

PhD studentship (Full-time)



Institution	Xi'an Jiaotong-Liverpool University, China
Department	Department of Electrical and Electronic Engineering
Supervisors	Principle supervisor: Qiufeng Wang (Xi'an Jiaotong-Liverpool University) Co-supervisor: Yannis Goulemas (University of Liverpool, UK); Kaizhu Huang (Xi'an Jiaotong-Liverpool University)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Natural Scene Text Detection and Recognition 自然场景文本检测与识别
Contact	Please email qiufeng.wang@xjtlu.edu.cn (principal supervisor's email address) and copy doctoralstudies@xjtlu.edu.cn 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 Computer Science, Mathematics, Mechatronics, Electric or Automation. Evidence of good spoken and written English is essential. The candidate should have an IELTS score of 6.5 or above, or an equivalent qualification, 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:

Text in natural scenes carries rich and precise semantic information, so its detection and recognition plays an important role in content analysis of images, where the detection aims to localize text regions and the recognition is to convert text regions into computer readable and editable symbols. With the increasing availability of high performance mobile devices, the acquisition of natural scene images is very easy, and natural text detection and recognition (NSTDR) becomes a new challenge. However, the performance of traditional optical character recognition (OCR) method is very low on this task compared to the human recognition. Based on our solid foundation on pattern recognition, OCR and machine learning, the objective of the intended project is to investigate the state-of-the-art NSTDR system by integrating advanced machine learning and deep learning techniques, which can be useful for a variety of applications, including intelligent tourism, autonomous driving and product search.

.....

随着智能设备和移动网络的普及，人们在日常生活中越来越容易涉及到大量的自然场景图像，如果能够自动理解这些图像，那么会给人们的生活带来极大的便利。而图像中的文本往往是携带了大量的精准语义信息，因此自然场景文本的检测与识别就显得越来越重要，其中检测是为了将图像中的文本区域定位出来，而识别就是将检测到的候选区域文本转为计算机可以处理的符号。面对这一问题，传统的光学字符识别技术（OCR）往往无能为力，性能非常低下；另一方面，人们能够非常容易的识别其中的文本。在该项目中，我们需要在课题组已有的模式识别、机器学习和 OCR 基础上，通过对问题的深入理解，结合现在最前沿的深度学习技术，研发出性能一流的自然场景文本检测与识别系统，该系统有着很多的应有场合，比如智能旅游、自动驾驶以及产品搜索等。

For more information about doctoral scholarship and PhD programme at Xi'an Jiaotong-Liverpool University (XJTLU): Please visit

<http://www.xjtlu.edu.cn/en/admissions/phd/entry-requirements.html>

<http://www.xjtlu.edu.cn/en/admissions/phd/feescholarships.html>

How to Apply:

Interested applicants are advised to email giufeng.wang@xjtlu.edu.cn (principal supervisor's email address) the following documents and copy doctoralstudies@xjtlu.edu.cn (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 above 6.5 or equivalent is required)
- 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. Wang (qiufeng.wang@xjtlu.edu.cn), whose personal profile is linked below,

<http://www.xjtlu.edu.cn/en/faculty/>.....

<http://www.xjtlu.edu.cn/en/departments/academic-departments/electrical-and-electronic-engineering/staff/qiufeng-wang>