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**Job Description**

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| **Job title** | Research Assistant |
| **Department/School** | Electronic and Electrical Engineering |
| **Job family** | Education and Research |
| **Grade** | 6 |
| **Reporting to** | Keri Nicoll |
| **Responsible for** | No staff management responsibilities |
| **Location** | University of Bath premises |

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| **Background and context** |
| We would like to recruit a research assistant to assemble, test and help fly unmanned aerial vehicle (UAV) platforms and associated sensor payloads. Aircraft will be flown as part of the “Electrical aspects of rain generation” project, funded by the UAE (United Arab Emirates) research programme for rain enhancement science. This aims to investigate the effects of electric charge on cloud microphysics. Within the project, a number of small fixed wing aircraft will be flown into clouds to investigate their electrical and microphysical characteristics, using a suite of bespoke meteorological sensors developed during previous projects. Flights will take place both in the UK and in the UAE throughout the duration of the post.  The research associate will work with a team from the Departments of Electronic and Mechanical Engineering at the University of Bath, and the Department of Meteorology at the University of Reading, as well as international collaborators in the UAE. Main tasks will involve assembly of UAV aircraft platforms (commercial as well as custom designed); integration of aircraft systems (including autopilot, telemetry, data logging and science sensors) and testing of aircraft and systems. You will be expected to participate in UAV field campaigns in the UK (and possibly internationally), and assist with flight planning, permissions and shipping.  The post is for a one year fixed term contract, based in the Department of Electronic and Electrical Engineering at the University of Bath, working with Dr Keri Nicoll, Dr Pejman Iravani, Dr David Cleaver and Dr Jon de Bois. |

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| **Job purpose** |
| To assemble, test and fly unmanned aerial vehicles platforms for the “Electrical aspects of rain generation” project. |

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| **Main duties and responsibilities** | |
| **1** | Assist with research by typically (*as appropriate to discipline*):   * preparing, conducting and recording the outcome of UAV field work tests; * conducting literature and database searches * assembling UAV aircraft and their systems |
| **2** | Provide support to PI and other research staff with project management (for example, organising meetings, corresponding with partners, assisting with flight permissions and international shipping). |
| **3** | Contribute to the production of research reports and publications. |
| **4** | Participate regularly in group meetings and prepare and deliver presentations to research team. |
| **5** | Assist with supervising undergraduate student projects. |
| **6** | Continually update knowledge and understanding in field or specialism to inform research activity. |
|  | You will from time to time be required to undertake other duties of a similar nature as reasonably required by your line manager. You are required to follow all University policies and procedures at all times and take account of University guidance. |

**Person Specification**

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| **Criteria** | **Essential** | **Desirable** |
| **Qualifications** |  |  |
| A first degree (BA/BSc) in a subject relevant to the research activity (e.g. engineering, meteorology or physics) | √ |  |
| Master level qualification |  | √ |
| **Experience/Knowledge** |  |  |
| Relevant work experience in a related area to the project (e.g. autonomous vehicles, electronics and sensor development, data logging systems) |  | √ |
| Demonstrated depth and breadth of specialist knowledge of the engineering to effectively contribute to the research programme | √ |  |
| Demonstrated awareness of latest developments in the field of research | √ |  |
| **Skills** |  |  |
| Ability to organise and prioritise own workload to meet required deadlines | √ |  |
| Ability to write research reports and to effectively disseminate outcomes | √ |  |
| Excellent verbal, interpersonal and written communication skills | √ |  |
| Highly competent in IT packages and electronic systems as appropriate to discipline/area of research. e.g. Ability to work with dataloggers such as Arduino, Raspberry pi. | √ |  |
| **Attributes** |  |  |
| Commitment to working within professional and ethical codes of conduct | √ |  |
| Innovation and developing creative solutions | √ |  |
| Self-confidence when communicating with a wide range of stakeholders | √ |  |
| Commitment to safe working practices | √ |  |
| Ability to work independently | √ |  |
| Commitment to excellence in research | √ |  |
| Ability to be an effective team worker | √ |  |