Institut für Fahrzeugantriebe & Automobiltechnik

TECHNISCHE UNIVERSITÄT WIEN

At the Institute of Powertrain and Automotive Technology of the Technical University of Vienna the following master's thesis is offered:

Development of a Neural-Network-based Methodology for the Prediction of Agricultural Machineries Loads

Project Background:

In the frame of the project "FCTRAC" a fuel-cell tractor is being developed. Part of the development includes a demonstration phase, where several data of the tractor are going to be recorded and analysed.

The topic of this master's thesis addresses the development of a methodology to predict the load of tractors based on real data. These predictions can play a crucial role in optimizing the powertrain performance and extending the lifetime of the fuel cell system.

In strong cooperation with our project partner AVL Steyr, you are going to analyse real data of tractors on the field and create a prediction methodology based on different inputs and objectives. The goal of these investigations is to evaluate the most promising methodology in view of real-time applications.

Along with a master's thesis, regular presentations of the results are expected.

Your Profile:

- Strong interest in powertrain development
- Strong MATLAB background is recommended
- Data science and artificial intelligence skills are an asset but not a requirement
- Willingness to write a master's thesis (English or German)
- Indipendent, curious, passionate

Start:
from March 2023

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