



## Candidate Information

<b>Position:</b>	Research Fellow
<b>School/Department:</b>	School of Electronics, Electrical Engineering and Computer Science
<b>Reference:</b>	23/111367
<b>Closing Date:</b>	Monday 6 November 2023
<b>Salary:</b>	£37,841 per annum
<b>Anticipated Interview Date:</b>	Thursday 30 November 2023
<b>Duration:</b>	Fixed Term 12 months, or available until 31 January 2025, whichever is sooner.

### JOB PURPOSE:

To be a highly productive, ambitious, and collaborative member of DCMS project titled "TUDOR: Towards Ubiquitous 3D Open Resilient Network". To work with research project/team assisting in the research relevant to the security framework emphasising the 3D components - UAV communications, Integrated Satellite and Terrestrial Networks.

The post is a critical role, and as such, successful applicants will have responsibilities to work independently and closely work with TUDOR team spread across the UK.

The TUDOR consortium brings together world-leading researchers from UK universities, innovative equipment vendors, major network operators and network/software and system integrators from both space and terrestrial sectors. All have extensive experience in delivering collaborative research in advanced wireless and networking technologies.

### MAJOR DUTIES:

1. Undertake research within the TUDOR project framework.
2. Design, develop and refine research related to the security framework for TUDOR emphasising the 3D components - UAV communications, Integrated Satellite and Terrestrial Networks.
3. Carry out analyses, critical evaluations, and interpretations of Open Resilient Network and the literature using methodologies and other techniques relevant to wireless security.
4. Produce high quality research outputs consistent with project aims and commensurate with career stage. This will include collaborating and co-authoring with PI and project team (as appropriate) on outputs.
5. In consultation with the project team, promote research milestones and outputs at national and international conferences.
6. Assist grant holder in the preparation of funding proposals and applications to external bodies.
7. Undertake supplementary duties relevant to the success of the project including administrative duties and additional training and development activities as required.

### ESSENTIAL CRITERIA:

1. Normally have or be about to obtain a PhD in Computer Science, Applied Mathematics, Electronics, Electrical Engineering, Physics.
2. Relevant experience to include:
  - Recent, relevant research experience in at least one of the following: UAV communications, Integrated Satellite and Terrestrial Network, physical layer security.
  - Relevant experience in the Wireless network with a focus on 3D component.
  - Demonstrable experience of network simulations.
  - Experience of working effectively as part of a research team in the development and promotion of the research theme.
  - Strong software development skills and proven track record of developing proof of concepts.
  - Sufficient breadth and depth of specialist knowledge in the discipline and of research methods and techniques.
3. Ability to contribute to broader management and administrative processes.

4. Contribute to the School's outreach programme by links with industry, community groups etc.
5. Willingness to undertake additional training in research methods and other related skills as required.
6. Practical problem-solving skills, independence of thought and initiative.
7. Ability to communicate complex information effectively in oral and written format.
8. Ability to build relationships to develop internal and external networks.

**DESIRABLE CRITERIA:**

1. Strong background in network security.
2. Experience of developing and testing security algorithms.
3. Mathematical skills for conceptualisation, modelling, optimisation, and analysis of problems.