بسم الله الرحمن الرحيم

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تم رفع هذه الرسالة بواسطة / سلوي محمود عقل

بقسم التوثيق الإلكتروني بمركز الشبكات وتكنولوجيا المعلومات دون أدنى مسئولية عن محتوى هذه الرسالة.

ملاحظات: لا يوجد

"DEVELOPMENT OF GUIDELINES/REGULATIONS TO IMPROVE THE QUALITY AND EFFICIENCY OF HEALTHCARE BUILDING IN EGYPT" (ADAPTING LEED EXISTING HEALTHCARE CHECKLIST TO SUIT THE EGYPTIAN CONTEXT)

By

Rowida Hamdy Ali Omar

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
2022

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Title of Thesis:

"Development of Guidelines/Regulations to Improve the Quality and Efficiency of Healthcare Building in Egypt"

(Adapting LEED EXIST healthcare checklist to suite the Egyptian context)

Key Words:
Green Hospitals; Energy Efficiency in Hospitals; Green Rating Systems for Existing Building and Hospitals; LEED for HealthCare; LEED for Existing Building.

Summary:

Sustainability is the goal pursued by societies worldwide and sustainable organizations are competing in issuing criteria and systems for evaluating sustainability in different types of buildings. Hospital buildings have had a share of those issues.

The research examines hospital buildings, how to get green hospitals and what their benefits in preserving the environment and its resources and reducing the risks of energy crisis and global warming crisis.

It deals with the existing hospitals, and we can rehabilitate them to be sustainable, so we will deal with the existing hospital rating systems; given that each system has its own standards and how it scores evaluation points.

The research presents an approach to reach new guidelines for the existing healthcare buildings and improve energy performance of them in Egypt; and shows green hospital treatments that help achieve the best performance of energy consumption, provide understanding and analysis of the importance of building green for healthcare in Egypt.

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: Rowida Hamdy Ali Omar Date: ... / ... / 2022

Signature:

Dedication

I dedicate this humble work to my father (may Allah have mercy on him)
and to my mother, who encouraged me and my attention to complete this work
I tell them:" You gave me life, hope and upbringing for a passion for knowledge".
And I dedicate it to my husband who supported me. God bless you "Ahmed Maher"
And to my brothers "Rehab and Ahmed" and all my family.
Then to everyone who taught me and lit the way in front of me
And to everyone who helped me in this research….

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Nomenclature

AI: Artificial Intelligence
ASHARE: American Society of Heating, Refrigeration and Air Conditioning Engineers.
BRE: Building Research Establishment.
BREEAM: Building Research Establishment Environmental Assessment Method.
EA: Energy and Atmosphere.
EQ: Indoor Environmental Quality.
GBCA: Green Building Council Australia.
GGCG: Green Guide for Health Care.
GPRS: Green Pyramid Evaluation System.
HVAC: heating, ventilation and air conditioning.
IN: Innovation.
IP: Integrative Process.
LEED: Leadership in Energy and Environment Design.
LEED-NC: LEED-New Construction.
LEED-EB O&M: LEED Existing Building (Operations & Maintenance).
LT: Location and Transportation.
MR: Materials and Resources.
NABERS: National Australian Built Environment Rating System.
OECD: Organization for Economic Cooperation and Development
RP: Regional Priority.
SS: Sustainable Sites.
UPC: Urban Planning Council.
USGBC: Unites States Green Building Council.
WE: Water Efficiency.
WHO: World Health Organization