

**ANALYSIS OF A 3-D FINITE ELEMENT MODEL OF
REINFORCED CONCRETE (RC) BEAM UPON TREATMENT OF
CRACKS**

By

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DECLARATION

I Mohd Zafri Bin Mohd Ridzwan, 2002611625 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

Cracks are common phenomenon to concrete structures. The initial cause of cracking in concrete is due to shrinkage during setting. Cracks contribute to the deterioration of residual strength to concrete members. The applications of treatment are often required to rehabilitate the affected area.

The aim of this study is to analyse reinforced concrete (RC) beam upon treatment of cracks, using Finite Element Method (FEM). A beam was modelled in 3-D solid using LUSAS version 13.6 software. The study considered all flexural, shear and cracking behaviour of the RC beam.

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