Information on Postgraduate Research Scholarship
Ref: FS-ES-04-2027-18

Faculty:	Engineering & Science	**School:**	Engineering
Lead Supervisor:	Dr Ahmed Elamin		
Project Title:	Engineering Graduate Resilience in the Age of AI and Technological Transformation: Developing a Curriculum Framework for Responsible AI and Future Professional Practice		
Project Description:	Artificial intelligence (AI) and wider technological transformation are reshaping engineering work. Routine analysis, design, coding and documentation tasks are increasingly automated, while new demands are emerging for professional judgement, ethical reasoning, systems thinking and the ability to work effectively alongside intelligent tools. Universities must therefore prepare graduates not only to use AI, but to remain resilient, adaptable and responsible as engineering roles continue to change. Yet there is limited evidence on which capabilities matter most, how engineering students themselves perceive these changes, and how curricula and pedagogy should respond. This PhD will investigate how engineering education can develop graduates who are resilient and adaptable to AI and technological transformation and will develop and validate a curriculum framework that integrates Responsible AI, human–AI collaboration and future professional capabilities. The research is guided by five questions: • RQ1. What knowledge, skills and capabilities enable engineering graduates to remain resilient and adaptable in the context of AI and technological transformation? • RQ2. How do engineering students perceive the impact of AI and technological transformation on their future employment, professional roles and required capabilities? • RQ3. What role should Responsible AI and human–AI collaboration play in preparing engineering students for future professional practice? • RQ4. How can engineering curricula and pedagogy develop students' adaptability, continuous learning and professional judgement in an AI-enabled workplace? • RQ5. What curriculum framework can be developed and validated to support engineering graduate resilience, Responsible AI capability and future professional practice? The project will adopt a mixed-methods design. It will begin with a systematic review of the literature on graduate resilience, AI in engineering practice, Responsible AI and curriculum design, alongside analysis of relevant accreditation and policy frameworks, such as the Engineering Council's Accreditation of Higher Education Programmes (AHEP). Empirical work is expected to include surveys and focus groups with engineering students and interviews with academic staff, employers and professional bodies. These findings will inform a draft curriculum framework, which will then be refined and validated through an expert consensus method (for example, a Delphi study), with scope for piloting within engineering programmes. The project offers the opportunity to generate evidence with direct impact on engineering curricula, student success and graduate employability, and to		

	contribute to national and international debate on the future of engineering education. The successful candidate will be based in the School of Engineering at the University of Greenwich and will be supported to develop expertise in educational research, Responsible AI and research dissemination. We welcome applicants from engineering, computing, education or social science backgrounds who have a strong interest in AI, engineering education and the future of professional work. **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 6 years, part-time study

Support available (subject to satisfactory performance):

For Home students

- A full tuition fee waiver at the Home student rate for the duration of the scholarship.

For International students

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

Important information

- Tuition fees are subject to annual review and may increase during the course of study.
- This scholarship covers tuition fees only and does not include funding for living, accommodation, or maintenance costs.

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**

• Knowledge of, or willingness to develop, qualitative and quantitative (mixed-methods) research skills, including survey design, interviews and data analysis	**D**
• Background in, or demonstrable interest in, engineering education, artificial intelligence, Responsible AI or engineering professional practice	**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 5th April 2027	**E**
Closing date for applications:	**Midnight UTC on 30th November 2026**
For further information contact:	**Dr Ahmed Elamin – ahmed.elamin@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 (FS-ES-04-2027-18)**– 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, 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.