POSITION DESCRIPTION

Position Title: Research Assistant, High-spatial resolution satellite based environmental monitoring
Organisation Unit: School of Earth and Environmental Sciences
Position Number: TBC
Type of Employment: Part time, Fixed Term: 8 weeks full time, 16 weeks 0.5 FTE
Classification: HEW 5

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 (60). 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

The School of Earth and Environmental Sciences is a vibrant, multidisciplinary School with extensive teaching and research programs covering the fields of Geology, Geography, Environmental Management, Occupational Health and Safety Sciences and Planning. The School offers a wide range of undergraduate programs including Bachelor’s degrees in Arts (Geography) and Science (Geological and Geographical Science), a Bachelor of Environmental Management and Environmental Science, Occupational Health and Safety Science and a Bachelor of Regional and Town Planning. Honours in Geology, Geography, Geophysics, and Computational Earth Sciences. Coursework masters degrees are offered in Mineral Resources, Environmental Management, Geographic Information Science, Occupational Health and Safety Science and Urban and Regional Planning and the School also contributes to the multi-school Master of Development Practice. The School offers postgraduate training in research via the Master of Philosophy and Doctor of Philosophy and currently has over 150 students enrolled in these degrees. The School has a strong research profile and enjoys an excellent success rate in nationally competitive grants and has a strong record of high quality publications.

The project is based within the Remote Sensing Research Centre (www.rsrc.org.au) and its Joint Remote Sensing Research Program (www.jrsrp.org.au). The focus of the project is to evaluate the suitability and limits of satellite image data from the Planet constellation (www.planet.com) to detect and identify environmental change across the state of Queensland. The work will evaluate the geometric, spectral and radiometric stability of the Planet data and its operational limits. The work is being conducted in association with the CRC for Spatial Information and several Queensland Government agencies.

Staff and Resources

The School of Earth and Environmental Sciences is part of the Faculty of Science and is located on the St Lucia campus (Brisbane) of the University. The School has 104 academic staff, and 23 administrative and technical staff. There is a large contingent of research appointments and the School has been active in establishing a range of adjunct positions in order to promote engagement with leaders in government and the professions.

The School hosts world-class facilities which include a state-of-art planning studio, GIS computer laboratories and extensive analytical infrastructure. Our facilities include high-end sample preparation facilities and a laboratory complex that includes radiogenic and stable isotopes, major and trace element geochemistry, noble gas geochemistry and geochronology, coal petrology and organic geochemistry, geomicrobiology and fluid inclusion facilities. Its Centre for Geoscience Computing conducts research on the mechanics and physics of solid earth processes, on all scales, using supercomputer simulation. Advanced computational technologies and simulation software development are applied to a wide range of industrial and environmental fields and provide a driver for innovation in the general area of simulation-assisted design, specifically in the sustainable energy, earth resources, mass mining and geotechnical sectors. Further
information and details of the research interests of academic staff may be accessed on the School’s web site at http://www.sees.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

The primary role of the selected candidate will be to engage as a Research Assistant, in the evaluation of Planet image data sets for the "Change Detection System From High Resolution Satellite" CRC Si project in 2017/18.

The position will conduct detailed evaluation of Planet satellite image data in association with the Joint Remote Sensing Research program, for delivering mapping and monitoring of land-cover/use and biophysical properties across Queensland. The appointee will also focus on the development of systems and algorithms to support the programs work and conduct research in collaboration with key investigators from the program.

Duties

Duties and responsibilities include, but are not limited to:

• Evaluate the geometric, spectral and radiometric stability of the Planet satellite data and its operational limits for detecting and identifying environmental change in Queensland.
• Develop systems and algorithms to support the work of the Joint Remote Sensing Research Program (JRSRP).
• Support the JRSRP in their work, and collaborate with key investigators.
• Make presentations to project team members and the wider research community on current projects.
• Develop effective timelines and milestones based on goals of the research and development program.
• 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 Professor Stuart Phinn

SELECTION CRITERIA

Essential
• Degree in an applicable field and relevant experience and / or an equivalent combination of relevant experience and / or education / training.
• Demonstrated interpersonal communication skills, to effectively communicate and build constructive relationships with staff and students.
• Strong organisational skills including the ability to operate independently within established frameworks and guidelines while prioritising competing work demands and meeting deadlines.
• Demonstrated computer skills: word processing databases, spreadsheets, internet and email; proficiency with use of the Microsoft Office suite.
• Ability to work flexibly and with autonomy and sound judgement, and exercise initiative and innovation.
• Demonstrated ability to be professional, diplomatic and to maintain confidentiality.
• High level of work ethic and integrity commensurate with the importance of this position.

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.