The Impact and implication of the Energy Efficient Building Code

In Sri Lankan context

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Abstract

Being a scared resource energy conservation is becoming an important issue today It believes that the new energy conservation regulations considerably contribute to solve the problem generating because of the scarcity of energy .As a new experience the energy related regulations creates so many debuts within professional groups such as Architects and engineers who directly involving in the construction industry and many of them have less knowledge in this area

The study pays special attention for the section of building envelope which come under Energy Efficient Building Code introduced by the Ceylon Electricity Board in year 2000 and the recommendations have taken under that.

The study examines the behavioural pattern of the Overall Thermal transfer value (OTTV) with the contemporary design parameters and energy consumption in Sri Lankan context.

Doing so , the first chapter deals with the literature review , discussing the nature of the energy , importance of conserving energy , conservation approaches concentrating the energy efficient building code in Sri Lanka.

The second chapter deals with the impact of the external and internal heat gains. The way of heat gain and heat transfer and OTTV as an index for a heat transfer in to the building envelope in theoretical basis and further the properties of the building material which contributes to determines the nature of OTTV.

Third chapter examines the nature of the OTTV under five cases for 17 design parameters and analysis have done under five base cases and the findings used to identify the practicability of the OTTV and it have been given suggestions with a set of guidelines which help the architects and designers to designs building envelope under the EEBC recommendations.

The presence of energy efficient building cord in Sri Lanka

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Contents

3.0Chapter three

Case study-Office building of the Central Engineering constancy Bureau

3.1 Orientation

(a)Base case	West orientation
(b)case01	East orientation
(c)case02	North orientation
(d)case03	South orientation

3.2.Construction material

(a)case 04	225mmtk. Concrete wall
(b)case 05	115mmtk. Brick wall
(c)case 06	225mmtk. Brick wall with insulation layer
(d)case07	225mmtk.brick wall with Al. cladding
(e)case 08	225mmtk. Brick wall with glass cladding
(f)case 09	Fully glass wall
(g)case10	80%glass wall

3.3 Colors and textures

(a)case11	Light colors
(b) case12	Rough textures

3.4 Type of shading devisers

(a) case14	Window without shading devisers
(b)case15	Window with vertical shading devisers
(c) case16	Window with egg create shading devisers.

3.5 Window to wall ratio

(a)case17	Wwr.2419
(b)case18	Wwr.272
(c)case19	Wwr.5040
(d)case20	Wwr.5218

4.0Chapter four

Analysis

4.1 thermal performance of OTTV with cooling load
4.2 Thermal performance of the building –wall types
4.3 Thermal performance of the building with colours and textures
4.4 Thermal performance of the building for shading devisers
4.5 Thermal performance of the building for orientation
4.6 Thermal performance of the building for window to wall ratio
4.7 Thermal performance of the CECB building

5.0Chapter five

CONCLUSION

Bibliography

list of illustrations

list of tables