ABSTRACT

MATHEMATICAL PROGRAMMING FOR PRODUCTION PROGRAMMING IN INDUSTRY

TSAPARAS NIKOLAOS

The scope of the present thesis is the presentation of the general term of Mathematical Programming along with its sections. Subject thesis provide the opportunity to reader to understand the necessity of Mathematical Programming in industries which have as a target the optimization of production operation or the reduction of final products' prizes. As a result, we have achieved a more efficient operation and at the same time the maximum profit for a company. Additionally, we present the tools that are available to create a function model of Mathematical Programming and its solution. Through the below thesis we will discover the large variety of industry sections which the Mathematical Programming could take place. Also we will quote examples on which the Mathematical Programming could give important solutions on problems which a company faces during operation and strategic planning.

Key Words

Mathematical Programming

Linear Programming

Mixed Integer Linear Programming

Best solution

Operational research