VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI – 590 018

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PROJECT REPORT

ON

"Solenoid Engine"

Submitted in partial fulfillment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING

IN

MECHANICAL ENGINEERING

Submitted by:

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SHRIDEVI EDUCATION

PRINCIPAL SIET, TUMKUR

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CERTIFICATE

This is to certify that the Project Work entitled **"Solenoid Engine"** is carried out by **Mr Gagan R Gowda (1SV19ME006), Mr Rakesh Kumar R (1SV19ME010)**, bonafide students of the **Department of Mechanical Engineering** in partial fulfillment of the requirements for the award of the degree of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2021 – 22**. It is also 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 said Degree.

(Mr Santhosh T U)	(Mr B H Vasudevamurthy)	(Dr Narendra Viswanath)
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Names of the Examiners — Signature with date

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ABSTRACT

Electric Vehicle are becoming increasingly attractive alternative to the car with combustion engine, considering the effect on the environment as well as economic factors such as gradual increasing price of fluid fossil fuels, maintenance and others. Due to the fact that these vehicles are widely known for their zero emission and powered by renewable energy source. The idea of the project is to take another alternative design of EV prime mover to replace existing electric motor. In general, EV are driven and the controlled by the integration of electrical , electronics and also mechanical components but the main component that actually moves these vehicles is the electric motor. Electric motor works on principles of the electromagnetic induction by converting electrical energy to kinetic energy. This energy the conversion is the main purpose of an electric motor and this actuator are the highly popularized in most EV's designs. So a solenoid will be used to be replace the electric motor as a prime mover. For this a prototype of a solenoid is designed, built, and tested. The solenoid will be used as kicking device. As earlier studies have investigated a solenoid as shooting mechanism. In one study the solenoid is investigated as most suitable kicking device. The other study designed and optimized a solenoid. In this study a prototype solenoid is designed and tested.

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