LABORATORY EVALUATION OF DENSE BITUMINOUS MACADAM PREPARED USING RECYCLED CONCRETE AGGREGATE

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ABSTRACT
Due to the development in the field of road construction, demand for the conventional pavement materials is increasing at a faster rate, causing rapid depletion of natural resources. To overcome this situation the application of alternative materials in the road construction would be a better option in terms of sustainability as well as the economy. This study is focused on the Recycled Concrete Aggregate (RCA) as an alternative material for the application in pavement construction. The performance of Dense Bituminous Macadam (DBM) using RCA was evaluated and compared with the conventional aggregate in terms of moisture susceptibility, retained Marshall Stability, and rutting test. The obtained results indicated that the mixtures prepared with the RCA are not up to the levels of the conventional virgin aggregate, but it performs satisfactorily well when used in the less proportion. The cost analysis of the material is also done in the study which shows it is an economical technique.