Encompasses the full range of construction

Pavement Engineering
Principles and Practice

Rajib B. Mallick and Tahar El-Korchi
Worcester Polytechnic Institute, Massachusetts, USA

Solidifies Fundamentals, Introduces Cutting-Edge Techniques

Pavements are omnipresent in our society. From roads and airports to parking lots and driveways, every civil engineering project requires applications of this complex subject.

Pavement Engineering covers the entire range of pavement construction, from soil preparation and drainage to structural design and life-cycle analysis for highway and airport pavements. It links the concepts of mix and structural design, while also placing emphasis on pavement management, evaluation, and rehabilitation techniques. State-of-the-art content introduces the latest concepts and techniques, including ground-penetrating radar and seismic testing.

The book builds a foundation in pavement engineering, covering the selection of materials, mix and structural design, and construction. It also provides laboratory and field tests accompanied by a discussion of new and advanced concepts.

This unique text prepares the next-generation of engineers with the core principles and application knowledge needed to maneuver in the ever-expanding pavement engineering industry.

FEATURES

• Presents the full range of construction, from soil preparation and drainage to structural design and life-cycle analysis
• Includes examples, problems, laboratory tests, and a solutions manual with qualifying course adoptions
• Discusses methods for the rehabilitation of distressed pavements
• Covers concrete and asphalt pavement engineering for both highway and airports
• Addresses environmental and green engineering issues

Catalog no. 60295
ISBN: 978-1-4200-6029-4, $119.95 / £44.99

ORDER ONLINE AT
www.crcpress.com
Orders must be prepaid or accompanied by a purchase order. Checks should be made payable to CRC Press. Please add the appropriate shipping and handling charge for each book ordered. All orders are subject to change without notice. If purchasing by credit card please be sure to include the 3 digit security code that appears on the back of your card in the “sec code” field provided below. U.S./Canada: All orders must be paid in U.S. dollars. VAT: As required by law, please add applicable state and local taxes on all merchandise delivered to AZ, CA, CO, CT, FL, GA, IL, KY, MA, MD, MO, NJ, NY, PA, TN, TX, VA, and Canada. For Canadian orders, please add GST and HST. We will add tax on all credit card orders.

FREE SHIPPING ON ALL ORDERS when you ORDER ONLINE at www.crcpress.com

Please indicate quantities next to the title(s) ordered below:

PAVEMENT ENGINEERING: PRINCIPLES AND PRACTICE
Catalog no. SW1610, ISBN: 978-9-0580-9699-9 at $169.95 / £88.50 each.

THE HANDBOOK OF HIGHWAY ENGINEERING
Catalog no. 2670, ISBN: 978-0-8493-2670-7 at $179.95 / £97.00 each.

Porous Pavements
Catalog no. 2670, ISBN: 978-0-8493-2670-7 at $179.95 / £97.00 each.

Pavements Unbound
Catalog no. SW1610, ISBN: 978-9-0580-9699-9 at $169.95 / £88.50 each.

Name..........................................................................................................................................................

Company/Institution........................................................................................................................................

Address................................................................................................................................................................

City ............................................................State/Province.................................Zip/Postal Code......................

Other titles of interest:

- Asphalt and Emulsions
- Aggregates for Asphalt and Concrete Pavements
- Soil
- Drainage
- Aggregate Mixes

Asphalt and Emulsions

Contents

Introduction and Description of Pavements
Principles of Mix and Structural Design, and Construction of Asphalt Pavement
Principles of Mix and Structural Design of Concrete Pavement
Standards
Traffic
Drainage
Soil
Aggregates for Asphalt and Concrete Mixes

Concrete Fundamentals for Rigid Pavements
Distress and Performance Models
Consideration of Major Distress Mechanisms and Material Characterization for Asphalt Pavements
Distress Models and Material Characterization for Concrete Pavements
Mix and Structural Design of Asphalt Pavement Mix Layers
Mix Design and Structural Design for Concrete Pavements

Construction of Asphalt Pavements
Construction of Concrete Pavements
Maintenance and Rehabilitation of Pavements
Pavement Management Systems (PMS)

Airport Pavements
Nondestructive Tests
Economic Analysis and Cost-Saving Concepts
Instrumentation in Asphalt and Concrete Pavement

Specialty Applications

Ordering Information: Orders must be prepaid or accompanied by a purchase order. Checks should be made payable to CRC Press. Please add the appropriate shipping and handling charge for each book ordered. All prices are subject to change without notice. If purchasing by credit card please be sure to include the 3 digit security code that appears on the back of your card in the “sec code” field provided below. U.S./Canada: All orders must be paid in U.S. dollars. VAT: As required by law, please add applicable state and local taxes on all merchandise delivered to AZ, CA, CO, CT, FL, GA, IL, KY, MA, MD, MO, NJ, NY, PA, TN, TX, VA, and Canada. For Canadian orders, please add GST and HST. We will add tax on all credit card orders.

European Orders: All orders must be paid in U.K. £. VAT will be added at the rate applicable. Textbooks: Special prices for course adopted textbooks may be available for certain titles. To review a book for class adoption, contact our Academic Sales Department, or submit your textbook evaluation request online at www.crcpress.com/eval.htm

Satisfaction Guaranteed: If the book supplied does not meet your expectations, it may be returned to us in a salable condition within 30 days of receipt for a full refund. For expedited shipping, call your nearest CRC PRESS office.

In the Americas:
CRC PRESS
PO Box 400297
Atlanta, GA 30384-9267
Tel: 1-800-634-7064
Fax: 1-800-248-4724
From Outside the Continental U.S.
Tel: 1-561-994-0555
Fax: 1-561-361-6018
e-mail: orders@taylorandfrancis.com

In Europe:
CRC PRESS UK
Albert House, 4th floor
1 - 4 Singer Street
London EC2A 4BQ
UK
Tel: 44 (0) 20 7017 6000
Fax: 44 (0) 20 7017 6674
e-mail: enquiries@taylorandfrancis.com

www.crcpress.com