

PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
Department	Department of Civil Engineering
Supervisors	Principle supervisor: Dr Guobin Gong (XJTLU, Department of Civil Engineering) Co-supervisor: Dr Jun Xia (XJTLU, Department of Civil Engineering) Co-supervisor: Dr Luigi Di Sarno (UoL, School of Engineering)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Numerical and experimental investigations of compressive behaviour of FRP-confined waste-containing concrete columns 含废物料的 FRP 约束混凝土柱受压行为的数值模拟与试验研究
Contact	Please email guobin.gong@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 engineering disciplines. Evidence of good spoken and written English is essential. The candidate should have an IELTS score of 6.5 or above, 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 5,000 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:

Prosperous construction industry causes enormous carbon-dioxide emission and demolished building wastes which have significant negative environmental impacts. The utilisation of recycled wastes in concrete production has been proved to be an effective approach mitigating these environmental problems. However, extensive studies have shown that using recycled wastes in concrete can lead to a decreased performance of concrete in aspects of workability, strength, stiffness and durability. Although various strengthening techniques were developed, further investigation on the behaviour of strengthened concrete is required and more experimental data are expected to refine existing constitutive models. In order to improve mechanical properties of waste-containing concrete and explore its potential in structural applications, this project will focus on the compressive behaviour of fibre reinforced polymer (FRP) confined waste-containing concrete. In this project, both experimental investigation and computer simulation will be used. Experiences in experimental work and numerical simulations like finite element method and discrete element method would be an added bonus of this project.

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

<http://www.xjtlu.edu.cn/en/study-with-us/admissions/entry-requirements>

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

How to Apply:

Interested applicants are advised to email guobin.gong@xjtlu.edu.cn the following documents for initial review and assessment (please put the project title in the subject line).

- CV
- Two reference letters with company/university letterhead
- Personal statement outlining your interest in the position
- Proof of English language proficiency (an IELTS score of 6.5 or above)
- 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)
- PDF copy of Master Degree dissertation (or an equivalent writing sample) and examiners reports available

Informal enquiries may be addressed to Dr. Guobin Gong (guobin.gong@xjtlu.edu.cn).