Handbook of Modern Sensors: Physics, Designs, and Applications

Jacob Fraden
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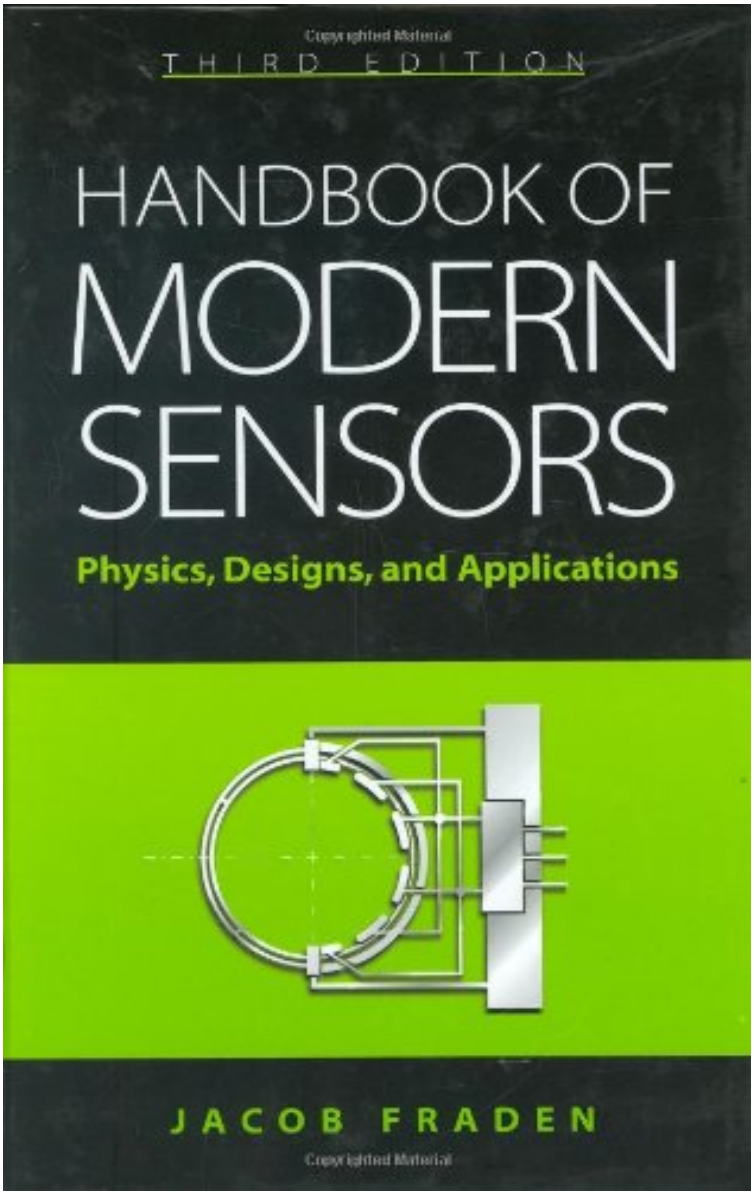

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Jacob Fraden : Handbook of Modern Sensors: Physics, Designs, and Applications before purchasing it in order to gage whether or not it would be worth my time, and all praised Handbook of Modern Sensors: Physics, Designs, and Applications:

1 of 1 people found the following review helpful. Fire the editorBy meepromI have my doubts about whether Fraden had a copy-editor review this book before printing. It's full of egregious typos and downright bizarre terminology

(OPAM = op amp).I don't mean to be to harsh, I think English isn't Fraden's first language and he must come from a non-EE background. This book contains useful, but poorly-presented information. You're probably better off figuring out what you want to sense and reading some appnotes instead.0 of 0 people found the following review helpful. the book is an overview and doesn't go into great detail on any one topicBy ECE_GalThe book doesn't go into enough technical details on the topics it covers. Basically, the book is an overview and doesn't go into great detail on any one topic. Very disappointing purchase overall.0 of 0 people found the following review helpful. Great overview of important sensors in today's worldBy Engineer/ Martial ArtistThis book is a good reference book to many different sensors that I was looking for. As an engineer looking to use these types of sensors, it gave me a nice overview to quickly move into the design and application thought process. Thanks

The Handbook's coverage of sensors is extensive, ranging from simple photodiodes to complex devices containing components in combination. It offers hard-to-find reference data on the properties of numerous materials and sensing elements and emphasizes devices that are less well-known, whose technology is still being refined, and whose use permits the measurement of variables that were previously inaccessible.

