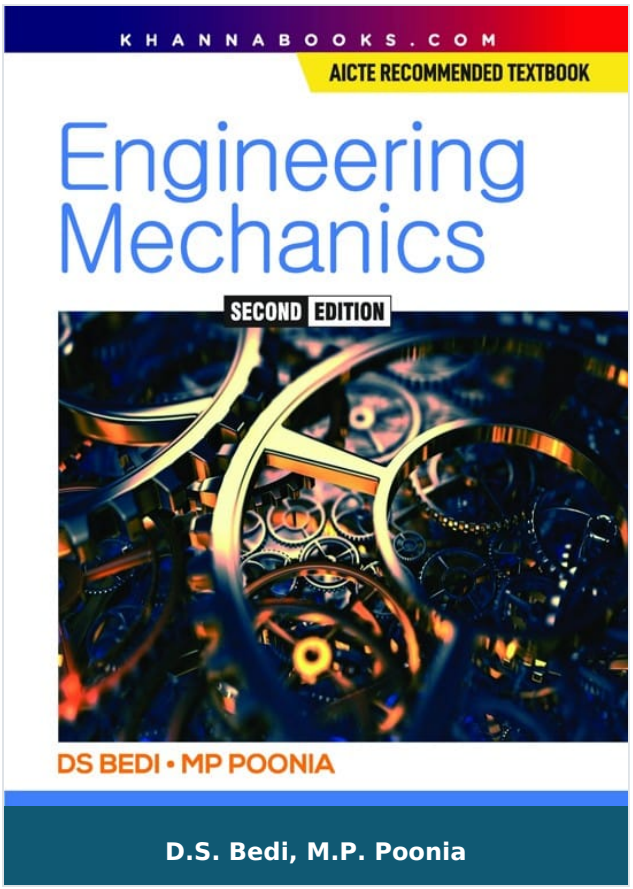


D.S. Bedi, M.P. Poonia

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- Elastic Constants, Complex Stresses and Strain Energy
- Pure Bending of Beams
- Torsion
- INDEX
- IMPORTANT MATHEMATICAL FORMULAE

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Dr. D.S. Bedi is one of the distinguished writers in India. He possesses a very excellent academic background. He had held various high positions viz. formerly Professor Emeritus at Department of Mechanical Engineering, Institute of Engineering and Technology (Punjab); Professor & Head, Dept. of Mechanical Engineering,Thapar Institute of Engineering & Technology (Punjab); Visiting Professor at Wayne State University, Detroit, MI (USA); Principal, Baba Banda Singh Bahadur Engineering College, (Punjab); Advisor-cum-Consultant at G.G.S. College of Modern Technology (Punjab); Director, Punjab College of Engineering; Technology, Punjab.

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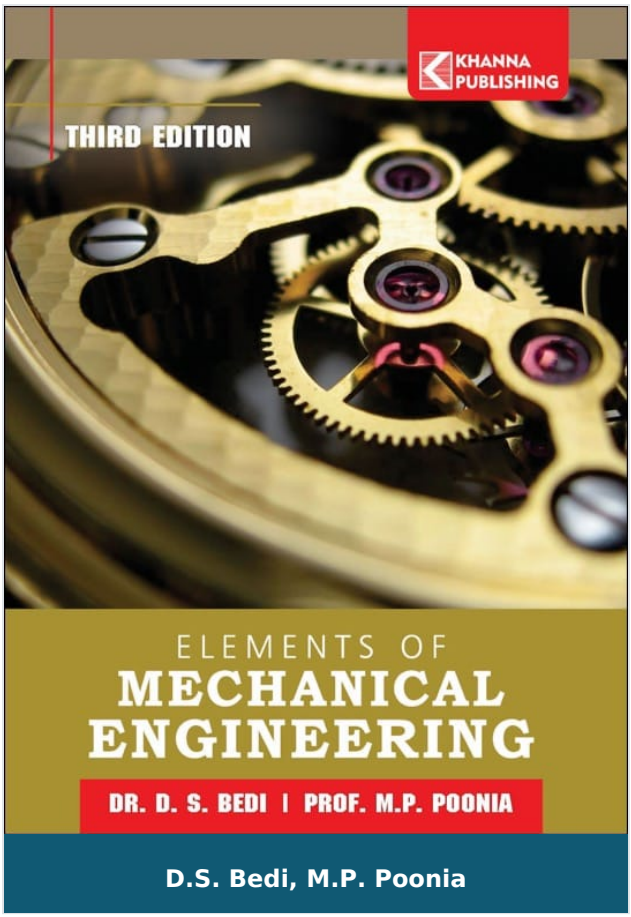
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The subject 'Elements of Mechanical Engineering' embraces 3 different fields of Mechanical Engineering, namely Thermodynamics, Strength of Materials and Theory of Machines.

