ABSTRACT

In today's modern era, the level of automation in motorized vehicles tends to increase from the perspective of driver safety. Although the driver can easily distinguish between dry and wet roads. However, considering this condition is useful directly for driver safety in a situation that requires returning the vehicle from a critical situation back to safety condition, but so far it has been difficult to measure wet road layers and the impact on vehicle dynamics, therefore, using a system that does not cost much and does not harm the user and simple and easy to install. on-board vehicle road wetness detection can be a solution to these problems. on-board vehicle road wetness detection presents a new approach for detecting wet road surfaces with on-board diagnostics (OBD-II) sensor boards and multi-sensor data fusion in vehicle wheel arches. The methodology used for making this final project is fuzzy logic data processing, then the experiment on the test bench is integrated into the vehicle and then analyzes the method and literature, where the tool will be used in a car that has an ECU (engine control unit) to be read by the OBD II protocol as an object of testing. Keywords : On-Board Diagnostics (OBD), Multi-Sensor data fusion, Engine Control Unit (ECU).

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