

Job Description

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| Job title | Research Assistant in Strengthening of Existing Masonry Structures by Using Advanced and Sustainable Materials |
| School | School of Computing and Engineering |
| Grade | Research A |
| Line manager | Senior Lecturer in Structural Mechanics |
| Responsible for (direct reports) | N/A |
| Date of creation or review | 07/02/2024 |

Main purpose of the job

The School of Computing and Engineering of the University of West London is seeking to recruit a part-time (0.6 FTE) Research Assistant for the funded research project “Strengthening of Existing Masonry Structures by Using Advanced and Sustainable Materials”. This project will focus on developing novel and sustainable materials and the strengthening of masonry structures.

The successful candidate will be responsible for conducting experimental work, developing and assessing novel and sustainable materials, such as Ultra High-Performance Fiber Reinforced Concrete, and applying these materials for the strengthening of masonry structures. The candidate will contribute to research papers for submission to academic journals and presentations at international conferences.

Candidates should hold an MSc or be near completion (or hold) of a PhD in the area of Structural Engineering and/or Construction Materials. Equivalent professional experience will also be considered. Experience in experimental work and numerical modelling will be an advantage. The successful candidate must be self-motivated, have critical thinking skills, teamwork skills but also to have the ability to work independently.

This is a part-time post (0.6 FTE) with a duration of 16 months.

Key areas of responsibility

- Developing, testing and assessing Construction Materials
- Structural testing of masonry structures
- Numerical modelling of construction materials and masonry structures
- Contribute and present research papers in conferences
- Contribute to research papers for submission to scientific journals

In addition to the above areas of responsibility the post-holder may be required to undertake any other reasonable duties relating to the broad scope of the position, commensurate with the post, and in support of the University.

Dimensions / background information

UWL is a top modern university in the UK for civil engineering in the Guardian University Guide 2024. The School of Computing and Engineering of the UWL is highly engaged in research. We are always looking for talented, qualified research students across a broad range of subject areas. We offer excellent facilities such as the concrete testing lab, the soil and geotechnics lab, two electronics labs, an architecture studio and dedicated computing labs.

Person Specification

| | Criteria | Essential or Desirable ¹ | Demonstrated ² | | |
|---|---|-------------------------------------|---------------------------|-----------|-----------------|
| | | | Application | Interview | Test / Exercise |
| Qualifications and/or membership of prof. bodies | MSc in Civil Engineering | Essential | X | | |
| | PhD in Civil Engineering | Desirable | X | | |
| Knowledge and experience | Testing and evaluation of construction materials | Essential | X | X | |
| | Structural behaviour of structures | Essential | X | X | |
| | Strengthening techniques of structures | Essential | X | X | |
| | Numerical modelling | Desirable | X | X | |
| Specific skills to the job | Familiar with research methods | Essential | X | X | |
| | Presentation skills | Essential | X | X | |
| | Decision making | Essential | | X | |
| | Knowledge of designing and structural analysis software | Essential | X | X | |
| General skills | Communication skills | Essential | | X | |
| | Team working skills | Essential | | X | |
| | Critical thinking | Essential | | X | |
| | Self-motivation | Essential | | X | |

Disclosure and Barring Scheme Is a DBS Check required: DBS This post does not require a DBS check

Before making a selection, please refer to the University's [Disclosure and Barring Checks Guidance for Staff](#) and [Criminal Convictions, Disclosures and Barring Staff Policy and Procedure](#). If a DBS check is required for the role, a **Check Approval Form** will need to be completed.

¹**Essential Criteria** are those, without which, a candidate would not be able to do the job. Applicants who have not clearly demonstrated in their application that they possess the essential requirements will normally be rejected at the shortlisting stage.

Desirable Criteria are those that would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements, to determine which applicants to shortlist.

²**Demonstration:** Select the Recruitment Process stage at which the candidates will have to demonstrate that they meet the criteria. Criteria which have to be demonstrated at application stage should be mentioned in the Recruitment Information Pack as Pre-Selection/Killer Questions, Shortlisting Questions or Shortlisting Criteria. Other criteria should be evaluated and tested at interview stage (e.g. through interview questions) or through additional tests, exercises or presentations. Criteria can (and should) be demonstrated at multiple stages.