KSCST

Karnataka State Council for Science and Technology
(An autonomous organisation under the Dept. of Science & Technology, Govt. of Karnataka)
Indian Institute of Science Campus, Bengaluru - 560 012
Telephone: 080-23341652, 23348848, 23348849, 23348840
Email: office.kscst@iisc.ac.in, office@kscst.org.in ♦ **Website:** www.kscst.iisc.ernet.in, www.kscst.org.in

Mr. H. Hemanth Kumar
Executive Secretary

19th April 2021

Ref: 7.1.01/SPP/10

The Principal,
Alva's Institute of Engineering and Technology,
Shobavana Campus,
Mijar, Moodbidri - 574 225.

Dear Sir/Madam,

Sub : Sanction of Student Project - 44th Series: Year 2020-2021
Your Project Proposal Reference No. : ***44S_BE_3768***
Ref : Your Project Proposal entitled " ***PERFORMANCE AND EMISSION CHARACTERISITCS OF CRDI (COMMON RAIL DIRECT INJECTION) ENGINE FUELED WITH CARDANOL-HONGE BIODIESEL BLEND WITH DIESEL PARTICULATE FILTER AT THE EXHAUST***

We are pleased to inform that your student project proposal referred above, has been approved by the Council under "Student Project Programme - 44th Series" with a budgetary break-up as detailed below:

Student / s	Mr. Tajuddin H I	**Budget**	
	Mr. Anil Kumar S	**Particulars**	**Amount (Rs.)**
	Mr. Pavan Kumar S	Materials/Consumables	5,000.00
	Mr. Ashish Shetty	Labour	500.00
Guide/s	Dr. Manoj Kumar A P	Travel	500.00
		Miscellaneous	500.00
Department	Mechanical Engineering	Report	500.00
		Total	**7,000.00**
	SEVEN THOUSAND RUPEES ONLY		

The following are the guidelines to carryout the project work :

a) The project should be performed based on the objectives of the proposal sent by you.

b) The project should be completed in all respects and softcopy of the full report in a CD (single file .pdf format only) should be submitted to KSCST.

c) Any change in the project title and objectives, etc., or students is liable to rejection of the project and the amount sanctioned needs to be returned to KSCST.

d) Please quote your **project reference number printed above** in all your future correspondences.

e) **Important:** After completing the project, 2 to 3 page write-up (synopsis) needs to be sent by e-mail [spp@kscst.iisc.ernet.in] and should include following :

1) Title of the project
2) Name of the College & Department
3) Name of the students & Guide(s)
4) Keywords

PRINCIPAL
...a's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K.

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

By

TAJUDDIN H I	4AL17ME080
ANIL KUMAR S	4AL18ME401
PAVAN KUMAR S	4AL18ME405
ASHISH SHETTY	4AL17ME701

Under the Guidance of

PROJECT GUIDE

DR.MANOJ KUMAR AP

Associate Professor, Dept. of M.E

ALVA'S
Education Foundation

Department of Mechanical Engineering

ALVAS INSTITUTE OF ENGINEERING AND TECHNOLOGY

MOODBIDRI-574225, KARNATAKA

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Mijar, Moodbidri D.K. -574225 – Karnataka

ALVA'S
Education Foundation

DEPARTMENT OF MECHANICAL ENGINEERING

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.

Dr. Manoj Kumar A P	Dr.Satyanarayan	Dr. PeterFernandes Alva's Institute of Engg. & Technology, Mijar, MOODBIDRI - 574 225, D.K.
Project Guide	Head of the Department	Principal

External Viva

Name of the Panel members	Signature with Date
1. Yogish Rao	
2 Shivaprasad	

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.