

PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
Department	Department of Architecture
Supervisors	Principle supervisor: Dr Marco Cimillo (Xi'an Jiaotong-Liverpool University); UoL-supervisor: Dr David Chow (University of Liverpool); Co-supervisor: Dr Bing Chen (Xi'an Jiaotong-Liverpool University).
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	The energy retrofit of the existing residential building stock in Jiangsu Province 江苏省现有住宅存量能源改造
Contact	Please email marco.cimillo@xjtlu.edu.cn 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 Architecture, Building Engineering, Environmental Design or other closely related fields. 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. Knowledge of Chinese is an advantage but not a requirement. 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 3,500 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:

Supervisory team

The PhD supervisory team will be composed by: Dr Marco Cimillo from XJTLU- Department of Architecture as Principle Supervisor at XJTLU; Dr David Chow, at UoL-Deptment of Architecture, as UoL supervisor; Dr Bing Chen, at XJTLU- Department of Urban Planning and Design, as co-supervisor.

Context

The PhD research will be part of a broader 3-year project titled “Developing an energy building stock model for Jiangsu Province”, coordinated by Dr. Marco Cimillo at XJTLU, and carried out by an international team which includes co-investigators from University of Liverpool and from the CNR National Research Council of Italy - ITABC Institute for Technologies Applied to Cultural Heritage.

Residential buildings are major energy consumers (and polluters) in China and therefore a fundamental source for potential savings and key to sustainable development. A better understanding of energy use in the whole building stock would enable the planning of rational and cost-effective policies, as required by the international commitments made by the country in this respect.

The research will develop a “bottom-up” residential building stock model of Jiangsu Province, aimed at the study of its evolution from an energy/sustainability point of view. The model will allow for the simulation of different scenarios to assess current development trends and the potential impact of climate change, policies and regulations, conventional and advanced energy saving and energy management measures.

Within this broader framework, the PhD researcher will investigate more in detail the potential for retrofit of existing buildings. The relevance of the topic, in China as well as in Europe and worldwide, assures long-lasting research developments in this area and therefore excellent opportunities for the future research career of the perspective PhD student.

PhD Research

The main project is concerned, more in general, with the energy modelling of the residential building stock in the province, in which new buildings assume a significant role due to the current dynamics in China. Within this, the doctoral research will be focused on the development of specific approaches to the energy retrofit of existing buildings. Therefore, the PhD student will have broad scope for independent research, even though the two studies will share a good portion of the work, including data collection and building typologies modelling. They will also complement each

other, mainly in the later stages, with the doctoral research providing innovative approaches to be integrated in the stock model, and the latter providing a tool to assess the potential of the proposed measures.

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 to marco.cimillo@xjtlu.edu.cn 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, if the first language is not English)
- 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 Marco Cimillo (marco.cimillo@xjtlu.edu.cn), whose personal profile is linked at <http://www.xjtlu.edu.cn/en/departments/academic-departments/architecture/staff/marco-cimillo>