PhD studentship   (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
Department	Department of CSSE
Supervisors	Principle supervisor: Dr.Jieming Ma (XJTLU, CSSE Department) Co-supervisor: Professor.Ka Lok Man (XJTLU, CSSE Department) Co-supervisor: Dr.Huiqing Wen (XJTLU, EEE Department) Co-supervisor: Dr.Yihua Hu (UoL, EEE Department)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Edge Computing and Networking for Photovoltaic Power Control Systems 面向光伏控制系统的网络边缘计算
Contact	Please email jieming.ma@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 Computer Science/Electrical and Electronic Engineering 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:
Distributed photovoltaic (PV) generation is growing rapidly due to renewable-energy policies, business innovation, and new technology. However, PV sources are often intermittent, ever-increasing computations and resources are required to improve efficiency of PV systems. The emergent paradigm of edge computing advocates that computational and storage resources can be extended to the edge of the network so that the impact of data transmission latency can be reduced. This project aims to develop a distributed PV power control system using an edge computing architecture. The main research contents are as follows: 1) construct a field-layer PV sensing system to detect stochastic behavior of PV sources; 2) develop an environment-aware power control method in the edge and cloud layers; 3) investigate a distributed computing scheduling strategy for edge computing. The achievements of the project will provide technical support for promoting the development of distributed PV systems.

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 jieming.ma@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. Jieming Ma (Jieming.ma @xjtlu.edu.cn), whose personal profile is linked below,
https://www.xjtlu.edu.cn/en/departments/academic-departments/computer-science-and-software-engineering/staff/jieming-ma.