PhD studentship (Full-time)

Xi'an Jiaotong-Liverpool University
西交利物浦大学

Institution	Xi'an Jiaotong-Liverpool University, China
Department	Department of Industrial Design
Supervisors	Principal supervisor: Dr. Jie Sun (XJTLU, Department of Industrial Design) Co-supervisor: Prof. Zhihong Jia (JITRI, Innovation Center for Advanced Materials and Technology) Co-supervisor: Prof. Yuyuan Zhao (UoL, School of Engineering)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Intelligence monitoring of spray formed high performance aluminum alloys during thermomechanical process
Contact	Please email Jie.sun@xjtlu.edu.cn with a subject line of the PhD project title

Requirements/Qualification of the Candidate

The candidate should have a first class or upper second class honours degree, or a master's degree (or equivalent qualification), in 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 XJLTU 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 advanced spray forming is a type of fast solidification technology, resulting in uniform microstructure of the materials, which has some difference from the traditional melting solidification process. As a result, the response of the spray formed aluminum alloy to

subsequent heat treatment and deformation could vary greatly, and the long-term acceptable processes for traditional melting solidification alloy are not suitable for the spray formed alloys. It is urgent to fully understand the microstructural evolution during solidification, heat treatment and deformation processes, because we need to establish the relatively suitable processes for spray formed aluminum alloys with characterized microstructures.

The project will explore the recrystallization mechanism, its relationship to second particles existed, grain crystallographic orientation, precipitate etc., in order to design the alloy and thermomechanical process.

How to Apply

Informal enquiries may be addressed to Dr. Jie Sun (jie.sun@xjtlu.edu.cn).

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:

HOW TO APPLY

ENTRY REQUIRMENT

SCHOLARSHIPS