

CONVERSION OF MECHANICAL ENERGY TO ELECTRICAL ENERGY THROUGH PEDALLING PROCESS

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

BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING

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CERTIFICATE

This is to certify that the project report is entitled “CONVERSION OF MECHANICAL ENERGY TO ELECTRICAL ENERGY THROUGH PEDALLING PROCESS ” was carried out by PEDIREDLA HEMA NEERAJA (16815A0301), MUKALA KARUN RAVI TEJA (15811A0387), POLINA VINAY KUMAR (15811803A6), MOHAMMAD BHASEER (15811A0383) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in MECHANICAL ENGINEERING by JNTU KAKINADA at AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY, during the academic year 2015-2019.

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PROJECT GUIDE

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ABSTRACT

Peddalling is the process that which converts mechanical energy to kinetic energy and from this form of energy we can get the electrical energy by arranging the dynamo, dynamo that which is fixed with small tire dwell-connected to the main bicycle tire and from that we can get the electrical energy by this we can cool the refrigeration system. Refrigeration is the process, which removes the heat from the internal system and keeps the system below atmospheric temperature below up to 5 degree centigrade. The refrigeration we are using is thermoelectric refrigeration that which will contains the heat sink that to absorb the heat from the internal part of the refrigerator component and more over this refrigerator we are using here can be having the two modes of power supply. This can done by arranging the dynamo that which helps to store the energy in the battery system. The battery we are using is 12v and 7 amph so by pedalling we can generate max of 40v. So it is good enough for the refrigeration system to run efficiently. To this concept we are additionally giving a charging system so from this charging circuit we can charge our mobile phone batteries and a sensor to detect the bicycle. Bicycle we are using was a one by triangular mechanism with lower cost compared to the other bicycle on with light weight and easy to carry.

Key words: Bicycle, compact Joint, Handling, Parking space, Refrigeration, Mobile charging and Sensors.