



Energy Principles and Variational Methods in Applied Mechanics

By J. N. Reddy

Wiley. Hardcover. Book Condition: New. Hardcover. 608 pages. Dimensions: 9.3in. x 6.2in. x 1.3in.A systematic presentation of energy principles and variational methodsThe increasing use of numerical and computational methods in engineering and applied sciences has shed new light on the importance of energy principles and variational methods. Energy Principles and Variational Methods in Applied Mechanics provides a systematic and practical introduction to the use of energy principles, traditional variational methods, and the finite element method to the solution of engineering problems involving bars, beams, torsion, plane elasticity, and plates. Beginning with a review of the basic equations of mechanics and the concepts of work, energy, and topics from variational calculus, this book presents the virtual work and energy principles, energy methods of solid and structural mechanics, Hamiltons principle for dynamical systems, and classical variational methods of approximation. A unified approach, more general than that found in most solid mechanics books, is used to introduce the finite element method. Also discussed are applications to beams and plates. Complete with more than 200 illustrations and tables, Energy Principles and Variational Methods in Applied Mechanics, Second Edition is a valuable book for students of aerospace, civil, mechanical, and applied mechanics; and engineers in...



READ ONLINE [6.26 MB]

Reviews

Extremely helpful for all class of people. We have read through and that i am confident that i am going to going to read through again again down the road. Its been designed in an exceedingly basic way in fact it is simply following i finished reading this pdf in which in fact altered me, alter the way i think.

-- Noel Stanton

Absolutely one of the best pdf We have ever read. I really could comprehended every little thing using this written e book. I am easily could get a satisfaction of reading a written publication.

-- Dr. Odie Hamill