عنوان مقاله:

Effect of Sustainable Design and Insulation Layers on Energy Consumption in Buildings Using DesignBuilder

محل انتشار:

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خلاصه مقاله:

Nowadays, by increasing energy consumption in dwellings and the price of energy around the world, so solutions have to take in order to prevent more waste energy through Inappropriate design. Although climate conditions have an important impact on indoor energy consumption, the buildings should design in a way that is compatible with the environmental conditions and energy efficiency. One of the effective methods in the building is sustainable design so that houses change to places that able to save energy and also generate energy too. This paper aims to present the patterns that are architecturally sustainable and analysis the common ways to reduce waste heat and also prevent hot air penetration during warm seasons. DesignBuilder software is used to design and simulation these patterns, and also the governing equations were used to achieve acceptable results. As a conclusion, we achieve a significant reduction in total energy consumption through these patterns and design specific insulation layers too, and each of .these patterns and insulations layers saves a considerable amount of energy

کلمات کلیدی:

Energy consumption, DesignBuilder, sustainable design, air penetration, insulation layers