

## POSITION DESCRIPTION

<b>Position Title:</b>	Lecturer in Timber Engineering
<b>Organisation Unit:</b>	School of Civil Engineering
<b>Position Number:</b>	NEW
<b>Type of Employment:</b>	Full-Time, Fixed Term for 3 years
<b>Classification:</b>	Academic Level B

## 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://uniquet.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 Civil Engineering is one of the largest schools of its kind in Australia. Located in the state-of-the-art, \$135 million Advanced Engineering Building, the School passionately delivers world-leading teaching, research, and service. We aspire to be the civil engineering school of choice for students, staff, industry, and the wider community in the fields of water, environmental, geotechnical, structural and transportation engineering.

Our goal is to foster graduates with the technical and professional skills required to lead the civil engineering profession and we aim to re-engineer civil and environmental research to improve the way communities operate and function.

Our academic staff hail from over 24 countries, are widely published and cited, and have extensive research backgrounds in diverse engineering disciplines including coastal, environmental, fire safety, geotechnical, hydraulics, structural, transport, and water resources. These research strengths attract expert academics and students from around the world and provide industry with consulting expertise, research collaboration and testing facilities.

Our people are our greatest asset. We offer collaborative, inclusive work and study places, which are enriched by the significant diversity of our staff, students and community. We genuinely believe that creativity and innovation flourishes in an environment where people feel supported, valued and empowered. Mutual respect, inclusivity and accountability are at the cornerstone of UQ's culture.

The School is committed to supporting the career growth of women researchers and have a number of initiatives to support women in developing and achieving a fulfilling research career at the School.

The School has an agreed set of values that include:

1. Respecting each other.
2. Embracing equity and diversity.
3. Making decisions transparently whenever possible.
4. Collaborating across disciplines and universities.
5. Supporting each other.
6. Being accountable and responsible.
7. Seeking first to understand then be understood.
8. Making positive and meaningful societal contributions.
9. Celebrating achievement.

For more information about the School, please visit: [www.civil.uq.edu.au](http://www.civil.uq.edu.au)

## **Information for Prospective Staff**

The School 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. The School 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.

Further 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**

Lead the research aimed at enhancing the fire performance of timber using treatments and modification techniques. The candidate will be in charge of leading research projects investigating the use of treatments and modification techniques towards achieving specific fire performance objectives related to ignition, charring, and self-extinction characteristics among others. This research will require developing a deep understanding of the relationship between wood physical and chemical characteristics, the type of modification techniques available and their effect on the fire performance of timber. The candidate is expected to work in close collaboration with researchers in the National Centre for Timber Durability and Design Life, the University of Queensland Centre for Future Timber Structures, and the Australian Research Council Industrial Transformation Hub- Future Timber Hub. The position will require the formulation of research projects, and supervision of research projects including MS and PhD students. The position will also involve manuscript writing and occasional administrative support duties. The selected candidate is also expected to help pursue funding opportunities for the continuation of this line of research.

### **Duties**

Duties and responsibilities include, but are not limited to:

### **Teaching and Learning**

- Coordinate courses (one course per year), prepare and deliver lectures and tutorials, and undertake assessment and marking for undergraduate and postgraduate courses in the School of Civil Engineering's various bachelor and master level programs and other programs, including courses in the Faculty's "common first year" engineering program.
- Teach and supervise at honours and postgraduate level.
- Participate in the development of new programs and course material in civil engineering (and its sub-disciplines) by consulting with program advisors and stakeholders, ensuring courses are engaging, relevant and contemporary.
- Participate in educational practice and innovative curriculum design including online learning and alternative teaching methods.
- Maintain and improve the quality of courses as measured through evaluation instruments to meet industry and educational standards. <sup>[1]</sup><sub>ISEP</sub>
- Understand and apply University Rules relevant to teaching and learning practice. <sup>[1]</sup><sub>ISEP</sub>
- Contribute to the teaching and supervision of undergraduate, honours and postgraduate students.
- Provide high quality service to students, including academic counselling and advice.
- Provide support for other positions during absences

### **Research**

- Engage in independent and/or team research program including external funding, and achieve national recognition and impact in the research area.
- Deliver research in the area of treatments and modifications for enhancing the fire performance of timber products

- Establish an independent research portfolio linking wood science, treatment techniques and fire safety engineering considerations
- Conduct research and publish scholarly papers in both academic peer-reviewed and professional journals that contribute to the School's strategic research strengths.
- Work with colleagues and postgraduates in the development and conduct of joint research projects, especially projects that are interdisciplinary and contribute to the strategic direction of the School.

### **Service and Engagement**

- Perform a range of administrative functions in the School.
- Contribute to the processes that enable the academic team to manage the work of the School, including participate in School decision-making and serve on School committees.
- Assist to foster the School's relations with industry, government departments, professional bodies and the wider community.
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- 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 the Head of School.

### **SELECTION CRITERIA**

#### **Essential**

- PhD in the area of Wood Science, Fire Safety Engineering, Materials Science, or an equivalent combination of relevant experience and/or training/education.
- Demonstrated expert knowledge in one or more of the following areas: wood science, wood treatment and modification techniques, material flammability characterisation and testing
- Demonstrated contribution to teaching at undergraduate, honours and postgraduate level in a variety of settings, including small and large groups, studio-based teaching and individual project supervision.

- Evidence of significant experience in the use of treatments and modifications applied to wood species
- Track record of publications in reputed refereed journals and conferences
- Evidence of a contribution to research, including successful external grant applications
- An ability to establish effective relationships and to represent and promote academic discipline at a university and wider community level, including industry, government and professional bodies.
- Excellent communication and interpersonal skills with the ability to work collaboratively and establish a rapport and good working relationships with students and staff.

### Desirable

- Developed research in treatments and modifications for the enhancement of fire performance of timber
- Demonstrated laboratory experience in the application of treatments and modification to timber and methods to evaluate their effectiveness
- Knowledge about the processing and manufacturing of engineered wood products (EWP's) such as cross-laminated timber (CLT), laminated veneer lumber (LVL), glulam, etc.
- Experience in liaising and collaborating with external agencies to develop co-operative research initiatives.
- Knowledge of alternative modes of teaching.
- Developed industry liaisons and professional contacts.

### **Seminar**

Applicants invited for interview will be expected to present a seminar in conjunction with the selection interview process.

### **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.**