UNIVERSITI TEKNOLOGI MARA

A CONCEPTUAL FRAMEWORK THROUGH IDENTIFICATION OF FACILITIES MANAGEMENT COMPONENTS FOR SMART SCHOOL

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Dissertation submitted in partial fulfilment of the requirements
for the degree of
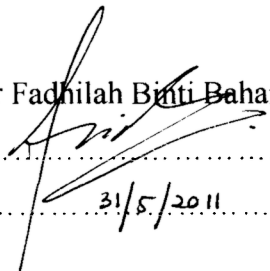**Master of Facilities Management**

Faculty of Architecture, Planning and Surveying

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Author's Declaration

I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This topic has not been submitted to any other academic institution or non-academic institution for any other degree or qualification. In the event that my dissertation be found to violate the conditions mentioned above, I voluntarily waive the right of conferment of my degree and agree be subjected to the disciplinary rules and regulations of Universiti Teknologi MARA.

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ABSTRACT

Facilities have become an important part of any organisation's strategic plan including educational. Facilities in an educational organisation may differ to others whereas the aim is to provide a comfortable learning environment in which to cultivate students. To ensure that quality of facility is provided in schools, facilities management (FM) plays a major role. Smart school intends to make a radical transformation to the education system in Malaysia by adapting innovative technologies in the learning method. Thus, sufficient facilities are essential to optimise the reliability and consistency of smart learning method. To investigate the current FM of smart school in Malaysia, a study of the needs of the end-users (students and teachers) was conducted.

The dissertation objectives were to identifying the major FM components by investigating the relationship between the identified FM components and overall satisfaction of facilities provided in smart school by adapting into four common locations within smart secondary school where as classroom, science and computer labs and library. Secondly, a suggestion on basic conceptual FM framework as for optimize and sustain the educational system initiatives. The explanations were made in each chapter with brief explanations of the topic chapter in the form of the chronicles structure. A questionnaire survey of 1200 respondents from ten (10) numbers of smart schools was conducted to evaluate the performance of school facilities, as well as to establish the relationship between the levels of satisfaction with each FM components and overall satisfaction with FM. A number of formal interviews with others professional involved in smart school project were also conducted to ensured the gap between end-users needs and the creator considerations could be identified by cross-checking the differences between the data gathered from the questionnaires and the interviews.

The study revealed that different locations within smart schools emphasises different FM components (e.g. flexibility, lighting, temperature, safety and security, hygiene, allocation and sufficiency in classrooms; allocation, density, lighting, technical support, hygiene, flexibility, safety and security, temperature and sufficient in IT and science labs; allocation, lighting, temperature, safety and security and sufficiency for library). Sufficiency, safety and security, hygiene, temperature, lighting, flexibility and allocation were found to be key components in all four locations in smart schools. By the end of this study, a conceptual framework was created as recommendation to the improvement on facilities in smart school through the identification of facilities management components respectively.

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In the name of Allah, Most Gracious, Most Merciful.

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