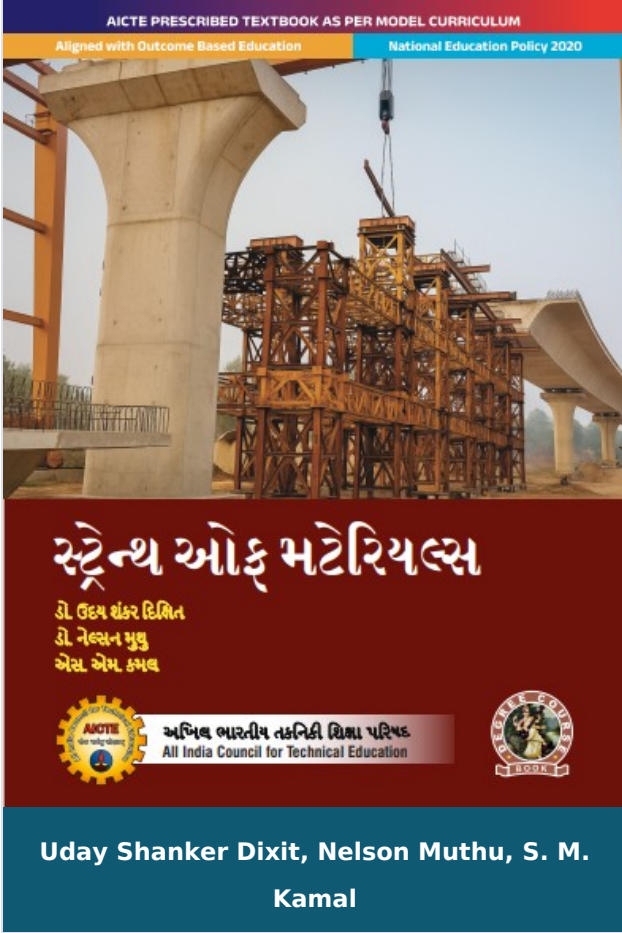




Strength of Materials

Author : Uday Shanker Dixit, Nelson Muthu, S. M. Kamal

ISBN 13 : 978-93-55389-28-2

ISBN 10 : 9355389280

E-ISBN 13 : 978-93-55389-28-2

Edition : First

Pages : 504

Type of book : Physical

Year : 2026

Language : English

Publisher : Khanna Publishing House

M.R.P : Rs 725.00

Categories : [AICTE Prescribed Textbooks,](#)
[Gujarati Books, Book Store](#)

Condition Type : New

Country Origin : India

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.

Table Of Contents

- Foreword
- Acknowledgement
- Preface
- Outcome Based Education
- Course Outcomes
- Guidelines for Teachers
- Guidelines for Students
- Abbreviations and Symbols
- List of Figures
- List of Tables
- Stresses and strains
- Compound stresses and strains
- Shear force and bending moment diagrams
- Bending stresses
- Shear stresses in beams
- Deflection and slope of beams
- Torsion of circular shafts
- Thin and thick cylinders and spheres
- References for further learning
- CO And PO Attainment Table
- Index

Author

Uday Shanker Dixit

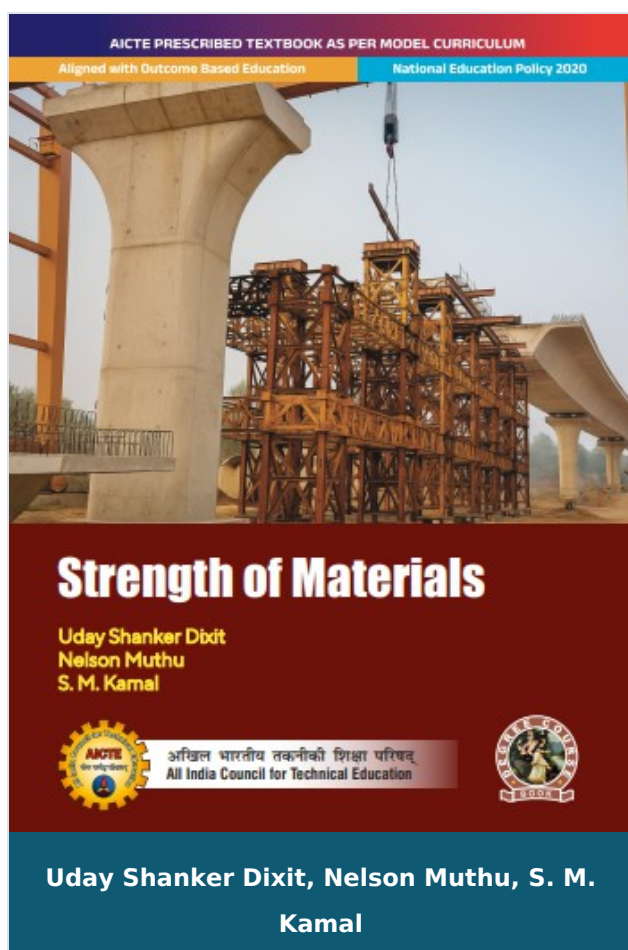
Dr. Uday Shanker Dixit Professor, Department of Mechanical Engineering, Indian Institute of Technology Guwahati, Dr.

Nelson Muthu

Dr. Nelson Muthu Assistant Professor, Department of Mechanical Engineering, Indian Institute of Technology Guwahati

S. M. Kamal

Dr. Uday Shanker Dixit Professor, Department of Mechanical Engineering, Indian Institute of Technology Guwahati, Dr. Nelson Muthu Assistant Professor, Department of Mechanical Engineering, Indian Institute of Technology Guwahati



Strength of Materials

Author : Uday Shanker Dixit, Nelson Muthu, S. M. Kamal

ISBN 13 : 978-93-55386-02-1

ISBN 10 : 9355386028

E-ISBN 13 : 978-93-55386-02-1

Edition : First

Pages : 428

Type of book : Physical

Year : 2026

Language : English

Publisher : Khanna Publishing House

M.R.P : Rs 799.00

Categories : [AICTE Prescribed Textbooks,](#)
[English Books](#)

Condition Type : New

Country Origin : India

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.

Table Of Contents

- Foreword
- Acknowledgement
- Preface
- Outcome Based Education
- Course Outcomes
- Guidelines for Teachers
- Guidelines for Students
- Abbreviations and Symbols
- List of Figures
- List of Tables
- Stresses and strains
- Compound stresses and strains
- Shear force and bending moment diagrams
- Bending stresses
- Shear stresses in beams
- Deflection and slope of beams
- Torsion of circular shafts
- Thin and thick cylinders and spheres
- References for further learning
- CO And PO Attainment Table
- Index

Author

Uday Shanker Dixit

Dr. Uday Shanker Dixit Professor, Department of Mechanical Engineering, Indian Institute of Technology Guwahati, Dr.

Nelson Muthu

Dr. Nelson Muthu Assistant Professor, Department of Mechanical Engineering, Indian Institute of Technology Guwahati

S. M. Kamal

Dr. Uday Shanker Dixit Professor, Department of Mechanical Engineering, Indian Institute of Technology Guwahati, Dr. Nelson Muthu Assistant Professor, Department of Mechanical Engineering, Indian Institute of Technology Guwahati