



Research Assistant

Department	Mechanical and Aerospace Engineering (www.strath.ac.uk/engineering/mechanicalaerospaceengineering/)		
Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)		
Staff Category	Research	Reference No	539465
Reports To	Head of Department/Institute, through Dr Christie Maddock	Grade	6
Salary Range	£31396 - £34980	Contract Type	Fixed Term until 31 Jan 2026
FTE	1 (35 hours/week)	Closing Date	31/10/2024
Working Arrangements	Hybrid. The standard requirement across the University is that at least three days per week (based on IFTE) will be spent working on-site (with flexibility as appropriate).	On Site Facilities	Car parking, sports centre, catering.
Holidays	31 days + 11 statutory days Option to purchase additional holidays.		
Pensions	Contributory pension scheme available to all staff including generous employer contribution.		
Training	Professional Development with Organisational and Staff Development Unit (OSDU) plus external training if required.		
Family Friendly Benefits	Generous parental leave provision, on-campus nursery and options for flexible working.		
Health and Wellbeing	University Sport centre, Occupational Health service, access to health and wellbeing events, cycle to work scheme, Employee Assistance Programme, agile working and established carers support network and carer friendly policies.		

Job Advert

The Faculty of Engineering at the University of Strathclyde is one of the largest and most successful engineering faculties in the UK, and the largest in Scotland. As a leading international technological university, Strathclyde is recognised for its world class research, knowledge exchange and educational programs. At the heart of this is the Faculty of Engineering which boasts a growing research portfolio. The Department of Mechanical & Aerospace Engineering is the birthplace of modern engineering education, informing the technology leaders of today and tomorrow since 1800. Our mission is to advance knowledge and commerce in mechanical and aerospace engineering, and apply fresh thinking to the challenges faced by industry and society.

The Aerospace Centre of Excellence, part of the Department of Mechanical & Aerospace Engineering, seeks to appoint a Research Assistant to work on the Horizon Europe project INDIGO: Integration and Digital Demonstration of Low-Emission Aircraft Technologies and Airport Operations (<https://cordis.europa.eu/project/id/101096055>).

INDIGO is a three-year project that aims at identifying the margins of improvement in airport local air quality and noise resulting from the introduction of a new non-conventional mid-range aircraft featuring distributed propulsion based on hybrid electric/sustainable and conventional fuel powertrain and large aspect-ratio wings capable to fly quietly and in zero-to-low-emission mode (i.e. electric and SAF) at low altitudes near airports and resort to conventional aviation fuel only when required, e.g. at higher altitudes or to recharge batteries during cruise. INDIGO will explore a new paradigm for the next-generation of silent and clean mid-range aircraft and for the way such a new aircraft will allow transforming the operations at and near airports.

The main objectives of INDIGO are to (i) to use multi-fidelity experimental and numerical tools to develop and assess technologies targeted for low-emission (noise and exhaust) aircraft; (ii) to establish a framework for evaluating the technologies with robust uncertainty quantification process. The project will specifically address real-world applications of technologies which can be readily assimilated by the aircraft and airport operations. The researcher will have the opportunity to work closely with the other European and UK research and industrial partners, attend workshops, consortium meetings, and present the results at relevant international conferences and publish in international journals.

The post is tailored for candidates who are looking to enter into the field of doctorate-level research in aerospace engineering at Strathclyde with a specialisation in flight dynamics and optimisation on the basis of the research work associated to this post. The researcher will join a team of junior and senior researchers at Strathclyde working on the project.

As a Research Assistant, you will conduct research activities as part of a team, working under the general supervision of senior colleagues. You will manage and prioritise your own workload and ensure that all activities are completed to deadlines and you will write up the results of your own research and contribute to the production of research reports and publications. You will assist, where required, with relevant teaching and knowledge exchange activities.

To be considered for the role, you must hold a Good Honours in engineering, applied mathematics, applied physics or similar, and you will have sufficient breadth or depth of knowledge in flight dynamics and control, computational science and numerical mathematics. You will have knowledge of appropriate research methods, have an ability to plan and prioritise your own workload, with general supervision, and you will have an ability to work within a team environment. You will have excellent interpersonal and communication skills, with the ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences.

Whilst not essential for the role, applications are welcomed from candidates with: a higher degree in a relevant discipline, some relevant work experience, membership/working towards membership of a relevant Chartered/professional body (including the Higher Education Academy), experience of relevant student supervision and teaching activities and experience of knowledge exchange related activities.

