



Increasing of Mechanical Parameters of Desert Sand Using Pozzolanic Material

Seyed Mahdi Sajjadi, Seyed Fakhraldin Sajjadi, Seyed Mohammad Beheshti, and Taha Mehmannaavaz
Civil Engineering Department, Islamic Azad University of Zanjan, Zanjan, Iran

Research on roads to increase the resistance of weak soils to build structures on it has been increased in recent years. The present article provide the effects of different mixtures containing microsilica, cement, polypropylene waste fiber and dune sand on mechanical parameters such as, compressibility, compressive strength, bending strength and durability characteristic. In this study also is investigated evaluation the effect of road subgrade based on proposed material. The used dune sand in this research was obtained from Kashan city where is located in central desert of Iran. The obtained results show that the microsilica and cement could play a major role in reducing the cost and required time for building roads and also building foundation on these types of soils.