

PhD studentship (Full-time)



Institution	Xi'an Jiaotong-Liverpool University, China
Department	Department of Civil Engineering
Supervisors	Principle supervisor: Dr. Karol Sikora (Xi'an Jiaotong-Liverpool University) Co-supervisors: Dr. CS Chin (Xi'an Jiaotong-Liverpool University) Dr. Jun Xia (Xi'an Jiaotong-Liverpool University) Dr. Zhongwei Guan (University of Liverpool, UK);
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Polymer Concrete for Timber Composites
Contact	Please email Karol.Sikora@xjtlu.edu.cn (principal supervisor's email address) and copy doctoralstudies@xjtlu.edu.cn with a subject line of the PhD project title

Requirements:

The candidate should have a first class or upper second class honours degree, or a master's degree (or equivalent qualification), in Civil Engineering or related area. Evidence of good spoken and written English is essential. The candidate should have an IELTS score of 6.5 or above, or an equivalent qualification, if the first language is not English. This position is open to all qualified candidates irrespective of nationality.

Degree:

The student will be awarded a PhD degree from the University of Liverpool (UK) upon successful completion of the program.

Funding:

The PhD studentship is available for three years subject to satisfactory progress by the student. The award covers tuition fees for three years (currently equivalent to RMB 80,000 per annum) and provides a monthly stipend of 3500 RMB as a contribution to living expenses. It also provides up to RMB 16,500 to allow participation at international conferences during the period of the award. It is a condition of the award that holders of XJTLU PhD scholarships carry out 300-500 hours of teaching assistance work per year. The scholarship holder is expected to carry out the major part of his or her research at XJTLU in Suzhou, China. However, he or she is eligible for a research study visit to the University of Liverpool of up to three months, if this is required by the project.

Project Description:

Timber-concrete composite (TCC) is made by connecting a concrete topping with timber joists or beams to selectively utilise advantages of their structural properties. The performance of these composite systems is complicated because the long-term behaviour of timber, concrete and the connection, which are affected by creep and shrinkage/swelling, is different. The recent advancements in concrete modification by polymers indicate that superabsorbent polymers (SAP) can potentially address the issue of concrete shrinkage. The main purpose of this research is to explore the effectiveness and sustainability of improved TCC used for construction through the introduction of SAP. To maximise the environmental 'friendliness' of the novel TCC system, the concrete used will utilise ground-granulated blast-furnace slag (GGBS), partly substituting energy consuming cement and reducing the amount of GGBS for disposal. This project will expand existing knowledge on TCC technology and establish an advanced practical solution that can enhance the TCC system in terms of structural and durability performance.

For more information about doctoral scholarship and PhD programme at Xi'an Jiaotong-Liverpool University (XJTLU): Please visit

<http://www.xjtlu.edu.cn/en/admissions/phd.html>

<http://www.xjtlu.edu.cn/en/admissions/phd/feescholarships.html>

How to Apply:

Interested applicants are advised to email Karol.Sikora@xjtlu.edu.cn (principle supervisor's email address) the following documents and copy doctoralstudies@xjtlu.edu.cn (please put the project title in the subject line).

- CV
- Two reference letters
- Personal statement outlining your interest in the position
- Proof of English language proficiency (an IELTS score of above 6.5 or equivalent is required)
- Verified school transcripts in both Chinese and English (for international students, only the English version is required)
- Verified certificates of education qualifications in both Chinese and English (for international students, only the English version is required)

Informal enquiries may be addressed to Dr. Karol Sikora Karol.Sikora@xjtlu.edu.cn, whose personal profile is linked below,

<http://www.xjtlu.edu.cn/en/departments/academic-departments/civil-engineering/staff/karol-sikora>