

BS (EE-H) FINAL PROJECT

“To demonstrate the working of a low power grid connected power generator at low head at canals and measurement of frequency using microcontroller”



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**(To demonstrate the working of a low power grid
connected power generator at low head at canals
and measurement of frequency using
microcontroller)**

Project Report submitted to the
Department of Electrical Engineering, University of Management and Technology
In partial fulfillment of the requirements for the degree of
Bachelor of Science
in
Electrical Engineering

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Date 17-10-2011

Abstract

Main theme of our project is to control the frequency of alternating current. For That purpose step 1 is A.C to DC conversion so that the frequency become zero then to control the voltage which may alternate our step 2 is dc to dc conversion. Then step 3 is DC to AC conversion. Finally the output will be measured by a microcontroller.

DEDICATION TO OUR BELOVED PARRENTS

Acknowledgements

First and foremost, all praise to Almighty Allah who gave us the courage and patience to carry out this work successfully. Who created the heaven and the earth, night and day? I express my sincere appreciation for the encouragement, excellent advice and valuable help which I got from my project advisers Sir. Moazam Sehzad, Sir Mashood Nasir and Sir Asif Hussain. Without whose sympathetic supervision this work would have not been possible. They provided us an innovative and professional potential. Finally, our deepest and most sincere thanks to our families for their endless love, encouragement and understanding they have shown during the whole time and helping me in completing the most project without any financial assistance from any other source.

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Chapter I. Introduction

This report focuses on frequency controller and DC to AC power inverter, which is efficiently transform a DC power source to a high voltage AC source. Inverters are used for many applications, as in situations where low voltage DC sources such as batteries, solar panels or fuel cells must be converted so that devices can run off of AC power.

In our project our basic aim is that we convert the flow of canal into mechanical form and then convert it into electrical form and finally convert this variable electricity into constant 220v.

The method in which the mechanical flow of canal converted into electricity is completed in three steps. The first step being the conversion of the variable AC voltage that is generated from the flow of canal to DC voltage by rectification. The second step being the conversion DC voltage to DC voltage by regulator. And last step being conversion of the constant DC voltages to the constant 220 AC voltage by using inverter.

Note: we remove the frequency factor in start by rectification. So by this method we can control the variable frequency.

BLOCK DIAGRAM:

