



Intelligent Transportation System: Optimal Routing and a Novel OBD Data-Logging System

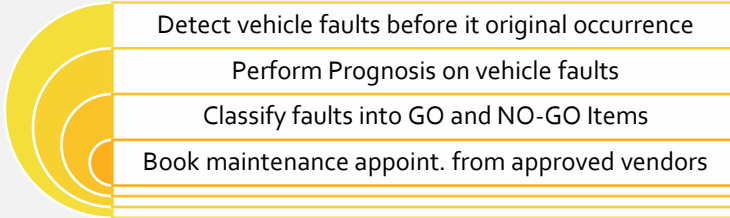
An Artificial Neural Network (ANN) & K Nearest Neighbor (KNN) Algorithms are used to make samples and faults examination of vehicles before it occur in reality. The key focus of the project is to works on vehicle faults prognosis.

Introduction and Motivation

• Motivation:

The need of predict vehicle fault avoid road accident and other harmful road factors.

• Introduction:



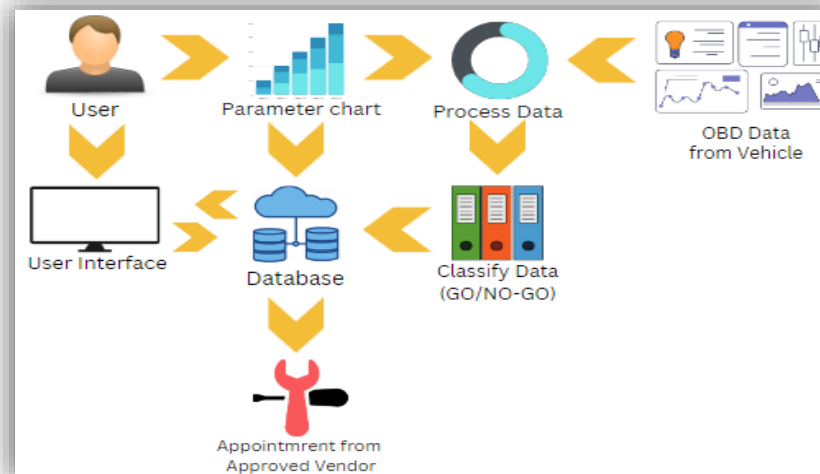
Conclusion

- OBD is vehicle's self-diagnosis device and under the hood of prognostics has attracted significant attention across automobile industry
- The OBD CHARM provides a comprehensive solution with the aim to assist the automotive industry through use of ML for prognosis.
- The system has used variety of ML or DL Algorithm to built a prediction model based on patterns identified between different parameters. The interface has designed for users for car health.

Methodology and Milestone

• Methodology:

- An "Automated Self-Diagnostic Mechanism" is introduced, which detect the prognostics and those vehicle failures which would be expected in-future.
- The methodology of our pitched project is, the data will be fetch from Vehicle On-Board Diagnostics (OBD) through microprocessor, then the data will dispatch to ML/DL Algorithms for Training and Testing purposes.
- After this, the Model is capable to predict the expected failures of vehicle that may occur in future, on behalf of previous OBD data, and categorize them into GO ITEMS (delayed) and NO GO ITEMS (cannot be delay).



Project Team

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Methods and Results

Tools:

Python, Raspberry P. ML Algorithm (KNN, ANN, MCC), React, Firebase.

Results:

