

**STUDY ON THE PERFORMANCE OF THE SOIL  
STABILISATION OF PEAT SOIL USING  
HYDRATED LIME**

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**B. Eng (Hons) (Civil)  
UNIVERSITI TEKNOLOGI MARA  
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OF PEAT SOIL USING HYDRATED LIME

By

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

I Mustan Bin Apo, 2003366923 confirm that the work is my own and that appropriate credit has been given where reference has been made to the work of others.

(.....)

**15 NOVEMBER, 2006**

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## **ABSTRACT**

Malaysia can be considered as a developing country. There are many mega projects had been construct all over place in Malaysia. Sepang Circuit is the one of major project that had been done on the problematic soil. In general, it is consists of an accumulative of highly organic material. These are very compressible and entirely unsuitable for supporting building foundation. This study, effect of lime on peat soil has been investigated. Lime are prepared in two different mixture, lime powder and lime slurry. The test has been repeated after the addition of lime-treated samples in different proportions. Compressive stress under this two type of mixture is evaluated by unconfined compressive stress test, and the performance of this admixture will be compared. From the past research found that, the more content of lime the more improvement on soil especially in physical and engineering properties. In this test, the stabilization of soil samples conducted of three different proportions which are 3%, 6% and 9%. The unconfined compressive stress is also increased with long curing period. In these research three types of curing is considered there are immediate, 3 days cured and 7 days curing period. In this study, the value of California Bearing Ratio of soil treated is also evaluated. Lime slurry as admixture for CBR test since it is more effective compared to lime powder admixture. Sample prepared is similar with UCT test preparation. It is found that the CBR value is increase with increasing lime percentage and long time period.

Key word: Peat soil, Lime stabilization, Unconfined Compressive test, compressive, California Bearing Ratio