

PhD studentship (Full-time)



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| Institution | Xi'an Jiaotong-Liverpool University, China |
| Department | Department of Industrial Design (IND) |
| Supervisors | Principle supervisor: Associate Professor/Dr. Min Chen (XJTLU, IND) Co-supervisor: Associate Professor/Dr. Derrick Tate (XJTLU, IND) Co-supervisor: Professor/Dr. Yuyuan Zhao(UoL, Centre for Materials and Structures) |
| Application Deadline | Open until the position is filled |
| Funding Availability | Funded PhD project (world-wide students) |
| Project Title | Reliability optimization design for piezoelectric smart composite structures 压电智能复合材料结构的可靠性优化设计 |
| Contact | Please email min.chen@xjtlu.edu.cn with a subject line of the PhD project title |

Requirements:

The candidate should have a first class or upper second class honors degree, or a master's degree (or equivalent qualification), in Mechanical Engineering, Industrial Design or Engineering-related major with strong interest in numerical simulation and product design. 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 3500 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.

Project Description:

Under Industry 4.0, the integration of smart products and services with intelligent manufacturing, digital construction, analysis is highly demanded by the product development. The on-going growth of smart structure under the scope of “Made in China 2025” highlights the importance and indispensability about the design of advanced equipment, for instance, machinery, biomechanical equipment, and advanced vehicles.

The proposed research topic for the doctoral student is “**Reliability optimization design for piezoelectric smart composite structures**”, which is summarized from the ongoing research topics related to multiscale analysis of loading capacity and lightweight optimization design for piezoelectric smart composite structures, meanwhile it also emphasize the through-design of smart products in product-service system (PSS) model.

The supervisor already set up solid research foundations for this topic. The ongoing governmental research projects ensure the feasibility of reliability optimization in material level, while the industrial research project ensures the feasibility of coupled multi-physics methodology in complex structure and system level.

The candidate is expected to know the numerical simulation approaches and software (ANSYS or ABAQUS) very well.

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 min.chen@xjtlu.edu.cn the following documents for initial review and assessment.

- 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. Min Chen (min.chen@xjtlu.edu.cn), whose personal profile is linked below,

<http://www.xjtlu.edu.cn/en/departments/academic-departments/industrial-design/staff/min-chen>