

# Study On Comparative Flexible Pavement Thickness Analysis

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## **Proceedings of the International Conference on Advance Transportation, Engineering, and Applied Science (ICATEAS 2022)** - Bambang Bagus Harianto 2023-03-25

This is an open access book. The ICATEAS 2022 event is organized by the Aviation Polytechnic of Surabaya, a college under the Ministry of Transportation, Republic of Indonesia. This is a program to provide an opportunity for researchers to be able to present the results of their thoughts and publish them on international proceedings. The publication is very important for academics to develop careers and to develop knowledge in general.

**Research Reports** - National Research Council (U.S.). Highway Research Board 1948

## *Green and Intelligent Technologies for Sustainable and Smart Asphalt Pavements* - Xueyan Liu 2021-11-25

Green and Intelligent Technologies for Sustainable and Smart Asphalt Pavements contains 124 papers from 14 different countries which were presented at the 5th International Symposium on Frontiers of Road and Airport Engineering (IFRAE 2021, Delft, the Netherlands, 12-14 July 2021). The contributions focus on research in the areas of "Circular, Sustainable and Smart Airport and Highway Pavement" and collects the state-of-the-art and state-of-practice areas of long-life and circular materials for sustainable, cost-effective smart airport and highway pavement design and construction. The main areas covered by the book include: • Green and sustainable pavement materials • Recycling technology • Warm & cold mix asphalt materials • Functional pavement design • Self-healing pavement materials • Eco-efficiency pavement materials • Pavement preservation, maintenance and rehabilitation • Smart pavement materials and structures • Safety technology for smart roads • Pavement monitoring and big data analysis • Role of transportation engineering in future pavements Green and Intelligent Technologies for Sustainable and Smart Asphalt Pavements aims at researchers, practitioners, and administrators interested in new materials and innovative technologies for achieving sustainable and renewable pavement materials and design methods, and for those involved or working in the broader field of pavement engineering.

**Mechanistic-empirical Pavement Design Guide** - American Association of State Highway and Transportation Officials 2008

## **Scientific and Technical Aerospace Reports** - 1982

Lists citations with abstracts for aerospace related reports obtained from world wide sources and announces documents that have recently been entered into the NASA Scientific and Technical Information Database.

## Bearing Capacity of Roads, Railways and Airfields - Andreas Loizos 2017-07-20

Bearing Capacity of Roads, Railways and Airfields includes the contributions to the 10th International Conference on the Bearing Capacity of Roads, Railways and Airfields (BCRRA 2017, 28-30 June 2017, Athens, Greece). The papers cover aspects related to materials,

laboratory testing, design, construction, maintenance and management systems of transport infrastructure, and focus on roads, railways and airfields. Additional aspects that concern new materials and characterization, alternative rehabilitation techniques, technological advances as well as pavement and railway track substructure sustainability are included. The contributions discuss new concepts and innovative solutions, and are concentrated but not limited on the following topics: • Unbound aggregate materials and soil properties • Bound materials characteristics, mechanical properties and testing • Effect of traffic loading • In-situ measurements techniques and monitoring • Structural evaluation • Pavement serviceability condition • Rehabilitation and maintenance issues • Geophysical assessment • Stabilization and reinforcement • Performance modeling • Environmental challenges • Life cycle assessment and sustainability Bearing Capacity of Roads, Railways and Airfields is essential reading for academics and professionals involved or interested in transport infrastructure systems, in particular roads, railways and airfields.

*Public Roads* - 1969

## **Highway Research in Progress** - 1967

### An Evaluation of Flexible Pavement Design Methods -

Idaho. Department of Highways. Research Division 1964 From 1957 to 1964, Idaho used the Resistance Value - Traffic Index method of Flexible Pavement Design as the primary design procedure. This procedure followed the basic California Department of Highways' procedure developed as a result of several test tracks and roads including the WASHO Test Road conducted at Malad during 1951 - 1953. Following the AASHO Road Test conducted in Illinois during the period of 1958 - 1963, the California Highway Department made a complete study of the results of the AASHO Road Test, the WASHO Road Test and other road tests. Based on these results and their own testing, California made a number of refinements to their design methods. This report compares the Idaho 1957 Design Method with the revised California method as published in Highway Research Board Record No. 13. Idaho loadometer data and traffic classification data were reviewed and used in this study to make a comparison with the design recommendations of the AASHO Committee on Design.

