Selected Technical Papers

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Pavement Performance:
Trends, Advances, and Challenges

Editor:
Bouzid Choubane

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Foreword

THIS COMPILATION OF *Selected Technical Papers*, STP1555, *Pavement Performance: Current Trends, Advances, and Challenges*, contains 16 papers presented at a symposium with the same name held in Tampa, FL, USA, December 5, 2011. The symposium was sponsored by the ASTM International Committee E17 on Vehicle- Pavement Systems.

The Symposium Chairman and STP Editor is Bouzid Choubane, Florida Department of Transportation, Gainesville, FL, USA.

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Overview

Pavement condition assessment and surface characteristics measurements are important tools in evaluating the performance and management of roadway systems. These tools provide information critical to support informed decision-making for determining cost-effective rehabilitation and preservation strategies, identify potentially hazardous conditions, and monitor the condition and surface characteristics of the various in-service pavements. This need for such tangible and quantifiable information has resulted in significant innovations and advances in pavement evaluation techniques, equipment, and practices. However, with the ever evolving technologies and related data interpretation methodologies, more venues for sharing, documenting, and disseminating information are needed.

On December 11, 2011, an ASTM International Symposium, addressing a broad range of topics related to pavement-vehicle interaction and pavement performance/condition assessment, was held in Tampa, Florida. The presentations at that symposium represented an international effort in both the practical as well as the developmental aspects of pavement evaluation procedures and technologies. The symposium also provided a forum for participants and attendees to gain insight regarding the trends, advances, and challenges in the areas of pavement management, condition survey, pavement-tire interaction, and structural adequacy from the analytical and experimental points of view.

This Special Technical Publication (STP) is a compilation of selected papers presented at this International Symposium. The papers provide additional reference material for those concerned with pavement performance evaluation and characterization. They cover topics that will be of interest to practitioners as well as to researchers.

The editor wishes to acknowledge all those who participated in the Symposium, those who contributed to this Special Technical Publication (STP), and the many reviewers who provided important feedback to the authors. The editor also wishes to acknowledge the ASTM International Committee E17 on Vehicle-Pavement Systems for sponsoring the symposium and the ASTM International staff for their assistance with the organization of the symposium and publication of this volume. The editor is grateful for their diligent efforts and contributing knowledge.

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