

## Research Role Profile

<b>Job Title:</b>	Research Fellow A
<b>Responsible to:</b>	Head of research group, or principal investigator
<b>Responsible for:</b>	Not applicable

### Job Summary and Purpose:

To undertake research in accordance with the specified research project(s) under the supervision of the principal investigator.

### Main Responsibilities/Activities

To undertake a range of research activities within a specified research area, assuming responsibility for specific areas of projects and making use of new research techniques and methods, in consultation with the research award holder or supervisor. This may include fieldwork, interviews, laboratory experimentation, critical evaluation and interpretation, computer-based data analysis and evaluation or library research.

Using initiative and creativity to identify areas for research develop new research methods and extend the research portfolio. Analysing and interpreting results of own research. Write up results and prepare 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. The post holder may also contribute to writing bids for research grants and will contribute to collaborative decision making with colleagues in areas of research.

Continually to update knowledge and develop skills, and translate knowledge of advances in the area into research activity.

To plan and manage own research activity in collaboration with others. To carry out administrative tasks associated with specified research funding, for example risk assessment of research activities, organisation of project meetings and documentation. Implementation of procedures required to ensure accurate and timely formal reporting and financial control.

To contribute to teaching in the Faculty by carrying out student supervision and/or demonstrating within the post holder's area of expertise and under the direct guidance of a member of departmental academic staff, as appropriate.

The post holder may occasionally be required to supervise more junior research staff.

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### Person Specification

#### **The post holder must have:**

A doctoral degree in a relevant discipline (although individuals who have almost completed a doctoral degree may be appointed). Consideration may also be given to individuals who do not hold a doctoral degree but have required skills based on a number of years experience in specified / relevant fields

The post holder will have authority over some aspects of project work and must be capable of providing academic judgement, offering original and creative thoughts and be able to interpret and analyse results.

### 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.

### 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

This document provides additional information relating to both specific aspects of the post/faculty and any post specific person specification criteria. The information contained within this document should always be read in conjunction with the accompanying generic Role Profile.

<b>Job Title:</b>	5-Year AWE Research Fellow in Materials Ageing
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### Background Information/Relationships

Predicting how the performance of a material will change over a planned lifetime of many years has always been a challenge. The AWE-University of Surrey Centre of Excellence in Materials Ageing, Performance and Lifetime Prediction (CoE in MAP-Life) enables experts from AWE Nuclear Security Technologies and Surrey to work together to develop novel experimental techniques and enhanced modelling capability to deliver better lifetime assessments.

The focus will be on priority materials such as, adhesives, coatings, composites, elastomers, flexible/rigid polymers, and the range of multi-materials used in electronics and mechanical devices. For those materials we will:

- Develop novel test methodologies to undertake assessments with significantly reduced timescales than currently to confidently underpin material life assessments
- Provide data to allow the qualifying/underwriting of material performance in significantly reduced timescales than that offered by conventional methods
- Identify and recommend methodologies that can extend useful material life and performance
- Identify, develop and use test methods to develop a fundamental understanding of materials ageing mechanisms and kinetics
- Develop materials ageing models and methodologies which account for multiple ageing stimuli.

The Research Fellow (RF) will have a key role in delivering a successful CoE and addressing the business needs. It is envisaged that they will become the research team leader with responsibilities to plan, implement and manage research programmes and aid AWE in making strategic decisions. They will have the opportunity to be involved with the supervision of postgraduate students and to work with AWE scientists at Surrey and at Aldermaston. They will be expected to become a nationally/internationally recognised authority or expert in the area, with a strong publication record. Part of the role will involve networking/collaborating actively with other organisations and representing the CoE at national/international events.

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### **Person Specification**

This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role. This is in addition to the criteria contained within the accompanying generic Role Profile.

	<b>Essential/ Desirable</b>
PhD in relevant discipline	E
Experience of planning and executing successfully an extensive experimental programme and/or modelling programme.	E
In-depth knowledge of at least one class of material relevant to the CoE remit—preferably one, or more, classes of organic engineering materials—including materials characterisation and materials ageing/lifetime prediction	E
Excellent administrative and organisational skills	E
Excellent communication and networking skills across a range of audiences and using a range of media	E
Ability to work independently without day-to-day supervision	E
Experience of materials databases	D
Experience of managing others/supervising students	D

### **Special Requirements**

To enable close integration with AWE Nuclear Security Technologies, the RF will need to obtain [security clearance](#). This means that they will need to be a British National and have resided in the UK for the past five years.

The RF will need to travel between the University (Guildford, Surrey) and AWE (Aldermaston, Berkshire). Whilst it is possible to do this using public transport, it would be beneficial for the RF to have a full, clean driving licence.

### **Key Responsibilities**

This document is not designed to be a list of all tasks undertaken but an outline record of any faculty/post specific responsibilities (5 to 8 maximum). This should be read in conjunction with those contained within the accompanying generic Role Profile.

#### **N.B. This list is not exhaustive:**

- Working with others, deliver the scientific remit of the Centre of Excellence
- Plan and implement research projects
- Produce high quality outputs (conference and journal papers, technical reports etc.)

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### Research Role Profile

- Provide data and advice to AWE to help formulate policies and strategies
- Contribute to the supervision of students within the CoE
- Represent AWE and the University of Surrey at national and international events, building up a network of collaborators
- Chair the CoE's Technical Working Group