



**UNIVERSITI TEKNOLOGI MARA**

**ADAPTATION OF BUILDING SERVICES IN  
BUILDING CONSERVATION**

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MSc. HERITAGE AND CONSERVATION  
MANAGEMENT**

**FACULTY OF ARCHITECTURE, PLANNING AND  
SURVEYING**

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degree of

**MASTER OF SCIENCE IN HERITAGE AND CONSERVATION  
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## **CANDIDATES DECLARATION**

I declare that work in this dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and the result of my work. Unless otherwise indicated or acknowledgement as reference work. This dissertation 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 to be subjected to the disciplinary rules and regulations of Universiti Teknologi MARA.

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## **ABSTRACT**

Building services becomes a part of the building as it helps to operate performance of the building. It is possible for modern building as it is designed to fix the services. It is becomes difficult to install those services in historic buildings due to sensitive aging structure. In order to preserve and conserve historic buildings, adaptation of building services should be considered. The main concern should be taken in installation of new services in historic buildings is minimal disturbance to the building. Towards that, the study on adaptation of building services in building conservation was carried out to determine the implementation of those services. It is focusing on identifying the installation worked carried out in conservation project thus determining the implementation and problems related to the topic discussed. It was found that, most of historic buildings were not properly installed M&E system in the building. Three selected case studies were carried out in this research and resulted minimal discussion and knowledge about installation technique of building services has been done in conservation project. Therefore, deeper understanding of installation technique of building services in historic building will be discussed in this report. At the end of the study, based on the knowledge from literature review some suggestion is review, so that the installation of services in historic building might be improved in the future.