

PhD Project: Human–AI Collaboration Through Robotic Musicianship

Scholarship: UC HDR stipend scholarship. The 2026 rate is \$40,000 indexed annually. Successful UC HDR stipend applicants may also have the option of an additional top-up scholarship, from a minimum of \$5,000 per year, with the final amount to be determined by the University.

Duration: 3.5 years

Further information about the scholarship and application process can be found here:
<https://www.canberra.edu.au/uc-research/graduate-research/university-research-scholarships>

Please note that the final date to submit full applications is 30 April. While EoIs should be submitted to the UC HDR portal by April 1, an extension for this can be granted for this targeted opportunity.

Please reach out to richard.savery@canberra.edu.au to discuss your application and project proposal before submitting the EoI. Include a CV and a paragraph describing how your background fits the project.

PhD Project: Human–AI Collaboration Through Robotic Musicianship

This PhD project will investigate how people build trust, fluency, and engagement with artificial intelligence and robotic systems over time, using robotic musicianship as a real-world research setting. The project is part of a broader program led by Dr Richard Savery, exploring long-term human–robot interaction and group dynamics in creative performance contexts, with applications beyond music to future AI-assisted work, education, and other settings. The research is motivated by an important gap in current AI and human–robot interaction research: most existing studies focus on short-term, one-off interactions, and often only involve one human and one machine. In contrast, this project examines repeated, long-term interaction and mixed human–robot groups, which are much closer to how AI systems are likely to be used in everyday life.

The PhD candidate will contribute to the design, development, and study of robotic music systems in collaborative performance environments. Depending on the student's background and interests, the project may include:

- building or refining robotic music platforms
- developing AI systems for musical interaction and improvisation
- designing longitudinal user studies with musicians
- investigating group dynamics in mixed human–robot ensembles
- analysing trust, coordination (fluency), and engagement using qualitative and/or quantitative methods.

This is a highly interdisciplinary project spanning AI, robotics, human-computer interaction, human-robot interaction, music technology, creative practice, and performance studies. You should be strong in at least one or two of these areas and excited to work across others. The successful candidate will join a research environment with strong support in creative arts and applied AI, and will have opportunities to contribute to publications, performances, and public-facing research outcomes.

The project is particularly suitable for applicants with a background in one or more of the following: computer science, robotics, machine learning, HCI/HRI, music technology, digital media, design, or experimental/creative practice with technology. Experience in programming, prototyping, user studies, or musical performance/interaction design will be highly valued.