Optoelectronics, Fiber Optics, and Laser Cookbook

Thomas Petruzzellis
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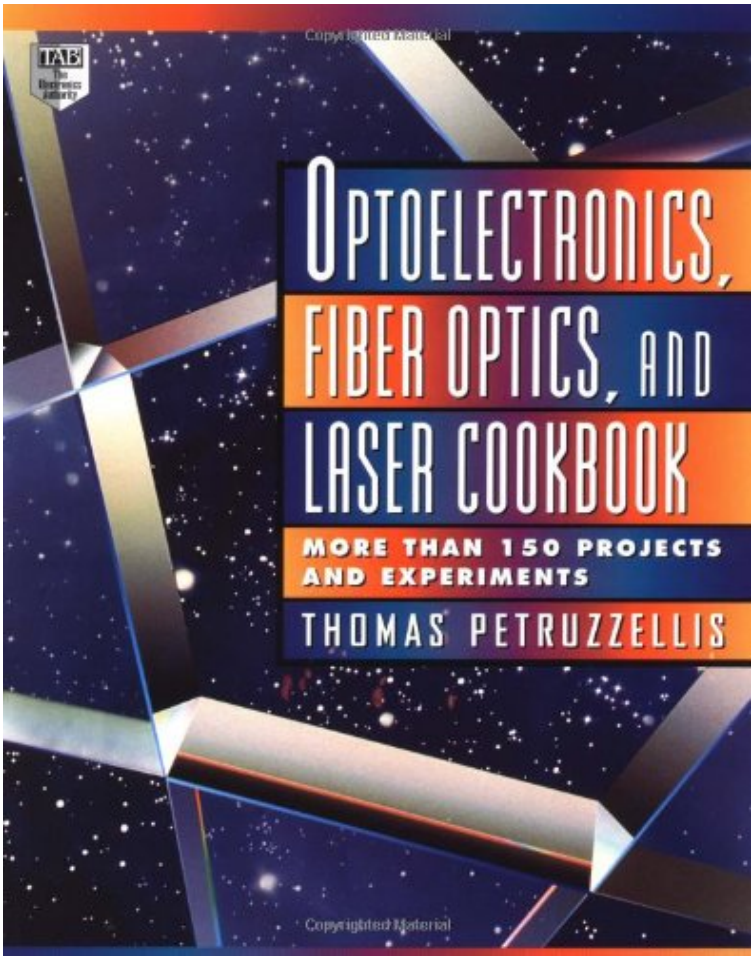

#2325040 in Books 1997-05-01Ingredients: Example IngredientsOriginal language:EnglishPDF # 1 9.30 x .76 x 7.40l, #File Name: 0070498407322 pages | File size: 35.Mb

Thomas Petruzzellis : Optoelectronics, Fiber Optics, and Laser Cookbook before purchasing it in order to gage whether or not it would be worth my time, and all praised Optoelectronics, Fiber Optics, and Laser Cookbook:

5 of 5 people found the following review helpful. Great examples of practical optoelectronic circuitsBy calvinnmeIf you are a physicist or engineer, you'll find plenty of textbooks on optics, electronics, and optoelectronics, but probably not many examples of optoelectronic circuits. That is where the value of this book lies. There are the very basics of theory on optics in these chapters, but you will need to read other books to really be able to say you know optics. Chapter 3 is where the book takes a big upswing in quality and uniqueness. This chapter on optocouplers and optointerfacing and the example circuits are brilliant. Obvious and plain commonsense, you'll ask yourself "why didn't I think of it"? "Optocouplers and optointerfacing" presents a great many circuits for any number of purposes and the standouts would have to be the TTL - to - RS-232 interface, RS-232 infrared data transmission system and, a high speed RS-232 infrared computer interface. In later chapters we get to "wireless security systems" another interesting

subject. The schematics are quite clear, contain comprehensive parts lists and include manufacturers of unusual parts. I didn't check the degree of ease or difficulty of sourcing these parts but I note that light dependent resistors and the phototransistor are manufactured by Vactec. They are not mentioned in the appendix of sources and vendors. Later chapters in my opinion only get better and better provided you have an interest in these areas.In summary I highly recommend this book to individuals who want to get their hands on some concrete projects that unite the power of electronics and optics, provided they have other sources for the theory and also provided they are prepared to do some hunting for some of the rarer devices needed to build some of the circuits.8 of 8 people found the following review helpful. Optoelectronics, Fiber Optics, and Laser CookbookBy Jason RivesOne of the best electronic books today, optoelectronics is perfect, fun and easy to use. This is a guide to optical circuits which includes fiber optics and lasers, provides a collection of experiments and projects for the college student, technician, and hobbyist. The book is greatly detailed and simple directions to enter the field of optoelectronics in nontechnical terms. It is really fun and again, easy to use for any of its 88 projects. Dare to be challeged and be caught up in what I call the best "something to do" book.

This is a practical guide to one of the hottest fields in electronics and optical circuits. A collection of hands-on experiments and projects for the student, technician, and hobbyist, it explains optoelectronics in nontechnical terms. Projects show how optical circuits work and how to use them in practical and efficient ways. You'll save time, money, and energy with dozens of do-it-yourself projects, from laser alarm systems to high-speed fiberoptic data links. Circuit diagrams, schematics, and complete parts lists accompany each project, and an appendix lists suppliers for needed parts.

From the Back CoverOne of the hottest fields in electronic technologies today, optoelectronics is rich in possibilities and potential. This practical guide to optical circuits, including fiberoptics and lasers, presents a collection of state-of-the-art experiments and projects for the student, technician, and hobbyist. Detailed, easy-to-follow discussions of optoelectronics explain the essentials of the field, as well as future trends, in nontechnical terms. Fun and challenging projects clearly demonstrate how optical circuits work and how they can be applied in practical and efficient ways. You will save time, money, and energy with dozens of do-it-yourself projects. Protect your home with window and door leak detectors, lightning monitors, flame sensors, and power outage and laser perimeter alarm systems; Create your own solar photometers and photo flash meters; Monitor your surroundings with laser seismographs and laser rangefinders.Expand communications with high-speed fiberoptic data links and wireless IR speaker systems. All projects are illustrated with circuit diagrams and schematics, and accompanied by complete parts lists. And a handy appendix of suppliers tells you where to buy the parts you'll need. Whether you're on the job, troubleshooting at home, or just tinkering around, the Optoelectronics, Fiberoptics, and Laser Cookbook will give you the knowledge and skills you need to design and build time-saving, cost-efficient devices using cutting-edge optical circuitry.About the AuthorThomas Petruzzellis, a professional electronic specialist and instructor at Binghamton University, has written extensively for industry publications, including Electronics Now, Modern Electronics, QST, Microcomputer Journal, and Nuts Volts. He is the author of the Alarm, Sensor, and Security Circuit Cookbook.