بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

Ain Shams University
Faculty of Engineering
Department of Design and Production Engineering

An Expert System For Flexible Facilities Layout

By

Eng. HATEM . A . MAHMOUDI

M. Sc. Ain Shams University, Egypt 1996

Design & Production Engineering

A THESIS

Submitted to the Faculty of Engineering

Ain Shams University

for the Degree of Doctor of Philosophy

Design & Production Engineering

Supervised by

Prof.Dr. M HAZEM . ABD-EL-LATIF

Dr. NAHED S . MOHAMED

Cairo 1999

Bos. E

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Date : /1999

Statement

This dissertation is submitted to the Faculty of Engineering, Ain Shams University, for the degree of Doctor of Philosophy in Mechanical Engineering (Design & Production).

The work included in this thesis was carried out by the author in the Department of Design and Production Engineering, Ain Shams University, from December 1996 to March 1999.

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

Name : Hatem. A. Mahmoudi

Signature :

Date :

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Dedication

To

My Parents,

Wife,Hala son,Abboudeh

Brother,Rami Syster,Banan Muhammad

Hatem

ACRONYMS

A	Absolutely necessary
E	Especially important
I	Important
O	Ordinary closeness
U	Unimportant
X	Not desirable
TMHC	Total Materials Handling Cost
TCR	Total Closeness Rating
MAT	Modular Allocation Technique
PLANT	Plant Layout Analysis Evaluation Technique
CORELAP	COmputerized Relationship LAyout Planning
ALDEP	Automated Layout DEsign Program
CRAFT	Computerized Relative Allocation Facilities Technique.
FADES	FActory DESign
MHES	Materials Handling Equipment Selection
ES	Expert System
AS/RS	Automated Storage / Retrieval System
AI	Artificial Intelligence
AGV	Automated Guided Vehicles

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