

## **Exhaust emissions of DI diesel engine using unconventional fuels**

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### **ABSTRACT**

Optimization of using waste plastic and tire disposal fuel on diesel engine were observed. The experimental project was comparison between using both of unconventional fuel and base diesel fuel. The engine experiment was conducted with YANMAR TF120 single cylinder four stroke diesel engine set-up at variable engine speed at 2100, 1900, 1700, 1500 and 1300 rpm. The data have been taken at each point of engine speed during the stabilized engine-operating regime. Measurement of emissions parameters at different engine speed conditions have generally indicated lower in emission CO for waste plastic fuel, lower NO<sub>x</sub> for tire disposal fuel and lower SO<sub>x</sub> for diesel fuel.

### **KEYWORDS:**

diesel engine; exhaust emission; tire disposal fuel; waste plastic fuel

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