### PhD studentship (Full-time)



Institution	Xi'an Jiaotong-Liverpool University, China
Department	Department of Architecture
Supervisors	Principle supervisor: Dr. Moon Keun Kim (Xi'an Jiaotong-Liverpool University) Co-supervisor: Dr. Stephen Sharples (University of Liverpool, UK);
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Novel Decentralized Ventilation System with a Hybrid Radiant Panel for Low Energy and Zero Emission Architecture
Contact	Please email: <u>Moon.Kim@xjtlu.edu.cn</u> (principle supervisor's email address) and copy <u>doctoralstudies@xjtlu.edu.cn</u> 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, Architectural Engineering, Mechanical Engineering, Civil Engineering or Equivalent Department, 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:

Low exergy systems contribute to minimize entropy generation and to increase reversibility of process of energy systems. It leads to improvement that can reduce environmental impacts. Finally these systems show possibility to solve global warming problem. This project develops and implements a DV (Decentralized Ventilation) unit which is newly devised by me connected with hybrid radiant panel system in series for cooling and dehumidification to prevent moisture condensation on the surface on chilled ceiling panels adapting various climates. The combination of decentralized ventilation with high temperature radiant cooling offers the potential for an energy-efficient operation of buildings; however, it hardly avoids moisture condensation risks if there are high infiltration rates or internal moisture gain. However, the novel system connected with a hybrid radiant panel reduces moisture condensation risk, generates extra cooling output, and saves building energy. Therefore, this novel system contributes to high performance building technologies, and zero emission architecture.

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/feesscholarships.html

## How to Apply:

Interested applicants are advised to email: <u>Moon.Kim@xjtlu.edu.cn</u> (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. Moon Keun Kim (<u>Moon.Kim@xjtlu.edu.cn</u>), whose personal profile is linked below, <u>http://www.xjtlu.edu.cn/en/departments/academic-departments/architecture/</u>