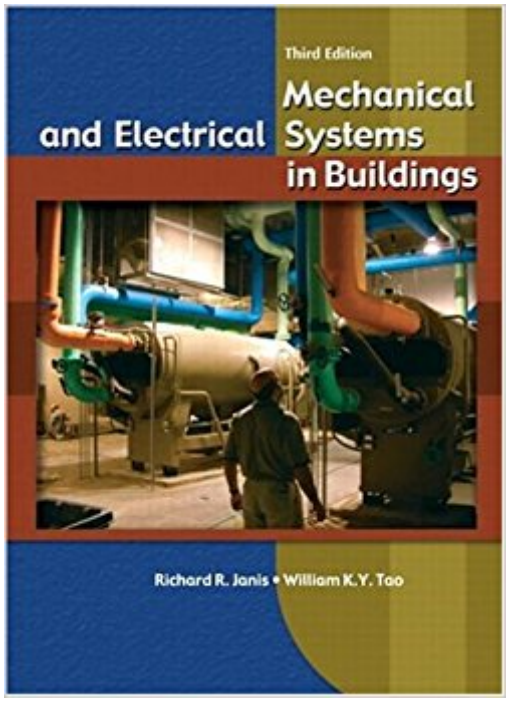
Mechanical And Electrical Systems In Buildings (3rd Edition)



Synopsis

Designed to bridge the ever-widening gap between the realities that confront engineering and construction professionals, this book provides an overview of the principles and applications of all basic mechanical and electrical systemsâ “with a focus on what, why, and basic design data examples. The book places emphasis on the operating principles of equipment and systemsâ “rather than on construction details, identifying systems and providing readers with an explanation of principles.Â Topics incorporate new developments in all the major disciplines, and reinforces the relationship of mechanical and electrical systems design in the overall context of the built environment. Includes some key topics such as Sustainable Design, Noise and Vibrations in M/E systems, the latest communications and illumination engineering technologies, Building heating, air conditioning, electrical, illumination, plumbing, and fire protection systems, Valuable data for space planning, cost, and environmental impact of building M/E systems. For design professionals involved in the development, construction, and management of commercial, industrial, and institutional buildings.

Book Information

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Customer Reviews

Designed to bridge the ever-widening gap between textbooks and the realities that confront engineering, and construction professionals, this text provides an overview of the principles and applications of all basic mechanical and electrical systems -- with a focus on what, why, and basic design data examples. It explores emerging technology and environmental issues, and makes

reference to essential engineering calculations and condensed data to illustrate principles. --This text refers to an alternate Hardcover edition.

PREFACE WE ARE GRATIFIED TO LEARN THAT THE FIRST EDITION OF THIS BOOK HAS BEEN WELL RECEIVED BY OUR colleagues in colleges and universities as well as by design and construction professionals. We have received many comments and suggestions, new reference data, and our publisher encouraged us to prepare this second edition only two years after the initial publication. One major addition in this second edition is Chapter 18, Noise and Vibrations in Mechanical and Electrical Systems. With the increased use of mechanical and electrical equipment in buildings, indoor and outdoor noise and vibration could be a detriment to productivity and quality of life. This new chapter provides practical guidelines for architects, engineers, contractors, and building owners. As in the other chapters, the approach is to emphasize what and why rather than how. The topics covered in this book are broad and are in a state of continuous advancement. New technologies and practices are occurring at such a rapid pace that substantial updating is necessary every few years. This is particularly true in the area of commuiucations and illumination engineering. For this reason, we decided to engage several contributing authors who are authorities ill their fields of engineering or professional practices. In future editions, additional contributing authors will be invited to participate, providing valuable inputs to one or more of the remaining chapters. We hope that with each new edition, this book will be recognized as the authority in every field of building engineering. Our approach, however, is to stress uniformity, continuity, and consistency so that all chapters read as if written by one hand. This book covers five major disciplines, namely: HVAC; plumbing and fire protection; electrical power and auxiliary systems; illumination; and noise and vibrations. Chapter 1, The Scope and Impact of Mechanical and Electrical Systems, is a useful overview for both students and professionals. It provides comprehensive information not found in other publications, a culmination of years of practical experience. Instructors may begin the course by briefly touching upon the topics in Chapter 1, later returning to it at the end of the course when students have a better understanding of the topics. Professionals and others will find Chapter 1 useful in guiding them to specific chapters relevant to them. Either way, Chapter 1 is a vital tool and places each discipline into the increasingly complex field of architecture and engineering today. We are indebted to the reviewers, engineering and technical associations, and leading product manufacturers (listed separately in the Acknowledgments) for their cooperation in providing data and illustrations.William Tao Coauthor and Editor --This text refers to an out of print or unavailable edition of this title.

The content of the book is perfectly fine, however DO NOT use the Kindle version. It is USELESS as a textbook. A psychrometric chart is provided in the book that is necessary for completing some of the problems presented, but the low resolution makes it completely unusable in the digital format. The book is a textbook, but highlighting is not enabled like it is in other Kindle books. There is no "flow," that is, each page appears to be scanned in as-is. You have to zoom in to read the text and pan around on the page. This makes it practically impossible to use charts and diagrams, even if they were at a high enough resolution to see when zoomed in. This next complaint may have to do with the fact that I rented this e-book rather than purchasing it, but it's also unavailable for the Windows 8 Kindle app. (I thought maybe it would behave better on my laptop than on my tablet, not that I was relishing the idea of taking my laptop to class.) I give this a hearty thumbs-down and am ordering the hardcover copy. I thought an e-book would be so convenient instead of carrying a bulky textbook, especially since I plan to bike to class in the spring, but this is a NO-GO!

I'll give it three stars because there are a lot of interesting charts the authors put in the book from ASHRAE and ANSI and stuff.Be careful when your doing the examples though. I would say at least 20% of them have incorrect numbers, words, or formulas.

I will never rent a book from again. Searching this book is impossible and necessary when taking online courses.

This book is helpful and instructive for what its purpose is used for. I would say it is slightly technical and was somewhat hard for me to read, but for the subject I would not complain about being too over my head. I would say this is an excellent book, but a tough read for just one semester. It is being used to suppliment another class I am now taking.

Loved the book

Perfect.

Not that fun to read, doesn't give many examples or different situations.

Book is what was required for class. Has great pictures and text covering the subject matter. Highly

recommend if needed.

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