LITERATURE SURVEY

5.Predicting Vehicle Usage Using Incremental Machine Learning (2022)

INTRODUCTION:

Today, there is an ongoing transition to more sustainable transportation, and an essential part of this transition is the switch from combustion engine vehicles to battery electric vehicles (BEVs). BEVs have many advantages from a sustainable perspective, but issues such as limited driving range and long recharge times slows down the transition from combustion engines. One way to mitigate these issues is by performing battery thermal preconditioning, which increases the energy efficiency of the battery.

The sensitivity analysis shows that the battery thermal preconditioning requires more precise predictions. The performance of the battery thermal preconditioning is sensitive, as the energy that can be saved from accurate predictions is less than what may be lost by adapting the preconditioning to incorrect predictions.

ADVANTAGES:

A significant improvement in forecasting the travel distance when the driving behavior is tied to a specific travel behavior pattern is found.

Trip distance is an important factor when deciding whether battery thermal preconditioning will be beneficial.

The novelty in their work is that they considered charging at more places than at home.

DISADVANTAGES:

Do not attempt to implement or optimize a battery thermal preconditioning strategy in this work, rather, we simulate an already existing strategy developed by Cars.

The aim is to investigate whether it is plausible to predict vehicle usage using incremental learning will not be considered.

External factors such as road conditions and local events may affect the driving behavior of a particular trip will not be considered as an information.

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