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### Experimental investigation on Emission characteristics of Jatropha methyl ester fuelled passenger bus

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**Abstract:** The main purpose of blending the Jatropha biodiesel with clean diesel is to decrease the viscosity of the Jatropha biodiesel and improve volatility of biodiesel without changing the molecular structure. The biodiesel shows better performance at all proportions of biofuel blended. Among the different proportions of biodiesel blends, Jatropha shows the best performance at 20% blend. The emission of HC, CO, particulate and smoke is considerably lower than the complete diesel fuel and on the other hand NO<sub>x</sub> emission is high. Interestingly, the particulate emission was reduced approximately 10 to 20% at maximum load. Therefore, it is concluded that the significant reduction in PM emissions would help in improving the environmental conditions.

**Key words:** Emission characteristics, Jatropha methyl ester, fuelled passenger bus.

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