

# THE BEHAVIOUR OF CONCRETE FILLED THIN HOLLOW STEEL COLUMN UNDER AXIAL LOAD

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DECLARATION BY THE CANDIDATE**

I Greg Alvin V. Thomblon, 2003194164 confirm that the work is my own and that appropriate credit has been given where reference has been made to the work of others.



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## **ABSTRACT**

A study on the behaviour of circular concrete filled hollow steel (CFS) column with various lengths under axial load has been carried out. In this experiment, the compressive strength and the buckling was measured out. The experimental done according to British Standard.

A total of 12 specimen of (CFS) have been conducted in varying the length of the specimens which are 450mm, 600mm 750mm and 900mm with a constant diameter of 160mm and thickness of 4mm. Each of the varying length will be prepared for three specimens. The concrete that been used is a normal concrete grade 30.

A compressive strength test for concrete grade 30 has been carried out. A total of 9 concrete cylinder specimens have been tested on day 3, day 7, and day 28. In this experiment, the elastic modulus of the concrete has been studied.

Besides that, one unfilled steel hollow has been tested under compressive test. The length of the specimen is 300mm x 160mm diameter with a 4mm thickness. The purpose of this test is to find the elastic modulus of this hollow steel. . The objectives of this experiment are to find the maximum loading and the buckling of this various lengths. It was conducted under compression load.

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