**List OF CONTENTS**

|  |  |  |
| --- | --- | --- |
| Subject | | Page |
| Committee Decision …………………………………………………………... | | II |
| Dedication ………………………………………………………………… ….. | | III |
| Acknowledgement ……………………………………………………….......... | | IV |
| List of Contents …………………………………………………………........... | | V |
| List of Tables …………………………………………………………………. | | VI |
| List of Figures ………….………………………………………………… ….. | | VII |
| Nomenclature …………………………………………………………………. | | XI |
| List of Appendices ……………………………………………………………. | | XIII |
| Abstract ………………………………………………………………………... | | XIV |
| Chapter one :introduction …………………………………………. | |  |
|  | 1.1 electricity crisis ………………...……………………….….......... |  |
|  | 1.2 photovoltaic cell as a solution ……………………………………. |  |
|  | 1.3 introduction energy audit ………………… ……………………... |  |
| Chapter two: literature survey ………………………………… | |  |
|  | 2.1 General View of photovoltaic cells ………………………………. |  |
|  | 2.2 General View of energy audit in buildings …….………………… |  |
|  | 2.3 improvement on the performance of PC cells ………………….. |  |
|  | 2.4 new theories in energy audit |  |
|  |
| Chapter Three: mathmatical formulation ………………….. | |  |
|  | 3.1 basic principle of operation of PV cells |  |
|  | 3.2. basic energy audit principles |  |
|  | 3.3 basic equation used in energy audit |  |
|  | 3.4. energy consumption assumptions and calculations |  |
|  |  |  |
| Chapter four : results and discussion . | |  |
|  | 4.1. types of energy consuming devices in the chosen building  4.2. results of energy audit |  |
| Chapter five: discussion …………………………. | |  |
|  | 5.1 .the main source of energy consumption |  |
|  | 5.2. human activities |  |
| Chapter six: conclusions and recommendations …………. | |  |
|  | 6.1 Conclusions ……………………………………………………… |  |
|  | 6.2 Recommendations ……………………………………………….. |  |
| References ……………………………………………………………………. | |  |
| Appendices …………………………………………………………………… | |  |
| Abstract ( *in Arabic*) ………………………………………………………….. | |  |