

A-NGOON PETRAT : COMPUTER PROGRAMMING FOR THE SELECTION OF OPTIMUM CONTROLLABLE CUTTING VARIABLES IN ROUGH TURNING. THESIS ADVISERS : ASSO. PROF. CHA-UM MALILA, ASSO. PROF. DR. SUPACHOK WIRIYACOSOL. 171 PP. ISBN 974-578-777-9

A computer program had been developed for the selection of controlled variables in rough turning for the maximum production rate. The program was written in Pascal language version 4.0 on 16 bits IBM-PC compatible microcomputers. The controlled variables were cutting speed and feed.

The program operated in 2 modes. In the first mode, the value of cutting speed was selected and the program would find the optimum feed. In the second mode, the value of feed was selected and the program would then find the optimum cutting speed. The results were shown on computer screen or printer.

The data used in the program were drawn from published papers as well as from the experiments carried out in this research project. The experiments done were workpiece and tool changing time measurement, tool life testing, and turning force measurement.

In the determination of optimum value for cutting speed and feed, the program generated the production rate with error less than 8%. The error were considered insignificant.