*Comparative performance of structural layers in pavement systems* - Waterways Experiment Station (U.S.). Soils and Pavements Laboratory 1977

### *Functional Pavements* - Xianhua Chen 2020-12-23

Functional Pavements is a collection of papers presented at the 6th Chinese-European Workshop (CEW) on Functional Pavement Design (Nanjing, China, October 18-21, 2020). The focus of the CEW series is on field tests, laboratory test methods and advanced analysis techniques, and cover analysis, material development and production, experimental characterization, design and construction of pavements. The main areas covered by the

book include: • Asphalt binders for flexible pavements • Asphalt mixture evaluation and performance • Pavement construction and maintenance • Pavement Surface Properties and Vehicle Interaction • Cementitious materials for rigid pavements • Pavement geotechnics and environment Functional Pavements aims at contributing to the establishment of a new generation of pavement design methodologies in which rational mechanics principles, advanced constitutive models and advanced material characterization techniques shall constitute the backbone of the design process. The book will be much of interest to professionals, academics and practitioners in pavement engineering and related disciplines as it should assist them in providing improved road pavement infrastructure to their stakeholders.

**A Comparative Study of Performance of Different Designs for Flexible Pavements** - N. Paul Khosla 1996

Rigid and Flexible Pavement Design and Analysis - 1989

**Bearing Capacity Of Roads Volume 1** - A. Gomes Correia 2022-01-27

This book is an outcome of the sixth conference on bearing capacity of roads and airfield held in Lisbon, Portugal. It focuses on railway tracks and covers following topics: bearing capacity policies, concepts, costs and condition surveys; analysis and modelling; design and environmental effects.

Pavement Management Implementation - Frank B. Holt 1991

Sensitivity Analysis of Flexible Pavement Response and AASHTO 2002 Design Guide for Properties of Unbound Layers - Sanaa Masad 2004

Unbound granular materials are generally used in road pavements as base and subbase layers. The granular materials provide load distribution through aggregate contacts to a level that can help the subgrade to withstand the applied loads. Several research studies have shown that unbound pavement layers exhibit anisotropic properties. Anisotropy is caused by the preferred orientation of aggregates and compaction forces. The result is unbound pavement layers that have higher stiffness in the vertical direction than in the horizontal direction. This behavior is not accounted for in the design and analysis procedures included in the proposed AASHTO 2002 design guide. One of the objectives of this study is to conduct a comparative analysis of flexible pavement response using different models for unbound pavement layers: linear isotropic, nonlinear isotropic, linear anisotropic and nonlinear anisotropic. Pavement response is computed using a finite element program. The computations from nonlinear isotropic and anisotropic models of unbound layers are compared to the AASHTO field experimental measurements. The second objective is to analyze the influence of using isotropic and anisotropic properties for the pavement layers on the performance of flexible pavements calculated using the AASHTO 2002 models. Finally, a comprehensive sensitivity analysis of the proposed AASHTO 2002 performance models to the properties of the unbound pavement layers is conducted. The sensitivity analysis includes different types of base materials, base layer thicknesses, hot mix asphalt type and thickness, environmental conditions, and subgrade materials.

**Analytical Procedure for Flexible Airfield Pavement Rutting Incorporating Environmental Location and Groundwater Table Effects** - Ramadan A. Salim 2011

The structural design of pavements in both highways and airfields becomes complex when one considers environmental effects and ground water table variation. Environmental effects have been incorporated on the new Mechanistic-Empirical Pavement Design Guide (MEPDG) but little has been done to incorporate environmental effects on airfield design. This work presents a developed code produced from this research study called

