Analysis and Design of Machine Elements, 2/e
V K Jadon & Suresh Verma

About the Book
Keeping everything nearly same except correcting some typographic errors, two new chapters namely, “Pipe and Pipe Joints” and “Internal Combustion Engines” have been added in this present edition to make the book more comprehensive and useful to the students as well as the faculty.

The book covers fundamental concepts, description, terminology, force analysis and methods of analysis and design. The emphasis in treating the machine elements is on methods and procedures that give the student competence in applying these to mechanical components in general. The book offers the students to learn to use the best available scientific understanding together with empirical information, good judgement, and often a degree of ingenuity, in order to produce the best product. Few unique articles e.g., chain failure modes, lubrication of chain drive, timing belt pulleys, rope lay selection, wire rope manufacturing methods, effect of sheave size etc., are included. Friction materials are discussed in detail for both wet and dry running with the relevant charts used in industry. Design of journal bearing is dealt exhaustively.

Salient Features
- Compatible with the Machine Design Data Book (same author and publisher).
- Thorough treatment of the requisite engineering mechanics topics.
- Balance between analysis and design.
- Emphasis on the materials, properties and analysis of the machine element.
- Material, factor of safety and manufacturing method are given for each machine element.
- Design steps are given for all important machine elements.
- The example design problems and solution techniques are spelled out in detail.
- Objective type, short answer and review problems are given at the end of each chapter.
- All the illustrations are done with the help of suitable diagrams.
- As per Indian Standards.

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Concepts and Aspects of Design
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About the Author

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Suresh Verma :: Suresh Verma, Professor, Department of Mechanical Engineering, D.C.R. University of Science and Technology, Murthal, Sonepat, Haryana, obtained his Bachelor’s Degree in Mechanical Engineering and Master’s Degree with specialization in Mechanical Design from Regional Engineering College, Kurukshetra in 1996 and 1999 respectively. With more than a decade of experience, his areas of interest are Mechanical Design, Finite Element Method, Tribology and Robotics.

Book Review

Ashita Jain :: This is a first-rate book. Analysis and description of concepts and problem solving is adequately given.

Aurobindo Chatterjee :: Excellent explanation of the concepts. Must buy.

Harmeet Singh :: Design of journal bearing and friction materials are dealt in great depth, which I like the most about this book.

Mithun Sen :: This book includes a chapter on Internal Combustion Engines which is otherwise not available in all other books.

Neha Kabra :: I have used this book in my previous semester and am also using in the present semester. Good book to have.

Nikhil Vachani :: This book has a lot of review problems, short answer questions, objective questions, solved problems and solutions which helps in applying your theoretical knowledge.

Sangeeta Sood :: The book’s coverage will help in both the semesters. Large number of solved problems have been given, so no need to buy a separate solved problem book. Standards are given appropriately.

Vandana Khusir :: Diagrams and variety of solved problems makes this book stands out. Special coverage of Cotter and Knuckle joints is another good feature of this book.