# On Board Diagnostic for Vehicle Preventive Maintenance

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**ABSTRACT**

Preventive maintenance is one of other issues to maintain vehicle performance. Every vehicle needs a good handling when it is going to be work on the road. Vehicle are consists of many spare parts. Paying attention for the spare parts must be considered by every driver. Preventive maintenance is conducted to decrease costs as a results of used vehicle.

When doing preventive maintenance, there are many types of works that should be known by a driver i.e.: checking parts, settlement, replacement, etc. In this study, distance kilometers and operational interval service in periodic level are being consideration to give information about vehicle preventive maintenance areas which is being showed it on board diagnostic warning on vehicle dashboard.

In this study, the two parameters generally determine vehicle preventive maintenance diagnostic as the impact of them as long as a periodic time. Instrument process by using fuzzy design which can show us about stepping that should have to be done when it is working. When reading the information from on board diagnostic, the position of diagnostic instrument can show if it is the time for setting, checking or replacing of all parts.

There are some conditions can be showed by instrumentation designing. Firstly, when the diagnostic position is showing null level can express that it is not being necessary to do anything for doing maintenance time. At the second, when diagnostic position is between at null level and one level the instrument can give the information needs to be checked at the areas of preventive maintenance including i.e. checked, settling and replacing of the spare parts to be maintained. The third, when the lamp shows us full level (one level), this instrument shows us to do breakdown vehicle maintenance. The diagnostic instrument is on the dashboard by using analog device for giving information about vehicle performance.

**Keywords**:
Preventive maintenance, instrumentation, full level