Research Associate (Perception and SLAM with Thermal Camera)
Nanyang Technological University

Job Title	Research Associate (Perception and SLAM with Thermal Camera)
Department	Centre for Advanced Robotics Technology Innovation
Institution	Nanyang Technological University Singapore, , Singapore
Date Posted	Feb. 21, 2024
Application Deadline	Open until filled
Position Start Date	Available Immediately
Job Categories	Professional Staff
Academic Field(s)	Robotics Engineering - Other
Job Website	https://ntu.wd3.myworkdayjobs.com/en-US/Careers/details/Research-Associate--Perception-and-SLAM-with-Thermal-Camera-_R00016265
Apply By Email	

Job Description

Centre for Advanced Robotics Technology Innovation (CARTIN) is looking for a candidate to join them as a Research Associate, in the area of robotic perception and navigation in a project that aims for firefighting scenarios. The perception algorithms are to be deployed in the real world adverse environments, where the heavy smoke, water spray and thick mist degrade the performance of sensors severely.

The successful candidate will work with Prof. Danwei Wang and a group of Research Fellows,

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Research Associates, and Ph.D./Masters/Bachelors students in the School of Electrical and Electronic Engineering (EEE) at Nanyang Technological University, Singapore.

Key Responsibilities:

- Perform research, development, implementation, and experimentation of the perception algorithm for mobile robots in firefighting semi-outdoor environments

- Solve challenges in feature searching and engineering for SLAM, providing robust perception results to enhance the SLAM framework for other researchers involved in this project

- Develop multi-modal perception models for robust detecting objects of interests in the firefighting scenarios

- Responsible for robot design and implementation

- Handle other engineering support on software

Job Requirements:

- Master degree in computer vision, robotic perception or relevant majors

- Familiar with thermal imaging based perception in challenging conditions.

- Strong skills in python, Matlab, Linux, and experience with ROS, and code management tools (git)

- Experience with autonomous robotics platforms, and perception algorithms with different sensors

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(thermal cameras*, 4D radar, 3D LiDAR, RGBD cameras, IMU)

- Good verbal and written communication skills in English to preform research

- Experience in industrial product commissioning and delivery

- Experience with real-world robot system design and integration

- Hands-on experience with detection, segmentation, and SLAM algorithms with thermal imaging

- Experience with deploying deep-learning models on lightweight GPU is a plus

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

Centre for Advanced Robotics Technology Innovation

Nanyang Technological University

Singapore