**An Extraction & Injection of Ethanol Fuel in CI Engine**

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**Abstract**

In recent years, the shortage of fossil fuels and the global warming bring our great attention to the utilization of biomass fuel. A typical application of bio mass fuel is burning ethanol fuel instead of diesel alone in compression ignition engines. Besides the ethanol fuel can be considered as renewable energy, it does have some advantages over diesel, such a better anti-knock characteristics and the reduction of CO and UHC emissions. Recently, we studied the characteristics of the ethanol by the extraction of pure ethanol by means of fermentation and distillation process from a plant named Abrus precatorius (Kundri mani) and injecting it in the CI engine. At present, it is noted that the major drawback of extraction of ethanol and burning it in CI engine is the price, an economical consideration. But it doesn’t makes a matter since by using this combination in an appropriate proportion will increase the efficiency of the system predominantly and also decreases the emission of CO and NOx. These advantages will decrease the usage of other fuels which is been considered as an efficient in the current world. The injection of ethanol can be controlled or monitored by ECU of the engine. Actually, water contained in the ethanol results the reduction of NOx emission from the engine, an additional advantage.