A MAINTENANCE MANAGEMENT SYSTEM FOR ROAD DRAINAGE ASSETS

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ABSTRACT
The performance of roads is significantly affected by its drainage system whose maintenance is often overlooked. There is a need therefore for appropriate maintenance procedures and subsequent implementation by modern management systems. A number of such systems are available today. However, most of them are essentially databases that do not include an explicit knowledge base able to analyse drainage data collected from the field in a transparent manner. This paper presents the development of a suitable drainage management system, its principles and its components. Thereafter a knowledge-based approach is introduced together with a treatment selection and prioritization process. To demonstrate the features and use of the system, a case study featuring a highway in a region with high rainfall is presented and discussed.

KEY WORDS: Asset management, routine, periodic maintenance, surface/sub-surface drainage