

## PhD studentship (Full-time)



Institution	Xi'an Jiaotong-Liverpool University, China
Department	Department of Civil Engineering
Supervisors	Principal supervisor: Dr. Konstantinos Papadikis (XJTLU, Department of Civil Engineering) Co-supervisor: Prof. Qing Liu (JITRI, Innovation Center for Advanced Materials and Technology) Co-supervisor: Prof. Yuyuan Zhao (UoL, Department of Mechanical, Materials and Aerospace Engineering)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	In-situ characterization of key structural materials in extreme service environment
Contact	Please email <a href="mailto:Konstantinos.Papadikis@xjtlu.edu.cn">Konstantinos.Papadikis@xjtlu.edu.cn</a> 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 Mechanical Engineering/Materials Science and Engineering or relevant area.

Evidence of good spoken and written English is essential. The candidate should have an IELTS score of 6.5 (with a minimum of 5.5 in each component) 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**

This PhD project is a collaborative research project between XJTLU (<http://www.xjtlu.edu.cn>) and JITRI (Jiangsu Industrial Technology Research Institute) Innovation Center for Advanced Materials and Technology (<http://www.jitri.org/>), both of which locate at Suzhou, China. The student will be registered as an XJTLU PhD student but is expected to carry out the major part of his or her research at the Institute. Tripartite agreement will be signed among student, XJTLU and institute.

The PhD scholarship 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 no less than 5000 RMB as a contribution to living expenses. Additional meal and travel allowance may be provided by the Institute.

### **Project Description**

The characterization of the spatial distribution and temporal evolution of the microscopic

structure and stress is essential in the understanding of the mechanical properties, analysis of the failure mechanisms, and the design optimization of materials. This project aims to explore the service evaluation of key structural materials for major equipment operating in extreme environments; develop and advance the simulation technology of specific extreme environments; realize the online coupling of extreme service environments with synchrotron radiation X-ray source or electron microscopy; develop in-situ experimental integration systems and methods for critical structural materials in extreme service environments; develop in-situ experimental integration devices and software platforms for extreme environment such as ultra-high temperature, ultra-low temperature, ultra-high speed and corrosion; and to determine the experimental conditions for revealing the microstructural evolution and damage mechanisms of key structural materials for major equipment in extreme service environment.

### **How to Apply**

Informal enquiries may be addressed to Dr. Konstantinos Papadikis

([Konstantinos.Papadikis@xjtlu.edu.cn](mailto:Konstantinos.Papadikis@xjtlu.edu.cn)), please find Dr. Papadikis` s personal profile [here](#).

Applicants are required to prepare the following documents to upload onto the [online application system](#) to submit formal application.

- [Research proposal](#)
- Full academic transcripts of university studies and grading system (both bachelor and master)
- University degree certificate or enrollment statement (both bachelor and master)
- Verification report of degree certificate (Chinese students only, both bachelor and master)
- A copy of Master dissertation (or an equivalent writing sample) and examiners reports if applicable
- Certificates of English language qualifications
- Personal statement
- Two formal reference letters
- A copy of your passport (for international students only)

For more information about the application of doctoral scholarship and PhD programme at Xi'an Jiaotong-Liverpool University (XJTLU), please visit:

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