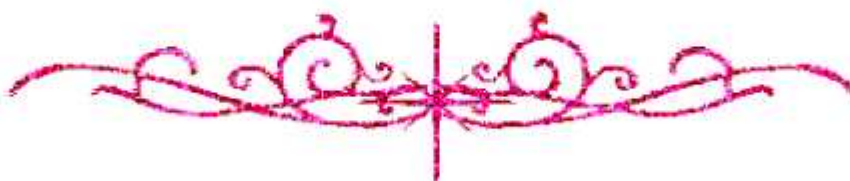


# بسم الله الرحمن الرحيم





# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





# جامعة عين شمس

التوثيق الإلكتروني والميكرو فيلم

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Cairo University

# **LIVING SKIN AS A TOOL FOR ACHIEVING ENERGY EFFICIENCY INSIDE KINDERGARTEN CLASSES IN HOT ARID CLIMATE**

By

**Rania Gamal El-Deen Ahmed Abdel Mawgood**

A Thesis Submitted to the  
Faculty of Engineering at Cairo University  
in Partial Fulfillment of the  
Requirements for the Degree of  
**DOCTOR OF PHILOSOPHY**  
in  
**Architectural Engineering**

FACULTY OF ENGINEERING, CAIRO UNIVERSITY  
GIZA, EGYPT  
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2021

## **Disclaimer**

At this moment, I declare that this thesis is my 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: Rania Gamal El-Deen Ahmed Abdel Mawgood

Date: ../../2021

Signature:





# **Dedication**

The most significant moment is when I have the opportunity to thank the nearest ones to my heart...

A special feeling of gratitude to my loving Mum and Dad, For their Kindness, Devotion, and Endless Support.

They provide me the most appropriate ambiance to give the best. I owe them a lot, their love, their care, their always encouragement.

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