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Group No: **8**

Guided By

**PROF. H. C. PATEL**

# SMT. S. R. PATEL ENGINEERING COLLEGE, UNJHA

**Project Title**

**DEVELOPMENT OF CNC MILLING MACHINE**


## Abstract:

In this project, an open architecture personal computer-based numerical control (OAPC-NC) system that can generate G-code was developed in Visual basic 6.0 GUI software. This system was implemented on a milling machine. A driver and an interfacing circuit were developed in order to interface between the machine and PC. Then, the possibility of using the developed controller for Internet machining was also demonstrated.

In order to test the openness of the developed OAPC-NC system, several addition functions have been added into the developed system.

These functions include a different method of G-codes programming, additional features for advanced machining and internet access of the developed OAPC-NC system for Internet machining. Finally, a real time machining is carried out as well as the roundness test on the machined path as to test the performance of the developed system.

As a result, an OAPC-NC system that can generate pulse generation and G-code programming and operate a milling machine has been developed. Besides that, the stepper motor driver circuit board that is developed has been successfully interfaced between the PC and the milling machine.

The OAPC-NC system can be use by a variety of NC machine.

Therefore, this system has performed the ability in factory communication as to combine a number of difference machines.


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