

GOD

Optimizing energy consumption in dwelling using sustainable design

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Abstract

In this study, we analyzed the options in order to achieve a model that is more efficient rather than complex geometries. In general, built buildings, whether residential or another uses of building or with variations in terms of materials, exterior, interior, inadequate placement according to the particular geographic location, Building layout and several environmental and peripheral factors that are not properly used, whether constructed recently or in the past. when the building's spatial arrangement changes from a complex shape(Plan A) changes into Simple shape (Plan c), totally about 20 per cent less wall required so less external walls make way to save more energy with the same floor area in each Plan. It will waste most of the overall energy consumption of the building, which is intended to provide cooling and heating load and greatly increases the amount of energy consumed, In order to attain useful results we used EnergyPlus software and its outcome showed in diagrams. It is necessary to analyze what factors contribute directly or indirectly to this topic. In this research, there are some general ways of retrofitting a structure against energy dissipation It should be analyzed what factors contribute directly or indirectly to this topic. In this study, we will point to general solutions to the retrofitting of a structure against energy waste and at the end compare the overall result with graphs will show clearly which plan is more efficient.

Keywords: Energy consumption, Sustainable design, Optimization, EnergyPlus