VISVESVARAYA TECHNOLOGICAL UNIVERSITY,

BELAGAVI 590018

A Project Phase 2 report

on

"Performance And Emission characteristics Of Cardonal – Jatropha Hybrid Fuel Operated Bio-Diesel With Diesel Particulate Filter"

Submitted in partial fulfillment of the requirements for the degree of

BACHELOR OF ENGINEERING

In

MECHANICAL ENGINEERING

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CERTIFICATE

Certified that the project work entitled "Performance And Emission characteristics Of Cardonal –Jatropha Hybrid Fuel Operated Bio-Diesel With Diesel Particulate Filter" is a bona fide work carried out byare bonafide student of mechanical engineering Alva's Institute of Engineering and Technology in partial fulfillment for the award of BACHELOR OF ENGINEERING in **MECHANICAL ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

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ABSTRACT OF THE PROJECT

As fossil fuels are depleting rapidly in the atmosphere To overcome these problems, focus is towards alternative sources with sustainable development, energy conservation, efficiency and environmental preservation, has become highly pronounced in the present scenario Biodiesel is an appropriate inherent source for alternative fuel, with environmental benefits. This project examines the number emission characteristics of bio diesel 10–1000 nm nonvolatile particles in the proportion 80:20 blends of jatropha hybrid with the help of Diesel Particulate Filter (DPF) is one of the prominent after-treatment devices invented to reduce particulate matter (PM) emission from diesel engines. NOx is increased, and HC, CO, and PM emissions are decreased. For B20 blend of biodiesel with diesel was found the best suitable blend for CRDI engine.