Information on Postgraduate Research Scholarship - Ref: FES-BAE-SYS-23-01

Faculty: **Engineering and Sciences**	**Department: School of Engineering**

Lead Supervisor: **Prof James Gao**	

Project Title: BAE Systems Sponsored PhD in Smart Manufacturing Systems (Bursary: £22-25k pa for 3 years)

Project Description:

BAE Systems (Rochester) manufactures high value complex aerospace products and systems. Both product requirements and batches change frequently, thus the company adopts a 'design to order' and 'manufacture to order' operation model. Pulled by the changing customer demands and pushed by fast developing digital technologies, the company is developing a new flexible and responsive smart factory. This PhD work will be focused on enabling a batch-size-one paradigm to common manufacturing processes to achieve reduced unit costs through catering for high product variability across all product lines.

The PhD researcher will need to identify suitable candidate processes that could be combined for all product lines, and take a holistic system's view of the company's manufacturing transformation cycle with an aim of assessing the new factory and suggesting areas for improvements based on the optimisation methods and tools to be developed during the project. Methods and tools to be developed during the project, such as simulation, automation, lean, agile, Industry 4 (cyber-physical systems) and Industry 5 (human-machine interaction).

We are looking for candidates with a background in manufacturing engineering, systems, operations, or related disciplines, with strong knowledge and skills in Information and Communication Technologies. Candidates should have or expected to achieve an undergraduate degree (2:1 or above). Candidates with postgraduate degree and/or practical experience in research or industry are encouraged to apply. The successful candidate will benefit from both academic research and collaboration with world-class manufacturing companies.

Duration: **3 years, Full-Time Study, start in February 2024 or as soon as possible**

Bursary available: £22,000 - £25,000 per year (Tax-free) for 3 years. In addition, the successful candidate will receive a contribution to tuition fees equivalent to the university's Home rate, currently £4,712, for the duration of their scholarship and travel expenses paid to attend appropriate conferences and seminars. International applicants will need to pay the remainder of the tuition fee (currently £16,300), for the duration of their scholarship. This fee is subject to an annual increase. Teaching assistance opportunity is available for this post which would be additional to the bursary.

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, 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	D
• Combined engineering and IT degrees	E
• Post-degree industrial experiences	D
• Manufacturing systems, engineering, operations, Robotics, AI	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
• Good communication and team working skills	E
• The scholarship is expected to commence in February 2024 or as soon as possible.	E

Closing date for applications: *midnight on Wednesday 3rd January 2024*

For further information contact: *Prof James Gao* **E-mail: *j.gao@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 (FES-BAE-SYS-23-01)** – 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 (Prof James Gao) on the details above (ideally email your CV prior to a discussion).