



TENSORS: Concepts and Applications with Scilab Programs, 1/e

Namrata Dewan Soni

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About the Book

This all-inclusive text introduces undergraduate students to the basics of linear vector spaces, tensor analysis especially, Cartesian and general tensors. The aim of this book is to specifically explain the fundamentals of tensors and their applications to mechanics, and elasticity in a consistent manner. The contents of the book provide insights of all the major topics of the tensors analysis, viz., transformations of coordinates, Einstein summation convention, Quotient law, isotropic tensor, moment of inertia tensor, metric tensor and Minkowski space. Wherever needed a short summary of the fundamental knowledge has been provided. This book covers the syllabus of various institutions which offer a course in Mathematical Physics. It also prepares the students to solve various problems of physics using Scilab programming.

Salient Features

- * More than 50 figures, illustrations and tables that make the learning of the subject easier.
- * Detailed presentation of Cartesian and general tensors.
- * Basic linear vector spaces are also covered.
- * Also provides the Scilab code to solve various problems of physics mentioned in the curriculum of BSc (Hons) Physics course.

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About the Author

Namrata Dewan Soni :- is Assistant Professor, Hansraj College, University of Delhi, Delhi. She is a Gold medallist in Physics and her research work is in the area of condensed matter physics. She is also a recipient of "Teaching Excellence Award". She has published more than 10 articles in journals of international repute. The author has also developed various E modules for undergraduate physics students.