

**ENERGY CONSERVATION STRATEGIES IN THE CONTEMPORARY
SRI LANKAN HIGH-RISE BUILDINGS WITH SPECIAL REFERENCE
TO FORM AND ORIENTATION**

1. Vague - enclosure?
geometry?
Plan form?
Sectional form?

The Dissertation Presented to the Faculty of Architecture

Of the University of Moratuwa for the

Final Examination in M.Sc (Arch.)



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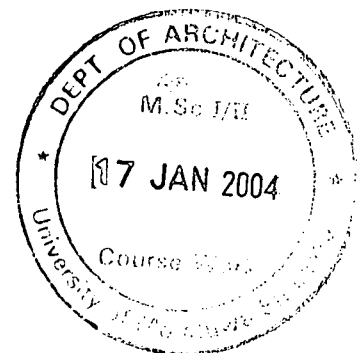
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DECLARATION

I declare that this dissertation represents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to this university or to any other institution for a degree, diploma or other qualification.

UOM Verified Signature

(U.K.Perumpuli Arachchi)

Abstract

This study is focused on the Energy Conservation Strategies of the contemporary high-rise buildings in Sri Lanka with special reference to the building form and the orientation.

In the future energy becomes a more important factor because there are limited resources, which can be used to generate energy. The huge component of the generated energy used by the commercial buildings (30%) and they have to pay huge sum of money for that. Therefore it's important to study the energy conservation methods, which can be used in every stages of built environment.

In this study selected current multi-storey office buildings, which are located in urban context (Colombo) and from that identified average requirements for 'typical multi storey building' space including equipments and occupants. That 'typical space' and requirements arranged into five different forms of models (computer generated) and tested them for different orientations.

From the cooling load calculate the energy requirement in different stages and from that identified the most (suitable) conditions for Sri Lankan urban context. In conclusion recommendations have been made for a better and suitable Architectural Form of high-rise building and suitable Orientation for Sri Lankan urban context.

what is existing
↓
what is not known
↓
what you did
↓
what you found

→ what is the most suitable condition
what is the recommendation

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