Information on Postgraduate Research Scholarship - Ref: Eng-PhD-06-25			
Faculty:	Engineering and Science	Department:	School of Engineering
Lead Supervisor:	Dr Ioanna Stamataki		
Project Title:	Understanding runoff dynamics in small flash-flood-prone catchments: towards a novel framework for flash flood modelling to support risk-informed policy		
Project Description: (maximum 500 words)	Extreme weather events are becoming more frequent and severe as a result of climate change, with increasing evidence linking global warming to more frequent and intense precipitation. Flash floods are short-duration events, producing rapid, high-velocity flows that can cause significant loss of life and widespread damage. Small, steep catchments are particularly vulnerable due to their fast hydrological response and limited warning times. Despite their severity, flash floods are rarely measured in the field, creating continued uncertainty in flood modelling and risk prediction. Previous research has indicated that the hydrological and hydraulic catchment-scale processes exhibit non-linear behaviour under extreme flood conditions, resulting in increased runoff rates and faster response times, which, in turn, amplifies the potentially destructive impact of flash floods. However, due to the lack of reliable field observation of actual flash flood events the relative importance of this non-linear effect is not currently well understood. Similarly, the importance of hydrological and hydraulic characteristics such as rainfall characteristics, topography, land-use, geology and channel geometry and their influence on flash flood formation and severity remains an open question. To address these issues, this research builds on a new Flash Flood Observatory installed in Boscastle (with support from the Royal Society). The project aims to improve understanding of non-linear runoff dynamics in small flash flood-prone catchments, using Boscastle as a detailed case study, and to develop a framework for validating and modelling such events. This scholarship is awarded competitively, and all applications are carefully reviewed. While we cannot guarantee an offer, we encourage strong candidates to apply.		
Duration:	3 years, Full-Time Study or 6 years, Part-Time Study		
Support available (subject to satisfactory performance): A successful Home candidate will receive:			

- A Full tuition fee waiver at the university Home-student rate for the specified duration of the scholarship

A successful International candidate will receive:

- A tuition fee waiver for 50% of the International-student rate for the specified duration of the scholarship.

Tuition fees are subject to annual increases.

This scholarship does not include funding for living expenses.

Person Specification of Essential (E) or Desirable (D) requirements:	
Criteria:	**E or D**
Education and Training:	
• 1st Class or 2nd class, First Division (Upper Second Class) honours degree or a taught master's degree with a minimum average of 60% in all areas of assessment (UK or UK equivalent) in a relevant area to the proposed research project	**E**
• For those whose first language is not English and/or if from a country where English is not the majority spoken language (as recognised by the UKBA), a language proficiency score of at least IELTS 6.5 (in all elements of the test) or an equivalent UK VISA and Immigration secure English Language Test is required, if your programme falls within the faculty of Engineering and Science a language proficiency score of at least IELTS 6.5 overall with a minimum of 6.0 in all elements of the test or an equivalent UK VISA and Immigration secure English Language Test is required. Unless the degree above was taught in English **and** obtained in a majority English speaking country, e.g. UK, USA, Australia, New Zealand, etc, as recognised by the UKBA.	**E**
Experience & Skills:	
• Previous experience of undertaking research (e.g. undergraduate or taught master's dissertation)	**E**
• Experience in a related discipline (E.g. Civil Engineering, Mathematical Modelling, Engineering, Geography, Computer Science, Physics, Applied Mathematics)	
• Familiarity with Data Analysis and Visualization – proficiency in Python or R for large-scale data handling and visualization.	
• Excellent Written and Verbal Communication Skills – ability to produce • academic papers and policy briefs	
Personal Attributes:	
• Understands the fundamental differences between a taught degree and a research degree in terms of approach and personal discipline/motivation	**E**
• Able to, under guidance, complete independent work successfully	**E**
Other Requirements:	
• This scholarship may require Academic Technology Approval Scheme approval for the successful candidate if from outside of the EU/EEA	**E**
• The scholarship must commence before 15th July 2026 (offers will be withdrawn if this condition is not met)	**E**

Closing date for applications:	***midnight UTC on 20th February 2026***
For further information contact:	***Dr Ioanna Stamataki – i.stamataki@gre.ac.uk***

Making an application:

Please read this information before making an application. Information on the application process is available at: https://www.gre.ac.uk/research/study/apply/application-process. Applications need to be made online via this link. **No other form of application will be considered**.

All applications **must include** the following information. **Applications not containing these documents will not be considered.**

- **Scholarship Reference Number (*insert reference*)**– included in the personal statement section together with your personal statement as to why you are applying
- **a CV including 2 referees** *
- **academic qualification certificates/transcripts and IELTs/English Language certificate if you are an international applicant or if English is not your first language or you are from a country where English is not the majority spoken language as defined by the UK Border Agency** *

**upload to the qualification section of the application form. Attachments must be a PDF format.*

Before submitting your application, you are encouraged to liaise with the Lead Supervisor on the details above.