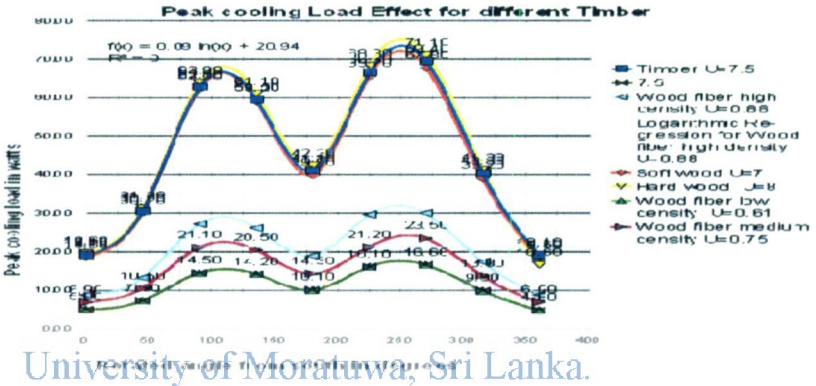
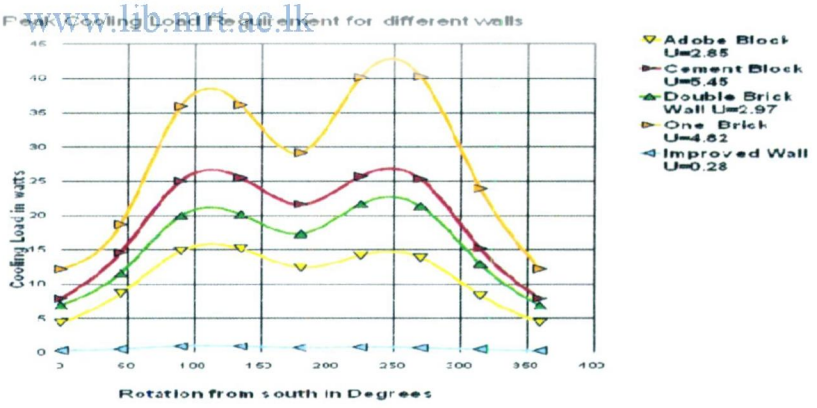
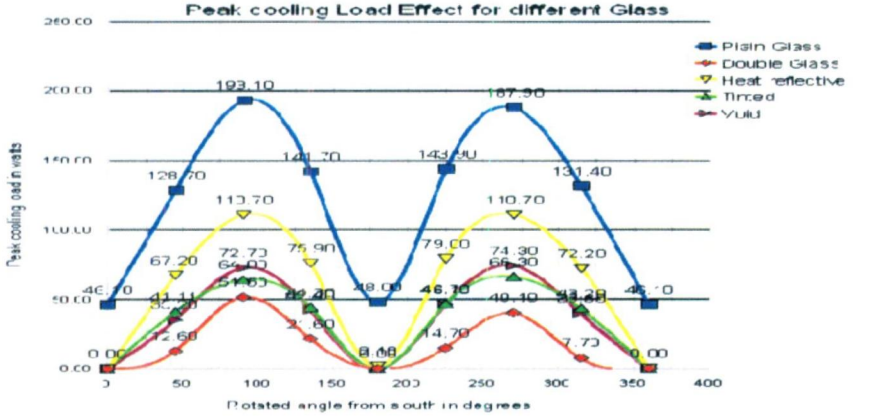
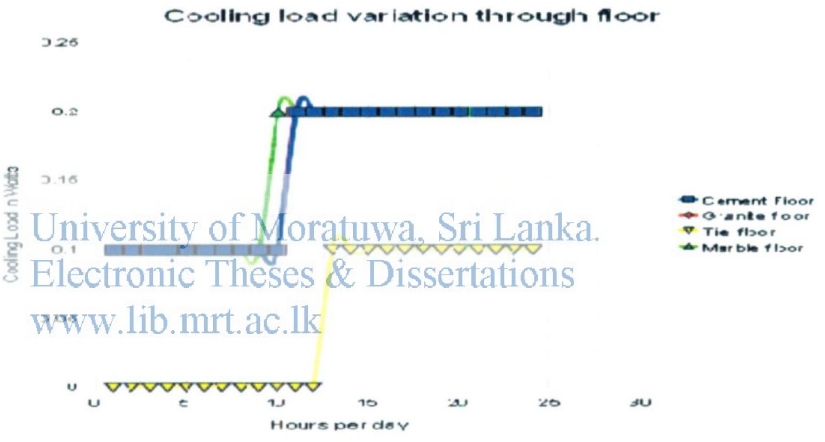
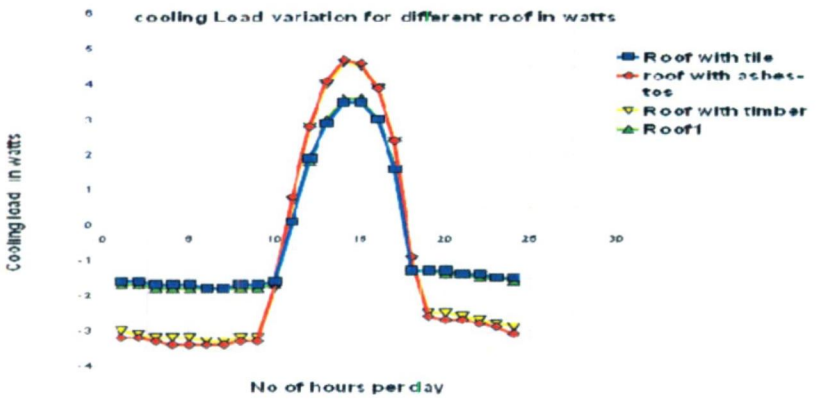
Chapter 4

