

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 September 2008, 512 pp. ISBN: 978-1-4200-6029-4, \$119.95 / £44.99



## **PAVEMENT ENGINEERING PRINCIPLES AND PRACTICE**

#### CONTENTS

Introduction and Description of Pavements	Concrete Fundamentals for Rigid Pavements	Construction of Asphalt Pavements Construction of Concrete Pavements		
Principles of Mix and Structural Design, and Construction of Asphalt Pavement	Distress and Performance.0	Maintenance and Rehabilitation of		
Principles of Mix and Structural Design	Consideration of Major Distress Mechanisms and Material	Pavements Pavement Management Systems (PMS)		
of Concrete Pavement	Characterization for Asphalt	Airport Pavements Nondestructive Tests		
Standards	Pavements			
Traffic	Distress Models and Material	Economic Analysis and Cost-Saving		
Drainage	Characterization for Concrete Pavements	Concepts		
Soil	Mix and Structural Design of Asphalt	Instrumentation in Asphalt and Concrete		
Aggregates for Asphalt and Concrete	Mix and Structural Design of Asphalt Mix Layers	Pavement		
Mixes	Mix Design and Structural Design for	Specialty Applications		
Asphalt and Emulsions	Concrete Pavements			

### 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. 60295, ISBN: 1-4200-6029-4 at \$119.95 / £44.99 each.

#### Other titles of interest:

THE HANDBOOK OF HIGHWAY ENGINEERING ..Catalog no. 1986, ISBN: 978-0-8493-1986-0 at \$149.95 / £79.99 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.

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>U.S./Canada</u>: All orders must be paid in U.S. dollars. TAX: 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 saleable condition within 30 days of receipt for a full refund. SHIPPING AND HANDLING

Catalog no. SW1610, ISBN: 978-9-0580-9699-9 at \$169.95 / £88.50 each.	Region	<b>Delivery Time</b>	First Title	Additional Title	For expedited
	USA (continental)	3-5 days	\$4.99	\$1.99	shipping,
	Alaska, Hawaii, Puerto Rico	4-5 days	\$14.99	\$2.99	call your
	Canada	3-7 days	\$7.99	\$1.99	nearest
	Latin America	varies by region	\$9.99	\$2.99	CRC PRESS
vame	Rest of the World	varies by region	call fo	r pricing	office
Company/Institution	🗋 Visa 🔲 MasterCard 🗌	American Expre	ss 🗌 Che	eck Enclosed \$	
A debrara			Se Se	ec. Exp. Date	
Address	Signature and Telephone Number	r required on all or	ders		Month Year
	Signature			PO#	
	Telephone				
Lity	If you would like to receive information from us by e-mail, please provide your e-mail address below.				

Country

F-Mail Address

**CORPORATE OFFICES** 

#### **ORDERING LOCATIONS** In the Americas:

**CRC PRESS** P0 Box 409267 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

Rest of the World: **CRC PRESS / BOOKPOINT** 130 Milton Park Abingdon, Oxon, OX14 4SB, UK Tel: +44 (0) 1235 400 524 Fax: +44 (0) 1235 400 525 e-mail: (UK): uk.trade@tandf.co.uk (Int'l): international@tandf.co.uk

**CRC PRESS** 6000 Broken Sound Parkway, NW, Suite 300 Boca Raton, FL 33487, USA Tel: 1-800-272-7737 Fax: 1-800-374-3401 From Outside the Continental II S Tel: 1-561-994-0555 Fax: 1-561-361-6018 e-mail: orders@taylorandfrancis.com

**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 6747 e-mail: enquiries@crcpress.com

10.3008gti