VISHVESVARAYA TECHNOLOGICAL UNIVERSITY
"JNANA SANGAMA", BELAGAVI-590018,

2022-2023

A PROJECT REPORT ON

"ACETYLENE GAS AS AN ALTERNATIVE FUEL"

SUBMITTED IN PARTIAL FULFILLMENT FOR THE REQUIREMENT OF THE AWARD OF DEGREE OF

BACHELOR OF ENGINEERING

IN

MECHANICAL ENGINEERING

Submitted By

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2022-2023

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CERTIFICATE

This is to certify that the project report entitled "**ACETYLENE GAS AS AN ALTERNATIVE FUEL**" successfully carried out by **DHRUVA S L (1SV18ME003), AKASH B P (1SV20ME400), V RANJITH KUMAR GOWD (1SV20ME402), VENUGOPAL REDDY (1SV20ME403)** the bonafide students of **SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY TUMKUR-572106,** in partial fulfillment for the award of degree of Bachelor Of Engineering In **MECHANICAL ENGINEERING** Of The Visvesvaraya Technology University, Belagavi-**560014** during the year **2022-2023**. All the corrections/suggestions indicated for the internal assessments have been incorporated in report. The project report has been approved as it satisfies the academic requirements in respect to the project work prescribed for the said degree.

25/05/23		
Signature of the Guide	Signature of the H.O.D	Signature of the Principal
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ABSTRACT

In the past few years automotive companies have been searching for an intelligent device to increase fuel millage in order to protect the environment. The foundation to develop an intelligent device is based on the source input. Acetylene gas has been recently introduced to the auto industry as a new source of energy. The present work proposes the design of a new device attached to the engine to integrate an acetylene generator with the gasoline engine and also to regulate the flow of gasoline with respect to oxygen sensor. There are two major phases: The first phase is designing of acetylene generator which is related to the electrochemical engineering and second phase is designing of an electrical circuit which regulates the flow of gasoline with respect to oxygen.

The proposed acetylene generating device is compact and can be installed in the engine compartment itself. In this project we are studying the basic properties of gas generated through chemical reaction of calcium carbide with water and then used this gas in the bike as a fuel with gasoline by mixing it with air. Our project aim is to increase the mileage and reduce the polluting contents from the exhaust gases. Acetylene gas combined with the standard air/fuel mixture increases the mileage. Here we are designing a mixed fuel two wheeler engine in a conventional SI engine we are incorporating traces of acetylene along with gasoline in order to minimum consumption of gasoline as well as to increase the power of vehicle. Here in addition, a hydrogen generating unit is made to produce hydrogen.

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