

- Title:** Correlation Between Liquidity Index (LI) & Unconfined Compressive Strength of Stabilized Silty Clay
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- Abstract:** This paper presents the correlation between Liquidity Index (LI) and Unconfined Compressive Strength (UCS) of stabilized silty clay of Permas Jaya Distric, Johor State of Malaysia. In this study, a number of 9 samples of soil cement were prepared under various cement and moisture contents and cured for 7-days. Ordinary Portland Cement (OPC) of 7% and 13% of soil weight is added to the soil with different level of moisture content based on the Optimum Moisture Content (OMC) value from the compaction test (0.9, 1.0 and 1.1 from OMC) in order to study the effect of moisture content on the compaction characteristic and compressive strength. The result from the compaction test found that the highest and optimum maximum dry density (MDD) was obtained from 7% of cement content. The UCS increases as the cement content increases. Based on the LI and UCS relationship, the strength reached a minimum value of subgrade design strength for low volume road (0.8MPa) when the range of the LI is -0.27 and -0.15 at 7% of cement content.