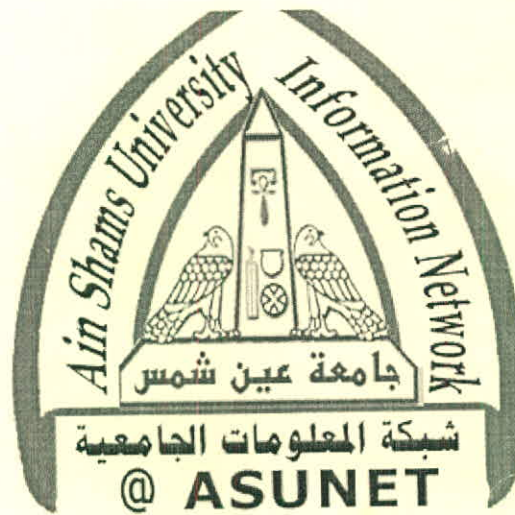




شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

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AIN SHAMS UNIVERSITY
FACULTY OF ENGINEERING
Engineering Physics and Mathematics Department

INTERACTIVE APPROACHS FOR SOLVING LARGE SCALE LINEAR MULTICRITERIA INTEGER PROGRAMMING PROBLEMS.

A Thesis

Submitted in Partial Fulfillment for the Requirements
of the Degree of Master of Science in Engineering Mathematics
(Engineering Physics and Mathematics)

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Cairo 2001.

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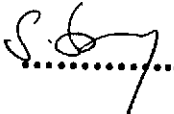
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Submitted in Partial Fulfillment for the Requirements
of the Degree of Master of Science in Engineering Mathematics
(Engineering Physics and Mathematics)

Title

Interactive Approaches for Solving Large Scale Linear Multicriteria Integer Programming Problems

This work discusses the interactive approaches for solving large scale linear integer programming problems.

A survey on the methods for solving multobjective linear programming problems (MOLPP's) is presented. Also the different structures for the large scale linear programming problems with multiobjective (MOLSLPP's) and the methods for solving (MOLSLPP's) are presented.

In this thesis we introduce a parametric study for the combined algorithm for treating (MOLSLPP's) with primal block angular structure with different positions for the parameters. A theorem, which determines the stability set of the first kind (SSFK) for MOLSLP problems, is introduced with its proof.

Finally, we introduce a unified interactive approach for solving multi-objective integer linear programming problems (MOILPP's) with its algorithm. And, applying to the unified algorithm to solve. And determine the stability set of the first kind for the combined algorithm for treating large-scale multiobjective integer linear programming problems with primal block angular structure.

STATEMENT

This dissertation is submitted to Ain Shams University for the degree of Master of Science in Engineering Mathematics.

The work included in this thesis was carried out by the author at the Engineering Physics and Mathematics Department, Faculty of Engineering, Ain Shams University.

No part of this thesis has been submitted for a degree or qualification at other university or institution.

Date : / / 2001

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