



**INVESTIGATION OF SATELLITE STRUCTURES UNDER QUASI-STATIC
ACCELERATION LOADING**

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ABSTRACT

One of the essential asset of designing satellite is a highly efficient structure. It was seen that the design approaches used in satellite structures are the same as those used in larger satellites, with only a reduction in scale. There are new approaches and processes being implement to improve the efficiency of structures and one of them was structural optimization method. In determine which method was better, the widely used method which are honeycomb and isogrid structure were analyzed. This project described the design and analysis of the satellite structure. Firstly, the paper will examine several previous satellite designs and their influence on the existing satellite structural design. Then, two satellite structures represent structural optimization method will be design. After that by using Finite Element Software (FEA) software, both structure strength will be evaluated. Finally, this paper presented the analysis result and the evaluation of both selected structure. The results are summarized in the conclusion which showed that isogrid structure was better than honeycomb structure.

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