

**FABRICATION AND EMISSIN ANALYSIS OF ACETYLENE  
POWERED S.I ENGINE**

**A THESIS SUBMITTED IN THE PARTIAL FULFILMENT OF THE REQUIREMENTS  
FOR THE AWARD FOR THE DEGREE OF**

**BACHELOR OF TECHNOLOGY  
IN  
MECHANICAL ENGINEERING**

**SUBMITTED BY**

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# AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

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DEPARTMENT OF MECHANICAL ENGINEERING

## BONAFIED CERTIFICATE

This is to certify that **N.CHARAN**(Regd No. 16811A0352), **P.AYYAPPA**(Regd No. 16811A0256), **S.MOHAN SATYA SAI**(Regd No. 16811A0379), **N.SOMESH**(Regd No. 16811A0353) of final year engineering have done project work on "**FABRICATION AND PERFORMANCE EVALUATION OF ACETYLENE POWERED S.I. ENGINE**" at **AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY**, Narsipatnam in partial fulfilment of the requirements for the award of degree of "Bachelor of Technology" in "**MECHANICAL ENGINEERING**" to JNTUK University, during the academic year 2016-2020.

  
INTERNAL GUIDE

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## ABSTRACT

From the reference of past few decades it is believed that crude oil petroleum products are becoming scarce and very costly. As technology is advancing fuel economy of engine is getting improved and will continue to improve also, there is an enormous increase in variety of vehicles which has started dictating the demand for fuel. Gasoline and diesel will become scarce and very expensive in near future. With the increased use and depletion of fossil fuels, there is an almost need to find an alternative fuel, so that some of the problems can be minimized.

An effort has been made to use an alternate fuel in 4-stroke spark ignition engine. The engine used for alternate fuel is a S.I engine, which was originally designed for petrol fuelling. An extensive research and development is done by using acetylene as an alternative fuel which is a gas, obtained from combination of calcium carbide and water. For this, particular storage gas cylinder is designed with certain mechanical elements. Maximum performance and investigation for obtaining the efficiencies can be done using this alternative fuel and hence analysis based on performance is carried out. Also Comparison study of petrol and acetylene is accomplished.