



## Strength of Materials

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## Product Description

**Strength of Materials** This book on Strength of Materials follows so-called engineer's approach. It is a suitable book for one-semester first course on Solid Mechanics or Strength of Materials for undergraduate students of engineering. The uniqueness of the book is that basic concepts have been covered in a lucid manner such that students can also be prepared to study a course on theory of elasticity (so-called mathematician's approach) in later classes. There are sufficient number of exercise problems in this book, which prepare students to become practicing engineer or a researcher. The book also contains multiple choice questions. Content of the book, examples and exercise problems have been optimized. Thus, the learning output to effort ratio can be enhanced with the support of this book. **Salient**

### Features:

- Content of the book aligned with the mapping of Course Outcomes, Programs Outcomes and Unit Outcomes.
- In the beginning of each unit learning outcomes are listed to make the student understand what is expected out of him/her after completing that unit.
- Book provides lots of recent information, interesting facts, QR Code for E-resources, QR Code for use of ICT, projects, group discussion etc.
- Student and teacher centric subject materials included in book with balanced and chronological manner.
- Figures, tables, and software screen shots are inserted to improve clarity of the topics.
- Apart from essential information a 'Know More' section is also provided in each unit to extend the learning beyond syllabus.
- Short questions, objective questions and long answer exercises are given for practice of students after every chapter.
- Solved and unsolved problems including numerical examples are solved with systematic steps.



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- Shear force and bending moment diagrams
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- Shear stresses in beams
- Deflection and slope of beams
- Torsion of circular shafts
- Thin and thick cylinders and spheres

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