

POSITION STATEMENT ACADEMIC STAFF

UTS:HUMAN RESOURCES

FACULTY: Faculty of Engineering and Information Technology (FEIT)

SCHOOL: School of Mechanical and Mechatronic Engineering

Unit:

POSITION: Postdoctoral Research Fellow (Level B)

POSITION PURPOSE

This role represents an exciting opportunity to play a key role in our Biomimic Cobots Program. The Postdoctoral Research Fellow will contribute to strengthening existing partnerships with external stakeholders, and to help develop new and ongoing partnerships.

This program aims to address the fundamental challenges of enabling robots to work with humans in the conditions Australian manufacturing industry demands, and to build skills and capacity for the future workforce deploying these new technologies. The goal of the Program is to allow collaborative robots to mimic humans in acquiring perception and awareness, learning, adaptation and manipulation skills. The Program will develop the robot perception, motion planning and learning theory, and algorithms for safe, reliable, adaptive and comfortable human-robot/robot-robot adaptation for tasks such as welding, assembly, inspection, material handling and polishing. The Program seeks novel solutions to the following research questions confronting Australian manufacturers: i) How a robot gains skills and knowledge biomimically with no or minimal task-specific programming; ii) How a robot mimics human sensing and control ability to execute a contact task in achieving the finishing goals; iii) How a collaborative robot with augmented mobility executes a complex task in a large unconstrained space. The Program will further develop testbeds embedded with Partner Organisations to validate the research outcomes resulting from each project.

This appointment is part of a collaboration between UTS and the ARC Training Centre for Collaborative Robotics in Advanced Manufacturing. The position is offered on an initial 3 year contract with the possibility to extend for a maximum total term of 5 years.

The centre is focused on collaboration and knowledge sharing between industry and research partners. This role may include considerable periods working directly at our partner organisations, including Cook Medical, InfraBuild and Weld Australia and at our university partner sites, which will involve travel outside of UTS and interstate.

The centre offers a training program which has a strong emphasis on professional development as well as technical skills. The program includes opportunities to build your knowledge, skills, experience, and professional standards through on-the-job tasks, social learning and formal training opportunities.

The positions are supported by the Australian Research Council's Industrial Transformation Training Centre program which has been funded for up to 5 years.

ENVIRONMENT AND DIMENSIONS

The Faculty of Engineering and IT at UTS is renowned for quality and industry-focus and has experienced significant growth in research income and outcomes in recent years. The School of Mechanical and Mechatronic Engineering has contributed to this growth and has been successful in securing a number of funded projects in the area of defence robotics among others.

RELATIONSHIPS

This position reports to the Program Leader for supervision, workload management and for Performance Planning and Review (PPR). At UTS, the position will report to Associate Professor Teresa Vidal Calleja.

The Postdoctoral Research Fellow will also assist with the supervision of postgraduate students and will be an active member of the research community within the university and across the centre's network.

KEY RESPONSIBILITIES INCLUDE:

- Undertaking research activities and project tasks to meet the goals, timeline and deliverables of the projects.
- Actively participating in strategic planning for Biomimic Cobots research and development.
- Maintaining complete and accurate research records, including written and verbal reports, documenting details of IP, ethics approvals, publications, media mentions and other key program metrics as required.
- With support from the Program Leader, developing and maintaining strategic relationships and networks with a wide range of stakeholders including industry partners, partner institutions and internal QUT partners based in other faculties.
- Liaising with collaborators and stakeholders; and generating, finalising and editing research reports, progress reports and project reports for collaborators.
- Participating and contributing to ethical, high-quality, and innovative research through activities such as quality publications, industry and end-user presentations, or conference presentations.
- Leading and participating in high-performing multidisciplinary teams, and assisting with the supervision of research students both undergraduate and postgraduate.
- Partaking in and encouraging HDRs to take part in the centre's professional development program.
- Reading academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines.
- Implementing and administering University policy within the Faculty with respect to equitable access to education and workplace health and safety.

To ensure job flexibility the successful appointee may be required to:

- perform any other duties as nominated by the University consistent with the relevant classification descriptors detailed in the Enterprise Agreement. Staff undertaking any new duties will receive training;
- participate in job rotation or multiskilling in consultation with their supervisor;

SAFETY AND WELLBEING RESPONSIBILITIES

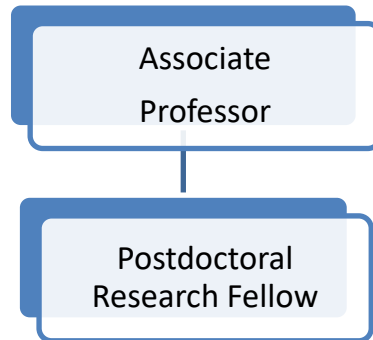
- To comply with the requirements of University's Environment Health and Safety (OH&S) policies. They can be accessed via the following UTS website at: <http://www.gsu.uts.edu.au/policies/health-safety-policy.html>
- Supervisors and managers of staff and facilities must do whatever is reasonably practical to ensure that both the workplace and work itself are safe, in consultation with staff affected.

LEADERSHIP CAPABILITIES FOR THE ROLE

Pipeline	Level A and Level B – Research Only				
Category	Leading Strategically	Collaborating and Engaging	Leading Teams	Presence and Awareness	Leading Performance
Capabilities	Role Models Organisational Agility	Encourages Collaboration	Manages Diversity	Influences others	Demonstrates Technical Expertise
				Demonstrates Resilience	Informs Others

ORGANISATION CHART

Please see attached organisation chart that shows in relationship to this position; the position it reports to, direct reports and peers (where appropriate).



KEY SELECTION CRITERIA ACADEMIC STAFF

POSITION: Postdoctoral Research Fellow (Level B)

Unit/Division or Faculty: School of Mechanical and Mechatronic Engineering

1. Completion of a doctoral qualification in related field with proven knowledge of research techniques and methodologies in a key field of robotics research.
2. Ability to lead or contribute to research projects including identifying and tracking milestones, reporting on progress and identifying barriers to completion.
3. Experience with one or more general purpose programming languages (C++, Matlab, Python).
4. Demonstrated capacity to work collaboratively and proactively as part of a multi-disciplinary and multi-institution research team, as well as proven ability to work effectively with minimal supervision.
5. Demonstrated written communication skills for scholarly publications, technical reports and project documentation with a track record or capacity to publish in high quality journals.
6. Oral communication skills with a demonstrated ability to present research findings to a variety of audiences.
7. Demonstrated interpersonal skills including the ability to build relationships, influence, lead, manage conflict and communicate effectively with colleagues at all levels.