

**DEVELOPMENT OF CORRELATION GRAPH
BETWEEN CONCRETE COMPRESSIVE
STRENGTH AND REBOUND HAMMER
NUMBER**

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By

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Report is submitted as
the requirement for the degree of
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**UNIVERSITI TEKNOLOGI MARA
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DECLARATION BY THE CANDIDATE

I (Mohd Harif Mohd Zin, 2003339597) confirm that the work is my own and that appropriate credit has been given where reference has been made to the work of others.

(_____ *December 4, 2006*)

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In the name of Allah, The Most Gracious and The Most Merciful

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ABSTRACT

Nondestructive Test (NDT) is a test that does not impair the intended performance of the element or member under investigation and the NDT that have been used is Schmidt Rebound Hammer. The main purpose of this study is to develop a separate correlation graph between concrete grades 30, 35, and 40 vs. Rebound Hammer Number at 28 days. The material used in this study was a normal concrete and the laboratory process have been conducted at Civil Engineering Laboratory, University of Technology Mara (UiTM), Penang. The cube mould used was 150mm x 150mm x 150mm and cured in ordinary water under room temperature. The number of samples that have been prepared was 81 cubes. The test was done by using Rebound Hammer Apparatus and Compression Machine at 7, 14 and 28 days after the grid line on cube was drawn. The average value for Rebound Number and Compressive Strength was calculated. From the calculated result, the separate correlation graph between Rebound Number and Compressive strength was developed. It is concluded, the graph that was developed is able to use in finding the target mean strength of concrete after Rebound Hammer Test.