**INFLUENCE OF NANO ADDITIVES WITH CASHEW NUT**

**SHELL BIO-OIL IN CI DIESEL ENGINE**

**ABSTRACT-**

The world is confronted with serious problems like depleting reserves of petroleum and environmental issues have led to the

search for more environmentally friendly and renewable fuels. Biodiesel obtained from various renewable sources has been recognized as

one of the alternative fuel due to its biodegradability, high cetane number, no sulphur emissions and low volatility. In this paper Cashew

nut oil is used as raw material to produce a biodiesel.

Biodiesel from Cashew nut shell oil (CNSL),

properties of oil and Biodiesel, performance and emission of cashew nut oil as biodiesel in Compression Ignition engine. Cashew nut oil

is one of the most efficient and high productivity Non-edible oil crops.

The cashew nut oil blended in varying proportion like 10%, 20%,

30% etc. with diesel fuel in the CI engine. By varying the Compression ratio, Injection pressure, Speed, Load or by using Additives we

can check the performance and emission characteristics of biodiesel-diesel blends and finds the most preferable combination of the

blend for diesel engine. Based on various studies, this paper generally found that CNSL biodiesel is considered as offering many

advantages, including sustainability, decrease of HC, CO, NOx gas emissions and many harmful pollutants.

The main objective of this study was to delineate the synergistic impact of nano-additive and its applications.Nano-additive applications at different stages from micro particle culture to end-product utilization presented strong possibility in mercantile approach as well as positive impact on the environment along with valuable

co-products generation into the near future.