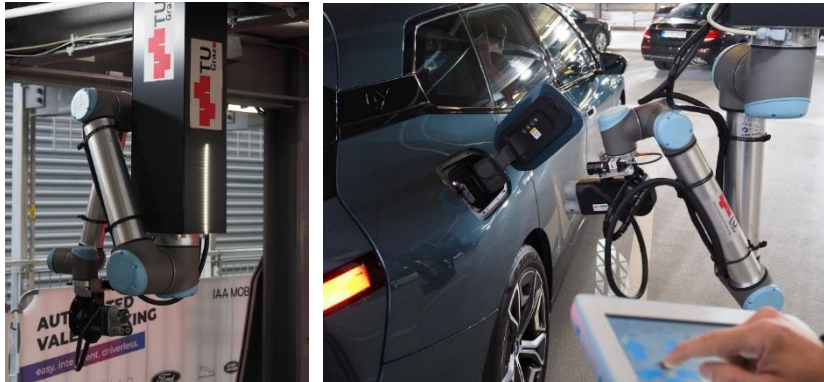


Open PhD position!



Automated charging system for electric vehicles

The PhD-project focuses on the development of an automated charging system for electric vehicles. This includes investigations of concepts for camera-based object identification, manipulation of robotic systems, and the implementation of functional safety aspects. In this work, the state-of-the art will be enhanced in the areas of object recognition, sensor- and actuator systems as well as robot control. The new concepts are optimized and evaluated by use of computer-based simulation and subsequently realized and tested in a prototype configuration.

Scope of work:

- Investigation of the state-of-the art of automated charging systems
- Concept development of automated vehicle and charging system detection
- Development of a comprehensive, automated process conducting the plug-in and plug-off process (including manipulation of covers, connector, etc.)
- Development of safety concepts for the integration of the charging system in public areas
- System development and integration of a prototype system
- Testing, optimization and evaluation of the system under real world conditions

Requirements:

- Completed master study in the fields of mechanical engineering, mechatronics, IT or related
- Knowledge of robotics, sensor systems and object recognition is of advantage
- Motivated to work in a team, practical orientation and independent work capabilities

Duration: up to 3 years
Start: possible from now on
Workplace: Institute of Automotive Engineering

For the duration of the project, a full-time position at Graz University of Technology as a scientific project employee is planned.

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