Bachelor/Master Thesis/Internship

**Specialization:** Robotics, Artificial Intelligence

**Project title:** Human Robot Interaction using Natural Language

**Job Descriptions:**
The goal of the project is to research and develop a software framework for robotic setups wherein human workers can interact with the robot system. The focus will be on developing parts of the backend core components of the system. This includes modules for:

- Knowledge Representation
- Reasoning
- Decision making
- Natural Language Generation

The implemented framework will be applied to real work industrial robotics setups in Singapore and Germany.

**Requirements:**
- General Concepts in Informatics
- Programming Knowledge: C++, Java, CMake
- Familiar with Linux OS
- Basic concepts in Robotics
- Quick learner

Additional Skills (Preferred but not mandatory)
- Concepts in Artificial Intelligence
- Ontologies (OWL)
- Reasoning Engines (Pellet, Hermit, etc)
- ROS

**Position is available immediately.** Interested candidates should send their applications via email, including a resume and cover letter to Dr Suraj Nair (suraj.nair@tum-create.edu.sg). We thank all applicants for their interest, and only shortlisted candidates will be notified.

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**ABOUT TUM CREATE**
TUM CREATE innovates. We are developing cutting-edge electric vehicle technologies and pioneering future transportation concepts to meeting the growing transport and sustainability challenges in fast-growing tropical megacities. Germany’s Technische Universität München (TUM) and Singapore’s Nanyang Technological University (NTU) — two world-leading engineering universities — have come together to collaborate on this ambitious joint research programme. It is funded by Singapore’s National Research Foundation.