ZAPRAM, which is a mechanistically based pavement model based upon Limiting Strain Criteria in airfield HMA pavement design procedures. ZAPRAM is capable of pavement and airfield design analyses considering environmental effects. The program has been coded in Visual Basic and implemented in an event-driven, user-friendly educational computer program, which runs in Excel environment. Several studies were conducted in order to insure the validity of the analysis as well as the efficiency of the software. The first study yielded the minimum threshold number of computational points the user should use at a specific depth within the pavement system. The second study was completed to verify the correction factor for the Odemark's transformed thickness equation. Default correction factors were included in the code base on a large comparative study between Odemark's and MLET. A third study was conducted to provide a comparison of flexible airfield pavement design thicknesses derived from three widely accepted design procedures used in practice today: the Asphalt Institute, Shell Oil, and the revised Corps of Engineering rutting failure criteria to calculate the thickness requirements necessary for a range of design input variables. The results of the comparative study showed that there is a significant difference between the pavement thicknesses obtained from the three design procedures, with the greatest deviation found between the Shell Oil approach and the other two criteria. Finally, a comprehensive sensitivity study of environmental site factors and the groundwater table depth upon flexible airfield pavement design and performance was completed. The study used the newly revised USACE failure criteria for subgrade shear deformation. The methodology utilized the same analytical methodology to achieve real time environmental effects upon unbound layer modulus, as that used in the new AASHTO MEPDG. The results of this effort showed, for the first time, the quantitative impact of the significant effects of the climatic conditions at the design site, coupled with the importance of the depth of the groundwater table, on the predicted design thicknesses. Significant cost savings appear to be quite reasonable by utilizing principles of unsaturated soil mechanics into the new airfield pavement design procedure found in program ZAPRAM.

**The Load Transmission Test for Flexible Paving and Base Courses** - Raymond C. Herner 1958

*Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering* - Dilber Uzun Ozsahin 2021-02-28

The use of a multi-criteria, decision-making theory was first studied in the 1970s. Its application in civil and environmental engineering is a new approach which can be enormously helpful for manufacturing companies, students, managers, engineers, etc. The purpose of this book is to provide a resource for students and researchers that includes current application of a multi-criteria, decision-making theory in various fields such as: environment, healthcare and engineering. In addition, practical application are shown for students manually. In real life problems there are many critical parameters (criteria) that can directly or indirectly affect the consequences of different decisions. Application of a multi-criteria, decision-making theory is basically the use of computational methods that incorporate several criteria and order of preference in evaluating and selecting the best option among many alternatives based on the desired outcome.

*Bituminous Mixtures and Pavements VI* - A. Nikolaidis 2015-07-28

Bituminous Mixtures and Pavements contains 113 accepted papers from the 6th International Conference Bituminous Mixtures and Pavements (6th ICONFBMP, Thessaloniki, Greece, 10-12 June 2015). The 6th ICONFBMP is organized

every four years by the Highway Engineering Laboratory of the Aristotle University of Thessaloniki, Greece, in conjunction with

**Comparison of Ontario Pavement Designs Using the AASHTO 1993 Empirical Method and the Mechanistic-empirical Pavement Design Guide Method** - Jonathan Boone 2013

The AASHTO 1993 Guide for Design of Pavement Structures is the most widely used pavement design method in both Canada and the United States, and is currently used by the Ministry of Transportation of Ontario (MTO) for both flexible and rigid pavement design. Despite its widespread use, the AASHTO 1993 pavement design method has significant limitations stemming primarily from the limited range of conditions observed at the AASHTO Road Test from which its empirical relationships were derived. The Mechanistic-Empirical Pavement Design Guide (MEPDG) was developed to address the perceived limitations of the AASHTO 1993 Guide. Although the MEPDG provides a rational pavement design procedure with a solid foundation in engineering mechanics, a considerable amount of work is required to adapt and validate the MEPDG to Ontario conditions. The purpose of this research was to conduct a comparative analysis of Ontario structural pavement designs using the AASHTO 1993 Guide for Design of Pavement Structures and the Mechanistic-Empirical Pavement Design Guide. Historical flexible, rigid, and asphalt overlay pavement designs completed using the AASHTO 1993 pavement design method for the MTO were evaluated using a two-stage procedure. First, the nationally-calibrated MEPDG pavement distress models were used to predict the performance of the pavements designed using the AASHTO 1993 method. The purpose of this stage of the analysis was to determine whether the two methods predicted pavement performance in a consistent manner across a range of design conditions typical of Ontario. Finally, the AASHTO 1993 and MEPDG methods were compared based on the thickness of the asphalt concrete or Portland cement concrete layers required to satisfy their respective design criteria. The results of the comparative analysis demonstrate that the AASHTO 1993 method generally over-predicted pavement performance relative to the MEPDG for new flexible pavements and asphalt overlays of flexible pavements. The MEPDG predicted that most of the new flexible pavements and asphalt overlays of flexible pavements designed using the AASHTO 1993 method would fail primarily due to permanent deformation and / or roughness. The asphalt layer thicknesses obtained using the MEPDG exceeded the asphalt layer thicknesses obtained using the AASHTO 1993 method, and a poor correlation was observed between the asphalt layer thicknesses obtained using the two methods. Many of the new flexible pavements and asphalt overlays of existing flexible pavements could not be re-designed to meet the MEPDG performance criteria by increasing the asphalt layer thickness. The results of the comparative analysis showed that the AASHTO 1993 method generally under-predicted rigid pavement performance relative to the MEPDG, although the results varied widely between alternative rigid pavement designs. The AASHTO 1993 rigid pavement designs that the MEPDG predicted would not meet the rigid pavement performance criteria generally failed due to pavement roughness. A very poor correlation was observed between the Portland cement concrete layer thicknesses obtained using the MEPDG and AASHTO 1993 design methods. The MEPDG predicted thinner Portland cement concrete layer thicknesses than the AASHTO 1993 design method for most of the rigid pavement designs.

