Pavement Deterioration Modeling

By Luis Esteban Amador Jimenez

LAP Lambert Academic Publishing Jun 2012, 2012. Taschenbuch. Book Condition: Neu. 220x150x7 mm. Neuware - Deterioration models are employed to forecast pavement performance and to support decisions of funds allocation for maintenance and rehabilitation. However, they traditionally lack a measure of reliability. This book uses multilevel Bayesian regression modeling for mixing prior knowledge with experimental observations in order to develop deterioration modeling with the ability to quantify uncertainty. It explicitly considers materials properties, structural capacity (or strength), external loading and environmental exposure by adapting classical mechanistic models. Two network level case studies illustrate the applicability of the method and deal with some of the practical limitations: (1) a novel method develops performance modeling from two time series data, using the concept of apparent age, (2) another model uses pavement roughness and strength to address practical limitations such as missing data, incorporating expert criteria and handling predictors from different data structures. The methods presented can help local, regional or national authorities to develop initial, practical or more advanced models for pavement deterioration, capable of capturing uncertainty. 116 pp. Englisch.

READ ONLINE
[5.46 MB]

Reviews

Very good electronic book and beneficial one. It can be rally interesting throgh reading time period. You can expect to like the way the writer publish this publication.
-- Miss Eden Walter Jr.

Merely no words and phrases to describe. I really could comprehended almost everything using this created e pdf. Your daily life period will be change once you full reading this ebook.
-- Mr. Ladarius Stoltenberg