PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
School	Design School
Supervisors	Principal supervisor: Dr. Lei Fan (XJTLU) Co-supervisor: Professor Minzhou Luo (JITRI) Co-supervisor: Dr. Anh Nguyen (UoL)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project
Project Title	Information fusion algorithms of 3D vision and laser radar
Contact	Please email Dr. Lei Fan (Lei.Fan@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 in Computer Vision, Robotics or project-related. 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. Although this position is open to all qualified candidates irrespective of nationality, fluent spoken mandarin is preferred (see the note below).

Please note that the joint PhD project is industry-based and the candidate is expected to undertake part of the research at the partner organization in China.

Degree:

The student will be awarded a PhD degree from the University of Liverpool (UK) upon successful completion of the program.

Funding:

This PhD project is a collaborative research project between XJTLU (http://www.xjtlu.edu.cn) in Suzhou and JITRI (Jiangsu Industrial Technology Research Institute) Intelligent Manufacturing Technology Research Institute. The student will be registered as an XJLTU PhD student but is expected to carry out the major part of his or her research at the Institute in Nanjing.

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). In addition, during the period of undertaking main research at the institute, the PhD candidate will be provided with monthly living allowance at a standard 4000 RMB per month by Intelligent Manufacturing Technology Research Institute of JITRI, with other additional supports such as free accommodation.

Project Description:

The research and development of artificial intelligence, robots and other related technologies are rapidly industrialized. The mobile robot technology has broad application prospects and markets. However, there are still many problems and challenges in the autonomous navigation technology of mobile robots. Due to low navigation accuracy, poor robustness, and inability to obtain rich environmental information, it is difficult for a single sensor to achieve autonomous navigation in complex environments. Multi-sensor data fusion is a key approach to enhance mobile robot navigation and perception. At present, there are a variety of methods of using LiDAR and 3D vision for navigation and positioning in the market. However, there are no unified standards and algorithms for multi-sensor information fusion. As such, this project aims to develop a standard sensing system for autonomous navigation and perception, with core algorithms, low price, high speed and high precision.

For more information about doctoral scholarship and PhD programme at Xi'an Jiaotong-Liverpool University (XJTLU): Please visit
https://www.xjtlu.edu.cn/en/admissions/doctoral/entry-requirement-phd/
https://www.xjtlu.edu.cn/en/admissions/doctoral/postgraduate-research-scholarships

Supervisor Profile:

Principal Supervisor: Dr Lei Fan is Assistant Professor within Department of Civil Engineering at Xi'an Jiaotong Liverpool University. His main research interests include LiDAR and photogrammetry techniques, point cloud data, machine learning, deformation monitoring, semantic segmentations, monitoring of civil engineering structures and geohazards.

JITRI co-supervisor: Minzhou Luo is the head of Intelligent Manufacturing Technology Research Institute and is specialized in the field of intelligent manufacturing and robotics. Through the deep integration of manufacturing and information technology, the Institute actively explores the mechanism of industry-university-research cooperation, commits to breaking through the key and common technologies in the related fields of intelligent manufacturing, cultivates high-level talents, and develops high-tech enterprises.

How to Apply:

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

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