Job Description

Brief Outline of Job:

To assist in the delivery of research activities as part of a team, working on an established research programme/s under the general supervision of senior colleagues; to input as a team member to administrative activities; to assist where required with relevant teaching and knowledge exchange activities.

Main Activities/Responsibilities:

1.	Assist the delivery of research projects by, for example, conducting literature reviews, developing questionnaires and conducting surveys, collecting and collating data and undertaking and recording the outcomes of experiments.
2.	Manage and prioritise own workload within agreed objectives to ensure that all activities are completed to deadlines.
3.	Write up results of own research and contribute to the production of research reports and publications.
4.	Contribute to the planning of research programmes.
5.	Assist with professional and knowledge exchange activities as required.
6.	Assist with the supervision of student projects and the delivery of introductory classes as required.
7.	Input as a team member to Department/School, Faculty and/or University administrative activities.
8.	Engage in continuous professional development.

Person Specification

Educational and/or Professional Qualifications

(E=Essential, i.e. a candidate must meet all essential criteria to be considered for selection, D=Desirable)

E1 Good honours degree in aerospace engineering, applied maths or physics, or an equally appropriate discipline

D1 Higher degree (or equivalent professional experience) in an appropriate discipline.

D2 Membership/working towards membership of relevant Chartered/professional bodies (including Higher Education Academy).

Experience

E2 Sufficient breadth or depth of knowledge in the relevant discipline/s to effectively contribute to the research programme/s.

D3 Some relevant work experience.

D4 Experience of relevant student supervision and teaching activities.

D5 Experience with international or national student aerospace competitions

D6 Flight time experience as pilot/co-pilot for any class of aircraft, or experience as an operator of a drone (UAV)

Job Related Skills and Achievements

E3 Knowledge of flight dynamics and control of aircraft.

E4 Knowledge of numerical methods.

E5 Knowledge of appropriate research methods.

E6 Ability to plan and organise own workload effectively with general supervision from senior colleagues.

E7 Ability to work within a team environment.

D7 Knowledge of optimisation and/or optimal control.

D8 Experience of knowledge exchange related activities.

Personal Attributes

E8 Excellent interpersonal and communication skills, with the ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences.

Application Procedure

Applicants are required to complete an application form including the name of three referees who will be contacted without further permission, unless you indicate that you would prefer otherwise. Applicants should also submit a Curriculum Vitae and a covering letter detailing the knowledge, skills and experience you think make you the right candidate for the job. Applicants should also complete the Equal Opportunities Monitoring Form.

Other Information

Further information on the application process and working at Strathclyde can be found on our website (<http://www.strath.ac.uk/hr/workforus>).

Informal enquiries about the post can be directed to Dr Christie Maddock, Senior Lecturer in the Aerospace Centre of Excellence (christie.maddock@strath.ac.uk).

Conditions of Employment

Conditions of employment relating to the Research staff category can be found at: [Conditions of Employment](#).

Rewards and Benefits

Our staff have access to a wide range of outstanding benefits that include financial rewards, family friendly and wellbeing benefits and career development opportunities, details of which can be found [here](#).

Probation

Where applicable, the successful applicant will be required to serve a 9 month probationary period.

Pension

The successful applicant will be eligible to join the Universities' Superannuation Scheme. Further information regarding this scheme is available from [Payroll and Pensions](#).

Relocation

Where applicable, the University offers a relocation package to support new employees who meet the eligibility criteria. The relocation package is offered as a contribution towards costs incurred, and is designed to be flexible, allowing staff to use the financial support available in the way that will be most helpful to them. Further details are outlined in the Relocation Policy.

Equality and Diversity

The University of Strathclyde is a socially progressive institution that strives to ensure equality of opportunity and celebrates the diversity of its student and staff community. Strathclyde is people-oriented and collaborative, offering a supportive and flexible working culture with a deep commitment to our equality, diversity and inclusion charters, initiatives, groups and networks.

We strongly encourage applications from Black, Asian and minority ethnicity, women, LGBT+, and disabled candidates and candidates from lower socio-economic groups and care-experienced backgrounds.

University Values

The University's Values capture what we're all about: who we are, what we believe in and what we stand for. [Our Values](#) have been derived from how we act and how we expect to be treated as part of Strathclyde.

