



UNSW  
AUSTRALIA

Canberra

# PhD Scholarship

## Mechanical and Structural behaviour of a green Magnesium Oxychloride Cement-Based Fibre Reinforced Construction Material

Never Stand Still

Heading line

A PhD position is available at UNSW Canberra in the area of mechanical and structural behaviour of a green magnesium oxychloride cement-based fibre reinforced construction and building material. The PhD project will develop the optimal design of the magnesium oxychloride cement-based material reinforced with short natural fibres, examine the physical and mechanical behaviour of the material, and investigate the structural behaviour of laminated panels comprising of plies made from the new construction material and glass fibre mesh. This project include intensive experimental studies, and finite element modelling will also be conducted for the structural behaviour of the laminated panels.

The candidate will be expected to have a strong Civil Engineering background with research experience on construction and building materials. Experience on numerical modelling is desired but not essential. Candidates from Mechanical Engineering and Material Engineering with a sound knowledge of Engineering Mechanics are also encouraged to apply. The applicant must have the equivalent of a first-class honours degree from UNSW, and a Master degree or postgraduate study is desired.

The successful applicant, subject to satisfying the admission requirements, will be awarded a UNSW-industry scholarship with an annual tax-free stipend of \$26,694. This scholarship is for a period of 3.5 years, subject to satisfactory progress reviews. For the successful applicant UNSW will also cover the tuition fee. The successful applicant would be expected to be available to commence their studies no later than Session 1, 2018, preferably Session 2 2017, and must be on campus and enrolled at UNSW Canberra in the relevant PhD program. Applications will be accepted until a suitable candidate is found.

UNSW has unique focus on the scientific, technological and professional disciplines, and is a leading Australian university committed to making a difference through pioneering research and preparing the next generation of talented global citizens for career success. The University is ranked 49<sup>th</sup> in the 2016 QS World University Rankings and 78<sup>th</sup> in the 2016/2017 Times Higher Education World University Rankings. The Canberra campus of the University of New South Wales is located at the Australian Defence Force Academy (ADFA). ADFA is located in an Australian bushland setting less than five kilometres from the city centre and the Canberra airport.

The UNSW Canberra campus has a large and comprehensive library, state-of-the-art computing facilities, well-equipped and modern laboratories.

Canberra is a modern city chosen as Australia's national capital in 1908. Its name comes from the local Aboriginal word "Kamberra" meaning "meeting place". As Australia's capital city, Canberra is the focal point for activities and events that affect and influence the nation. It is the home of Federal Government and the public service, a focus for business and industry, home to the international diplomatic community, a place of study or just a great place to live.

Information on how to apply for admission, fees, scholarships and living in Canberra can be found at: <https://www.unsw.adfa.edu.au/study/postgraduate-research>

For further information, please contact:

Dr. Yixia (Sarah) Zhang

Email: [y.zhang@adfa.edu.au](mailto:y.zhang@adfa.edu.au)

Phone: +61 2 6268 8169

School of Engineering and Information Technology

The University of New South Wales

Canberra ACT 2600 Australia