

Diagnosis of Flexible Pavement Road Deterioration By Using Expert System

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Abstract

During the last four decades, incidence of failure of flexible pavement road has been seen widely for many reasons, such as increasing service axial loads, repetition of traffic loads and the environmental effects. An expert system is an interactive computer-based decision tool that uses both facts and heuristics to solve difficult decision problems based on knowledge acquired from an expert. To realize these requirements, a logic programming Prolog language was utilized together with diagnosis technology. The logic programming language formalizes the domain knowledge. The expert system Diagnosis of Flexible Pavement Road Deterioration (DFPRD) developed in this paper is a diagnostic advisory system, which can be used as an alternative to the human expert, to give technical decisions in diagnosing deterioration in flexible pavement.