



### **LKAS Project Title:**

A novel artificial intelligence approach for flood hazard mapping

### **LKAS Scholarship:**

The Lord Kelvin/Adam Smith (LKAS) PhD scholarships offer the opportunity for outstanding research students to participate in some of the most exciting areas of research carried out by the University.

- Open to home, EU and international students
- Up to 4 years enhanced stipend (£17,334 for 2019/20)
- Annual research support budget of £3000
- Full tuition fee waiver

### **Person specification:**

Applicants should demonstrate the following:

- First-class or upper second-class Honours degree (85%), or postgraduate qualification at Merit/Distinction in hydrology, remote sensing, or computing science
- Strong numerical and analytical skills, and relevant programming experience
- Experience of conducting independent research

### **Project Team:**

The PhD researcher will work under the lead supervision of Dr John Xiaogang Shi in the water and climate research group at the University of Glasgow, with direction from further members of the project team: Dr Richard Williams from the School of Geographical & Earth Sciences at the University of Glasgow and Dr Qiangqiang Yuan from the School of Geodesy and Geomatics at Wuhan University.

### **Application Process:**

In the first instance, prospective applicants should contact **Dr John Xiaogang Shi** ([John.Shi@glasgow.ac.uk](mailto:John.Shi@glasgow.ac.uk)) to discuss their eligibility.

Applicants may submit applications up until the application deadline of **5.00pm, Friday 11 January 2019**.

The following documentation will be required from applicants if they are invited to submit a full application:

- Application form
- 2 references in support of your application (The references relevant to the application for admission to Glasgow for PhD study may be submitted to this process – they do not need to be tailored to this process.)
- Degree transcripts in English (Undergraduate and Masters, if relevant)
- Candidates whose first language is not English must show evidence of appropriate competence in English in the form of an IELTS certificate or similar

### **Lead Supervisor Biography:**



Dr John Xiaogang Shi is a senior lecturer (Associate Professor) in hydrology at the University of Glasgow. He earned his PhD from the Department of Civil and Environmental Engineering at the University of Washington in 2013. Then, he was awarded the Natural Sciences and Engineering Research Council of Canada (NSERC) postdoctoral fellowship and worked at Environment Canada's National Hydrology Research Centre. Prior to joining the University of Glasgow in 2018, he has previously worked as a lecturer at Lancaster University and Xi'an Jiaotong-Liverpool University, and a research scientist in the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia. In 2015, he received the Research Innovation Award of Australian Water Association.

Dr Shi is an expert on water resources and climate research, with interests on modeling and predicting the role of water resources in the climate system and understanding the nature of hydrologic variability and change under changing climate at local, regional, continental, and global scales. His research has been focused on land surface hydrologic model development, the analysis and modeling of hydrometeorological hazards (e.g. floods and droughts), hydrological forecasting, groundwater and surface-water interactions, snow and permafrost hydrology, and coupled modeling of land-atmosphere interactions in the context of climate variability and change by using remote sensing data, reanalysis products and in situ observations, as well as model outputs.