

CHAPTER 59
TECHNOLOGY
PRODUCTION & INDUSTRIAL ENGINEERING

Doctoral Theses

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Production Planning and Inventory Management of Job Shop Systems.
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Abstract

Identifies contemporary research issues related to systems like ASC, which has integrated features of JSP, MM, SCM and SM. With the help of simulation experiments, various policies to meet the conditions of demand variability are designed. Also, optimum parameter factors are found and their effects on critical performance measures are studied. A framework incorporating spare part management, using ANN, is presented to forecast reorder point and ordered quantity of repair parts. The analysis considers parameters like unit price, annual demand etc other than inventory holding cost and carrying cost.

Contents

1. Introduction. 2. Literature review. 3. Research methodology. 4. Capacity planning under demand variability using simulation. 5. Performance optimization using taguchi approach. 6. Spare parts management using artificial neural network. 7. Interpretive structural modeling of enablers for performance improvement. 8. Selecting best strategies using ANP and balanced scorecard approach. 9. Summary and conclusions. References and appendices.