شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

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

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ENERGY EFFICIENT RETROFIT IN RESIDENTIAL BUILDINGS TO ACHIEVE ENVIRONMENTAL SUSTAINABILITY AND COMBAT CLIMATE CHANGE

By

Shahd R. A. Abuserriya

A Thesis Submitted to the
Faculty of Engineering at Cairo University
In Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE
In
ARCHITECTURAL ENGINEERING

FACULTY OF ENGINEERING, CAIRO UNIVERSITY
GIZA, EGYPT
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Approved by the
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Title of Thesis:

Energy Efficient Retrofit in Residential Buildings to Achieve Environmental Sustainability and Combat Climate Change

Key Words:
Energy consumption; Energy efficiency; Retrofit; Residential buildings; Sustainability.

Summary:

Building sector consumed 36% of the world's final energy for the year 2018, and responsible for 39% of the total global emissions, Therefore, the buildings sector offers an important opportunity for energy saving and (GHG) emissions mitigation, and would play a significant role in meeting with the (SDGs). The purpose of this thesis is to investigate the relation between energy efficient retrofits in residential buildings and achieving environmental sustainability and combating climate change. This will lead to the development of an objective design guide that address energy-saving technologies with clear measurement techniques to assess the sustainable environmental impacts of the retrofitting process and therefore achieving an energy efficient building retrofit.

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Disclaimer

I hereby declare that this thesis is my own original work and that no part of it has been submitted for a degree qualification at any other university or institute.

I further declare that I have appropriately acknowledged all sources used and have cited them in the references section.

Name: Shahd R. A. Abuserriya Date: / / 2021

Signature:

Dedication

I would like to express my deepest gratitude to my father, my mother, and my sisters, for believing in me, supporting me and making me the person who I am today.

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