

Higher Technical Institute
ELECTRICAL ENGINEERING DEPARTMENT
DIPLOMA PROJECT
DESIGN OF THE ELECTRICAL AND
TELEPHONING INSTALLATION OF A VILLA HOUSE
WITH LIGHTING PROTECTION

BY
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E/1171

JUNE 1999

HIGHER TECHNICAL INSTITUTE

DIPLOMA PROJECT

JUNE 1999

ELECTRICAL ENGINEERING COURSE

**DESING OF THE ELECTRICAL AND TELEPHONING
INSTALLATION**

**OF A VILLA HOUSE
WITH LIGHTNING PROTECTION**

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Project Report submitted by, Morfakis George in part satisfaction of the award of
Diplama of Technical Engineering of the Higher Technical Institute, Cyprus.

Type of project: Individual

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External Assessor:

June 1999

To,

***All my family and especially to my
parents who have supported me
throughout my years at the H.T.I.***

ACKNOWLEDGEMENTS

ABSTRACT

SYMBOLS

INTRODUCTION

CHAPTER 1

CHAPTER 2

CHAPTER 3

CHAPTER 4

APPENDIX A

APPENDIX B

APPENDIX C

APPENDIX D

APPENDIX E

APPENDIX F

APPENDIX G

APPENDIX H

APPENDIX I

INDEX

ACKNOWLEDGEMENT

ABSTRACT

SYMBOLS

INTRODUCTION

CHAPTER 1	- Illumination	1 - 18
CHAPTER 2	- Lighting Design	19 - 27
CHAPTER 3	- Power Design (<u>Fixed applianced</u>)	28 - 50
	Storage Heaters	50 - 55
CHAPTER 4	- Supply Cables (1~,3~)	56 - 63
	MDB Single line (1~,3~)	63 - 65
	Fault level <u>calc</u>	66 - 70
CHAPTER 5	- Telephony	71 - 77
CHAPTER 6	- Earthing	78 - 82
CHAPTER 7	- Inspection <u>Anc Testing</u>	83 - 87
CHAPTER 8	- <u>Lighting Protection</u>	88 - 92
CHAPTER 9	- Costing	93 - 95
CONCLUSION		96
DRAWINGS		
APPENDICES		

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ABSTRACT

This project deals with the design of the electrical and telecommunication services of 'A Villa House'.

The project work includes specifications and tender drawing as well as typical calculations of the design carried out.

The whole design is made according to the relevant for each system regulations.

SYMBOLS

1	(10)	Single Phase & Neutral
2	(32)	Three Phase & Neutral
3	V.D.	Voltage Drop
4	MCB	Miniature Circuit Breaker
5	CB	Circuit Breaker
6	MDB	Main Distribution Board
7	DC	Distribution Case
8	CCT	Circuit
9	S/O	Socket Outlet
10	P.F.	Power Factor
11	B.S.	British Standard
12	I.E.E.	Institution of Electrical Engineers
13	E.F.L.T.	Earth Fault Loop Impedance
14	U.F.	Utilisation Factor
15	M.F.	Maintenance Factor
16	MAZLIS	Main Sitting Room

INTRODUCTION

This project deals with the design of the electrical and telecommunication Villa House services for which will include the following:

- (i) Electrical services
 - (a) Lighting
 - (b) Power

- (ii) Telecommunication services
 - (a) Telephone System

- (iii) Lightning Protection facilities

The design was carried out according to:

- (i) The 16th edition of the I.E.E. Regulation and the local EAC conditions of supply. CYTA requirements for telephone install.