

MECHANICAL ENGINEERING COURSE

DIPLOMA PROJECT

DESIGN OF AN AIR CONDITIONING SYSTEM FOR A BLOCK OF
HOTEL APARTMENTS

M/910

BY: VLITIS ANASTASIS

HIGHER TECHNICAL INSTITUTE

2000

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HIGHER TECHNICAL INSTITUTE	PROJECT NO. 3197
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HOTEL APARTMENTS

PROJECT REPORT submitted by

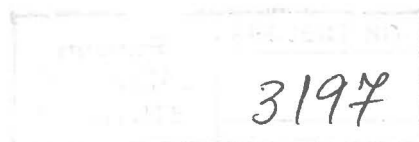
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A part of the procedure for the award of
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In
Mechanical Engineering

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June 2000



ACKNOWLEDGMENTS

I would like to express my thanks to my project supervisor Mr. Ioannis Mechaelides Senior lecturer of the H.T.I for his substantial assistance in executing the project.

I would also like to express my thanks to Mr. Tasos Stassis , Mechanical Engineer, manager of MELTEC co. for all the information given regarding the project.

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PROJECT SUMMARY

The objective of this project was the design of an air conditioning system for of hotel apartments which has one floor of sixteen rooms .

In the procedure of this project calculations of U-value and cooling load was performed . Cooling load calculated using the Carrier program .

Also in main body of the report there are information about the system selection and the machinery equipment .

Then , working drawings , cost analysis and appendixes and references can be found at the end of the project .

INTRODUCTION

Air conditioning systems in Cyprus are largely and commonly used.

In every building there is the need of air conditioning system because the weather in Cyprus is unexpected and unstable.

The main operation of air conditioning system is to maintain conditions that are conducive to human comfort. A complete system consist of heat humidify , cool , dehumidify , ventilate , filter and circulate .

All these various components are connected on a controller .

The user gives data to the controller and the system produce a suitable condition of air within the building .

Air conditioning systems classified in two basic types as to their functions :

The first type of air conditioning system using mainly for homes , offices apartments and restaurants . In this case the system create atmospheric conditions for human comfort and health .

The second type of air conditioning system is the industrial one whose purpose is to control atmospheric conditions and ventilation in the factory .

Also , as to the season of the year there are different systems of air conditioning , these are :

- (1) Summer air conditioning systems .
- (2) Winter air conditioning systems .

(3) Year round air conditioning systems .

In the case of this project the system to be selected must be of the first type and year round air conditioning system .