

Industrial Research Project Title	Reducing the overtime cost in outer diameter grinding process of rotor products
Industrial Research Project Credits	6
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### Abstract

This industrial research project aimed to improve the outer diameter grinding process of rotor products, in order to reduce the high cost of over-time payment. The study of the grinding process improvement is divided into two major parts. The first part is to reduce set up time of three categories of the outer diameter grinding process of rotor products. The second part is to adjust the schedule by assigning schedule on rotor grinding machine due to the needs of customers and the mechanical limitations. The mathematical model is formulated to assign tasks to the grinding machines. This model attempts to minimize the total production time. Then the excel solver is used to calculate and analyze the data. The results of this study reveal that the set up time is reduced which is divided into three categories including category 1) reducing from 480 seconds to 300 seconds, category 2) reducing from 600 seconds to 390 seconds, and category 3) reducing from 900 seconds to 630 seconds. According to the total reduced times, this contributed to reducing of the cost of over-time payment in the outer diameter grinding process of rotor products from 58,125 THB to 36,710 THB or 63% of reduced cost.

Keywords : Overtime cost reduction /Rotor product /Grinding process /Mathematical model