

**STUDY ON BASEMENT AND SHEAR WALL
RESPONSE BY USING FEM**

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**B.Eng (Hons) (Civil)
UNIVERSITI TEKNOLOGI MARA
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USING FEM**

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Report is submitted as
the requirement for the degree of
Bachelor Engineering (Hons)(Civil)

**UNIVERSITI TEKNOLOGI MARA
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DECLARATION

I, Mohd Khairulnizam Bin Mohammed Haasan, 2003479441, confirm that the work is my own and that appropriate credit has been given where reference has been made to the work of others.

(_____)
16th May 2007

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ABSTRACT

Basement is required to transfer the lateral and vertical load. In this study, the plans of building in Alor Star are used to create the modeling of the basement. Two types of basement are analyzed in this study. First is actual basement and second is simplified basement. Actual basement base on the actual plan and simplified basement are simple basement that rebuild base on actual basement.

LUSAS software is used as computer simulation. From LUSAS software, the basement and shear wall responses can be determined. The response values of the basement are including the displacements and stress values.

Slab, wall, core wall with opening and without opening are analyzed by using LUSAS software. Both results from actual and simplified basement model of slab, wall, core wall with opening and without opening are compared to find which one have more highest strength.