

Robotics Engineers (Software/Vision/Mechatronics)

We are looking for experienced professionals with background in robotics and automation. The project involves product development for commercialization of a working prototype. More details of the existing project can be found here <http://ac2.tumcreate.org>

Availability: January 2018 onwards

Location: Singapore

Contact: Dr. Suraj Nair suraj.nair@tum-create.edu.sg

Background

The aviation challenge project under TUMCREATE has resulted in a successful working prototype of an intelligent and large scale robotics system for automating air-cargo palletization and de-palletization. The project has developed cutting edge technology in sensing (computer vision), planning (AI) and robotics. Given the success of the project we will be entering in a second phase involving product development and formation of a start-up company. Therefore, we are looking for motivated and talented professionals to participate in our endeavor.



Qualification Required

PhD/Master/Bachelors in computer science, electrical engineering or mechanical engineering. Specialisation in robotics and mechatronics will be an added advantage.

Skills Required

The candidate should have hands on and professional experience in one of the following areas related to robotics

Robotic Software: kinematics, dynamics, motion planning, linear algebra, statistical modelling and optimisation, middleware, software engineering for distributed robotics system.

Computer Vision: visual tracking, machine learning, image processing, knowledge of 3D sensors and point clouds, OpenCV, CUDA, OpenCL, PCL.

Very strong basics in computer science and expertise with programming in C++, Python, Linux, GIT, ROS

Mechatronics: mechanical design, construction and testing of innovative actuation systems, structures & gripping mechanisms, experience with industrial robots, SolidWorks/Catia, Matlab, ANSYS, Simulink, PLC, FieldBus (Preferable EtherCAT and Beckhoff TwinCAT 3 tool), FEM methods, Actuators, Motor Drive Systems.

Mandatory Requirement

- Practical experience on working with real world robot system
- Industrial experience is highly preferred
- Fresh graduates can also apply provided they have real world system experience during their project work
- Familiarity with industrial standards and practices

What we expect from you

- Positive attitude and ability to work independent
- Team player and bring value to the team through ideas and initiative
- Awareness of start-up environments with tight deadlines

What we offer you

- An international and multidisciplinary working environment
- Opportunity to work on a state of the art robotic system
- Challenging tasks with real-life relevance
- Opportunity to be a part of a high tech robotics start-up