DEVELOPMENT OF PAVEMENT CONDITION INDEX (PCI) MODEL FOR RURAL ROADS BASED ON VISUAL RATING STUDIES

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Abstract

The construction and upgradation of rural roads (low volume roads) in India gained momentum due to the Central Government sponsored programme, 'Pradhan Mantri Gram Sadak Yojana (PMGSY)'. However the large network of rural roads and limited funding necessitated the prioritization of maintenance programmes. Visual rating studies offer a simple and cost effective technique for determining overall condition of the pavement and prioritizing maintenance programmes. The method is subjective and rating is sensitive to rater's perception of pavement condition. Hence, an attempt is made to develop a mathematical model correlating pavement condition rating (PCR) values obtained by rating panels and physical measurement of various pavement surface characteristics. The mathematical model so developed is Pavement Condition Index (PCI) model which provides an opportunity for objective rating of rural road pavements. The model enables PCI measurement of smaller test stretches with reasonable accuracy on a 0 to 5 scale and will be a useful tool for maintenance management of pavements.