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### Site planning and orientation for energy efficiency: A comparative analysis on three office buildings in Kuala Lumpur to determine a location for building shading device (Article)

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#### Abstract

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A well-designed energy efficient building provide long term building optimisation while minimising the energy. Site planning and orientation of the building plays an important factor at the early stage of any development. Especially to determine the best location for the building opening and windows and also the suitable materials to enhance comfort to the occupants and reduce the energy consumption. Thus, the aim of this study was to identify the site planning and orientation of the selected office building. The benchmark for the analysis will be based on the architectural and passive design component provided in MS 1525:2007 for the site planning and orientation through comparative analysis. Three energy efficient office building in Kuala Lumpur were selected in this research. This case study is important in helping to understand the relationship between site planning, building orientation, energy efficiency and cost effectiveness. © 2016 Trans Tech Publications, Switzerland.

#### Author keywords

Building orientation; Energy efficient design; Green building

#### Indexed keywords

**Engineering controlled terms:** Architectural design; Buildings; Cost effectiveness; Energy utilization; Office buildings

Building orientation; Comparative analysis; Energy efficient; Energy efficient building; Energy-efficient design; Green buildings; Passive design; Shading devices

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