

Biofuels – The fuels of the future

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Biofuel is a type of fuel whose energy is derived from biological carbon fixation. Biofuels include fuels derived from biomass conversion, as well as solid biomass, liquid fuels and various biogases. Nowadays, liquid fuels are widely used in the transport sector. The advantage of liquid fuels is that they are easy to store and transport. Transport fuels are classified into two categories: Fossil Fuels which are mainly based on crude oil and natural gas and Biofuels made from renewable resources. The use of Biofuels largely depends on the potential of available feedstock sources. The overall Biofuel potential largely depends on climate, land availability and the productivity of dedicated energy crops. Biodiesel is quite similar to fossil diesel and has similar properties. Biofuels are gaining popularity because of its advantages of being cheaper than fossil fuels, are considered carbon neutral, reduce dependence on foreign fuels, etc. There is substantial scientific evidence that accelerating global warming is a cause of greenhouse gas (GHG) emissions. One of the main greenhouse gas is Carbon Di-oxide (CO₂), but also Nitrous Oxide (N₂O), Methane (CH₄) and several other compounds are even more severe to global warming than CO₂. International trade of Biofuels is small compared to international trade of fossil fuels. Biofuels are traded mainly between neighboring regions and countries. But since biofuel production is growing continuously, new trading relationships will be established in future. Thus, also trade over long distances will increase. Biofuel development in India centers mainly around the cultivation and processing of Jatropha plant seeds which are very rich in oil.

Biography

Aseem Kirtiman Chauhan is a third-year student of Mechanical Engineering, Lingaya's University and has presented 1 paper so far.

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