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**Estimating strength properties of peridotite rocks from Masfout - Hatta Area, United Arab Emirates (UAE)****Hasan Arman, Mohamed El Tokhi, Bahaa M Amin and Sulaiman Alkaabi**  
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The ophiolite sequences of the United Arab Emirates (UAE) is a northern part of Semail Oman ophiolite. The ophiolite sequences consists of layered series, which is divided into tectonized Peridotite that is older and the massive Peridotite that is younger is an ultramafic igneous rock. Estimating strength properties of a rock through *in-situ* and laboratory measurement are crucial tasks for geological, civil and mining engineering applications such as design of structures inside rock, usage of rocks as a construction material, slope instability and others. Rock strength measurement in either *in-situ* or laboratory environment is costly, time consuming and requires considerable efforts for rock sampling, preparation and laboratory tests. There are different suggested testing methods available and used to interpret rock strength properties. In this study, approximately fifty peridotite rock block samples, at least 0.30 x 0.30 x 0.30 m in size, were collected from the field. The unconfined compressive strength (UCS), Brazilian strength (BRS), point load strength index (PLSI) and Schmidt hammer hardness tests were carried out either on the selected rock block samples or core samples based on the suggested standards. The aim of this study is to estimate and report the strength properties of the Peridotite rocks from Masfout - Hatta area, UAE, through *in-situ* and laboratory studies and discuss their probable influences as design of structures inside rock, usage of rocks as a construction material, slope instability and others.

**Biography**

Hasan Arman is a Professor at United Arab Emirates University, College of Science, Geology department since 2008. He received his Bachelor's degree from Hacettepe University, Turkey in 1984 and PhD degree from University of Arizona, USA in 1992. He worked as a Postdoc at the University of Nevada, Reno, USA from 1992 to 1993. He was a Faculty Member at Sakarya University, Civil Engineering department, Turkey between 1993 and 2008. He has been teaching several different courses in undergraduate and graduate levels related to Engineering, Environment, Geology and Energy. His research interests include soil and rock mechanics, environmental geology, environmental degradation, water resources, global warming, climate change, renewable and sustainable energy sources.

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