Associate Professor /Professor in Computational Statistics

Science and Engineering Faculty

a university for the real world®

CRICOS No. 00213J

About the Position

The School of Mathematical Sciences at QUT has an exciting position for an Associate Professor, (Level D) / Professor (Level E) in Computational Statistics who is able to provide strategic leadership in both research and learning within the Discipline of Statistics and Operations Research. More widely, the Associate Professor / Professor will strongly contribute to QUT's research priority in Data Science through the development of new computational methods in statistics and data analysis.

The Associate Professor / Professor will help to lead, maintain and expand our research expertise in developing new methodologies, knowledge and insights from the large amounts of data collected by government, business and industry. They will have expert knowledge and practical experience with techniques for evaluating analytically intractable problems such as Markov chain Monte Carlo, sequential Monte Carlo, methods for approximate inference, optimisation methods, big data analytics, resampling methods, inverse problems and uncertainty quantification.

The Associate Professor / Professor will have a strong record of high quality publications (among leaders in the field) and in the generation of competitive and commercial research income. They will also have a strong record of mentoring early and mid-career academic staff and the supervision of higher degree research students and be committed to the development and delivery of high quality learning experiences for statistics, operations research, engineering, science and health science students who want to combine their studies in statistics with real-world applications.

Necessary to the success of the position is the fostering of partnerships with both internal and external groups in developing research programs. The Associate Professor / Professor will link with the ARC Centre of Excellence in Mathematical and Statistical Frontiers (ACEMS), led at QUT, by Professor Kerrie Mengersen as well as other data science practitioners within the university including academics in the Data Science Discipline in the School of Electrical Engineering and Computer Science and the ARC Centre of Excellence in Robotic Vision led by Professor Peter Corke, which is hosted at QUT.

This position reports to the Head of School of Mathematical Sciences for supervision, workload management and for Performance Planning and Review (PPR).

Key responsibilities include:

- Conducting research at an internationally competitive level, including:
  - applying for and securing external research funding
  - supervision of research students and research fellows
  - pursuing high quality research outcomes, including publication of research in quality journals
  - engaging with industry, external end-users of research and partner research organisations, and aligning research responses to the needs of industry and the wider community; and
  - engaging and collaborating with other QUT researchers including within the School, the Faculty and the Institute for Future Environments.
- Providing advice and support to less senior academic staff.
- Facilitate excellence in undergraduate and postgraduate teaching, through the development of innovative teaching methods, authentic assessment practices and blended learning.
- Coordinate and teach units across all levels of programs.
- Actively participate in unit and curriculum review and design.
- Implementing and administering University policy within the Faculty with respect to equitable access to education and workplace health and safety.

The successful candidate may be appointed at Associate Professor, Level D or Professor Level E depending on their level of attainment against the position classification standards outlined in the QUT Enterprise Agreement (Academic Staff). The position classification standards provide the basis to differentiate between the various levels of appointment and define the broad relationships between classifications.

The University reserves the right to appoint at either classification level.

Real World Capabilities

To deliver on QUT's global, collaborative and connected vision requires a workforce that embodies the following capabilities:

- Agility and openness to change
- Connectivity and collaboration (intra and inter-disciplinary)
- Cultural inclusion
- Digital literacy
- Future-focused thinking (strategic, innovative & design and entrepreneurial)
- Global in intent and reach
- Leadership of strategy, action and others performance and resource management

Type of appointment

This appointment will be offered on an ongoing, full-time basis.

Location

Gardens Point campus.

Selection Criteria

1. Completion of doctoral qualification in statistics or a related discipline.
2. Outstanding record of research in computational statistics including a strong record of high quality publications and generating external competitive and commercial research income.
3. Excellent record in the leadership and supervision of early and mid-career academic staff and postgraduate students.
4. Proven record of excellence and leadership in teaching and learning including scholarly and innovative approaches to teaching and learning including blended learning and authentic assessment.
5. Demonstrated ability to design, coordinate and teach a range of undergraduate units including large service classes and specialised classes in the Bachelor of Mathematics degree.

Salary and Benefits

The classification for this position is:

- Academic Level D (Associate Professor) which has an annual remuneration range of $AUD162,883 to $AUD179,459 pa. Which is inclusive of an annual salary range of $AUD137,638 to $AUD151,645 pa, 17% superannuation and 17.5% recreation leave loading;
- Academic Level E (Professor) which has an annual remuneration package of $AUD209,830 pa. Which is inclusive of an annual salary of $AUD177,309 pa,17% superannuation and 17.5% recreation leave loading.

Beyond personal and professional fulfilment, a career at QUT brings a broad range of tangible benefits. With competitive remuneration and 17% superannuation, the University offers real and generous benefits.

QUT is a high quality and flexible organisation that is proud of its excellent employment conditions which include but are not limited to:

- Reduced working year scheme
- Parental leave provisions
- Study support encompassing leave and financial assistance
- Comprehensive professional development
- Salary Packaging

Further benefits can be found at the Working at QUT page.

Information for applicants

This position is open to Australian and International applicants. Women, Aboriginal and Torres Strait Islander people are encouraged to apply. QUT has an active support program for women in STEMM, and is in the pilot program for the national SAGE Athena SWAN project. For more information on QUT's support for Women in STEMM, contact Tracy Straughan +61 7 3138 4080.

For further information about the position, please contact, Professor Troy Farrell +61 7 3138 2364; or for further information about working at QUT Bridget Heins, Talent Acquisition Specialist on +61 7 3138 4175.

