HIGHER TECHNICAL INSTITUTE

TECHNICIAN ENGINEER DIPLOMA COURSE

In

MECHANICAL ENGINEERING TECHNOLOGY

DIPLOMA PROJECT

"DESIGN OF SOLAR HOT WATER SUPPLY SYSTEM

FOR A CAR WASH STATION"

Submitted By

USMAN SIDDIQUI

(3 ME/ 1035)

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I dedicate this Project Work to:

Mr. **Costatinos Pitsillides**
Director
Care Car Wash Ltd.
Nicosia, Cyprus.

Special Regards to my:

Supervisor and Lecturer

Mr. Theodoros Symeou

Usman Siddiqui.

Project Title:

"DESIGN OF SOLAR HOT WATER SUPPLY SYSTEM FOR A CAR WASH STATION"

Submitted by:

Usman Siddiqui

In partial fulfillment of the requirements

For awarding the

Diploma of Technician Engineer

In

Mechanical Engineering Technology

Of the

Higher Technical Institute

Nicosia, Cyprus.

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INTRODUCTION

Energy problems have always absorbed great effort and research from scientist. The day by day shortage of coal and oil reservoirs has lately lead the scientists Searching for other non-conventional sources of energy such as Wind, ocean Wave, underground heat, nuclear, biogas and solar energy are being examined. Sun is the magic word for universe this is the only source of energy that can be Collected in plenty amount as well as this source of energy is free for all.

Since people have been using the solar radiation from the very early stages of The existence of the human beings on the planet in several ways, besides The solar radiation which reaches the earth is much higher than all the other Well known sources of energy on the earth planet so that the engineers and Scientist their eyes towards the more direct use of the truly fantastic out pouring Of energy from the sun.

So they have concentrate on how to collect and use the solar radiation in the past Few years. A lot of experiments have been done in order to find the most effective Way to collect the solar radiation is the so called collectors which do vary from Type to type and construction.

For domestic and industrial use generally flat plate collectors are used in order to Collect the solar radiation and use it for heating the water or air thereby the heat Is transferred through heat exchanger to other fluids flowing in the storage tank, Thereafter this hot water or air is used for heating the place or directly consumed By domestic or industrial uses.