Proposed Solution

4.1 Results

Building element types	Graphical model
Timber	
Walls	

Glasses	
Floors	
Roofs	

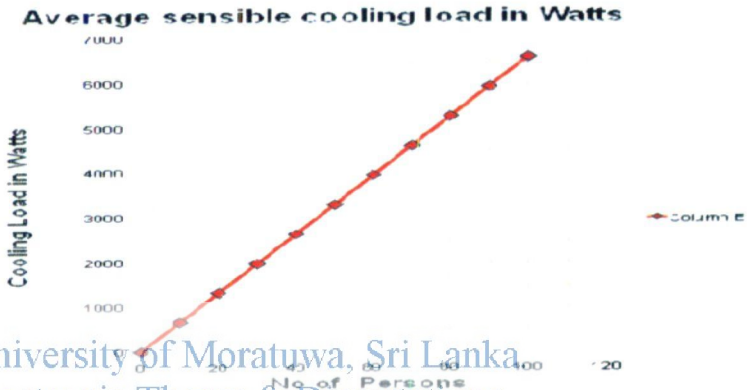
People	
Lighting	

Table 4.1 –Results (Graphs)

4.2 Conceiving feature of a relevant solution

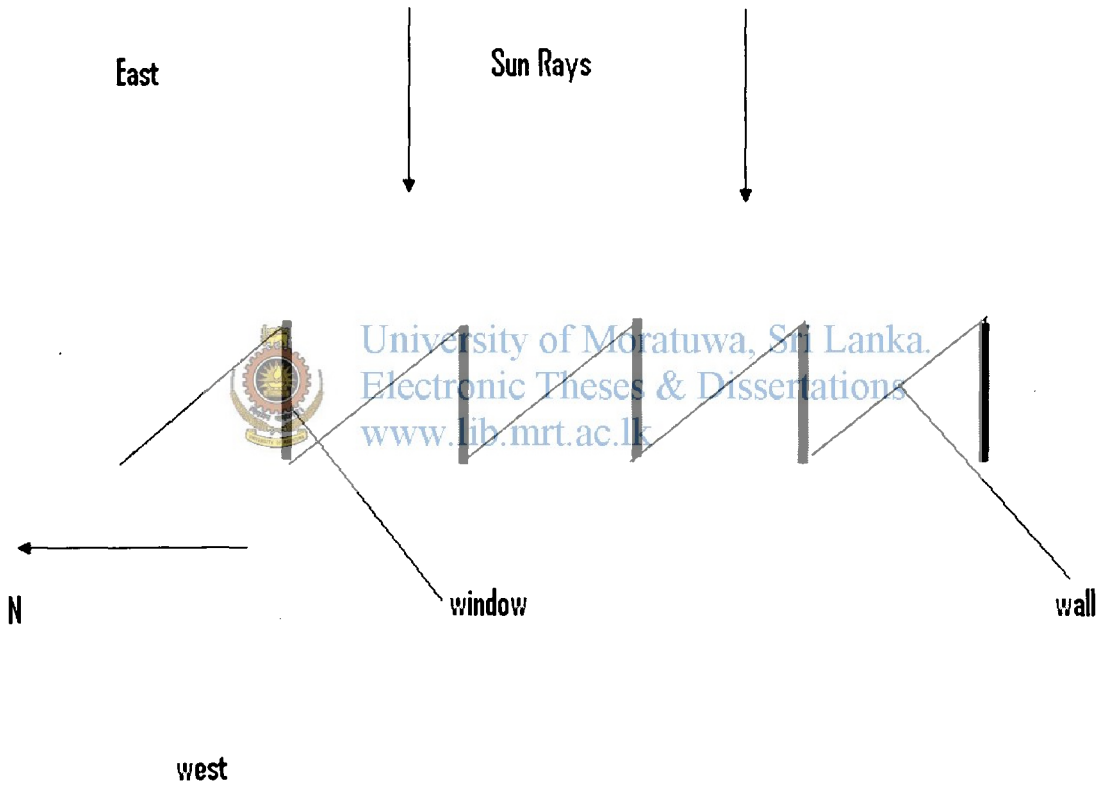
Building element type	Features
Timber	As shown in the graphical model in table 4.1, the peak cooling load value of the timber determined in the range of 5 to 7 watts. The maximum and the minimum impacts of the timber were revealed on the east/west surfaces and north /south surfaces, respectively.
Walls	Impacts of the selected walls were analyzed, and the peak cooling load value of the timber reached under the range of 5 to 45 watts. The maximum and the minimum impacts of the timber were revealed on the east/west surfaces and north /south surfaces, respectively.
Glasses	Selected glasses were analyzed. Impacts through glasses were fallen in the range of 0 to 200w. The maximum impact was given by east and west glasses, and the minimum impact was given by north and south glasses.
Floors	Impacts of cooling load through floor were not related to building orientation. The cooling load through floor was changed after 10 am
Roofs	Impact of cooling load changed simultaneously with respect t time in the duration of 10 am to 2 pm
People	This internal factor was not depended on any external factors.
Lighting	This internal factor was not depended on any external factors.

