HIGHER TECHNICAL INSTITUTE

MECHANICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

DESIGN AND PROGRAMMING OF A CNC LATHE

by

PAPHITIS CHR[illegible]

(M/806)

JUNE 19[illegible]

DESIGN AND PROGRAMMING OF A CNC LATHE

by

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Project Report
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HIGHER TECHNICAL INSTITUTE

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ABSTRACT

This project deals with the Design and Programming of CNC Lathe, including the manufacturing of components on a CNC lathe and also give a general idea about what is NC and how is used today.

First the basic theory of the project was prepared including all the information about NC, CNC, DNC, FMS technology. Then a general study of EMCO COMPACT 5 CNC was followed with it's operation elements, coordinate system, measuring procedures, programming and program input characteristics. Also the tape preparation alarm signs, types of Interpolation, canned cycles and subroutines are described as well as the working data and Tooling System.

The main part of this project is the part programming for the manufacture of components which involves three exercises, followed by the manufacture of these components from bronze bar.

Finally, a cost analysis is prepared and some conclusions relating to the work carried out in this project.

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H.T.I.