

PhD studentship (Full-time)



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| Institution | Xi'an Jiaotong-Liverpool University, China |
| Department | Department of Electrical and Electronic Engineering |
| Supervisors | Principle supervisor: Dr. Ming Xu (Xi'an Jiaotong-Liverpool University, China) Co-supervisor: Prof. Jeremy S. Smith (University of Liverpool, UK) |
| Application Deadline | Open until the position is filled |
| Funding Availability | Funded PhD project (world-wide students) |
| Project Title | Optimization of Multi-Camera Detection and Tracking Using Logic Minimization 采用逻辑最小化方法优化多摄像机目标检测与跟踪 |
| Contact | Please email ming.xu@xjtlu.edu.cn (XJTLU principal supervisor's email address) |

Requirements:

The candidate should have a first class or upper second class honours degree, or a master's degree (or equivalent qualification), in electrical and electronic engineering/computer science/mathematics. 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 5000 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 or research 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:

Intelligent video surveillance is to automatically detect, track and recognize moving targets (e.g. pedestrians and vehicles) by using computer algorithms. To deploy multiple cameras is an efficient way to cope with the occlusion between targets in the individual camera views. However, the integration of the data from multiple cameras may lead to phantom detections and alternative interpretation of a surveillance scenario. This project aims to globally optimize multi-camera target detection and tracking by using a non-iterative logic minimization method. This is in contrast to some start-of-the-art algorithms which are usually iterative and therefore very time consuming. Both the speed and the robustness of the algorithm can be improved.

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/feescholarships.html>

How to Apply:

Interested applicants are advised to email ming.xu@xjtlu.edu.cn (XJTLU principal supervisor's email address) 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)

Informal enquiries may be addressed to Dr. Ming Xu (ming.xu@xjtlu.edu.cn), whose personal profile is linked below,

<http://www.xjtlu.edu.cn/en/departments/academic-departments/electrical-and-electronic-engineering/staff/ming-xu>

Ming Xu received the B.S. and M.S. degrees from Xi'an Jiaotong University, China, in 1989 and 1992, and the Ph.D degree from University of Birmingham, U.K., in 2001. He was a lecturer at Xi'an Jiaotong University in 1992-1996 and had taken research positions at City, University of London, Kingston University and the University of Cambridge since 1999. He joined Xi'an Jiaotong-Liverpool University in 2007, and is currently a senior associate professor in Xi'an Jiaotong-Liverpool University and an honorary associate professor in University of Liverpool. He

received the Second-Class Science and Technology Award from Ministry of Education of China in 1997 and the IET Computer Vision Premium Award from the Institution of Engineering and Technology, U.K., in 2012. He is an invited reviewer for 10 international journals and the Natural Science Foundation of China (NSFC).