Electric vehicle routing and energy prediction

Background

During the recent years there has been a growing effort to promote sustainable fuel solutions, with special focus on increasing the use of electric vehicles. As a result, many challenges associated with energy management arise when considering electric commercial vehicles. Additionally, current urban traffic scenarios add to the complexity with congestions.

Problem description

The topics of this thesis work are related to energy consumption prediction and route planning for electric commercial vehicles. There are a number of components for these systems and many things can be further developed. Among the things that are interesting are:

- Driver behavior quantification. What makes a good/bad driver in terms of parameters for a driver model?
- Study of rolling resistance impact and initial implementation of pre-trip prediction
- Implement optimal route planning including charge planning
- Dynamic (real-time) route planning

If you are interested in any of these topics or have other suggestions, please contact us.

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Contact person:  
Rafael Basso – Volvo Trucks, Electromobility, +46 31 3234353, rafael.basso@volvo.com  
Balázs Kulcsár – Chalmers, Signals and Systems, kulcsar@chalmers.se