Table 4.2- Conceiving feature of a relevant solution

4.3 Results application- Method and technique

The graphical results obtained in this study can be used in any relevant applications. Primarily, the room sensible cooling load can be determined through graphical approach. The A/C capacity requirement can be acquired utilizing the known room sensible cooling load effect.

The significant amount of energy can be conserved an altering the architectural views, in particular on walls and glasses face in the direction of East and West.



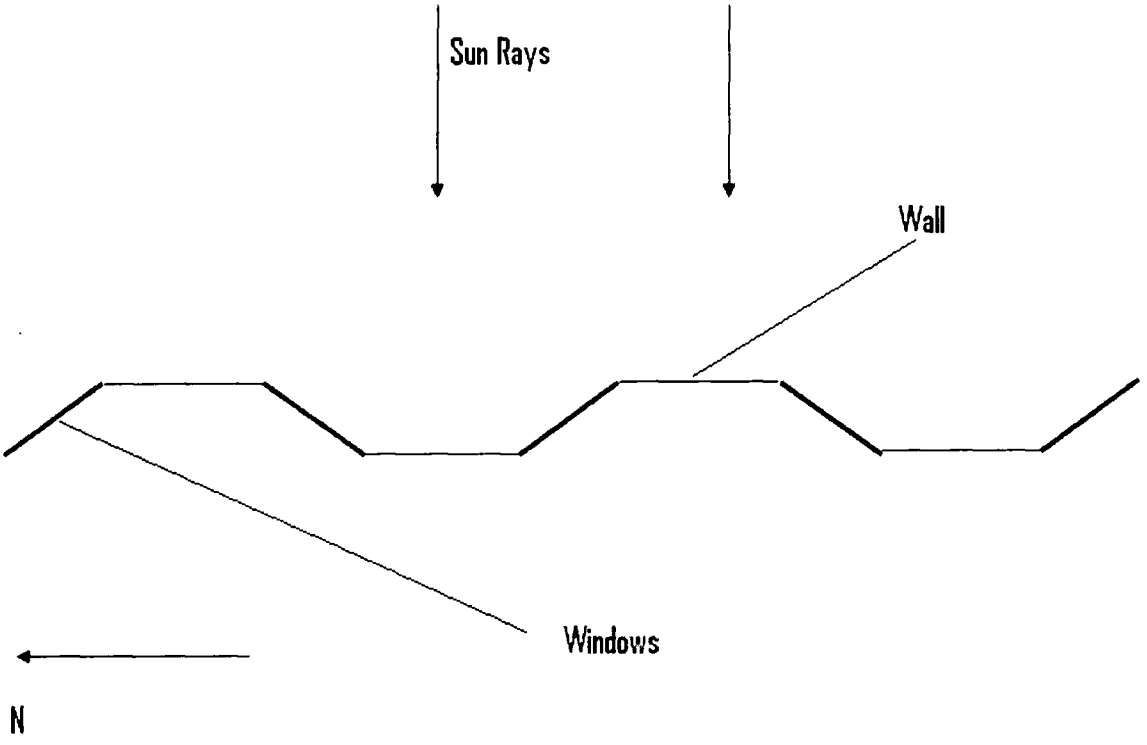


Fig 4.1 –Different improved architectural view

As introducing skylights and providing adequate day lights illumination in buildings, the reasonable amount of energy can be conserved. Daylight costs consider being negligible, and adds considerably less heat to a space than equivalent amount of illumination from electric lights. The impacts of the cooling load and the amount of heat contribution to a building by electric lighting can be minimized as to introducing a skylight for north and south surface.