

THE POST

College/Service: College of Engineering, Mathematics and Physical Sciences

Post: Postdoctoral Research Associate

Reference No: P62623

Grade: E

Reporting To: Professor John Coggan

Job Description

Main purpose of the job:

The post will focus on numerical modelling of caving associated with coal longwall mining, together with analysis and interpretation of laboratory test data from rock samples tested as part of the Research Fund for Coal and Steel project PRASS III, under grant agreement No 752504.

Main duties and accountabilities:

1. To undertake research as appropriate to the field of study including:
 - Writing up research work for publication;
 - Developing research objectives and proposals for own or joint research;
 - Making presentations at national and international conferences and similar events;
 - Dealing with problems which may affect the achievement of research objectives and deadlines;
 - Analysing and interpreting the results of own research and generating original ideas based on outcomes;
 - Using new research techniques and methods;
 - Using initiative and creativity to identify areas for research, developing new research methods and extending the research portfolio;
 - Using creativity to analyse and interpret research data and draw conclusions on the outcomes.
2. To contribute to teaching and to be involved in the assessment of student knowledge including assisting in the supervision of student projects and in the development of student research skills.
3. To work in collaboration with colleagues as appropriate to the field of study including:
 - Contributing to collaborative decision making within the research group;
 - Contributing to the production of collaborative research reports and publications.
 - Preparing papers and presenting information on research progress and outcomes to bodies supervising research, e.g. steering groups.
4. To communicate complex information, orally, in writing and electronically.
5. To prepare proposals and applications to external bodies, e.g. for funding and contractual purposes
6. To contribute to the planning of research projects.

7. To use research resources, laboratories and workshops as appropriate and to take responsibility for reducing hazards and for the health and safety of others. Where appropriate, will also be responsible for conducting risk assessments.
8. To monitor research budgets as appropriate.
9. To engage in continuous professional development and to be responsible for continually updating knowledge and understanding in field of study or specialism and for developing skills.

This job description summarises the main duties and accountabilities of the post and is not comprehensive: the post-holder may be required to undertake other duties of similar level and responsibility.

Person Specification

| Competency | Essential | Desirable |
|-----------------------------|---|---|
| Attainments/Qualifications | PhD (or nearing completion) in Mining Engineering or equivalent qualification/experience in a related field of study. | |
| Skills and Understanding | A good understanding of numerical modelling applied to excavation design. Sufficient knowledge in the discipline and of research methods and techniques to work within established research programmes. | Evidence of research activity and published research. |
| Prior Experience | Understanding of mining operations and excavation design practice. Familiar with rock testing and interpretation of laboratory test results. | Experience of undergraduate teaching |
| Behavioural Characteristics | Excellent written and verbal communication skills. Able to communicate material of a specialist or highly technical nature. Able to manage research and administrative activities and to balance the competing pressures of research and administrative demands and deadlines. Able to liaise with colleagues and students. Able to build contacts and participate in internal and external networks for the exchange of information and collaboration. Able to identify potential sources of funding. Actively participate as a member of a research team. Engage in continuous professional development. Understand equal opportunity issues as they may impact on areas of research content. Where appropriate to the role, willingness to undergo training in order to conduct risk assessments. | |
| Circumstances | Willing to work flexibly to achieve project demands. | |

Terms & Conditions

Our Terms and Conditions of Employment can be viewed [here](#).

Further Information

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