

# بسم الله الرحمن الرحيم





# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





# جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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بالرسالة صفحات  
لم ترد بالأصل





Alexandria University  
Faculty Of Fine Arts  
Department Of Architecture  
Post-graduate Studies

B/7229

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## The Design of Building Envelope as a Tool For Achieving Environmental Design Goals.

تصميم الغلاف الخارجى للمبنى كأداة لتحقيق أهداف التصميم البيئى

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بسم الله الرحمن الرحيم

( و ما أوتيتم من العلم إلا قليلاً )

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## **ABSTRACT**

The study deals with the design of the building envelope and its systems in order to achieve the goals of environmental design through climatic control and energy efficiency. It discusses the different functions of the building envelope and focuses on the environmental ones. It also discusses the modes heat transfer.

Different systems of the building envelope are discussed. This includes passive heating systems, passive cooling systems and strategies, types of shading systems, including a worked application that shows the role of computer software in shading design. The study also discusses the types of energy efficient glazing systems, and building-integrated photovoltaics systems.

In the last part of the study, intelligent building envelopes are discussed, explaining the concept of intelligence in the building envelope, and the application of the intelligent systems in double-skin facades. At last, the research discusses the application of energy-efficient envelopes in Egypt.

Finally, a number of conclusions are derived.

## **ACKNOWLEDGEMENTS**

I would like to express my gratitude to my supervisors:  
Prof. Dr. Mohsen Bayad for his continuous support and for his interest throughout the development of this thesis.

And  
Dr. Salah El-Din Hareedy for his valuable advices since the earliest stages of the study, through which discussions with him were always helpful and fruitful.

I would like to express my thanks to  
Prof.Dr. Ahmed Abdin and to Prof. Dr. Mohamed Gomaa For examining this thesis.

I, also, express my thanks to  
Prof. Dr. Osama Abdou- Faculty of Engineering - Misr International University -Cairo  
And to Dr. Abbas El Zafarani - Faculty of Regional Planning- Cairo University.  
And also, to Architects Mohamed Faruk El-Abi and Amani Badr.  
All for their assistance in the early stages of the research.

I would like to acknowledge the effort and aid of the many helpful people in Alexandria, Cairo, and elsewhere, who contributed directly or indirectly to this work.

At last I would like to express my great thanks to my mother, father, sister and brother, who always encouraged me and gave me a lot of moral support.



# *Only To You*

Dedicated to my

*Mother.*

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