**Mechanistic Design Concepts for Conventional Flexible Pavements** - R. P. Elliott 1985

Mechanistic design concepts for conventional flexible pavement (asphalt concrete (AC) surface + granular base/subbase) for highways are proposed and validated. The procedure is based on ILLI-PAVE, a stress dependent

finite element computer program, coupled with appropriate transfer functions. Two design criteria are considered: AC flexural fatigue cracking and subgrade rutting. Fatigue cracking is controlled by limiting the tensile strain at the bottom of the AC layer. Subgrade rutting is controlled by limiting the stress-ratio at the granular layer-subgrade interface. Algorithms were developed relating pavement response parameters (stresses, strains, deflections) to AC thickness, AC moduli, granular layer thickness, and subgrade moduli. Extensive analyses of the AASHTO Road Test flexible pavement data are presented supporting the validity of the proposed concepts.

**Comparative Performance of Structural Layers in Pavement Systems** - Walter R. Barker 1977

**Applications of Cuckoo Search Algorithm and its Variants** - Nilanjan Dey 2020-06-23

This book highlights the basic concepts of the CS algorithm and its variants, and their use in solving diverse optimization problems in medical and engineering applications. Evolutionary-based meta-heuristic approaches are increasingly being applied to solve complicated optimization problems in several real-world applications. One of the most successful optimization algorithms is the Cuckoo search (CS), which has become an active research area to solve N-dimensional and linear/nonlinear optimization problems using simple mathematical processes. CS has attracted the attention of various researchers, resulting in the emergence of numerous variants of the basic CS with enhanced performance since 2019.

**Comparative performance of structural layers in pavement systems** - Waterways Experiment Station (U.S.). Soils and Pavements Laboratory 1977

**Comparative Performance of Structural Layers in Pavement Systems** - 1977

Proceedings of the RILEM International Symposium on Bituminous Materials - Hervé Di Benedetto 2021-09-25

This volume highlights the latest advances, innovations, and applications in bituminous materials and structures and asphalt pavement technology, as presented by leading international researchers and engineers at the RILEM International Symposium on Bituminous Materials (ISBM), held in Lyon, France on December 14-16, 2020. The symposium represents a joint effort of three RILEM Technical Committees from Cluster F: 264-RAP "Asphalt Pavement Recycling", 272-PIM "Phase and Interphase Behaviour of Bituminous Materials", and 278-CHA "Crack-Healing of Asphalt Pavement Materials". It covers a diverse range of topics concerning bituminous materials (bitumen, mastics, mixtures) and road, railway and airport pavement structures, including: recycling, phase and interphase behaviour, cracking and healing, modification and innovative materials, durability and environmental aspects, testing and modelling, multi-scale properties, surface characteristics, structure performance, modelling and design, non-destructive testing, back-analysis, and Life Cycle Assessment. The contributions, which were selected by means of a rigorous international peer-review process, present a wealth of exciting ideas that will open novel research directions and foster new multidisciplinary collaborations.

