

An approach to joint roughness measurement in rock — a comparative study

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Surface texture dictates the degree of roughness of a joint surface. Surface roughness on the other hand, has a significant effect on joint strength particularly, the frictional component of shear strength and surface contact during shear. Joint roughness is therefore, an important aspect to be considered when dealing with joint shear strength. The present approach in obtaining the surface texture of a joint is through the use of profiler. However, the measurement process is laborious and time consuming.

This paper highlights a study on the suitability of *close-range digital photogrammetry*, as an alternative method for measuring surface texture. Specifically, this paper presents the usage of area-based image matching approach. Initial findings give promising indications on the suitability of this method. Apart from being semi-automated, it also exhibit positive characteristics, in terms reliability and practicality.
