DYNAMIC RESPONSE FACTOR AND ITS STRUCTURAL EFFECTS ON HIGHRISE BUILDING

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ABSTRACT

This project is about the dynamic response factor for a high-rise building. Dynamic response factor is considered in structures where due to its slenderness and other structural properties, it is more practical for it to be analysed dynamically than statically. The project talks about the theory behind Malaysian code MS1553:2002 and the codification reasons. It looks in depth theoretically to the codification of Malaysian Code. Although the project is solely based on Malaysian Code, other Standards such as the British Standard and European Standard is also looked into. Secondly a MATLAB program is written on calculating dynamic response factor to Malaysian Wind Code. To verify the results obtained in this MATLAB programme, Software model using MidasGen is carried out to different wind codes, to verify the and compare the differences in British Standard and European Standard. In addition to the MATLAB program and comparisons, graphs are generated to show which parameters depends on the dynamic response factor for a high rise building.