

USYD PhD Scholarship:

Heat and Mass Transfer in Low Emission Building Materials

This PhD project will focus on the thermal and mechanical characterisation of low emission building materials. One full-time PhD scholarship will be offered for conduction this research project under the joint supervision of A/Prof Yixiang Gan (The University of Sydney) and Professor Arnaud Castel (University of Technology Sydney). The candidate will work within a multi-disciplinary research team across several leading universities in Sydney.

The PhD stipend for full-time students is offered at **\$35,629 per annum for 3.5 years**.

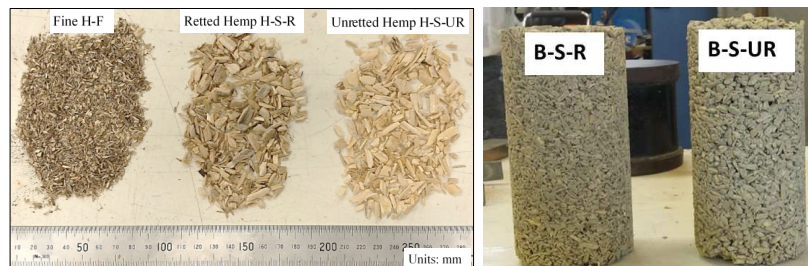
As one type of bio-based materials made from renewable vegetable granulates, hemp concrete (or hempcrete) is becoming increasingly popular in construction due to its manufacture from renewable resources, thermal insulation performance, and high resistance to biodegradation. The advantages of hempcrete include its low density, excellent acoustic properties, and high moisture buffer capacity. This project will contribute to the thermal and mechanical characterisation of this class of building materials, as well as modelling behaviour under practical conditions.

The applicant is expected to have a relevant engineering degree in Civil / Mechanical / Chemical Engineering, with solid foundation in mechanics of materials and mathematical modelling. Preference will be given to applicants who have conducted research components in their previous study.

The following conditions must be met for eligibility:

- (1) The scholarship applies preferably to domestic students (Australian permanent resident or citizen). High achieving international students are also encouraged to apply.**
- (2) The successful candidate needs to start this position before December 2021.**

Please contact **A/Prof Yixiang Gan (email: yixiang.gan@sydney.edu.au)** for more details on applications. CV and Research Statement from the applicant will be required.



Hempcrete samples