



Chapter 2

Statement of problems

2.1 Significance of the research

Energy optimization would heavily cut down the need of additional thermal power sources to considerable extent. This research addresses one of the major areas of energy consumption of an air conditioning system of building. Air-conditioning System alone of a commercial Building in tropical climate used up more than 50% of the total energy. This gives good indication on kind of energy of the building could save, by implementing energy conservation material address in this research.

In addition to the direct financial savings on the energy bill, the outcome of this research provides various other indirect benefits to the building environment such as extended life time of the A/ C System, reduction of emission and pollution.

This research provides a model for common building elements and its impact to building energy consumption and bills, in particular a mathematical model for different glass and wall material use in buildings. This result will help designer to take decision by comparing these common material in the planning stage of the building.



University of Moratuwa, Sri Lanka.
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