How to Apply

For further information and to apply, please visit www.qut.edu.au/jobs for reference number 18299

When applying for this position your application must include the following:

- A current resume.
- A statement of achievements against each of the selection criteria
- The names and contact details of four referees

Applications close 10 June 2018

About QUT

QUT is a leading Australian university with a 'real world' focus on our learning, teaching and research. Our approximately 50,000 students study across six faculties which, together, offer more than 300 academically and professionally oriented programs. Courses are in high demand and our graduates have excellent job and career outcomes. QUT has charted for itself an ambitious research agenda, and our annual research income now approaches $100 million.

We aim to create the next generation of leaders in industry, research and society. By embracing change and new developments in teaching and research, we are prepared to meet future challenges.

The Blueprint 5 is our institutional strategic plan. It identifies major priorities, articulates broad strategies, and drives greater coherence and coordination of our efforts.

Our overall vision for the future is:

- to provide outstanding learning environments and programs that lead to excellent outcomes for graduates, enabling them to work in, and guide, a diverse and complex world characterised by increasing change;
- to undertake high-impact research and development in selected areas, at the highest international standards, reinforcing our applied emphasis and securing significant commercial and practical benefits for the community and for our partners; and
- to strengthen and extend our strategic partnerships with professional and broader communities, to reflect both our academic ambitions and our civic responsibility.

Further information about QUT can be obtained from the website at www.qut.edu.au.

About the Science and Engineering Faculty

QUT's Science and Engineering Faculty is helping to drive the innovations shaping the way we live for a safer, more sustainable and secure world tomorrow. We pride ourselves on being world leaders in our research and learning outcomes.

The Faculty is home to outstanding researchers of international renown, including five ARC Australian Laureate Fellows. Two ARC Centre's of Excellence; the Australian Centre for Robotic Vision (ACRV) and Australian Centre of Excellence for Mathematical and Statistical Frontiers (ACEMS) are hosted by the Faculty. In the most recent 2015 Excellence in Research for Australia rankings, 100 percent of the Faculty's research was rated as world standard or above.

There is a dedicated commitment to addressing the problems of our time through active participation in 10 Cooperative Research Centres (CRCs), including two announced in 2017; iMove CRC and Food Agility CRC. Faculty members are also regularly supported in their fundamental and applied research through the Australian Research Council and industry bodies such as Rural Development Corporations. The Faculty actively encourages and supports transdisciplinary research through its support of the Institute for Health and Biomedical Innovation (IHBI) and Institute for Future Environments (IFE), which is housed in the $230-million Science and Engineering Centre at our Gardens Point campus.

Also housed in the Science and Engineering Centre is the world-class Central Analytical Research Facility (CARF), supporting a global research community through state of the art instrumentation for scientific analysis.

Strong industry connections enable us to address genuine challenges through research, as well as offer more than 11,000 students relevant and practical experience. Through long standing collaborations with partners such as BMW, Boeing, Stryker, Shell and the Commonwealth Bank of Australia, we remain at the forefront of teaching by facilitating real world learning that is delivered on campus, online and in the real world. QUT is accredited by the UK Higher Education Academy, and to date more than 300 staff have achieved

fellowships. QUT is also a participant in the inaugural Science in Australian Gender Equity (SAGE) pilot, a national program promoting gender equity and gender diversity in STEMM.

Across four Portfolios, six Schools and 21 Disciplines, the Science and Engineering Faculty is the partner of choice for excellence in research, education, and equity.

https://www.qut.edu.au/science-engineering

The Faculty partners with QUT's two transdisciplinary research institutes. Faculty researchers use the world-class research facilities provided by the Institutes and engage in large scale programmatic activities, allowing coordinated research to be undertaken at scale to address global challenges. The Institutes undertake high-impact research that spans discipline boundaries and works in partnership with end users.

The Institute for Future Environments is focused on the future nexus of natural, built and virtual environments and generates knowledge, technology and practices that make our world more sustainable, secure and resilient. SEF is the majority Faculty partner in IFE.

http://www.qut.edu.au/institute-for-future-environments

The Institute of Health and Biomedical Innovation is focused on developing partnerships between health and biomedical scientists to bring new treatments to patients and to provide better health for our community. After the Faculty of Health, SEF is the most significant partner in IHBI.

https://www.qut.edu.au/institute-of-health-and-biomedical-innovation

About the School of Mathematical Sciences

The School of Mathematical Science (SMS) is a vibrant, multidisciplinary school with extensive teaching and research programs covering the fields of statistical science, operations research and applied and computational mathematics. There are currently 30 full-time academic staff members employed in the School, including 3 Professors and 1 ARC Laureate Fellows in the Discipline of Statistics and Operations Research.

In the 2015 Excellence in Research for Australia (ERA) exercise, the School received a ranking of 5 (well above world standard) for statistics, 4 (above world standard) for applied mathematics and a 5 for numerical and computational mathematics. In the 2014 QS University World Rankings, SMS was ranked 7th nationally in the subject area of Mathematics and 9th nationally in Statistics and Operations Research. The School offers programs of study at Bachelors, Honours, Masters (research) and PhD levels. The Bachelor of Mathematics degree offers majors in our three key areas of expertise, namely Statistical Science, Decision Science and Applied and Computational Mathematics.

The SMS hosts a node of the prestigious Australian Research Council Centre of Excellence for Mathematical and Statistical Frontiers: Big Data, Big Models, New Insights (ACEMS). The Centre includes over 50 researchers and research students at QUT and almost 100 participants across Australia. The research undertaken in SMS is well aligned with the research goals of the Institute of Future Environments (IFE) and strengthens QUT's real world positioning through better partnerships across internal and external boundaries.

Athena SWAN Member

WGEA Employer of Choice for Gender Equality