

CORRELATION BETWEEN SPT AND JKR PROBE

**A PROJECT REPORT IS PRESENTED IN PARTIAL FULFILLMENT
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SYNOPSIS

In-situ techniques of soil strength measurement such as Standard Penetration Test and JKR Probe Test are usually used in site investigation. This study tries to correlate the SPT N value and JKR Probe value (blows / feet) of clay & silt and silt & sand type of soils. ITM projects at Arau, School of Hotel and Catering Shah Alam and Additional Building Phase 1B of Dungun campus are selected in determining the required soil data. Geological profile of each site is plotted to get the preliminary view of soil condition.

Soil properties such as water content, consistency limit and grain size are determined. Regression analysis are made for SPT N value versus JKR Probe value correlation. Variables influencing both tests are listed. Some recommendations are proposed in getting better result and to continue this study in future.

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1.1 GENERAL

The main objectives of a site investigation are to assess the general suitability of the site, to enable a design to be prepared and to predict possible difficulties in excavation and constructions.

The need of data on the underground conditions at a given site is generally recognized by the engineer and the contractor and to varying degrees by the prospective owner.

Since the underground did not form under rigid quality control, defects are frequently hidden from view with blanket of topsoil and thick vegetation, therefore evaluating the quality of the underground condition at a site is difficult and leave a much greater margin for uncertainty than establishing the properties of the other materials of construction.

Procedure for site investigation (complete investigation) consist of three steps: