



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Ain Shams University Information Network  
جامعة عين شمس

شبكة المعلومات الجامعية

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# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

## قسم

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Cairo University  
Institute of Statistical Studies and Research  
Department of Operations Research

CVTK  
CP

## A Hybrid Algorithm for Supply Chain Optimization

By

Ahmed Mohamed Ramzy

A thesis submitted to the Institute of Statistical Studies and Research  
Cairo University

In partial fulfillment of the requirements for the Degree of

Master of Science

In

Operations Research

Under the Supervision of

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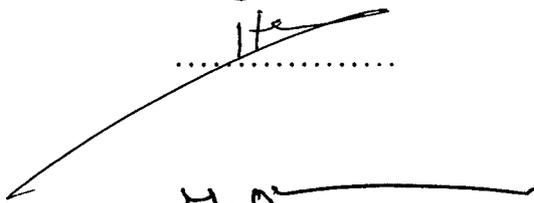
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.....

2010

# Dedication

To

*My father, who planted the seed of reading and exploring,  
My mother, for the unlimited support and encouragements,  
My wife, for all the sacrifices and patience,  
My daughter, the hope.*

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## List of Abbreviations

APS	- Advanced Planning Systems
BB	- Building Block
BBH	Building Block Hypothesis
BOM	- Bill Of Material
BWE	- Bull Whip Effect
CLM	- Council of Logistics Management
CLSC	- Closed-loop Supply Chains
CRP	- Complex Responsive Processes
CSR	- Corporate Social Responsibility
DE	Differential Evolution
DM	- Decision Making
EA	- Evolutionary Algorithms
ELVs	- End-of-Life Vehicles
ERP	- Enterprise Resource Planning
GA	- Genetic Algorithm
GIS	- Geographical Information Systems
GSCF	- Global Supply Chain Forum
GST	- General Systems Theory
INFORMS	- Institute for Operations Research and Management Science
KPI	- Key Performance Indicators
MRP	- Manufacturing Resource Planning
MS	- Management Science
MTO	- Make To Order
MTS	- Make To Stock
OM	- Operations Management
OR	- Operations Research.
ORSA	- Operations Research Society of America

PCR	- Plant Capacity Ratio
POS	- Point Of Sale
RFID	- Radio Frequency Identification
RL	- Reverse Logistics
RPT	- Radical Process Thinking
RR	- Royal Road
SC	- Supply Chain
SCC	- Supply-Chain Council
SCM	- Supply Chain Management
SD	- Systems Dynamics
VE	- Virtual Enterprise
WCR	- Warehouse Capacity Ratio
WEEE	- Waste Electrical and Electronic Equipment

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