Abstract:
Given to the eco-friendliness of biodiesel and to mitigate the pollution generated by petroleum fuels, there is a need to foster biodiesel production. Hence the aim of our project work is to upgrade the existing mini portable biodiesel production unit so that the manual labour put into the machine to convert non edible seed oil to biodiesel is reduced. The existing biodiesel production plants require the assistance of automation. So in this project we have developed temperature control system so that reaction temperature is automatically controlled. It is known as the integrated temperature controller consisting of Thermocouple to sense the temperature of reaction mixture, Microcontroller to check if the temperature is equivalent to required reaction temperature and Relay to work corresponding to the output signal of microcontroller and supply or cut-off current supply to heating coil that supplies heat to the reaction mixture.

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