INTELLIGENT BUILDINGS, ITS APPLICATION AND CONTRIBUTION TO ENERGY EFFICIENCY

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ABSTRACT

The world is fast changing; the survival of mankind in future depends on the adaptations and innovations which lead to evolution as any other living being on earth. Man being more intelligent creates tools and systems that are beyond the need for basic survival to acquire better quality living by changing the natural environment and its processes.

Throughout history man has been creating new lifestyles and environments especially built environments with the influence of social, economical, religious and political aspects as well as environmental aspect like the climate. These brought about new technological advancements in architecture.

The idea of an intelligent building in its most general sense means a building that in some way can sense its environment, reach decisions about the state of that environment and communicate these decisions. In practice this means that the building can adjust the interior or exterior of the building in response to a change in the environment, user needs and situations. The concept behind intelligent buildings is the coherent integration of various systems to create efficient well controlled environments.

This intelligent building systems are rapidly coming up in the intenational arena. In the Sri lankan context too this trend can be seen as a futuristic approach. The use of intelligent systems create efficient working environments have gone beyond to creating energy efficient environments. In a broader sense intelligent buildings concept deals with enhancing the sustainability in the built environment, economically, ecologically and some times socio culturally.

STATEMENT OF DECLARATION

This is to certify that this dissertation is originally written and prepared by Weeramundage Carman Ayanthi Nadika Fernando, the candidate, except where due acknowledgment is made and that it has not been previously included in a thesis, dissertation or report submitted to the University of Moratuwa or any other institution for a degree, diploma or other qualification to the best of my knowledge.

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CONTENTS

ACKNOWLEDGEMENT i
ABSTRACT ii
LIST OF FIGURES vi

1. CHAPTER ONE – **Introduction**
   1.1 Topic Explanation 2
   1.2 Observations and issues identified 3
   1.3 Criticality of observations/ issues 4
   1.4 Intention of study – justification 4
   1.5 Scope and Limitations 5
   1.6 Method of study 5

2. CHAPTER TWO – **Intelligent buildings**
   2.1 Chapter Introduction 7
   2.2 Intelligent Buildings – Definitions 8
   2.3 Intelligent Buildings – History 11
   2.4 Historical Models of Building intelligence 14
      2.4.1 Automated buildings (1981-1985) 14
      2.4.2 Responsive buildings (1986-1991) 14
      2.4.3 Effective buildings (1992>) 15
   2.5 Socio-economical issues that influenced the immergence of intelligent buildings 16
   2.6 Future Issues of intelligent buildings – High performance buildings 21
   2.7 Chapter conclusion 22

3. CHAPTER THREE –**Intelligent Building Concept and its Application**
   3.1 Chapter Introduction 25
   3.2 The Concept of Intelligent buildings 25
      3.2.1 A communication system 28
      3.2.2 An office automation system 28
      3.2.3 Building Automation system 28

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Electronic Theses & Dissertations
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3.3 Identification of an intelligent building 29
3.4 Difference of intelligent buildings from conventional buildings 30
3.5 Components of an intelligent building 31
3.5.1 Facilities management 32
3.5.2 Information management 32
3.5.3 Connectivity 32
3.5.4 Overall Control 32
3.6 Integrated Systems of Intelligent buildings 34
3.6.1 HVAC (Heating Ventilating Air Conditioning) 34
3.6.2 Lighting control 36
3.6.3 Security and access control 37
3.6.4 Fire safety and life safety 38
3.6.5 Public address system 41
3.6.6 Material handling 41
3.6.7 Communication 42
3.6.8 Energy Management 43
3.6.9 Computer systems 44
3.6.10 TV and Video subsystems 44
3.6.11 Acoustic control 45
3.6.12 Building management system 45
3.7 Advantages and Disadvantages of Intelligent buildings 48
3.8 Intelligent Buildings Control Theory 49
3.9 Chapter conclusion 52

4. CHAPTER FOUR –**Energy efficiency and Intelligent buildings**
4.1 Chapter Introduction 54
4.2 Energy Issues related to Buildings 55
4.2.1 Environment, comfort and energy 56
4.2.2 Heat gain and heat loss 57
4.2.3 Energy use and pollution 58
4.3 Controlled use of energy 60

University of Moratuwa, Sri Lanka.
Electronic Theses & Dissertations
www.lib.mrt.ac.lk

