

## PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
School	School of Internet of Things
Supervisors	Principal supervisor: Dr. Hadyan Hafizh (XJTLU) Co-supervisor: Dr. Anwar P.P. Abdul Majeed (XJTLU) Co-supervisor: Dr. Anh Nguyen (University of Liverpool)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Design and Development of AIoT-enabled Automated Product Inspection for SME Manufacturing Industry
Contact	Please email <a href="mailto:Hadyan.Hafizh@xjtlu.edu.cn">Hadyan.Hafizh@xjtlu.edu.cn</a> with a subject line of the PhD project title.  The principal supervisor's profile is linked here: <a href="https://www.xjtlu.edu.cn/en/study/departments/entrepreneur-college-taicang/college-staff/academic-staff/staff/hadyan-hafizh">https://www.xjtlu.edu.cn/en/study/departments/entrepreneur-college-taicang/college-staff/academic-staff/staff/hadyan-hafizh</a>

### **Requirements:**

The candidate should have a first-class or upper second-class honours degree or a master's degree (or an equivalent qualification) in one of the following fields: computer science, internet of things, automation, artificial intelligence, electronic and electrical engineering, or mechatronics.

All students applying to PhD programme must demonstrate that they are competent in the use of the English language and satisfy the University's requirements. You should normally possess an appropriate IELTS, or equivalent score as listed on University of Liverpool webpage. Please contact the Admissions Team at [doctoralstudies@xjtlu.edu.cn](mailto:doctoralstudies@xjtlu.edu.cn) to clarify what this is if you are unsure.

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 99,000 per annum). It also provides up to RMB 16,500 to allow participation at international conferences during the

period of the award. 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 up to six months, if this is required by the project.

### **Project Description:**

The project aims to accelerate the digital transformation of SMEs in the manufacturing industry in China by creating a cutting-edge solution. The proposed solution is an AIoT-enabled automated industrial product inspection system that addresses the challenges faced by SMEs in maintaining consistent product quality due to the lack of modern resources and digital transformation strategies for quality control. The work plan includes two main stages; determining the technological requirements for the system and analyzing the performance of the developed CNN model. The expected outcomes are a functional prototype of the inspection system with a TRL rating of 6 and a framework for an automatic industrial product inspection system based on AI and IoT technologies. Integrating AI and IoT in manufacturing is an innovative area of research that has the potential to advance the field by exploring new frameworks for improving product inspection and quality control in SMEs.

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/global/entry-requirements/>

<https://www.xjtlu.edu.cn/en/admissions/doctoral/entry-requirement-phd>

<https://www.xjtlu.edu.cn/en/admissions/global/fees-and-scholarship>

### **How to Apply:**

Interested applicants are advised to email [Hadyan.Hafizh@xjtlu.edu.cn](mailto:Hadyan.Hafizh@xjtlu.edu.cn) the following documents for initial review and assessment (please put the project title in the subject line).

- CV
- Two formal reference letters
- Personal statement outlining your interest in the position
- Certificates of English language qualifications (IELTS or equivalent)
- Full academic 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