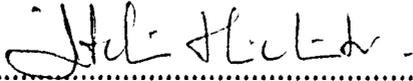


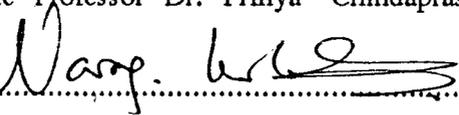
THESIS TITLE    STRENGTHENING OF REINFORCED CONCRETE BEAM  
                      WITH STEEL PLATE

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ABSTRACT

This thesis is focused on the study to improve the strength of reinforced concrete beam by the installation of steel plates to both sides and bottom of the original beam by means of bolting.

Comparison test are performed between two groups of reinforced concrete beams of 0.15 m. x 0.20 m. cross sections, with and without steel plates. The study revealed that the steel plate attached to the beams bottom could only increase the flexural strength of the beam. As for the case of two steel plates bolted to the sides, both shear and flexural strength of the beams were significantly increased. The experimental results are in good agreement with the theoretical results.