

### PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
School	School of Advanced Technology
Supervisors	Principal supervisor: Dr. Shengchen Li (XJTLU) Co-supervisor: Professor Eng Gee Lim (XJTLU) Co-supervisor: Dr. Jacopo de Berardinis (UoL) External supervisor: Professor Mark D. Plumbley (KCL)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Audio Repair and Recovery via Audio Recognition Techniques
Contact	Please email Shengchen.li@xjtlu.edu.cn (XJTLU principal supervisor's email address) with a subject line of the PhD project title

#### **Requirements:**

A Master's degree with Merit and a Bachelor's degree with first-class or upper second-class honors are required for PhD admissions. Exceptional candidates holding only a Bachelor's degree may be considered on an individual basis in certain disciplines.

Evidence of good spoken and written English is essential. The candidate should have an IELTS (or equivalent) 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 99,000 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 holders are expected to conduct the majority of their research at

XJTLU in Suzhou, China. However, they may apply for a short-term research visit to the University of Liverpool if the project requires it.

### **Project Description:**

This research project addresses the critical challenge of repairing and recovering degraded audio signals through advanced machine listening techniques. The proposed approach focuses on recognising semantic relationships between audio objects to intelligently reconstruct missing or corrupted audio segments. By leveraging deep learning models that understand the context and meaning of audio content, we aim to develop algorithms capable of identifying the semantic structure within audio recordings and using this understanding to guide the restoration process. This innovative method will significantly improve upon traditional signal processing approaches by incorporating semantic knowledge, enabling more natural and contextually appropriate audio repair for applications in archival preservation, telecommunications, and multimedia production.

There are three more PhD projects under the supervisor of Dr. Shengchen Li are advertised at the same time. Please refer to <https://shengchenli.github.io/application.html> for more information.

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/global/fees-and-scholarship>

### **How to Apply:**

Interested applicants are advised to fill in the form at <https://shengchenli.github.io/application.html> with 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. Shengchen Li

(shengchen.li@xjtlu.edu.cn), whose personal profile is linked below,

<https://scholar.xjtlu.edu.cn/en/persons/ShengchenLi/>

<https://shengchenli.github.io/>