

JOB DESCRIPTION

Job Title:	Research Associate	Grade:	AC1
School:	Engineering	Date of Job Evaluation:	June 2019
Role reports to:	PI of the project: "Designing for the Future: Optimising the structural form of regolith-based monolithic vaults in low-gravity conditions"		
Direct Reports:	None		
Indirect Reports:	None		
Other Key contacts:	Head of School of Engineering, Civil Engineering Portfolio group		
This role profile is non-contractual and provided for guidance. It will be updated and amended from time to time in accordance with the changing needs of the University and the requirements of the job.			

PURPOSE OF ROLE:

- The Post-Doctoral Research Associate (PDRA) will join a research project where regolith-based monolithic vaults in low-gravity conditions will be investigated. The project involves numerical modelling of monolithic structures, extraterrestrial natural hazards identification (and quantification), linear and nonlinear static and dynamic analyses of monolithic structures and experimental/centrifuge testing for validation of the numerical models.
- The main focus of the role is to generate resilient structural models, by adopting a holistic approach between the superstructure and foundation, against high radiation, low-gravity and strong ground motions.
- Applicants should have a PhD in Structural/Earthquake Engineering and is desired to have any postdoctoral experience.
- Applicants should have experience in numerical modelling using FE software, programming skills and a strong understanding of nonlinear structural behaviour and structural dynamics.
- The appointee will be expected to give oral presentations on their work, write internal reports and produce draft publications, and relevant communication skills are required
- In addition to their research, the appointee will be expected to take some responsibility for the supervision and training of post-graduate and undergraduate research students and the day-to-day running of the laboratory

KEY ACCOUNTABILITIES:**Team Specific:**

- Work proactively on specific research topics aligned with the funded EPSRC project.
- Contribute to research leading to the publication and dissemination of original work.
- Contribute to the research profile of the academic unit and, for suitably qualified candidates, to the REF submission of the Civil Engineering Group.
- Maintain effective, high-quality and productive working relationships with professional bodies and employers.

Generic:

- Assist the Civil Engineering Team in achieving the School's KPIs.
- Contribute to School's plans, activities and efficient working practices.
- Participate in visits to schools, local community groups, public engagements and other related engagement activities.
- Demonstrate a commitment to equality, diversity and inclusion through teaching practice and engagement with University initiatives.
- Promote the work and represent the discipline and the work of the University internally and externally, and take a proactive approach to ethical, good practice.

Managing Self

- Develop expertise in research with an increasing degree of autonomy.
- Actively participate in established professional development framework activities.
- Behave in a manner which reflects the University values and creates a positive environment for work and study.

Core Requirements

- Adhere to and promote the University's policies on Equality and Diversity and Information Security.
- Ensure compliance with Health & Safety regulations and Data Protection Legislation.
- Support and promote the University's Sustainability policies, including the Carbon Management Plan, and carry out duties in a resource-efficient way, recognising the shared responsibility of minimising the University's negative environmental impacts wherever possible.

Additional Requirements:

- Any other duties commensurate with the post and grade as agreed with the PVC and Head of School.

KEY PERFORMANCE INDICATORS:

Performance Indicators will be established in consultation with the Head of School as part of the post holder's annual Appraisal and Professional Development Review

KEY RELATIONSHIPS (Internal & External):**Internal**

Reporting to project PI and to the Head of the School of Engineering

External

Professional scientific bodies and the civil engineering academic community

PERSON SPECIFICATION	
Essential	Desirable
<p>Experience</p> <ul style="list-style-type: none"> • Substantial research experience • Postdoctoral experience in research, consultancy or professional practice • Strong background in structural dynamics and seismic design • Strong background in nonlinear structural behaviour • Experience with advanced structural modelling and (non)linear dynamic analyses <p>Skills</p> <ul style="list-style-type: none"> • Ability to work independently and with a diverse team • Ability to, under guidance, complete independent work successfully • Outstanding organisational, IT communication and interpersonal skills <p>Qualifications</p> <ul style="list-style-type: none"> • PhD in Structural/Earthquake Engineering (or closely related) discipline. <p>Personal attributes</p> <ul style="list-style-type: none"> • We are looking for people who can help us deliver the <u>values</u> of the University of Greenwich: Excellence, Determination, Inclusivity, Ambition and Creativity 	<p>Experience</p> <ul style="list-style-type: none"> • Background in structures exposed to high radiation, low gravity and/or moon(mars)quakes • Experience with rocking and/or isolated structures • Background in Space technology • Peer-reviewed journal publications • Initiating the development of Research bids <p>Skills</p> <ul style="list-style-type: none"> • Application for research funding and other bids <p>Qualifications</p> <ul style="list-style-type: none"> • Professional Body Membership <p>Personal attributes</p> <ul style="list-style-type: none"> • N/A