4.4 Sustainability
4.4.1 Environmental sustainability 63
4.4.2 Economical sustainability 64
4.4.3 Socio cultural sustainability 64

4.5 Tropical climate and energy conservation 65
4.6 Intelligent Buildings and its contribution to Energy Efficiency 66
4.7 Chapter conclusion 69

5. CHAPTER FIVE – **Analytical Study of Local and Foreign Examples**
5.1 Chapter Introduction 71
5.2 International Examples of Intelligent buildings 71
5.2.1 Menara Mesianaga, Kuala Lumpur (1992) 71
5.2.2 Shinjuku L Tower, Japan (1989) 77
5.2.3 Telecom Malaysia Head Quarters(1998) 81
5.3 Sri Lankan Examples
5.3.1 The HNB Tower 84
5.3.2 World Trade Centre Twin towers 97
5.4 Chapter Conclusion 109

6. CONCLUSION 113
7. BIBLIOGRAPHY 115

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LIST OF ILLUSTRATION

		PAGE
Fig. 1	The ENIAC Main frame computer	11
Fig. 2	Multiuse of mainframes	11
Fig. 3	Use of Computers in medicine	12
Fig. 4	Computer Aided Designing	12
Fig. 5	Robots	12
Fig. 6	Models of building Intelligence - IBE (1992)	16
Fig. 7	Work stations	18
Fig. 8	Decentralization	19
Fig. 9	The Concept of intelligent buildings	27
Fig. 10	Information and communication	28
Fig. 11	Office Automation	28
Fig. 12	A Categorization of Intelligent Buildings	33
Fig. 13	Typical Air conditioning system	35
Fig. 14	The availability of Natural light	36
Fig 15	Automatic Access Card System	37
Fig. 16	The control room with CCTV	37
Fig. 17	Entrance control – swap card system	37
Fig. 18	Centralized monitoring system	37
Fig. 19	CCTV Monitoring system	38
Fig. 20	a sprinkler head	39
Fig. 21	Heat detectors	39
Fig. 22	Fire extinguishers	39
Fig. 23	High pressure water lines	39
Fig. 24	Fire Extinguishers	40
Fig. 25	The conventional reception	41
Fig. 26	Openable Windows	42
Fig. 27	Telephone Communication	42
Fig. 28	A public accessed telephone booth	43
Fig. 29	Satellite television	44
Fig. 30	AT & T's intelligent building system	46
Fig. 31	The net work of a Building Environmental Control system	47

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Electronic Theses & Dissertations
www.lib.mrt.ac.lk

Fig. 32	Building interior affected by external conditions	57
Fig 33	Heat gain and Heat loss in Buildings	58
Fig. 34	Buildings use energy	61
Fig. 35	Sustainability	62
Fig. 36	Sustainability	63
Fig .37	The Exterior of Menara Mesianaga	72
Fig .38	Vertical landscaping	73
Fig. 39	The Site plan	74
Fig. 40	Typical Floor plan	74
Fig. 41	Building Section	75
Fig. 42	View of Sky Court	75
Fig. 43	Entrance canopy	76
Fig. 44	Shading structures	76
Fig. 45	The side and Front view of the Shinjuku Tower	77
Fig. 46	The integrated system in the building	78
Fig. 47	The Exterior	81
Fig. 48	The Layout plan	81
Fig. 49	Hatton national Bank	84
Fig. 50	Layout Plan	86
Fig. 51	The section of the Building	87
Fig. 52	Basement services	88
Fig. 53	Restaurant	89
Fig. 54	Restaurant	89
Fig. 55	Tracks of the rooftop for the maintenance gondolas to move	90
Fig. 56	Use of Artificial lighting	91
Fig. 57	Use of Natural lighting	91
Fig. 58	TV monitors in the control room	92
Fig. 59	The façade	93
Fig. 60	Glass fixing	93
Fig. 61	Office room	94
Fig. 62	Lobby area	94
Fig. 63	World Trade Centre	97

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Fig. 64	The World Trade Centre in the Context of Colombo	98
Fig. 65	The Location Map of the World Trade Centre	98
Fig. 66	Floor plan low zone	99
Fig. 67	Floor plan High zone	100
Fig. 68	CCTV	101
Fig. 69	Reception	102
Fig. 70	Escalators	102
Fig. 71	High pressure water pipes in the ducts	104
Fig. 72	Fire Extinguisher	104
Fig. 73	BMS of World Trade Center	107
Fig. 74	Non automated single glazing	108

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