



Differential Geometry and Tensors, 1/e

K K Dube

2009 384 pp Paperback ISBN: 9789380026589 Price: 425.00

About the Book

The purpose of this book is to give a simple, lucid, rigorous and comprehensive account of fundamental notions of Differential Geometry and Tensors. The book is self-contained and divided in two parts. Section A deals with Differential Geometry and Section B is devoted to the study of Tensors.

Salient Features

- ▶ Theory of curves, envelopes and developables.
- ▶ Curves on surfaces and fundamental magnitudes, curvature of surfaces and lines of curvature.
- ▶ Fundamental equations of surface theory.
- ▶ Geodesics.

Table of Contents

- ▶ Section A: Differential Geometry: Vector Notations
- ▶ Theory of Curves in Space
- ▶ Envelopes and Developables
- ▶ Curves on Surfaces and Fundamental Magnitudes
- ▶ Curvature of Surfaces and Lines of Curvature: Local Non-Intrinsic Properties of Surface
- ▶ Fundamental Equations of Surface Theory
- ▶ Geodesics
- ▶ Section B: Tensor: Introduction
- ▶ Tensor Algebra
- ▶ Tensor Calculus
- ▶ Christoffel Symbols, Covariant Differentiation, and their Properties
- ▶ Riemann Symbols
- ▶ Geodesics, Riemannian Coordinates, Geodesic Coordinates and Parallelism of Vectors
- ▶ Differentiable Manifolds and Riemannian Manifolds
- ▶ Index

About the Author

K K Dube :- K K Dube obtained his Ph.D. (Mathematics) from University of Lucknow, Lucknow in 1976. He has been Post-Doctoral Fellow (CSIR). He has more than 29 years of teaching experience. Presently, he is working as Professor (Math) in the department of Mathematics, Statistics and Computer Science, G B Pant University of Agriculture and technology, Pantnagar.

He is teaching both UG/PG students of B. Tech/ M.Tecj and M.Sc/Ph.D. (Maths). He is life member of IMS (Indian Mathematical Society), TSI (tensor Society of India) and also Bharat Ganit Parishad. He has to his credit more than 70 research publications in both international and national journals.