Research Fellow (Formal Method based Robotic Controller Design)
Nanyang Technological University

Job Title	Research Fellow (Formal Method based Robotic Controller Design)
Department	School of Electrical and Electronic Engineering
Institution	Nanyang Technological University Singapore, , Singapore
Date Posted	Mar. 20, 2025
Application Deadline	Open untill filled
Position Start Date	Available Immediately
Job Categories	Research Scientist/Associate
Academic Field(s)	Electrical and/or Electronics Robotics
Job Website	https://ntu.wd3.myworkdayjobs.com/Careers/job/NTU-Main-Campus-Singapore/Research-Fellow--Formal-Method-based-Robotic-Controller-Design-_R00020130
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Job Description

School of Electrical and Electronic Engineering is one of the founding Schools of the Nanyang Technological University. Built on a culture of excellence, the School is renowned for its high academic

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standards and research. With over 3,000 undergraduates students and 1,000 graduate students it is one of the largest EEE schools in the world and ranks 10th in the field of Electrical & Electronic Engineering in the 2024 QS World University Rankings by Subjects.

Today, the School has become one of the world's largest engineering schools that nurtures competent engineers and researchers. Each year, the School graduates over a thousand students who are ready to take on great ambitions and challenges.

For more details, please view: https://www.ntu.edu.sg/eee

We are looking for an enthusiastic researcher in areas related to formal-method-based automatic analysis and design of robotic operational specifications to take on a position of Research Fellow to the support the project entitled " Universal Interoperability for Robots as a Service". The research fellow must have a verifiable track record of high-quality research and out-of-the-box thinking with relevant experience in robotic applications.

Key Responsibilities

- To carry out a comprehensive literature and market survey on interoperability of robotic systems.
- To develop a new framework that allows different robots to communicate with each other and, most importantly, understand each other's functional capabilities and operational requests.
- To implement developed robotic interoperability framework in hardware/software in real robots, and validate its effectiveness with a detailed report.
- To assist the PI to manage the project and coach undergraduate and postgraduate students in FYPs, DIPs and MSc dissertation projects.

Job Requirements

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- PhD degree in electrical engineering, computer science, computer engineering, social science or any other related fields.
- A strong track record of high-quality research in formal method based robotic operational specification design and/or robotic communication protocol design.
- Verifiable past experience in robotic system management such as mission planning and safety control.
- A good command of programming skills, in particular, within ROS, will be a plus.
- Excellent verbal and written communication skills.

We regret to inform that only shortlisted candidates will be notified.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

Singapore