

Readings in Contemporary Construction Technology and Management

Muhammad Abu Eusuf



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**A METHOD OF ASSESSMENT AND ORGANISATIONAL DATABASE OF
GREEN MATERIALS FOR SUSTAINABLE BUILDINGS IN THE TROPICS**
- A focus on healthcare facilities

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ABSTRACT

Sustainable design and construction represents the integration of materials and methods that, together, create the physical manifestation of a building. In response to mounting evidence that buildings through their life cycle are significant causes of human illness and environmental degradation, the paper discusses how the healthcare sector representing a substantial share of annual design and construction activities in Malaysia. This sector is well-positioned to highlight the potential that buildings have to reverse environmental decline and to create environments for people that enhance health, patient outcomes, and workplace performance. Its purchasing power can lead to industry partnerships to improve the health and environmental profiles of buildings. The paper summarizes the outcome of a study of the implementation of sustainable materials in terms of materials and indoor environmental quality for a proposed 300 bed hospital. The incorporation of green products and materials was outlined as part and parcel of improved Indoor environmental quality goals and represents a part of the Malaysian Public Works Department (PWD)'s attempt to produce overall, sustainable healing environment serving a rapidly growing suburban area. The findings are presented and discussed i.e. from the evaluation of the proposed materials based on IEQ and recycled content – to examining the contents and components of the materials, and assessing them based on established benchmarks such as the Leadership of Energy and Environmental Design (LEED) system by USGBC. Through an assessment evaluation based on low-emittance requirements and recycled content in all