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| Job Title | Assistant Professor | Job Family and Level | Research and Teaching Level 5 |
| Department | Electrical and Electronic Engineering | Location | University Park Campus |

Purpose of Role

The role holder will be a member of the Department of Electrical and Electronic Engineering where they will contribute to the teaching of undergraduate and postgraduate modules on our BEng/MEng Aerospace Engineering programmes. Teaching duties will include lectures, seminars, tutorials, and the supervision of project work in aerospace control in a flight dynamics context and EEE aspects of aerospace engineering, such as avionics.

The role holder will undertake new and original research (including supervision of PhD students) in an area aligned to one or more of the Faculty of Engineering's Research Centres/Institutes/Groups, including the Power Electronics, Machines and Control (PEMC) Centre, the Nottingham Geospatial Institute (NGI), and the Mechanical and Aerospace Systems (MAS) Research Group, and will gain external funding to support this research. Further details about research in the Faculty of Engineering can be found at <https://www.nottingham.ac.uk/engineering/research/index.aspx>.

The role holder will be expected to immediately lead the delivery of aerospace control content on a Level 2 *Aircraft Dynamics and Control* module from February 2025 to approximately 170 students and be expected to subsequently develop its content further in future sessions. The role holder will also reintroduce and lead a Level 3 *Avionic Systems* module from February 2026 and develop its content further to include uncrewed aerial vehicles (UAVs), as well as crewed aircraft and spacecraft. The role holder is likely to have to support other staff in the delivery of existing modules in the electrical and electronic engineering portfolio, such as the Level 1 *Aerospace Electronic Engineering and Computing* module.

The role holder will be expected to introduce a range of *aerospace control and control systems design* content into our courses. This will take the form of offering major individual project work for both undergraduate and MSc students from 2025/26. It is likely that the role holder will be required to contribute to curriculum development, prepare content, and deliver new contributions to existing modules on this topic. This will include significant control input to the Level 2 integrated project, where students work collaboratively in groups on modelling, design and build of rotorcraft platforms.

For reference, details of existing modules and their level on our Aerospace Engineering programmes may be found at <https://www.nottingham.ac.uk/ugstudy/course/Aerospace-Engineering-BEng>.

| | Main Responsibilities (Primary accountabilities and responsibilities expected to fulfil the role) | % time per year |
|---|--|---|
| 1 | <p>Deliver teaching, administration, and leadership roles to a high standard</p> <ul style="list-style-type: none"> Lead/support the development/delivery of content in aerospace control and avionics for the aerospace engineering courses and other subjects as | Typically, 40% – 60% (as part of a total which sums up to 100%) |

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| | <p>appropriate including close liaison with other members of the course development teams.</p> <ul style="list-style-type: none"> ▪ Plan and deliver high quality teaching at both undergraduate and postgraduate levels to enhance the Faculty's reputation for excellence in teaching. ▪ Supervise final year undergraduates and taught postgraduates conducting individual projects. ▪ Provide tutorials and pastoral care of students. ▪ Examine in the assessments for degrees and diplomas of the University. ▪ To be responsible for administrative duties as required in the leadership and operation of the Department. ▪ Deliver any other duties appropriate to the grade and role as required. | |
| 2 | <p>Conduct successful research and knowledge exchange</p> <ul style="list-style-type: none"> ▪ Identify, conduct, and lead original research, contributing to the strategy of one or more of the Faculty of Engineering's Research Centres/Institutes/Groups (e.g. PEMC, NGI or MAS). ▪ Seek and secure external research funding through the development of applications to external funding bodies. ▪ Conduct and supervise others conducting original research, resulting in high quality publications in nationally and internationally recognised peer reviewed journals. ▪ Participate in meetings and conferences to disseminate research findings. ▪ Supervise postgraduate research students engaged in original research. ▪ To be responsible for administrative duties as required in the leadership and operation of research. | <p>Typically, 40% – 60% (as part of a total which sums up to 100%)</p> |

Person Specification

| | Essential | Desirable |
|---------------|---|-----------|
| Skills | <ul style="list-style-type: none"> ▪ Able to technically support students across the full range of EEE related subjects in the Aerospace Engineering programmes (including flight control systems and avionics). ▪ Able to lead the delivery of bachelor and masters level modules on Aerospace Control and Avionic Systems and develop individual student projects within the EEE strand of the Aerospace programmes. ▪ Excellent oral and written communication skills, including the ability to communicate complex information with clarity. | |

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| | <ul style="list-style-type: none"> ▪ Creativity and analytic thinking skills to carry out innovative, high-quality research. | |
| Knowledge and Experience | <ul style="list-style-type: none"> ▪ Relevant postdoctoral research experience with high quality publications in peer reviewed journals. ▪ Track record demonstrating ability to undertake research, and develop funding applications, with a clear vision and strategic alignment to the research carried out within one or more of the Power Electronics Machines and Control Centre, Nottingham Geospatial Institute or Mechanical and Aerospace Systems Research Group. ▪ Significant knowledge and experience of both control system design with a strong focus on aerospace control in a flight dynamics context and the application areas associated with aerospace control and avionics for UAVs, aircraft and spacecraft. ▪ Skills in time management as well as project management and leadership. | <ul style="list-style-type: none"> ▪ Experience of teaching in a Higher Education environment. ▪ Experience of curriculum development and an understanding of the requirements of accrediting bodies for undergraduate engineering courses. ▪ Experience in the pastoral care of undergraduate students. |
| Qualifications, Certification and Training (relevant to role) | <ul style="list-style-type: none"> ▪ A PhD in Electrical and Electronic or Aerospace Engineering, or closely related subject. | |



The University of Nottingham is focused on embedding equality, diversity and inclusion in all that we do. As part of this, we welcome a diverse population to join our work force and therefore encourage applicants from all communities, particularly those with protected characteristics under the Equality Act 2010.



The University is a signatory of the Declaration on Research Assessment (DORA). As such we commit to focus on the scientific content of publications (where requested or provided as part of the recruitment and selection process) as a basis for review of quality, and consideration of value and impact of research conducted, rather than any proxy measures such as Journal Impact Factor.

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



