Information on Postgraduate Research Scholarship - Ref: VCS-FES-05-22			
Faculty:	Engineering and Science	**Department:**	CMS
Lead Supervisor:	Dr. Asim Siddiqui		
Project Title:	A Building Information Modelling based Digital Workflow for Fire Safety Engineering.		
Project Description:	The world renowned Fire Safety Engineering Group, University of Greenwich, have an exciting opportunity for a skilled and motivated candidate to join the Fire Safety team developing the next generation of toolsets and standards to support fire safety analysis in the built environment. The Grenfell Tower fire highlighted systemic failures in provision of fire safety for high-rise dwellings, resulting in a devastating fire that caused 72 fatalities. The Hackitt Report into this tragic loss, identified failures and poor practices associated with the UK construction industry. To address these failures the report makes several recommendations, including the development of a "golden thread of information" related to buildings and Fire Safety. Building Information Modelling (BIM), a digital data flow approach, has been identified as a way of achieving this aim. However, to-date, the specific Fire Safety Engineering (FSE) information exchange is not explicitly captured in the BIM Industry Foundation Classes (IFC) Model. The Fire Safety Engineering Group has been working in conjunction with buildingSMART International (bSI), who set the BIM standards, together with international industrial and academic partners, to extend BIM IFC Model support in relation to FSE. The research will build on this international effort. The appointed research student will be in a unique position as a key member of this research and development team, giving them unbridled access to leading multinational researchers and practitioners. The novelty of the research will focus on developing an *Information Delivery Specification* (IDS) for FSE focusing on the data exchange requirements of fire modelling tools and developing suitable FSE digital workflows and processes. Under the administration of bSI, the IDS for FSE project will be an international collaboration project. The appointed research student will be part of this research project team and is expected to play a major role in the research and development activities. The student will be expected to work on open-source plugin development, that will realise and demonstrate the concepts developed in the IDS, for selected fire and pedestrian modelling tools. It is expected this work will greatly impact the architecture, building and construction industries, with benefits in efficiency, accuracy, cost reduction,		

	information sharing, data preservation and the enabling of new approaches to issues such as clash detection, building management and smart building systems, leading to greatly improved resilience in the built environment. This project is 50% funded by OFR Consultants and the student will be expected to spend some time at their office in Hatton Gardens London, assisting and studying cutting edge Fire Engineering practices. In addition, the student will gain experience in both fire- and evacuation- modelling through the PPFM and PPEM short courses and will become a competent practitioner in using computational fire engineering tools.
Duration:	3 years, Full-Time Study or 6 years, Part-Time Study

Bursary available (subject to satisfactory performance):

Year 1: £17,668 (FT) or pro-rata (PT) Year 2: In line with UKRI rate Year 3: In line with UKRI rate

In addition, the successful candidate will receive a contribution to tuition fees equivalent to the university's Home rate, currently £4,596 (FT) or pro-rata (PT), for the duration of their scholarship. International applicants will need to pay the remainder tuition fee for the duration of their scholarship.

This fee is subject to an annual increase.

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 with a high-level programming, such as C++, C#, Java or Python	**E**
• Self motivated and a team player.	**E**
• Experience of Fire Engineering practices, procedures and/or regulations	**D**
• Knowledge of computation Fire Modelling	**D**
• Knowledge of Pedestrian Modelling	**D**

• An understanding of Building Information Modelling	**D**
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 1st July 2023	**E**
Closing date for applications:	***midnight UTC on 15th March 2023***
For further information contact:	**Asim Siddiqui (A.A.Siddiqui@greenwich.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 (VCS-FES-05-22)** – 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.