Role profile

**Job title**
Research Fellow (Title will be ‘Research Associate’ where an appointment is made before PhD is completed)

**School/Department**
Faculty of Engineering

**Job family and level**
Research and Teaching Level 4 (Appointment will be Level 4 Career training grade where an appointment is made before PhD has been completed)

**Location**
Energy Technologies Building, Jubilee Campus

**Purpose of role**
As part of a research team, the successful candidate will perform research and provide support on the planning and management of project aimed at developing of intra-hour solar forecasting algorithms for improved grid management. It is expected that the role-holder will undertake supervision of students, public engagement activities and international collaboration with industrial or academic partner institutions within the UK and EU.

**Main responsibilities**
(Primary accountabilities and responsibilities expected to fulfil the role)

<table>
<thead>
<tr>
<th>% time per year</th>
<th>1</th>
<th>To develop intra hour solar forecasting algorithms</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>30%</td>
<td>To expand solar measurement platform</td>
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<tr>
<td>3</td>
<td>30%</td>
<td>To analyse and process weather and image data</td>
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<tr>
<td>4</td>
<td>10%</td>
<td>Organise liaison meetings with partners. Produce of reports, presentations and meetings with universities, industrial partners and outreach to the industry, scientific community and general public. Further dissemination of results should also occur through invited oral and poster presentations at international meetings, conferences and seminars.</td>
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<tr>
<td>5</td>
<td>10%</td>
<td>Publish of papers in national/international conferences and refereed journals. Assist with proposal writing and funding biding.</td>
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<tr>
<td>6</td>
<td>5%</td>
<td>Assist with supervision of undergraduate, postgraduate and PhD students.</td>
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The University strongly endorses Athena SWAN principles, with commitment from all levels of the organisation in furthering women’s careers. It is our mission to ensure equal opportunity, best working practices and fair policies for all.

## Person specification

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<th>Essential</th>
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<td>- Ability to plan a project, execute the plan and manage your own time and workload effectively.</td>
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<td>- Excellent interpersonal, oral, and written communication skills.</td>
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<td>- Experiment design and data analysis</td>
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<td>- Good general IT skills, including a good working knowledge of word processing, spreadsheets, and email systems.</td>
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<table>
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<th>Desirable</th>
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<td>- Proven substantial record of publications in high-impact national/international journals.</td>
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<tr>
<td>- Keen interest in multi-disciplinary research.</td>
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<td>- Proven ability attaining competitive research funding along with strong portfolio of research grant.</td>
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## Skills

### Essential
- Experience of using Python familiarity with data science libraries including Numpy, Pandas, Scikit-learn, etc, and familiarity with data visualisation libraries including Matplotlib, Seaborn, etc.
- Experience of building neuronal network architectures, building regression models, image processing and analysis, computer vision models, etc.
- Relevant experience in solar forecasting/solar data measurement/analysis

### Desirable
- Experience of solar PV characterisations.

## Knowledge and experience

### Essential
- PhD (or about to obtain) in solar energy engineering or computer science, or mathematics or image processing or a related quantitative field.

### Desirable
- Relevant experience in solar forecasting/solar data measurement/analysis.

## Qualifications, certification and training (relevant to role)

- Proven substantial record of publications in high-impact national/international journals.
- Keen interest in multi-disciplinary research.
- Proven ability attaining competitive research funding along with strong portfolio of research grant.

### Essential
- Experience of using Python familiarity with data science libraries including Numpy, Pandas, Scikit-learn, etc, and familiarity with data visualisation libraries including Matplotlib, Seaborn, etc.
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### Desirable
- Experience of solar PV characterisations.

- PhD (or about to obtain) in solar energy engineering or computer science, or mathematics or image processing or a related quantitative field.
Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University’s strategy, vision and values. The following are essential to the role:

**Valuing people**  Is always equitable and fair and works with integrity. Proactively looks for ways to develop the team and is comfortable providing clarity by explaining the rationale behind decisions.

**Taking ownership**  Is highly self-aware, looking for ways to improve, both taking on board and offering constructive feedback. Inspires others to take accountability for their own areas.

**Forward thinking**  Driven to question the status quo and explore new ideas, supporting the team to “lead the way” in terms of know-how and learning.

**Professional pride**  Sets the bar high with quality systems and control measures in place. Demands high standards of others identifying and addressing any gaps to enhance the overall performance.

**Always inclusive**  Ensures accessibility to the wider community, actively encouraging inclusion and seeking to involve others. Ensures others always consider the wider context when sharing information making full use of networks and connections.

Key relationships with others

- **Line manager**
  - Chair in Building Physics
  - Research Associate/Fellow
  - Colleagues
  - Students

- **Role holder**
  - Chair in Building Physics
  - Research Associate/Fellow
  - Colleagues
  - Students

- **Key stakeholder relationships**