
**EXPERIMENTAL RESEARCH ON PARADISE TREE OIL METHYL ESTER
AND ITS BLEND IN DIESEL FUELED IC ENGINE**

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Diesel vehicles are a major source of mobility; in particular the developing countries are the major consumer of fossil fuels. In recent concern over the environment, the rapid growth of industries, the ever increase in fuel prices and the shortage promoted the interest in the adoption of alternative fuel. The use of biodiesel is increasing as an attractive fuel due to the depleting fossil fuel resources and environmental degradation. It is receiving attention because of its inherent properties and compatibility with the petroleum diesel. This paper is focused on the use of low sulphur diesel (LSD), blend (B20) and Paradise tree Oil Methyl Ester (POME) as fuel in a single cylinder, direct injection diesel engine. The results are very encouraging that the performance and emission of biodiesel were notable. Abbreviations and Acronyms: POME-Paradise tree Oil Methyl Ester, LSD-low sulphur diesel, DI-Direct Injection, BTE-Brake thermal efficiency, BSFC-Brake specific fuel consumption, EGT- Exhaust Gas Temperature, HC-Hydrocarbon, CO-Carbon monoxide, NO_x-Oxides of nitrogen & Constant Pressure Cycle.

**INVESTIGATION ON THE PERFORMANCE AND EMISSION OF NEAT
SIMAROUBA GLAUCA OIL AND FATTY ACID METHYL ESTER IN A
DIRECT INJECTION DIESEL ENGINE**

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Present energy policies focus on environmental issues including eco-friendly technologies to increase energy supplies and encourage cleaner, more efficient energy use, and address air pollution, greenhouse effect, global warming, and climate change. The biofuels aim to support the use in transport of fuels made from biomass, as well as other renewable fuels. Biofuels provide the panorama of new fiscal opportunities for people in rural area for meeting their need and to meet the demand of the local market. Biofuels concern protection of the environment and job creation. Renewable energy sources are self-reliance resources, have the potential to provide energy services with zero or closer to zero emissions of both greenhouse gases and air pollutants. Biofuels are