Analysis Of The Use Of Gasoline Fuel On Specific Fuel Consumption (Sfc) In The 2022 Energy-Saving Car Contest At Gelora Circuit Bung Tomo Surabaya

by
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ABSTRACT

Analysis of gasoline consumption in prototype energy-efficient vehicles with an injection system for energy-efficient car contests: Automotive Engineering Study Program, Engineering Department, Jember State Polytechnic.The purpose of study is gaining optimum speed and optimum way to control the economic energy vehicle so the consumption of gasoline is being optimum to using at energy efficient c ar contest. This study was also conducted to determine the effect of Air Fuel Ratio on fuel consumption. All tests in this study refers to the regulation of Energy Efficient Car Contest.In this study, tests were conducted are race with a variable speed of 20 km/h, 25 km/h and 30 km/h and with two different control methods, continuity methods and stop and go methods. The testing process begins with setting the AFR. Once the optimal AFR obtained, continued by a race with distance 1.86 km (2 laps) and a variable speed and different ways on controlling prototype.Based on test results, obtained the value of fuel consumption after converted at speed of 20 km/h with a system of continuity is 58.125 km/l, 25 km/h by 62 km/l and 30 km/h as much 70.18868 km/l Whereas, with a stop and go system at speed 20km/h is obtained at 413.3 km/l, 25 km/h at 344.4 km/l and 30 km/h at 241.558 km/l. Based on the results, obtained optimum speed at 20 km/h and the optimum way of controlling prototype with using method stop and go.

Keywords :prototype gasoline KMHE