



Thesis/project work in a field of Robotics

Are you fascinated by robots and want to dive into an exciting project for your Bachelor's or Master's thesis?

We're the Institute of Technical Logistics, and we're all about robotics. We build and deploy different types of robots like ones that move around, robot arms, and even robots that can move and grab things. Our one of main missions is to make robots that can help with logistics, like moving things around efficiently.

We're on the lookout for students who are excited to take on real-world challenges in the field of robotics. If you're someone who loves getting hands-on experience and solving practical problems, this could be the perfect opportunity for you!

Join our team and be a part of making robots that could change how things are done in the logistics world.

Here are some exciting project topics that are available right now:

- **Understanding Mobile Robot Driving Behavior**

Explore how different factors impact the way self-driving robots move. You'll develop a plan to study and analyze their behavior, which could help us make them even better.

- **Smarter Robot Arm Movements:**

This project focuses on making robotic arms even smarter. You'll work on improving the algorithms that help them move things around in tight spaces, and carrying liquids with open containers.

- **Advanced Grasping Techniques**

Ever wondered how robots pick up and hold things? In this project, you'll dive into the world of convolutional neural networks to create a smart algorithm that helps robots grasp unknown objects accurately, making logistics more efficient.

- **3D Bin packing**

Estimating the positions and sizes of incoming packages on a conveyor, and subsequently packing them onto pallets, are crucial processes for optimizing transportation costs and maximizing space utilization.

Our Requirements:

- Student of engineering (e.g., mechatronics, mechanical or computer science)
- Interest in mobile or/and manipulator robots
- Confident with programming languages, e.g., Python or C++, ROS.
- Independent and meticulous way of working