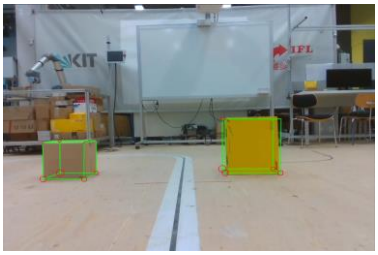
Karlsruher Institut für Technologie

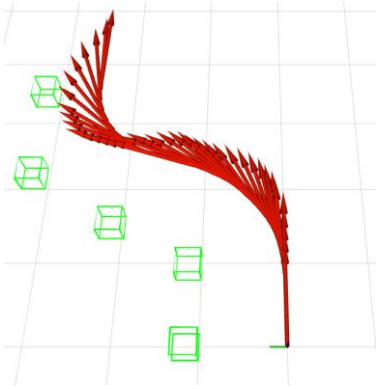
Institut für Fördertechnik und Logistiksysteme

Masterarbeit

Object-based Localization and Mapping in Logistic Environment

Scope:
Semantic SLAM and scene understanding are essential tasks for robotics, in our institute, we focus on logistic scenes. So, we aim to explore if existing semantic SLAM algorithms work good on logistic environment.





Problems:
1, how to detect logistic objects from RGB/ RGBD camera?
2, how to achieve an indoor semantic SLAM system in logistic scenes?

Tasks:
1, learn to detect objects in logistic scene (parcel, …).
2, learn existing semantic/ object-based SLAM algorithm.
3, apply the SLAM algorithm on logistic environment.

Requirements:
Good knowledge of robotics, computer vision, good programming skills in C++ or Python under Linux, previous experience with ROS is desirable. English is desirable.

Offer:
An interesting research topic in Robotics. This topic is a part of my dissertation topics, and we can work and discuss together.

Inquiries:
Please send us an e-mail with a curriculum vitae and a current overview of your grades.

Forschungsbereich:
Robotik und Assistenzsysteme

Ausrichtung:
☒ Experimentell
☒ Theoretisch
☐ Praktisch
☒ Simulation
☐ Konstruktion (CAD)
☐ Sicherheitstechnik
☐ Graphische Gestaltung
☒ Robotik
☐ Mensch-Maschine-Interaktion

Studiengang:
☒ Maschinenbau
☒ Mechatronik
☐ Physik
☐ Elektrotechnik
☐ Informatik
☐ Informationswirtschaft
☐ Wirtschaftsingenieurwesen

Beginn: ab sofort

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Bild:

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