From the reviews: " A very useful book It strikes an excellent balance between a large variety of different sensor types and moderate description of each to yield a book of reasonable length Provides excellent information on all types of physical measurements. I recommend it highly." Biomedical Instrumentation Technology "Jacob Fraden has produced a valuable, single-volume reference on the devices that bridge the analog and digital worlds." Lawrence Rubin, MIT From the reviews of the third edition: "This is a weighty volume of nearly 600 pages. The book is undoubtedly useful as a source of reference. The large number of sensors described in it, and the consideration of underlying principles of operation should help people ." (Allan Hobson, Robotica, Vol. 23, 2005) "This book handles the basic and absolutely most important common areas of all sensor applications. It gives a good overview of a very wide range of sensor applications, which is not found in many other books in such a detailed form. This book is useful for everybody who works with any kind of measurement technique. For beginners it is a good introduction to the world of sensors. For advanced users it is a good and extensive handbook and help." (Rdiger Frank, Analytical and Bioanalytical Chemistry, Vol. 382, 2005) "This book aims for breadth and to be a reasonably comprehensive account of most modern sensors. The Handbook is a readable reference text for researchers, graduate students and engineers . Dont read this book if you dont want to know how the sensors work . If, however you want to understand how a sensor works, the principle behind it or use all that sensors have to offer technically, then this book is for you." (Stephen Kukureka Fimmm, Materials World, Vol. 13 (2), February, 2005) "Sensors are the eyes, the ears and the noses of the silicium chips. ... The aim of the author is to provide comprehension, samples, general solutions for use, tables of practical data, all in volume. He succeeds to provide an enormous amount of information. Its a wonderful illustration of physics. a very interesting and good book, useful for experimental physicist or engineer even for theoreticians to see how theory is applied practically. A book to be placed in each laboratorys library." (J-C. Jodogne, Physicalia, Vol. 28 (4-6), 2006)From the Back CoverThis book is about devices commonly called sensors. Digital systems, however complex and intelligent they might be, must receive information from the outside world that is generally analog and not electrical. Sensors are interface devices between various physical values and the electronic circuits who "understand" only a language of moving electrical charges. In other words, sensors are the eyes, ears, and noses of silicon chips. Unlike other books on sensors, this book is organized according to the measured variables (temperature, pressure, position, etc.) that make it much more practical and easier to read. In this new edition recent ideas and developments have been added while less important and non-essential designs were dropped. Sections on practical designs and use of the modern micro-machining technologies have been revised substantially. This book is a reference text that can be used by students, researchers interested in modern instrumentation (applied physicists and engineers), sensor designers, application engineers and technicians whose job it is to understand, select and/or design sensors for practical systems. The scope of this book is rather broad covering many different designs. Some are well known, but describing them is still useful for students and those who look for a convenient reference. It is the authors intention to present a comprehensive and up-to-date account of the theory (physical principles), design, and practical implementations of various sensors for scientific, industrial, and consumer applications. About the Author: Jacob Fraden holds a Ph. D. in medical electronics and is the CEO of Advanced Monitors Corp., a company that produces medical and veterinary temperature sensors and monitors. He holds over 30 patents in the areas of sensing, medical instrumentation, consumer electronics, security, and others.About the AuthorJacob Fraden holds a Ph. D. in medical electronics and is the CEO of Advanced Monitors Corp., a company that produces medical and veterinary temperature sensors and monitors. He holds over 30 patents in the areas of sensing, medical instrumentation, consumer electronics, security, and others.