The Load Transmission Test for Flexible Paving and Base Courses - David S. Crippen 1955

*Special Report - Highway Research Board* - National Research Council (U.S.). Highway Research Board 1962

**Recent Advances in Material, Manufacturing, and Machine Learning** - Rajiv Gupta 2023-05-26

The role of manufacturing in a country's economy and

societal development has long been established through their wealth generating capabilities. To enhance and widen our knowledge of materials and to increase innovation and responsiveness to ever-increasing international needs, more in-depth studies of functionally graded materials/tailor-made materials, recent advancements in manufacturing processes and new design philosophies are needed at present. The objective of this volume is to bring together experts from academic institutions, industries and research organizations and professional engineers for sharing of knowledge, expertise and experience in the emerging trends related to design, advanced materials processing and characterization, and advanced manufacturing processes.

**AASHTO Guide for Design of Pavement Structures, 1993** - American Association of State Highway and Transportation Officials 1993

Design related project level pavement management - Economic evaluation of alternative pavement design strategies - Reliability / - Pavement design procedures for new construction or reconstruction : Design requirements - Highway pavement structural design - Low-volume road design / - Pavement design procedures for rehabilitation of existing pavements : Rehabilitation concepts - Guides for field data collection - Rehabilitation methods other than overlay - Rehabilitation methods with overlays / - Mechanistic-empirical design procedures.

*A Comparative Study of Performance of Different Designs for Flexible Pavements* - 1992

**Risk, Reliability and Sustainable Remediation in the Field of Civil and Environmental Engineering** -

Thendiyath Roshni 2022-03-22

Risk, Reliability and Sustainable Remediation in the Field of Civil and Environmental Engineering illustrates the concepts of risk, reliability analysis, its estimation, and the decisions leading to sustainable development in the field of civil and environmental engineering. The book provides key ideas on risks in performance failure and structural failures of all processes involved in civil and environmental systems, evaluates reliability, and discusses the implications of measurable indicators of sustainability in important aspects of multitude of civil engineering projects. It will help practitioners become familiar with tolerances in design parameters, uncertainties in the environment, and applications in civil and environmental systems. Furthermore, the book emphasizes the importance of risks involved in design and planning stages and covers reliability techniques to discover and remove the potential failures to achieve a sustainable development. Contains relevant theory and practice related to risk, reliability and sustainability in the field of civil and environment engineering Gives firsthand experience of new tools to integrate existing artificial intelligence models with large information obtained from different sources Provides engineering solutions that have a positive impact on sustainability

Effective Experiment Design and Data Analysis in Transportation Research - 2012

This report describes the factors that should be considered in designing experiments and presents 21 typical transportation examples illustrating the experiment design process, including selection of appropriate statistical tests. The examples encompass a wide range of transportation disciplines and statistical methods. This report will be very beneficial to anyone with limited research experience needing to answer a question based on data (e.g., presenting ozone concentrations in a region, determining whether a contractor's quality assurance/quality control procedures are adequate, estimating the effect of automated enforcement on speeds, monitoring trends in

the condition of bridge superstructures, developing a user survey to determine the impact of transit fare changes). The report is a companion to NCHRP CD-22, Scientific Approaches to Transportation Research, Volumes 1 and 2, which were developed in NCHRP Project 20-45 and present detailed information on statistical methods.

Mechanistic-empirical Evaluation of the Mn/Road Mainline Flexible Pavement Sections - Claribel Alvarez 1998

This study utilized Illinois DOT (IDOT) mechanistic-empirical (M-E) technology and Mn/ROAD mainline pavement section data and information to verify/refine/modify IDOT M-E analysis and design concepts and procedures for full-depth asphalt concrete (FDAC) and conventional flexible pavements (CFP). The Mn/ROAD mainline flexible pavements include eleven CFP and three FDAC pavement sections. Four different granular materials were used in the conventional flexible pavements. A fine-grained soil subgrade (R-value of about 12) is present throughout the mainline. Laboratory material testing results, field distress measurements, and FWD test data were used to study pavement deflection response and performance (rutting and asphalt concrete fatigue). The study demonstrated that the IDOT M-E analysis and design procedures for FDAC and CFP sections are adequate. The ILLI-PA VE structural model adequately predicts the pavement responses. The use of bi-linear (arithmetic) subgrade model and the "theta" granular material model ILLI-PA VE inputs closely replicate CFP field FWD deflection responses. The effect of granular material quality on CFP deflection response is very limited. The ILLI-PAVE FWD backcalculation algorithms are adequate for estimating the moduli of asphalt concrete and sub grade soils.

