

# Performance and Emission Parameters with Blending of Jatropha Biodiesel in Diesel Engine

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*Abstract: In the current situation limited resources of petroleum products and their higher consumption rate and pollution increase research work for an alternative option for internal combustion engines. The emissions draws from these fuels also pollute the environment more day by day. Jatropha oil from jatropha seed is one sources of biodiesel which is a less polluting, locally available and reliable renewable resource. In this research work, performance and analysis doing on 5 HP single cylinder of vertical arrangement and direct injection CI engines with rope brake dynamometer with a blending of jatropha biodiesel. The performance and emission parameter of the diesel engine were found with different proportions of biodiesel in a existing diesel fuel. The result shows that by using up to 20 % biodiesel in diesel, compatible performance parameters with reduced emissions can be achieved.*

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**Keywords:** Alternative fuel, Biodiesel, Jatropha oil, Specific fuel consumption;