

cyclooctanol 1, E59.7 + 0.3 cyclooctanol, E49.8 + 0.2 cyclooctanol. The remainder was gasoline. Performance and emission tests were conducted on a multi – cylinder SI Engine coupled with an eddy current dynamometer. The emission tests were measured using an exhaust gas analyzer. The experimental results proved that the blend increased brake thermal efficiency more than a sole fuel, such as gasoline. The emission tests found that the CO slightly decreased, while HC and O₂ increased moderately and CO₂ and NO_x appreciably decreased. In addition, combustion analyses were made with the help of combustion analyzer, in which cylinder pressure and heat release rate were analysed.

Keywords: CO – Carbon monoxide, HC – Unburnt Hydrocarbon, CO₂– Carbon dioxide, O₂– Oxygen, NO_x– Oxides of Nitrogen, Ethanol, Cyclooctanol, Cycloheptanol.

Pneumatic damper suspension in automobile using ultrasonic sensor

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Energy is one of the issues that is causing the most controversy as fossil fuels are the greatest pollutants and the greatest contributors to the greenhouse effect. The increasing importance of environmental concern, fuel savings and unavailability of power has led to the renewal of interest in renewable energies. It therefore stands to reason that developing countries whose energy consumption rate is increasing at a very fast rate should be investigating new energy systems based on renewable energies that do not pollute and which are inexhaustible such as the Solar system. In this paper a simple, reliable and effective solar panel charging system has been introduced consisting of a solar panel of desired size and shape. This solar panel is integrated with an embedded system (which contains three modules i.e. dc to ac converter, microcon-troller/compiler module and charging output and a battery system).This embedded system regulates the electricity produced (after being converted to ac from dc) between the storage battery and charging output with the help of microcontroller which is programmed to combat the situations in presence and in absence of input supply and able to supply stored energy at night or in unavailability of solar source.