ABSTRACT

In twenty first century world industry needs machinery products derived from turning process with complicated contour design. To obtain the required product machine tool with accuracy and precision is used. The advance in the technology during this century CNC is often used.

This final assignment analyses two CNC manual program (Direct Input) and automatic CAD CAM (Computer Aided Design – Computer Aided Manufacture) using CNC turner emco TU-2A evaluated on resulting surface fineners of chess – piece, using duraluminium working material. Recommended cutting tool used was sandvik – made rough turning, grove and finishing turning. To obtain acceptable product spindle speed was 2100 rpm, cutting speed 100 mm/min and cutting depth 1.5 mm in accordance with Sandvik manual.

Statistical methods employing ANOVA factorial experimental design $a \times b$ was used to analyze measurement data in order to find the parameter influencing interacting factors shown no significant different on degrees finish. In other words there is no real or significant difference using either automatic or Direct Input CNC.