



**Faculty of Technology**

**School of Engineering**

**Senior Research Associate in Advanced Fracture Mechanics Analysis using Digital Imaging**

**ZZ602864**

**THE POST**

Please see the attached job description and person specification.

**TERMS OF APPOINTMENT**

**Fixed-term**

**Full-time**

Salary is in the range from £29,799 to £33,518and progress to the top of the scale is by annual increments payable on 1 September each year. Salary is paid into a bank or building society monthly in arrears.

Working hours are 37 per week and are usually worked between 8.30 am and 5.15 pm Monday to Thursday and between 8.30 am and 4.15 pm on Friday with one hour and ten minutes for lunch. As this post is research based, working hours will vary depending on the needs of the project so a flexible approach is required. Specific working hours will be agreed once an appointment has been made. Overtime is not normally payable but time off in lieu may be given.

Annual leave entitlement is 35 working days in a full leave year. The leave year commences on 1 October and staff starting and leaving during that period accrue leave on a pro-rata basis. In addition, the University is normally closed from Christmas Eve until New Year’s Day inclusive and on bank holidays.

The Appointee will be entitled to join the Local Government Pension Scheme. The scheme's provisions include a final salary based, index-linked pension with an option to exchange some pension for a lump sum on retirement together with dependants’ benefits. Contributions by the employee are subject to tax relief.

There is a probationary period of six months during which new staff are expected to demonstrate their suitability for the post.

There is a comprehensive sickness and maternity benefits scheme.

**All interview applicants will be required to bring their passport or full birth certificate and any other 'Right to Work' information to interview where it will be copied and verified.** The successful applicant will not be able to start work until their right to work documentation has been verified.

Please note if you are the successful candidate once the verbal offer of employment has been made and accepted, references will be immediately requested. It is the University’s policy that all employment covering the past three years is referenced. A minimum of two references is required to cover this three year period of employment or study (where there has been no employment). One of your referees mustbeyour current or most recent employer.

The successful candidate will need to bring documentary evidence of their qualifications to Human Resources on taking up their appointment.

To comply with UKVI legislation, non-EEA candidates are only eligible to apply for this post if it has been advertised for a total of 28 days.

If the position has a requirement for Disclosure and Barring Service check (DBS), this will be stated in the advert. The DBS Application Form will be provided once the selection process has been completed.

All applications must be submitted by Midnight (GMT) on the closing date published.

**UNIVERSITY OF PORTSMOUTH – RECRUITMENT PAPERWORK**

1. **JOB DESCRIPTION**

|  |  |
| --- | --- |
| **Job Title:** | Research Associate (1.0 FTE, fixed term for 18 months) |
| **Grade:** | 6 |
| **Faculty/Centre:****Location:** | Faculty of Technology |
| **Position Reference No:** | ZZ602864 |
| **Cost Centre:** | 41900 |
| **Responsible to:** | Professor Jie Tong |
| **Effective date of job description** | 10 October 2017 |

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| **Purpose of Job:** |
| To carry out advanced finite element (FE) analysis of crack problems utilising data obtained from Digital Image/Volume Correlation (DIC/DVC) under cyclic loading conditions.  |
| **Key Responsibilities:** |
| 1. To perform FE analysis of crack problems using ABAQUS software
2. To utilise/develop the necessary pre-processing and post-processing modelling tools as necessary when interfacing with DIC/DVC and material constitutive data
3. To utilise the results obtained from DIC/DVC for the determination of J/K using ABAQUS; and to explore other forms of crack driving force
4. To study the crack tip local strains and to compare experimental measurements and model predictions.
5. To write up the results for conference and journal publications
 |
| **Working Relationships:** |
| Project grant holders MBM group researchersExternal collaboratorsHead of School Deputy Head of School (Research) |

1. **PERSON SPECIFICATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Attributes** | **Rating** | **Source** |
| **1.** | **Specific Knowledge & Experience** |  |  |
|  | * Knowledge and experience in computer programming
* Knowledge of Fracture Mechanics
* Knowledge of Materials Science
 | DED | AF, SAF, SAF, S |
| **2.** | **Skills & Abilities** |  |  |
|  | * Experience in computer programming
* Experience with FORTRAN, C/C++ or Matlab
* Ability to work independently and as a member of a team
* Self-driven and excellent time keeping
* Fluency in written and spoken English
 | DDEED | AF, SAF, SAF, SAF, SAF, S |
| **3.** | **Qualifications, Education & Training** |  |  |
|  | * PhD (or thesis submitted)
* Master’s degree
 | DE | AF, SAF, S |
| **4.** | **Other Requirements** |  |  |
|  | * Self-motivated
* Able to work autonomously and in a team
 | EE | AF, SAF, S |

**Legend**

Rating of attribute: E = essential; D = desirable

Source of evidence: AF = Application Form; S = Selection Programme; T = Test

**JOB HAZARD IDENTIFICATION FORM**

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| **Please tick box(s) if any of the below are likely to be encountered in this role. This is in order to identify potential job related hazards and minimise associated health effects as far as possible. Please use the** [**Job Hazard Information**](http://www.port.ac.uk/departments/services/humanresources/occupationalhealthservice/jobhazardinformation/filetodownload%2C164407%2Cen.doc) **document in order to do this.**  |
| 1. International travel/Fieldwork
 |  | 13. Substances to which COSHH regulations apply (including microorganisms, animal allergens, wood dust, chemicals, skin sensitizers and irritants)  |  |
| 1. Manual Handling (of loads/people)
 |  | 14. Working at height |  |
| 1. Human tissue/body fluids (e.g. Healthcare workers, First Aiders, Nursery workers, Laboratory workers)
 |  | 15. Working with sewage, drains, river or canal water  |  |
| 1. Genetically modified Organisms
 |  | 16. Confined spaces |  |
| 1. Noise > 80 DbA
 |  | 17. Vibrating tools  |  |
| 1. Night Working

 (between 2200 hrs and 0600 hrs) |  | 18. Diving |  |
| 1. Display screen equipment (including lone working)
 | X | 19. Compressed gases |  |
| 1. Repetitive tasks (e.g. pipette use, book sensitization etc)
 |  | 20. Small print/colour coding |  |
| 1. Ionising radiation/ non-ionising radiation/lasers/UV radiation
 | 21. Contaminated soil/bioaerosols |  |
| 10. Asbestos and lead  | 22. Nanomaterials  |
| 11. Driving on University business (mini-bus, van, bus, forklift truck etc)  | 23. Workplace stressors (e.g. workload, relationships, job role etc)  |
| 12. Food handling  | 24. Other (please specify)  |

**Completed by Line Manager/Supervisor:**

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| **Name (block capitals)** | JIE TONG |
| **Date** | November 2017  |
| **Extension number** | 2326 |

Managers should use this form and the information contained in it during induction of new staff to identify any training needs or requirement for referral to Occupational Health (OH).

Should any of this associated information be unavailable please contact OH (Tel: 023 9284 3187) so that appropriate advice can be given.