

ISBN	978-93-88122-14-6
Website	www.veltech.edu.in
Received	01-May-2020
Article ID	NISDCE116

VOL	01
eMail	nisdce@veltech.edu.in
Accepted	16-May-2020
eAID	2020.nisdce.116

STRENGTH INVESTIGATION ON STABILIZED SOIL USING QUARRY DUST (QD) AND PHOSPHOGYPSUM (PG)

Ramprakash D¹ Vishnu M² Ruthra R³

^{1&2} UG Student, St. Joseph's College of Engineering College, Tamil Nadu.

³ Assistant Professor, St. Joseph's College of Engineering College, Tamil Nadu.

ABSTRACT: This research is aimed at achieving effective utilization of stabilized soil as a sustainable building material by improving its strength using Quarry Dust (QD) and Phosphogypsum(PG). Quarry Dust is an industrial waste obtained from stone crushing/rock Quarries. Quarry Dust is used as an effective admixture to stabilization of expansive soil. Phosphogypsum (PG) is the industrial by-product of phosphoric acid production, needed for manufacture of fertilizer, from phosphate ore. This study compares the effect of Quarry Dust and Phosphogypsum on the stabilization of soil at different proportions. The stabilization process was amended with four different content by using 0%,2%,4%,6% and 8% of QD and PG. The effect of stabilizer on soil properties, Standard Proctor were studied.

Keywords: Soil Stabilization, Phosphogypsum, Quarry Dust, Optimum Moisture Content, Maximum Dry Density

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