Research Associate – Aerial Robotics – School of Engineering and Computing – Grade G

Job Description

Purpose

To work with Professor Darren Ansell and their research group within the School and to develop, with the support of senior academics, a programme of research on specialist aerial robotics and product development.

To support the provision of high-quality research and scholarly activity within agreed thematic areas. To contribute to applications for external competitive grants and publish high impact, peer reviewed papers in collaboration with others. The post-holder will participate in the training and dissemination of research with peers, undergraduate and postgraduate students and external agencies and organisations, as well as collaborate in the on-going supervision of postgraduate students.

Duties

1. Alongside senior academics, contribute to existing research projects, support the development of new projects in collaboration with the research group and to develop, with support, their own programme of research relevant to the values and ethos of the thematic areas.

2. To contribute to existing and future research/evaluation projects including the writing of research proposals/grant applications for external funding; writing documentation for ethics application; undertaking systematic literature reviews; performance and monitoring of projects, data analysis and preparation of detailed research/evaluation reports.

3. Be responsible for the production of technical project deliverables such as the development, testing, evaluation, and modification of products, equipment and systems, and apply mechanical and electronic design skills to innovate new designs and solutions.

4. To contribute to the supervision and coordination of activities of junior research staff.

5. To contribute to the dissemination of outputs from research/evaluation projects through conferences, seminars, courses and publications in high quality peer reviewed journals.

6. To contribute to the development of collaborative research/evaluation grant proposals.

7. To provide teaching support/presentations to undergraduate/postgraduate sessions and ad hoc training, where relevant to research skills and interests.

8. To attract, support and contribute to the supervision of postgraduate research students (Masters and PhD Students).

9. To support existing links and foster new links with relevant external agencies and organisations and to help sustain and develop the work of the research group through research activities.

10. To contribute to the development of interdisciplinary research and scholarship across the School.

11. To update specialist knowledge and understanding and translate this into research activity.

12. To support on-going activities of the research group through contributing to planning seminars, conferences and other external-facing activities.

13. Adhere to appropriate ethical and research governance standards for research and protect confidentiality throughout this work.

14. To engage in appropriate knowledge transfer activities.

15. Any other activities in line with the requirements of the role as determined by the Line Manager/Dean of School.

Person Specification

Knowledge, Skills, and Behaviours (Essential)

- Experience of research and product development in robotics technology demonstrated by a record of involvement in academic research or industry-based projects (Application/Interview).

- Experience of utilising engineering analysis and simulation tools and a range of different research methods (Application/Interview).

- Good working knowledge of UAS, components, technology and operating rules and procedures (Application/Interview).

- Record of academic peer reviewed publications/research reports (Application/Interview).

- Evidence of excellent organisation skills with proven ability to prioritise and meet deadlines with the framework of an agreed programme (Application/Interview).

- PhD or equivalent (Application).

- Good verbal communication skills (Application/Interview).

- Good IT and academic writing skills (Application/Interview).
- Ability to contribute to, develop and co-ordinate implementing of research skills (Application/Interview).
- Experience of qualitative and quantitative data collection and analysis (Application/Interview).
- Ability to contribute to publications and reports through good academic research writing and technical skills (Application/Interview).
- Ability to work alone and carry out a arrange of research and engineering tasks autonomously and also to work as part of a team (Application/Interview).
- Ability to work independently and as part of a team flexibly to ensure agreed work targets are achieved (Application/Interview).
- Commitment to conducting high quality research within the two thematic areas (Application/Interview).
- Self-motivated and able to use initiative (Application/Interview).
- Flexible and enthusiastic approach to work (Application/Interview).
- An understanding of and demonstrable commitment to the University's Values of Achieving Together, Being Proud, Creating Opportunity and Supporting All, as a framework for decisions, actions and behaviours (Application/Interview).

Knowledge, Skills, and Behaviours (Desirable)

- Experience of contributing to writing research grant proposals (Application/Interview).
- Master's degree or equivalent in relevant area (Application).
- Experience of hardware development and of using qualitative and/or quantitative software analysis computer programmes (Application/Interview).
- Sound skills in using Word, PowerPoint, Excel (Application/Interview).
- Ability to coach, mentor and support colleagues in developing research techniques (Application/Interview).
- Experience of using qualitative and/or quantitative software analysis computer programmes (Application/Interview).
- Track record of publications and experience of presenting research at conferences or to a technical audience (Application/Interview).
- Ability to develop new concepts and ideas to extend intellectual understanding (Application/Interview).