


Mechanics of Solids, Fluids and Materials

Editors

Puneet Mahajan • Badri Prasad Patel
Vikrant Tiwari • Jayant Jain



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Preface

The motivation for this book is to explore the recent theoretical, numerical and experimental developments in the mechanics of the solids, fluids and materials. Special attention is given to the applications in the interdisciplinary fields such as biomechanics, renewable energy, and naval architecture among many. This book can be utilized by the scientists and engineers working in this area to learn about recent advances in the field.

In the first section of this book investigations into computational and experimental solid mechanics are presented. Finite Element Method along with other experimental techniques are discussed in detailed manner. This is followed by recent advances in the field of fluid mechanics with great emphasis on solid fluid interaction.

In the mid section of this book latest research in the field of structure and properties of material is presented. Applications and advances in our understanding about the composite materials, impact mechanics, and vibrations are provided in depth.

Inter-disciplinary research areas like biomechanics, renewable energy, and naval architecture are presented in the last sections of this book. Over all this book provides an opportunity to its readers to well verse themselves with the new trends in the research incorporating knowledge from solids, fluids and materials.

Puneet Mahajan
Badri Prasad Patel
Jayant Jain
Vikrant Tiwari

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Puneet Mahajan
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