

ACCOMPLISHMENTSSUMMARY

I would like to thank my Supervisor Mr. Clement Inbert, Lecturer, Computer Numerical Control (CNC) machining is just one area of Computer Aided Manufacturing (CAM) that has met with tremendous success in many countries in recent years.

At the present time no CNC machining takes place in Trinidad and Tobago. The Iron and Steel Company of Trinidad and Tobago (ISCOTT) has an NC machine which it uses for making certain parts for its own use, Mustapha's Engineering Works Ltd. has NC machines (mothballed for the time being) and the Faculty of Engineering of the University of the West Indies is in the planning stages of setting up a CNC Machining facility as an integral part of a Manufacturing Centre.

This study assesses the feasibility of the commercial use of CNC machining in Trinidad and Tobago with special reference to the manufacture of automotive spare parts. The market study has shown significant local demand for parts such as pistons, gudgeon pins, intake and exhaust valves which can be made by CNC machining. Technical and financial analyses of CNC versus conventional machining established that the unit cost of production was slightly higher with conventional machining but at the same time showed conventional machining to be the better investment proposal for these parts for the local market of about 10,000 new passenger cars per year.