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UNIVERSITI TEKNOLOGI MARA
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**STEEL STRUCTURE CONSTRUCTION USE IN MERASAM HALL, LIMBANG
SARAWAK**

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**PRACTICAL TRAINING REPORT
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DECLARATION:

I hereby admit that this report is the result of my own efforts, except for the certain parts that are attached from sources that specified in reference chapter.

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ABSTRACT

Steel structure are mainly used in every construction widely around the world. This types of construction is mainly used for construction of hall, medium rise building and high rise building. In Malaysia, steel structure construction is used because of it long lasting in construction. It also used because it is more stronger than any type of construction. Steel structure construction is the best type of construction according to the new technology that have been adapt in the construction process. This will help on the quality of a building that is construct in Malaysia. Types of steel also contribute in selecting the types of construction. A high rise building need a strong and flexible column which the steel structure provided.

Most construction projects require the use of hundreds of different materials. These range from concrete of all different specifications, structural steel of different specifications, clay, mortar, ceramics, wood, etc. In terms of a load bearing structural frame, they will generally consist of structural steel, concrete, masonry, and/or wood, using a suitable combination of each to produce an efficient structure. Most commercial and industrial structures are primarily constructed using either structural steel or reinforced concrete. Cost is commonly the controlling element; however, other considerations such as weight, strength, constructability, availability, sustainability, and fire resistance will be taken into account before a final decision is made.

Steel loses strength when heated sufficiently. The critical temperature of a steel member is the temperature at which it cannot safely support its load.[16] Building codes and structural engineering standard practice defines different critical temperatures depending on the structural element type, configuration, orientation, and loading characteristics. The critical temperature is often considered the temperature at which its yield stress has been reduced to 60% of the room temperature yield stress.[17] In order to determine the fire resistance rating of a steel member, accepted calculations practice can be used,[18] or a fire test can be performed.