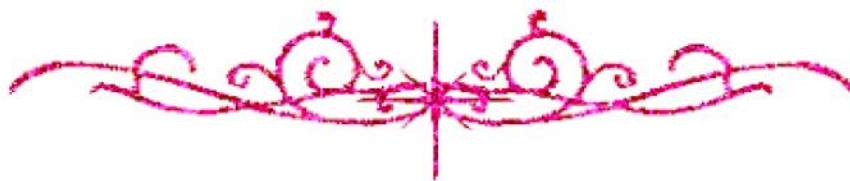


بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

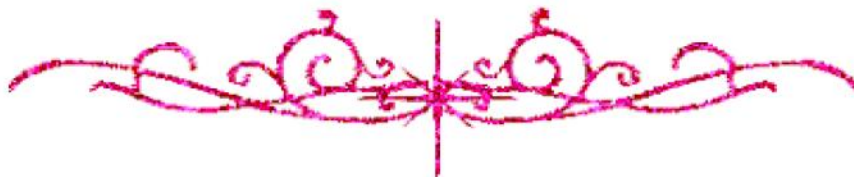
قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



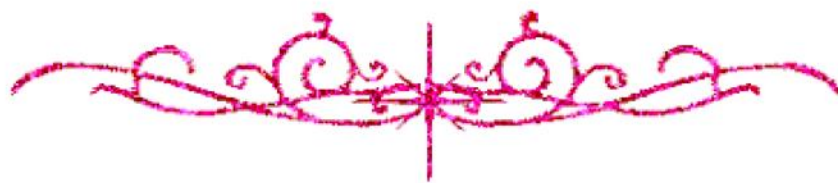


بعض الوثائق الأصلية تالفة





بالرسالة صفحات
لم ترد بالأصل





Ain Shams University
Faculty of Engineering
Department of Architecture

An Evolutionary Multi-Objective Optimization Framework for Enhancing Energy Efficiency in Early Phases of Architectural Design Process

A thesis submitted in partial fulfillment of the requirements of the degree of Master of Science in
Architecture

By

Muhammad Nagy Saeed Seddek Mahmoud

Bachelor of Science in Architecture, Architecture Section
Faculty of Engineering, Ain Shams University, 2014

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Cairo - November, 2020



Ain Shams University
Faculty of Engineering
Department of Architecture

Name: **Muhammad Nagy Saeed Seddek Mahmoud.**

Title: **An Evolutionary Multi-Objective Optimization Framework for Enhancing Energy Efficiency in Early Phases of Architectural Design Process.**

Degree: **Master of Science Degree in Architecture.**

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-
- **Date of Thesis Defense:** ... / ... /
 - **Postgraduate Studies**
 - Thesis was approved on: ... / ... /
 - Faculty Council Approval: ... / ... /
 - University Council Approval: ... / ... /

- Approval Stamp

يَا أَرْحَمَ الرَّحِيمِينَ
فَاعْلَمْ أَنَّهُ لَا إِلَهَ إِلَّا اللَّهُ

وَسُبِّحْ لِلَّهِ مَا تُدْرِكُ
الْأَبْصَارَ وَهُوَ الْعَلِيُّ
الْعَلِيمُ

سُورَةُ طه - الْفُزْنُ الْكَرِيمُ

"My Lord, increase me in knowledge."

Surat Ta-Ha – The Holy Quran.

Statement

This thesis is submitted as a partial fulfilment of the Master of Science degree in Architecture, Faculty of Engineering, Ain Shams University.

The author carried out the work included in this thesis, and no part of it has been submitted for a degree or a qualification at any other scientific entity.

The author confirms that the work submitted is his own and that appropriate credit has been given where reference has been made to the work of others.

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