



1st ed. 2018, XXI, 693 p. 327 illus., 167 illus. in color.

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Modeling and Design of Flexible Pavements and Materials

- Covers advanced continuum mechanics in a way accessible to roadway designers
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This textbook lays out the state of the art for modeling of asphalt concrete as the major structural component of flexible pavements. The text adopts a pedagogy in which a scientific approach, based on materials science and continuum mechanics, predicts the performance of any configuration of flexible roadways subjected to cyclic loadings. The authors incorporate state-of-the-art computational mechanics to predict the evolution of material properties, stresses and strains, and roadway deterioration. Designed specifically for both students and practitioners, the book presents fundamentally complex concepts in a clear and concise way that aids the roadway design community to assimilate the tools for designing sustainable roadways using both traditional and innovative technologies.

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