

Research Role Profile

Job Title:	Research Assistant
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Responsible to:	Head of research group, or principal investigator
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Responsible for:	There is no direct supervisory responsibility
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Job Summary and Purpose:
To support research activity in accordance with specified research project(s) under the supervision of the principal investigator

Main Responsibilities/Activities
<p>To support a research team by contributing to the planning of research projects and undertaking prescribed research tasks in accordance with specified research project(s), making use of standard research techniques and methods. These may include fieldwork, interviews, laboratory experimentation, computer-based data analysis or library research as directed by the research award holder and will entail co-ordinating own work with that of others to avoid conflict or duplication of effort. Analysing and interpreting results of own research, under the guidance of research award holder or supervisor. Write up results and contribute to the preparation of papers for submission to appropriate journals and conferences, and other outputs as required and/or appropriate. Attend appropriate conferences for the purpose of disseminating research results of personal development. Continually update knowledge and develop skills</p> <p>To carry out routine administrative tasks associated with a specified research project, for example risk assessment of research tasks, organisation of project meetings and documentation. This will entail planning own day-to-day research activity within the framework of the agreed programme, dealing with problems that may affect the achievement of research objectives and deadlines and implementing procedures required to ensure accurate and timely formal reporting and financial control</p> <p>Demonstrating, or occasionally assisting with undergraduate supervision within the post holder's area of expertise and under the direct guidance of a member of the Faculty academic staff.</p>

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Person Specification

The post holder must have:

A first degree or a professional qualification or equivalent in a relevant subject.

At least part-completed a relevant doctoral degree or have relevant experience in a given field.

Whilst there is no requirement for previous work experience, the post holder will be expected to be able to support research activities by performing experiments and/or undertaking studies and analysing/ interpreting results.

Relationships and Contacts

Direct responsibility to the principal investigator or academic supervisor.

Special Requirements

To be available to participate in fieldwork as required by the specified research project.

All staff are expected to:

- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.
- Help maintain a safe working environment by:
 - Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand
 - Following local codes of safe working practices and the University of Surrey Health and Safety Policy
- Undertake such other duties within the scope of the post as may be requested by your Manager.

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Addendum to Role Profile

Job Title:	Marie Sklodowska-Curie Early Stage Researcher
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Job Summary and Purpose:

This information sheet should be read in conjunction with the accompanying generic Research RA1A Role Profile and will be used for shortlisting processes. More specifically the post holder will be expected to:

to explore fundamental mechanisms underlying heat generation in granular materials and to develop and validate a computational model describing these mechanisms. (Post 1)

to explore changes in mechanical properties and temperature induced by heat generation and transfer, ii) to examine the variation of temperature and stresses in granular materials. (Post 2)

Main Responsibilities/Activities

- Develop a computational model for heat generation (Post 1);
- Validate the computational model using experimental data (Post 1);
- Investigate heat generation and transfer in granular materials (Post 2);
- Model heat generation and transfer in granular materials (post 2);
- Perform novel research under the supervision of academic and industrial supervisors;
- Write technical reports periodically for internal and external dissemination;
- Participate in the activities of the MATHEGRAM programme: attending network training events, collaborating with MATHEGRAM partners and researchers;
- Undertake secondments to MATHEGRAM partners for research and training purposes;
- To take initiatives in the research planning and work as an independent researcher.

Person Specification

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The post holder must have:

- Master's degree in Engineering, Physics or Materials Science or a closely related discipline;
- Knowledge of numerical methods, computational modelling (FEM, DEM, CFD) and granular materials;
- Experience in computer programming using any of the computer languages will be an advantage but not essential;
- Ability to work independently as well as in a team;
- Experience in data analysis, interpretation and management, as well as writing technical reports/papers;
- Entry requirements include **English language requirements** being IELTS Academic 6.5 overall with 6.0 in each band or equivalent.

Relationships and Contacts

Direct responsibility to the principal investigator or academic supervisor. The post holder may be asked to serve on a relevant Faculty committee. There may be additional reporting and liaison responsibilities to external funding bodies or sponsors. The post holder may work on original research tasks with colleagues in other institutions.