



STUDY OF EFFECT OF UNSATURATION OF VARIOUS BIODIESEL ON THE PERFORMANCE OF DIESEL ENGINE

¹MANISH POKHARNA

¹Research Scholar, Pacific University, Udaipur

²Dr A.N. MATHUR

²Professor

ABSTRACT

Biodiesel, the methyl ester of vegetable oil is a renewable, low environmental impact and potential as a green alternative fuel for diesel engine. The aim of this present work is to compare the performance and emissions of a diesel engine run on eight bio diesel fuel. A 4 stroke single cylinder direct injection water cooled constant speed diesel engine was run with diesel fuel and then bio-diesels. The performance of all the biodiesels is compared on the basis of brake thermal efficiency and exhaust gas temperature and emissions compared are carbon monoxide and oxides of nitrogen. The oxides of nitrogen are found to be higher for biodiesels but not significantly higher when compared with diesel. It is concluded that the biodiesels can be used as alternative fuel in the Diesel engine without any engine modifications.

Keywords:- Diesel engine, Emission, Soybean oil methyl ester.