**Nondestructive Testing of Pavements and Backcalculation of Moduli** - Albert Jasper Bush 1989

*A Comparative Study of Performance of Different Designs for Flexible Pavements* - N. Paul Khosla 1996

**New Developments in Soil Characterization and Soil Stability** - Wissem Frikha 2018-07-18

This book presents new studies dealing with the attempts made by the scientists and practitioners to address contemporary issues in geotechnical engineering such as characterization of soil, geomaterials, soil stability and some other geomechanics issues that are becoming quite relevant in today's world. Papers were selected from the 5th GeoChina International Conference on Civil Infrastructures Confronting Severe Weathers and Climate Changes: From Failure to Sustainability, held on July 23-25, 2018 in HangZhou, China.

**Advancement in the Design and Performance of Sustainable Asphalt Pavements** - Louay Mohammad 2017-07-11

This volume on "Advancement in the Design and Performance of Sustainable Asphalt Pavements" includes a collection of research and practical papers from an international research and technology activities on Mixture Design Innovation, Structural Pavement Design, Advancement in Production and Construction, Climate Changes and Effects on Infrastructure, Green Energy, Technology and Integration. The volume constitutes an important contribution in view of the urgent need to develop materials, designs, and practices to ensure the sustainability of transportation infrastructure. This volume is part of the proceedings of the 1st GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt 2017.

**Flexible Pavement Design** - Ashraf Ayman Aguib 2014

Abstract: The new Mechanistic-Empirical Pavement Design Guide (MEPDG) provides a state-of-the-art and practice pavement design procedure that eradicates the AASHTO 1993 empirical design procedure deficiencies. Huge advancements with respect to traffic input, material characterization and environmental impact are

incorporated in the MEPDG. The AASHTO 1993 design procedure is based on empirical equations derived from the AASHTO Road Test conducted in the late 1950's in a test track in Ottawa, Illinois. The test provided very useful information for the design of pavement at that time. However, with the present advancement in materials and dramatic increase in traffic volumes, this empirical design procedure started to show massive drawbacks. The MEPDG is a more comprehensive design procedure that incorporates sophisticated models for pavement response calculation, material properties variations with respect to environmental conditions and pavement performance predictions. The mechanistic part of the design procedure is the pavement response calculation and the empirical part of the method is the pavement performance prediction. Incorporating these models allows the MEPDG of producing pavement design sections that are cost-effective and perform better than those designed using the AASHTO 1993 design procedure for a given life span. With the initial introduction of the MEPDG in 2004, almost every State Highway Agency (SHA) in the United States and several road authorities around the world exerted efforts to understand and plan to implement the MEPDG according to their own local conditions. It was hence found necessary to explore the new design procedure according to Egyptian local conditions. The objectives of the research is to prepare a body of accurate and readily usable environmental data for Egypt for MEPDG input, compare the effectiveness of both design methods and assess the sensitivity of MEPDG predicted performance with respect to variations in inputs. Weather data files for major Egyptian cities were extracted from available data sources and prepared

for direct input in the MEPDG. The preparation of data was done using a computer application especially developed in this research program to comprehensively and rationally complete this task. A comparative study was then done between the two design methods. Five pavement sections were designed using the AASHTO 1993 design procedure and then evaluated using the MEPDG for three traffic levels. These five sections were chosen to best represent the majority of Egypt. A sensitivity analysis was then conducted to investigate the predicted behavior of fatigue cracking and rutting with respect to variations in environmental conditions, traffic levels, AC layer thickness and properties, granular base (GB) layer thickness and subgrade strength. Comparing both design methods revealed that pavements designed under the AASHTO 1993 do not perform equally at the end of their design life. Terminal Present Serviceability Index (PSI) values are different for different traffic levels and locations. Predicted fatigue cracking and rutting showed a similar trend to terminal PSI values. The AASHTO 1993 was also found to over-estimate pavement layers thicknesses. Predicted fatigue cracking showed high sensitivity to design inputs under the scope of the study. Environmental conditions and traffic loading were also found to be the most influential input parameters on the selected pavement performance indices. Unexpected results for predicted rutting lead to further investigation and MEDPG rutting prediction model was evaluated with respect to an Egyptian rutting prediction model. Rutting prediction model adopted by MEPDG produced lower values for permanent strain compare to the Egyptian rutting model and further calibration for the MEPDG rutting prediction model was found necessary.