

**CARISSMA**Institute of Electric,
Connected and Secure MobilityTechnische Hochschule
Ingolstadt

Abschlussarbeit

“Development of a system to identify fraud in fuel pumps”

Beschreibung:

The present thesis aims to develop a vehicle fuel meter based on the Internet of Things (IoT) that will measure each refueling event and record the information in a distributed database. This data will be used to determine the gas stations to be inspected. Data can be collected using sensors that are already available on the vehicle. Therefore, data can be collected through an OBD-II interface, which exports data via Bluetooth to mobile devices connected to the internet, such as smartphones. The main innovation of this master's thesis is to develop a methodology for data storage using a blockchain network, enabling the consumer to inform possible opportunistic behaviors of gas stations. The proposal aims to integrate smart sensors capable of being connected to the internet, with smart data sharing techniques using a secure platform to map gas stations most likely to be inspected. The information will be generated by many individuals, which will enable greater efficiency in the classification of gas stations.

Ihre Aufgaben:

- First Phase: Literature review and definition of experiments.
- Second Phase: Development of the decentralized system to identify gas stations most likely to be tampering with fuels.
- Third Phase: Writing the text document of the thesis, representing/presenting the results.

Ihr Profil:

- Java or Python experience and knowledge are desirable but not required.
- Confident use of MS Office.
- Excellent communication and organizational skills.

Interesse? Fragen? – Kontaktieren Sie uns!

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