IDP: Logistics road feature detection

Description

As part of a current research project, the Chair of Materials Handling, Material Flow, Logistics (fml) is developing an autonomous robot that will be used to research and analyze the material flow of the future. For this purpose, the robot must be able to perceive its environment.

Fig. 1 Road feature detection

As part of your work, the camera-based semantic perception of logistics roads will be investigated. The first step is to analyze and examine the logistic-specific requirements, as well as system requirements from the robot. Using defined requirements, a solution concept is developed for segmenting intralogistics road features (e.g. lanes, driveable space, zebra crossings, etc). Next, the model/algorithm will be developed. A final evaluation study will be used to assess the developed solution.

Requirements

- High degree of independence and reliability.
- Knowledge of applied machine/deep learning
- Knowledge of Python (and C++)
- Knowledge of ROS (Robot Operating System) beneficial
- Knowledge of Linux OS (e.g. Ubuntu)

Application

You are interested? Please send your CV, cover letter and a current evaluation sheet to christopher.mayershofer@tum.de.