University of Nottingham
UK | CHINA | MALAYSIA

Role profile

Job title	Technical Specialist (Autonomous Robotics Systems)	Job family and level	Technical Services Level 4
School/ Department	School of Computer Science	Location	Jubilee Campus

Purpose of role

The purpose of the role will be to have responsibility for the provision of specialist support to instrumentation, systems and/or experimental work within an area of teaching and research activity in the School of Computer Science within the Faculty of Science. In particular, the role holder will manage the day-to-day running and provide technical support within the Cobot Maker Space and Mixed Reality Lab, including the Virtual and Immersive Production Studio. These include facilities for assistive robotics research, fabrication/repair with rapid prototyping, CNC and laser cutting facilities, human-robot interaction studies, and Vicon motion capture. The role requires supporting the maintenance, continued development and testing of a range of robot platforms and supporting technologies used for a range of research and teaching activities.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	**% time per year**
1	**Specialist technical support work and management** ▪ Responsible for the technical organization and/or operation of advanced scientific/experimental/IT system support/technical work that requires specialist skills, techniques and/or knowledge. ▪ To plan and organise operation of systems, advanced instrumentation and/or experimental and/or technical work within the department. ▪ Support with code organization, and Continuous Integration/Continuous Deployment (CI/CD). Support integration strategies and tools for ensuring smooth functioning of systems and transfers between simulation environments and hardware systems. Coordinate and support code integration using mostly ROS/ROS2 environments. ▪ To provide training on different system usage to new students and staff, including low-level access. Collaborate with staff in the design of simulation environment from existing platforms. ▪ To provide guidance and support to staff and/or students, as required, as a recognised source of technical and experimental expertise. ▪ Manage day to day functions, allocating work/responsibilities for a team/function and all aspects associated with these operations (may include supervision of non-technical staff and involvement in performance meetings). ▪ Work with Senior Managers, and liaise with Central Service colleagues, monitoring progress to meet teaching and research performance indicators.	50%

2	**Specialist Advice** ▪ Act in a consultant capacity and as a recognised source of technical and/or experimental expertise, advising both internal and external contacts on the development and application of specialised systems, techniques, experimental procedures and the analyses/interpretation of results. ▪ To provide technical guidance and advice to solve complex queries and/or in the support of grant applications and in the contribution to research publications. ▪ Represent the area of expertise at meetings and committees as required.	10%
3	**Conduct complex analyses** ▪ To conduct complex quantitative and qualitative analyses of data and results ▪ Contribute to the interpretation of the results and the development of research, teaching and/or other areas of activity.	20%
4	**Identify opportunities to develop new techniques and procedures** ▪ To identify opportunities to develop and implement new techniques, procedures and systems in the support of activity within the area. May include contributing to the development of research through designing apparatus/equipment/systems.	10%
5	**Health and Safety** ▪ Ensure that the department complies with work related legal and health and safety standards. ▪ Ensure the security of plant and machinery in own area.	10%
6	▪ Any other duties appropriate to the grade and role.	

Person specification

	Essential	Desirable
Skills	▪ Proven analytical and technical problem-solving skills. ▪ High level of proficiency in Programming languages such as: Python, C++, C# (Unity) including maintenance and implementation of code. ▪ Practical understanding of electronics and sensing technology. ▪ Working knowledge of different Operating Systems including Windows, Linux and MacOS. ▪ Excellent oral and written communication skills, to enable the identification and understanding of staff/student requirements. ▪ Ability to assess and organise resource effectively recognised from previous project management experience. ▪ Ability to adopt a methodical approach to prioritising work in order to achieve deadlines. ▪ Excellent customer relation skills. ▪ Ability to build effective working relationships and collaborate with others both internally and externally.	▪ Budgetary management skills ▪ Experience of full-stack development, with experience of Continuous Integration/Continuous Deployment (CI/CD).
Knowledge and experience	▪ Proven ability to work accurately in order to provide quality technical support with the ability to work effectively under pressure. ▪ Proven technical and/or experimental expertise in Robotics and/or Mechatronics as scientific or technical specialisms. ▪ A sound understanding of health and safety regulations and the implications of non-compliance.	▪ Knowledge of the robotics in real-world settings. ▪ Ability to understand, conceptualise and interpret the technical and/or experimental requirements of staff and students. ▪ Ability to identify and manage risks to enable effective project delivery. ▪ Experience with a middleware such as ROS. ▪ Experience with managing and organising large coding projects.
Qualifications, certification and training (relevant to role)	▪ Minimum HNC or equivalent, plus substantial work experience in a relevant role in robotics or Proven track record with extensive work experience in a relevant technical or scientific role in robotics.	▪ Additional qualifications including a Bachelors degree in Robotics ▪ Working experience in a robotics research lab or industry setting lab

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