

# # C616579 : MAJOR INDUSTRIAL ENGINEERING  
KEY WORD: PAINT DEFECT REPAIRING AREA / PAINT SPRAY PROCESS / AUTOMOTIVE

PRAPAS RATISIN : A STUDY OF PAINT DEFECT REPAIRING AREA IN THE PAINT SPRAY  
PROCESS OF AUTOMOTIVE INDUSTRY. THESIS ADVISOR : SOMCHAI PUJINDANETR, Ph.D.  
176 pp. ISBN 974-635-671-2.

The objective of the research was to study behaviour and various factors which were effect on assigned the service stations of paint defect repairing area. The study was used computer simulation technique with the program of microsoft Fox-Pro.

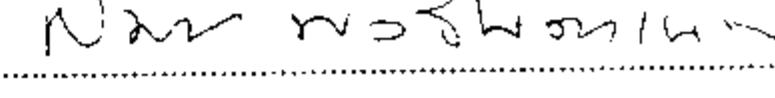
In this study a well-known automotive industry plant in Thailand was selected as a case study. The study had emphasized on a paint defect repairing area. The simulation queuing model which was studied : found that there were 2 concerning factors which were ( 1 ) the repairing arrivals rate being 3.90 car units per hour of a poisson distribution average , ( 2 ) the repairing time being 42.26 minutes per car unit of a normal distribution average and 11.18 minutes per car unit of standard deviation. The sensitivity analysis was performed varying the factors which were the number of service stations ranged between 3 to 5 service stations , the repairing arrivals rate and the repairing time ranged  $\pm 10$  per cent of averages. The result showed that 5 number of service stations which was the repairing arrivals rate and the repairing time of 3.90 car units per hour and 42.26 minutes per car unit respectively , provided the lowest waiting time of 0.08 per cent of total working time.

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