PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
Department	Department of Computer Science and Software Engineering
Supervisors	Principal supervisor: Dr Xiaohui Zhu (XJTLU, CSSE) Co-supervisor: Professor Yong Yue (XJTLU, CSSE) Co-supervisor: Professor Frans Coenen (UoL, CS)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	3D water environment map construction using USVs
Contact	Please email xiaohui.zhu@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/ Software Engineering/ Electrical and Electronic Engineering. A considerable research background on Artificial Intelligence, Human Computer Interaction, Data Visualization and Modelling, Virtual Reality, Argument Reality or Mixed Reality is welcome. 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.

<u>Project Description</u>:

A 3D water environment map includes riverbed topography, sedimentation distribution, water environmental capacity and water quality data, which is very useful for water environment management and pollution treatment. Unmanned surface vehicles (USVs) have the advantages of low cost, high mobility and efficiency, and broader monitoring coverage. It is an ideal mobile platform to collect various water environment data for the construction of 3D water environment maps. Utilising our previous work (e.g., autonomous navigation, path planning and water quality monitoring) on USVs to collect real-life data from various sources, this research will tackle challenging issues in multi-source data fusion, feature data extraction and data visualisation for the accurate construction of 3D water environment maps. Novel algorithms and techniques will be developed with contemporary computing methods such as computer vision, machine learning and data analytics for real world applications. The outcome will significantly support water environment management and pollution treatment.

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

<u>How to Apply:</u>

Interested applicants are advised to email xiaohui.zhu@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. Xiaohui Zhu (xiaohui.zhu@xjtlu.edu.cn), whose personal profile is linked below,

https://www.xjtlu.edu.cn/en/departments/academic-departments/computer-science-and-software-engineering/staff/xiaohui-zhu