



Job title	Research Fellow	Job family and level	Research and Teaching Level 4
School/ Department	Horizon, Computer Science	Location	Jubilee Campus

Purpose of role

We seek a talented researcher with a background and experience in responsible innovation in autonomous systems. This is an exciting opportunity to work in a multidisciplinary national research Hub on Trustworthy Autonomous Systems (www.tas.ac.uk) and Horizon Digital Economy Research hub (www.horizon.ac.uk).

The role holder will work alongside interdisciplinary researchers in various research groups of the School of Computer Science at the University of Nottingham (<https://www.nottingham.ac.uk/computerscience/research/index.aspx>). The work will run in parallel and share synergies with UKRI Responsible AI UK programme (<https://www.rai.ac.uk/>).

We look to appoint a candidate who has an in-depth understanding of responsible innovation in autonomous systems and who understands the ethical and social challenges that development and deployment of these systems can raise. The post holder will primarily work on two research projects:

1. Failsafe is a research project funded by Horizon that explores perception of robot failures using the example of autonomous robotic dishwasher technology.
2. SALUS is a DSTL-funded TAS project that looks into the dynamics of ecosystems of autonomous aerial vehicles, both civilian and defence-related, to understand ethical and responsibility implications.

Contributions to further projects in related areas may be possible.

Your work will entail the planning and execution of data collection and data analysis to understand stakeholder positions in these projects. This implies an understanding of the principles of stakeholder identification and detailed knowledge of data collection and analysis methods that are typically used in responsible innovation work. This includes the collection of both qualitative and quantitative data through interviews, focus groups, workshops or delphi studies as well as online surveys. Experience of relevant data analysis tools such as NVivo and/or SPSS is expected.

The post holder will be expected to undertake independent research as well as working as part of a team - this will include using approaches or methodologies and techniques appropriate to the type of research and being responsible for writing up their work in order to contribute to published outcomes. In addition to the ability to independently prepare and develop high-quality research outputs in the form of journal papers, the post holder will need to translate research findings in ways that allow non-academic stakeholders to benefit. This includes the development of policy advice and guidance for industry.

The role holder will have the opportunity to use their initiative and creativity to identify areas for research, develop research methods and extend their research portfolio.

The post will work closely with the Responsible Digital Futures initiative (<https://www.responsible-digital-futures.org/>) and be located in the School of Computer Science at The University of Nottingham.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	To work with colleagues on the implementation, data collection, analysis, dissemination, and other contractual requirements of the Failsafe project.	30%
2	To work with colleagues on the implementation, data collection, analysis, dissemination, and other contractual requirements of the SALUS project.	30%
3	To contribute to writing up research findings for publication.	20%
4	To assist with the preparations, proposals and applications to both external and/or internal bodies for funding, contractual or accreditation purposes.	5%
5	Public and community awareness to bring our research to a wide audience.	5%
6	To assist in supervision of postgraduate and undergraduate students.	5%
7	To plan and manage own research/development activity and resolve problems, if required, in meeting own/team research objectives and deadlines in collaboration with others.	5%

Person specification

	Essential	Desirable
Skills	<ul style="list-style-type: none"> ▪ Ability to build relationships and collaborate with others, internally and externally. ▪ Independence, creativity, high ability to work self-motivated ▪ Ability to plan and undertake data collection through interviews, focus groups, online surveys ▪ Ability to plan and execute appropriate data analysis ▪ Ability to translate research findings into outputs in ways that attract relevant audiences ▪ Excellent oral and written communication skills, including the ability to communicate with clarity on complex information. ▪ Analytical ability to facilitate conceptual thinking, innovation and creativity. ▪ Ability or strong potential to publish research findings in top venues 	<ul style="list-style-type: none"> ▪ Evaluative methods, e.g., user studies, surveys, interviews, focus groups ▪ Ability to assess and organise resource requirements and deploy effectively. ▪ Ability to foster a research culture and commitment to learn in others. ▪ High analytical ability to analyse and illuminate data, interpret reports, evaluate and criticise texts and bring new insights.
Knowledge and experience	<ul style="list-style-type: none"> ▪ Research on responsible innovation in autonomous systems or closely related field (e.g., ethics of AI, responsible data governance, AI policy) ▪ Experience of planning and executing research independently or with limited supervision ▪ Experience of data collection using relevant methodologies such as interviews, focus groups, workshops, online surveys etc. ▪ Experience of undertaking relevant data analysis ▪ Identification of stakeholders in large socio-technical systems; engagement and interaction with such stakeholders. ▪ Understanding of the current UK and international regulatory and legislative environment of relevance to autonomous systems. 	<ul style="list-style-type: none"> ▪ Experience of policy development, interaction with decision and policymakers ▪ Familiarity the industry requirements for autonomous systems ▪ Interest or experience in broader TAS and Horizon topics (health and wellbeing, the future of work, recovery from the pandemic, pathways to net zero, and an inclusive, fair and just world.) ▪ Experience of working within diverse teams. ▪ Sustained publication track record ▪ Experience in planning and implementing Delphi studies
Qualifications, certification and training (relevant to role)	<ul style="list-style-type: none"> ▪ "PhD degree (or near completion) in a subject area of relevance for responsible innovation in autonomous systems. 	<ul style="list-style-type: none"> ▪ PhD in a subject area of relevance for responsible innovation in autonomous systems



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.

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 friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
- Taking ownership** Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
- Forward thinking** Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
- Professional pride** Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
- Always inclusive** Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others

