







شبكة المعلومـــات الجامعية التوثيق الالكتروني والميكروفيا.



جامعة عين شمس

التوثيق الالكتروني والميكروفيلم



نقسم بللله العظيم أن المادة التي تم توثيقها وتسجيلها على هذه الأفلام قد اعدت دون آية تغيرات



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SUSTAINABLE COMMUNITIES DEPENDING ON RENEWABLE ENERGY

By

Mohammad Refaat Mohammad Abd-Elaal

A Thesis Submitted to the
Faculty of Engineering at Cairo University
In Partial Fulfillment of the
Requirement for the Degree of

MASTER OF SCIENCE In ARCHITECTURE ENGINEERING (URBAN PLANNING)

Supervised by

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Suez Canal University

Cairo University

FACULTY OF ENGINEERING, CAIRO UNIVERSITY

GIZA, EGYPT

April 2002

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Approved by the Examining Committee

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وَسَذَّرَ لَكُمُ اللَّيْلَ وَالنَّمَارَ وَالشَّمْسَ وَالْقَمَرَ وَالنَّجُومُ مُسَذَّرَاتٌ بِأَمْرِهِ إِنَّ فِي ذَلِكَ لَاَيَاتٍ لِّقَوْمِ يَعْقِلُونَ

حدق الله العظيم

(القران الكويم ،سورة النحل ، الآية ١٢)

"He has made subject to you the night and the day; the sun and the moon; and the stars are in subjection by His command: verily in this are signs for men who are wise."

(Holly Koran, Part 14, Chapter Al Nahl, translation of the meaning of Verse 12)

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Author Personal Data and Curriculum Vitae

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Dedication

I dedicate this work to my mother, my father and sisters. To whom I owe every thing in my life.

I, also, dedicate it to my fiancée, who helped me a lot in completing it despite all problems that faced me through out the past 2 years.

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