



Material Science & Engineering

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Product Description

Material Science & Engineering This comprehensive textbook meticulously navigates through the foundational principles of atomic structures, phase diagrams, materials properties of ferrous and non-ferrous alloys, failure analysis and various materials testing methods, and surface engineering of metallic materials. Key contribution from India in various section of material engineering has also been included at appropriate place to provide due credit to our Indian knowledge system. Every chapter includes not only the summary at the end of the chapter, but also relevant exercise problems to understand and explore the complex integration of materials, their behavior under diverse conditions, and the methodologies shaping their design and industrial utilization. Finally, this book will equip students with the knowledge of material science and engineering who will be tomorrow's engineers, and backbone of our industries. Salient features:

- Content of the book aligned with the mapping course outcomes, programs and Units 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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