



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



HANAA ALY



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



HANAA ALY



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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



HANAA ALY



Cairo University

INTELLIGENT AND RESPONSIVE FAÇADE ENGINEERING

By

Mahmoud Ahmed Ramadan Mohamed

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
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Under the Supervision of

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Approved by the
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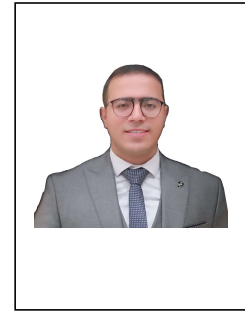
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2021

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Title of Thesis:

Intelligent and Responsive Façade Engineering

Key Words:

Responsive Facade; Intelligent Facade; Sustainability; Smart Material; Energy Efficiency

Summary:

Nowadays façades are made up of many layers and materials that allow the envelope to perform many different functions. The increasing interest for adaptive architecture that reconfigures itself to meet environmental mutations and user's needs drives the concept of a new building skin that is multifunctional, responsive and dynamic. Multiple features could be incorporated into façades in order to optimize their response to climate changes.

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: Mahmoud Ahmed Ramadan

Date: -/-/2021

Signature:

Dedication

To
FATHER AND MOTHER

