

### Project-, Bachelor- or Master thesis

#### Topic:

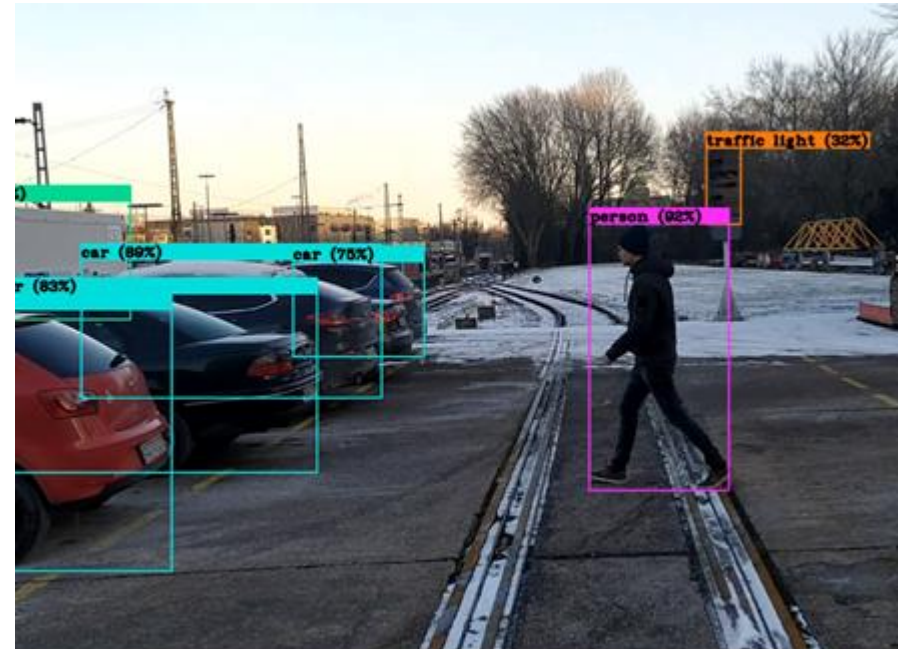
Vehicle-based obstacle detection

#### State of the art:

Assistance systems and even automatic transport are now the norm in new tenders for metro systems. In the mainline sector, more heterogeneous boundary conditions prevail, which have so far made widespread introduction difficult. Complex tasks have so far been performed exclusively by humans without technical support.

#### Topics:

- Creation of simulation tools for data generation
- Training and testing the applicability of various algorithms
- Construction of a simulator for the measurement of human influence variables
- Statistical evaluations with regard to safety



#### Contact:

Fabian Hampel  
Chair and Institute for Rail Vehicles and Transport Systems  
Upper floor, Room 108  
Seffenter Weg 8, 52074 Aachen, Germany  
Tel.: +49 241 / 80 - 25579  
E-Mail: [fabian.hampel@ifs.rwth-aachen.de](mailto:fabian.hampel@ifs.rwth-aachen.de)