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Table Of Contents

- Basic Concepts of Thermodynamics
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- Second Law of Thermodynamics
- Entropy
- Gas Power Cycles
- Internal Combustion Engines
- Mechanisms and Machines
- Lifting Machines
- Concept of Mechanical Behavior of Engineering Materials
- Relation Between Elastic Constants
- Engineering Materials
- Centroid, Centre of Gravity, Second Movement of Area and Mass Movement of Inertia
- Index

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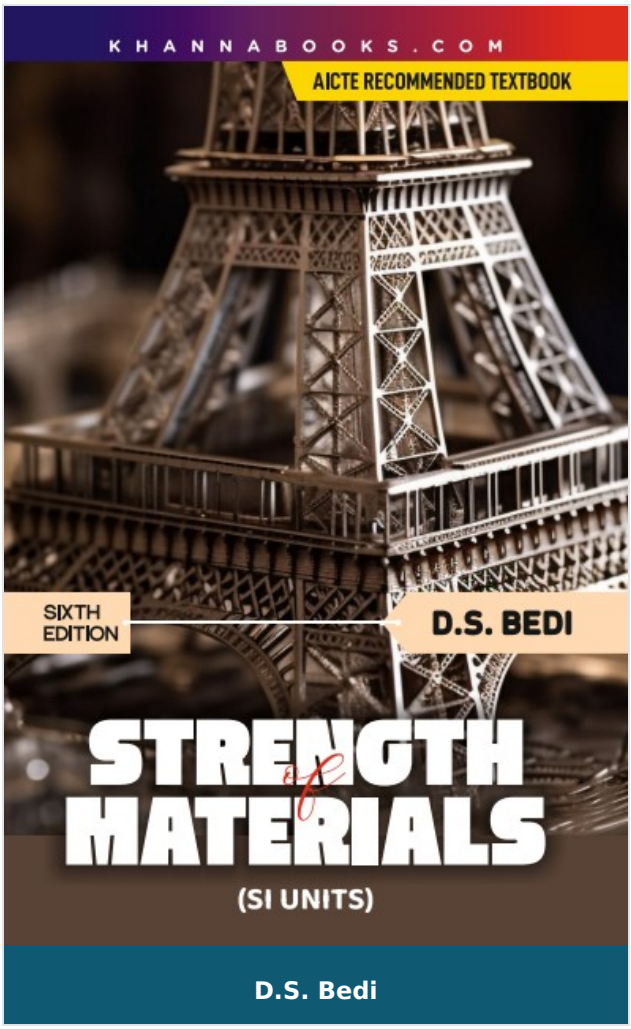
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The sixth edition of the book has thoroughly been modified and enlarged to meet the revised syllabi of many universities and other professional examination like AMIE and above all to incorporate the suggestions received from the students and faculty a like. Additional problems on two-dimensional complex stress systems have been fully solved by both analytical and Mohr's circlem method so that the readers are made aware of the face that the sign shear stress on a particular plane has its one important role to play so as arrive at the correct result which otherwise is normally overlooked or even sometimes neglected. The term " bending Moment" and "twisting Moment" have been introduced as vector quantities in order to bring out the difference between them so that the reader can easily decipher each of them and proceed ahead to accomplish the associated objectives. The chapter on Thick Cylinders had been re-written to keep uniformity in sign convention of the stresses throughout the entire text. Further in this chapter the process of auto frettage of a thick cylinder has been introduced along with the "Simplified" theory of this process. The author has endeavored to familiarize the readers with the "Yield point phenomenon of low carbon steel". "quantitative definitions of ductility and malleability" and "Negative Possions Ratio" Which were hitherto not dealt with in most of the text on the subject. On the specific demand of the students almost all the chapter have been supplemented with objective type questions along with more number of worked examples.

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Table Of Contents

- Simple Stress and Strain
- Complex Stresses and Strains
- Shearing Force and Bending Moments in Beams
- Bending Stesses
- Shear Stresses in Beams
- Deflection and Beams
- Torsion of Circular Shafts
- Struts and Columns
- Thin Shells
- Thick Cylinders
- Springs
- Strain Energy and Deflection due to Shear and Bending
- Theories of Failure
- Bending of Curved Bars
- Stresses Due to Rotation
- Unsymmetrical Bending
- Plastic Theory of Bending
- Three Dimensional Stress System
- Torsion of Non-Circular Shafts
- Miscellaneous Problems
- Plastic Theory of Bending : Index
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