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Academic Project:

**'COMPARATIVE STUDY BETWEEN STEEL AND TIMBER ROOF TRUSSES
FOR MEDIUM SPAN BUILDING'**

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**BUILDING SURVEYING DEPARTMENT
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MALAYSIA**

**COMPARATIVE STUDY BETWEEN STEEL AND TIMBER ROOF TRUSSES FOR
MEDIUM SPAN BUILDINGS**

"I declare that this Dissertation is the result of my own research and that all sources are acknowledged in the references"

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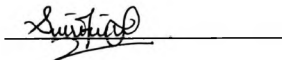
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ABSTRACT

Roof area is just a small part of the total surface. Roof must be strong and stable and these are provided by the structure of the roof itself and a major consideration in the design and choice of the structure which is the span. The roof must be sufficiently stiff to carry its own weight, together with loads resulting from the effects of wind and possible live load. The general form of the building as a whole and its function may have an important bearing on the choice of the type of roof structure.

This research is conducted to identify what is the suitable material for roof trusses for medium span building, either steel or timber. Medium span are classified between 7.60m to 24.40m. The important factors that must be considered before choosing the types of materials are include many factors. The Comparative Study between Steel and Timber Roof Trusses for Medium Span building is highlighted on design, weight ratio, cost, assembly/installation, fabrication (IBS) fire requirement (UBBL) and jointing.

The research is done through the distribution of 40 questionnaires to Roofing Contractors, Roofing Manufacturers, Architects, Quantity Surveyors, CIDB Officers and Quality Control Assistants. Besides that, the data and information were also gathered from interviews of persons with years of experience on roof trusses. Furthermore, the author also selected four case studies about steel and timber roof trusses to achieve the objectives of this research to identify which type of roof trusses suitable and effective for medium span buildings.

Finally, the analysis data from the methodology research found that steel roof trusses is suitable for medium span building compared to with timber roof trusses because many advantages and benefits for construction industry today.