

## Engineering Materials in Mechanical Design — Principles of Selection with Q & A

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### About the Book

**Engineering Materials in Mechanical Design — Principles of Selection with Q&A** has been written for engineering students who would like to get a grasp of the important engineering material selection principles and criteria. This book would be very useful for the students of Mechanical, Materials or Aerospace engineering who have to constantly deal with different engineering materials in the design or failure analysis. This book gives a broader picture of the engineering materials as they relate to mechanical design. This is followed by very in-depth question and answer that covers all aspects of materials for mechanical engineering. The Q&A would be very useful to those who are trying to get deeper understanding of each topic studied in this subject.

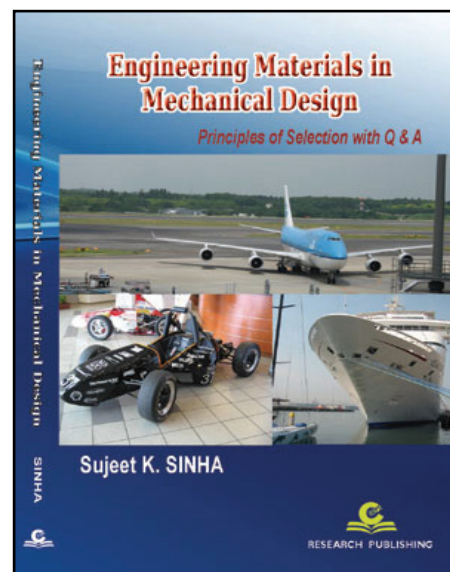
This book is different from existing books in this area as this provides very broader picture of material specific to mechanical design issues. The Q&A is very innovative idea as these questions were asked by students and hence my detailed answers would provide very deep learning experience for students.

- Chapter 1. Introduction to Engineering Materials
- Chapter 2. Material for Stiffness-Based Design
- Chapter 3. Materials for Strength-Based Design
- Chapter 4. Strengthening of Materials
- Chapter 5. Materials for Damage-Tolerant Design
- Chapter 6. Materials for Fatigue-Based Design
- Chapter 7. Materials for Wear Critical Design
- Chapter 8. Materials & Design Against Environmental Damage
- Chapter 9. Materials and Design for High Temperatures
- Chapter 10. Materials for Bio-Mechanical Applications
- Chapter 11. Q & A

**To the teachers:** As this book has been written primarily for classroom teaching of engineering materials course, I believe that the book will be very useful if you are teaching a similar course at the university level. Further help for the teachers who adopt this book in the class as textbook would be available through the publisher of this book.

**Readership:** Undergraduate and postgraduate students, Researchers and Industry Professionals.

### TEXT BOOK



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