

# **FABRICATION OF THERMO ELECTRIC REFRIGERATOR**

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

## **BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING**

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**AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY**

**DEPARTMENT OF MECHANICAL ENGINEERING**

**Permanently Affiliated to JNTU KAKINADA, NBA ACCREDITED, NAAC (B+)**  
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**(2014-2018)**

**AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY**

**(AN NBA ACCREDITED COLLEGE)**


**DEPARTMENT OF MECHANICAL ENGINEERING**




**CERTIFICATE**


This is to certify S.PYDITHALLI (15815A0347), D.PAVAN (15815A0311), D.HIMA VAMSI (15815A0310), MD GOUSE (15815A0348) of final year engineering have done their project work on **“FABRICATION OF THERMO ELECTRIC REFRIGERATOR”** at AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY, Narsipatnam in partial fulfillment of the requirements for the award of degree of **“Bachelor of technology”** in **“MECHANICAL ENGINEERING”** to JNTUK University, during the academic year 2014-2018.

The result embodied in the project report has not been submitted to any other institute for the award of any degree.

  
31/3/2018  
**Project guide**

  
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## ABSTRACT

The global increasing demand for refrigeration in field of refrigeration air conditioning, food preservation, vaccine storage, medical services, and cooling of electronic device, led to production of more electricity and consequently more release of CO<sub>2</sub> all over the world which it is contributing factor of global warming on climate change. Thermoelectric refrigeration is new alternative because it can convert waste electricity in to use full cooling, is expected to play an important role in meeting today, Freon gas challenges. Therefore, thermoelectric refrigeration is greatly needed, particularly for developing countries where long life and low maintenance are need. If 5L that utilize the peltier effect to refrigerate and maintain a selected temperature from 11°C to 32°C.

The present air-conditioning system produces cooling effect by refrigerants like Freon, Ammonia, etc..Using these refrigerants can get maximum output but one of the major disadvantages is harmful gas emission and global warming. These problem can be overcome by using thermoelectric modules (Peltier effect) air-conditioner and their by protecting the environment. The present paper deals with the study of Thermoelectric air conditioner using different modules is discussed. Thermoelectric cooling systems have advantages over conventional cooling devices, such as compact in size, light in weight, high reliability, no mechanical moving parts and no working fluid