Automotive Embedded Monitoring Device (Dr. Car)

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ABSTRACT

Nowadays most of the vehicles come with an Engine Control Unit (ECU). ECU controls almost every function of the machine such as the braking, start up, climate control system, Fuel pressure and regulation (FPR) System and all others that are not in the control of driver. The ECU collects data from different sensors of the engine and on the basis of that data analysis it will control the sensors accordingly. E.g. If the air cleaner is blocked and air intake is low the ECU will increase the fuel distribution in injectors to compensate. If there is an error in the management system of engine that leads to bust in the combustion chamber, the ECU records it and if serious enough the check engine light will be turned yellow/red on the dashboard to notify the driver[1,2].

The purpose of this project is to provide information easily to the user of the vehicle and the mechanics. This will give the user more information of understanding of what's happening in the car. Mostly while tuning the engine the tuners monitor different sensors to check the effect of that sensor on others. Mostly mechanics check it by sound to guess for unusual things. Sometimes they may take the car on a track to check. Having a laptop in these surrounding conditions can be very hard.

This product will help the user to diagnose the problem that arises in the car and let the user to reset the sensors to clear the trouble code. It will safe their time and if after resetting the sensor the problem remains there then user have to change the sensor.

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