

Prediksi Sudut Gesek Internal Tanah Berdasarkan Sudut Dilatasi Pada Uji Geser Langsung

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Abstract	<p>Shear strength parameters of soils are cohesion (c) and internal friction angle (ϕ). Direct shear test is a method to determine these parameters. Data from this test are shear stress and thickness change of soil. In practice, only the maximum shear stress will used to determine the shear strength parameter. The major objective of this research is to develop a formula for prediction internal friction angle (ϕ) by dilatation angle (α). Result of this research is a prediction formula of internal friction angle, as : $\phi = \arctan(\mu + \tan \alpha) / (1 - \mu \tan \alpha)$ by $\mu = 0,55$. Dilatation angle (α) for this formula was determined at maximum shear stress.. Validations of ϕ predicted by this formula have maximum error 16,76%, average error 5,59% and standard deviation error 4,75%. Cohesion (c) values can calculated by Mohr-Coloumb Formula.</p>
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Author	HERY AWAN SUSANTO, S.T, M.T