

Effect of ECU, Coil and Injector Variations on Vehicle Exhaust Emissions and Green House Gas (GHG)

Andik Irawan, S.T., M. Eng. (as chief counselor)

Muhammad Farhan
Study Program of Automotive Engineering
Majoring of Engineering

ABSTRACT

Various human activities that can cause new problems are increasing the amount of exhaust emissions, one of which is by improving vehicle performance, when vehicle performance is improved, exhaust emissions will also increase will also become a new problem that must be faced so that it has a negative impact on greenhouse gases. This research aims to determine the effect of ECU, Coil and Injector variations on exhaust emissions and green house gas (GHG). This research was conducted at SMK Negeri 2 Jember, Summersari, Jember. The method used is the experimental method, with engine speed at idle 4000, 8000 Rpm for testing exhaust emissions and testing specific fuel consumption at engine speed of 5000 rpm for the calculation of Green House Gas (GHG) on CO₂ emissions. The results showed that the use of Standard ECU + Standard Coil + Standard Injector variations is recommended. Activities such as motorized vehicles can produce CO₂ emissions, when performance is increased there will be an increase in the value of Carbon Dioxide (CO₂) emissions which have a huge impact on the environment, in fact it will become a new problem that must be faced so that it has a negative impact on greenhouse gases. When using components that produce excess CO₂ gas, more heat is absorbed and reflected back to the earth so that the earth's temperature increases.

Key words: Exhaust Emissions, Green House Gas, ECU, Coil, Injector