FABRICATION OF THE ELECTROMAGNETIC ENGINE

A project report submitted in the partial fulfilment of the requirement for the award of degree of

BATCHELOR OF TECHNOLOGY

IN

MECHANICAL ENGINEERING

Submitted by

CH.N.S. PARAMESWAR RAO (15815A0308)

L. RAJA SEKHAR (15815A0331)

T. HEMA KUMAR (15815A0349)

T. CHANDU (15815A0350)

Under the guidance of

Sri B. RAMESH B.E, M.E (Ph.D.)

Associate Professor

AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF MECHANICAL ENGINEERING

(Approved by AICTE and permanently affiliated to JNTUK-KAKINADA, AP)

(An NBA Accredited Institution and NAAC with B+ Grade)THAMARAM (VIL&PO),

MAKAVARAPALEM (MD)VISAKHAPATNAM (DISTRICT-531113)

(2015-2018)

AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE and permanently affiliated to JNTU-KAKINADA,AP)

(An NBA Accredited Institution and NAAC with B+ Grade)

MAKAVARAPALEM, NARSIPATNAM, VISAKHAPATNAM Dist-531113

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that project work entitled FABRICATION OF THE ELECTROMAGNETIC ENGINE that is being submitted by CH.N.S. PARAMESWARA RAO (15815A0308), L. RAJA SEKHAR (15815A0331), T. HEMA KUMAR (15815A0349), T. CHANDU (15815A0350) to **AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY**, Makavarapalem, Visakhapatnam in partial fulfilment of the **BACHELOR OF TECHNOLOGY INMECHANICAL ENGINEERING** is a bonafide work carried out by them under my guidance during the year 2018.

3/3/18

Internal guide

Sri. B. RAMESH B.E,M.E (Ph.D)

Associate Professor

Head of Department

Sri. V.HARI KIRAN M.TECH (Ph.D)

Associate Professor

HEAD OF THE DEPARTMENT
MECHANICAL ENGINEERING
Avanthi Institute of Engg. & Tech.
Makavarapalem, Visakhapatnam

External examiner

ABSTRACT

Demand is growing for the need of alternative fuels for transportation. Electricity with its versatile applications is being utilized to switch from conventional combustion vehicles to electric vehicles. The scenario of travelling is changing rapidly with metros, electric rails, electric aero planes (solar), etc. Basically it indicates that electrical energy is being used almost everywhere to drive our life. But the current machines we use today are low in efficiency. Hence we require products with more power but also with higher efficiency. Magnetism possesses a magnificent opening for development.

Bullet trains using the technology of magnetic levitation have proved the strong nature of electromagnetic fields. Keeping in mind the arising needs of the industry, in this project we tried to design and experiment, a system called electromagnetic Engine, which makes use of magnetic force to drive a load. The working principle is based on attraction and repulsion between a permanent magnet and an electromagnet. The forces thus developed are used to generate mechanical power. Successful development in this field can actively help switch over IC Engines.

Our engine is totally different from ordinary IC Engine, because of the inventory advancement in operating principles. We have changed the operating principle of IC Engine by using electromagnetic effect instead of combustion of fossil fuels. This engine works on the principle of magnetic repulsion between two magnets. This electromagnetic engine consists of two magnets, one of them is an Electromagnet and other one is a Permanent Magnet. Permanent Magnet acts as piston and Electromagnet is located at the top of the cylinder instead of spark plug and valve arrangement in IC Engines. In this way this engine does not contain any spark plug and fuel injection system.