characterisation facility.
SELECTION CRITERIA

**Essential**

- Completion of an undergraduate degree in relevant area with substantial relevant work experience; or extensive experience and specialist expertise in mineralogical characterisation and associated analytical tools; or an equivalent combination of relevant experience and/or education/training.

- Demonstrated proficiency in operation of SEMs, X-ray tomography and other analytical tools.

- Demonstrated proficiency in use of specialised image processing software.

- Excellent time management and demonstrated ability to multi-task and work within deadlines.

- Good organisational and problem-solving skills.

- Experience in training and supervision of staff and students in use of mineralogical characterisation tools.

- Ability to work collaboratively with colleagues from different disciplines.

- Ability to work with limited supervision as appropriate.

- High level communication and inter-personal skills.

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.