

OPTIMIZATION OF A COOLING SYSTEM

BY

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PROJECT REPORT

SUBMITTED TO

The Department of Mechanical Engineering

of Higher Technical Institute

Nicosia - Cyprus

in partial fulfillment of the requirements

for the diploma of

TECHNICIAN ENGINEER

in

MECHANICAL ENGINEERING

JUNE 1991



ACKNOWLEDGEMENTS

I would like to express my thanks to Dr Polyvios Elefteriou, lecturer in Mechanical Department of H.T.I for his valuable assistance and great cooperation through out the whole project development process.

Many thanks also to Mr Charalambos Kaloyirou, lab assistant in H.T.I Mechanical Department, for his valuable informations and help.

Finally I would like to thank everybody, who in any way helped to my project development.

Kyriacou Kyriacos

SUMMARY

The project is carried out, in order to achieve optimum conditions in H.T.I cooling system. At the beginning a definition of optimization is made, as well as a brief discription of H.T.I cooling system.

A number of technical data for the various components are collected, and an energy analysis is prepared.

Then a mathematical model of the cooling system is made, (the equations and the variables of each component) and a number of constraint equations is obtained.

After that, several optimization technicques are described, and the "Lagrange Multimpliers" method is selected to be used in the project.

Then the "Lagrange Multimpliers" method is applied, and through certain mathematical techniques a rough solution is achieved.

Finally few comments and conclusions are made about the results.

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