



Cairo University

EXTERIOR FAÇADE LIGHTING AND ITS EFFECT ON
SHAPING THE BUILDINGS' IMAGE
(A Tool for Architectural Lighting Visualization)

By

Mohamed Mahmoud Sayed Mahmoud Saleh

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

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Under the Supervision of

Prof. Dr. Ahmed Ahmed Fekry

Prof. Dr. Samir Sadek Hosny

.....
Professor of Architecture and
Environmental Control
Department of Architecture
Faculty of Engineering, Cairo University

.....
Professor of Architecture
Department of Architecture
Faculty of Engineering, Ain Shams University

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Approved by the
Examining Committee

Prof. Dr. Ahmed Ahmed Fekry (Main Advisor)
Professor of Architecture and Environmental Control
Department of Architecture, Faculty of Engineering, Cairo University

Prof. Dr. Samir Sadek Hosny (Member)
Professor of Architecture
Department of Architecture, Faculty of Engineering, Ain Shams University

Prof. Dr. Ahmed Reda Abdeen (Internal Examiner)
Professor of Architecture and Environmental Control
Department of Architecture, Faculty of Engineering, Cairo University

Prof. Dr. Morad Abd-Elkader Abd-Elmohsen (External Examiner)
Professor of Architecture and Environmental Control
Department of Architecture, Faculty of Engineering, Ain Shams University

FACULTY OF ENGINEERING, CAIRO UNIVERSITY
GIZA, EGYPT
2016

Engineer's Name: Mohamed Mahmoud Sayed Mahmoud Saleh
Date of Birth: 28/06/1988
Nationality: Egyptian
E-mail: Mohamedmahmoudsaleh@live.com
Phone: +2 01001406551
Address: 17 Helmi Abd El-Atty, Nasr city, Cairo
Registration Date: 01/02/2012
Awarding Date: / /2016
Degree: Master of Science
Department: Architectural Engineering.

Supervisors:
Prof. Dr. Ahmed Ahmed Fekry
Prof. Dr. Samir Sadek Hosny (Ain Shams University)

Examiners:
Prof. Dr. Morad Abd-Elkader Abd-Elmohsen (Ain Shams University)
Prof. Dr. Ahmed Reda Abdeen
Prof. Dr. Ahmed Ahmed Fekry
Prof. Dr. Samir Sadek Hosny (Ain Shams University)

Title of Thesis:

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Key Words:

Building Prestige; Lighting Techniques; Façade Analysis; Artificial Lighting Design Visualization.

Summary:

Exterior building facades are a main element that defines our cities' townscape, and empowers designers and practitioners to be aware of the potentials of buildings' facade artificial lighting design, as the product created will affect us through our emotions, goals and ideas.

This thesis proposes a new tool for visualizing exterior façade lighting designs for the earlier stages of lighting projects (conceptual design stage). This tool development is based on exploring different fields of exterior lighting for building facades such as; strategies of façade lighting design, analysis of architectural features of buildings' façade and how to use artificial lighting techniques productively, in addition to analytic study of worldwide case studies that demonstrate the role of façade night lighting in shaping buildings' aesthetic image and prestige.

Through the use of this tool, users can explore the trends and methods of the buildings' exterior façade lighting design, and boost their creativity, helping designers in visualizing their façade lighting concepts and designs.

Acknowledgments

I would like to express my gratitude to my supervisors: **Prof. Dr. Ahmed Fekry** for his continuous support and discussions throughout the development of this thesis, and **Prof. Dr. Samir Sadek** for his discussions and support throughout this thesis and before that, as he has been my mentor for the past ten years, and years to come. IsA.

I would like to express my great thanks to **Dr. Ashraf Nessem**, **Dr. Rehem El-dessuky** and **Eng. Randa Medhat** for their discussions, motivation and moral support to finish this thesis.

And last but not least, I would like to thank my friend and colleague **Samaa Gamal**, who helped me along the way, from the start till the end of my MSc. Degree, and for that I'm deeply grateful.

Dedication

TO MY FAMILY
MY FATHER, MY MOTHER, MY SISTER & MY BROTHER

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