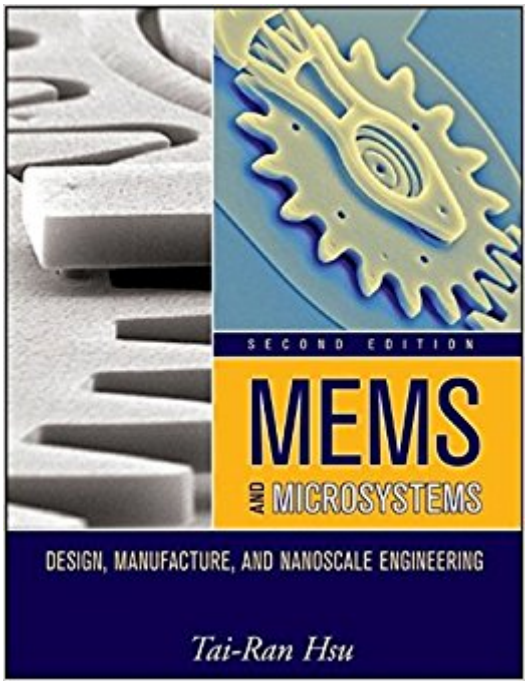
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MEMS And Microsystems: Design, Manufacture, And Nanoscale Engineering



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Technology/Engineering/Mechanical A bestselling MEMS text...now better than ever. An engineering design approach to Microelectromechanical Systems, MEMS and Microsystems remains the only available text to cover both the electrical and the mechanical aspects of the technology. In the five years since the publication of the first edition, there have been significant changes in the science and technology of miniaturization, including microsystems technology and nanotechnology. In response to the increasing needs of engineers to acquire basic knowledge and experience in these areas, this popular text has been carefully updated, including an entirely new section on the introduction of nanoscale engineering. Following a brief introduction to the history and evolution of nanotechnology, the author covers the fundamentals in the engineering design of nanostructures, including fabrication techniques for producing nanoproducts, engineering design principles in molecular dynamics, and fluid flows and heat transmission in nanoscale substances. Other highlights of the Second Edition include: * Expanded coverage of microfabrication plus assembly and packaging technologies * The introduction of microgyroscopes, miniature microphones, and heat pipes * Design methodologies for thermally actuated multilayered device components * The use of popular SU-8 polymer material Supported by numerous examples, case studies, and applied problems to facilitate understanding and real-world application, the Second Edition will be of significant value for both professionals and senior-level mechanical or electrical engineering students.

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Tai-Ran Hsu, PhD, is a Professor in the Department of Mechanical and Aerospace Engineering, San Jose State University, California. Dr. Hsu is the author of the earlier edition of this book, which is considered one of the bestselling textbooks on the subject of MEMS.

nice book.

Good

Required for a class. I would have not bought otherwise. Full of mistakes and ambiguous wording. A nice waste of $100 or so.

New in this edition are micro-fabricated gyroscopes and microphone elements, the latter of which is already appearing in consumer devices. The second edition updates modernize what was already an excellent book.I’d recommend that if you’re not sure about spending the money on the book that

you use ’s search inside this book and take a bit of a look. Much as you’d do in a bookstore, thumb through, search for a couple of items of interest, that sort of thing.

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