Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology)

By S. Sumathi, L. Ashok Kumar, P. Surekha

Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) By S. Sumathi, L. Ashok Kumar, P. Surekha

This textbook starts with a review of the principles of operation, modeling and control of common solar energy and wind-power generation systems before moving on to discuss grid compatibility, power quality issues and hybrid models of Solar PV and Wind Energy Conversion Systems (WECS). MATLAB/SIMULINK models of fuel cell technology and associated converters are discussed in detail. The impact of soft computing techniques such as neural networks, fuzzy logic and genetic algorithms in the context of solar and wind energy is explained with practical implementation using MATLAB/SIMULINK models.

This book is intended for final year undergraduate, post-graduate and research students interested in understanding the modeling and control of Solar PV and Wind Energy Conversion Systems based on MATLAB/SIMULINK.

- Each chapter includes "Learning Objectives" at the start, a "Summary" at the end and helpful Review Questions

- Includes MATLAB/SIMULINK models of different control strategies for power conditioning units in the context of Solar PV

- Presents soft computing techniques for Solar PV and WECS, as well as MATLAB/SIMULINK models, e.g. for wind turbine topologies and grid integration

- Covers hybrid solar PV and Wind Energy Conversion Systems with converters and MATLAB/SIMULINK models

- Reviews harmonic reduction in Solar PV and Wind Energy Conversion Systems in connection with power quality issues

- Covers fuel cells and converters with implementation using MATLAB/SIMULINK

Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology)

By S. Sumathi, L. Ashok Kumar, P. Surekha

Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology)
By S. Sumathi, L. Ashok Kumar, P. Surekha

This textbook starts with a review of the principles of operation, modeling and control of common solar energy and wind-power generation systems before moving on to discuss grid compatibility, power quality issues and hybrid models of Solar PV and Wind Energy Conversion Systems (WECS). MATLAB/SIMULINK models of fuel cell technology and associated converters are discussed in detail. The impact of soft computing techniques such as neural networks, fuzzy logic and genetic algorithms in the context of solar and wind energy is explained with practical implementation using MATLAB/SIMULINK models.

This book is intended for final year undergraduate, post-graduate and research students interested in understanding the modeling and control of Solar PV and Wind Energy Conversion Systems based on MATLAB/SIMULINK.

- Each chapter includes "Learning Objectives" at the start, a "Summary" at the end and helpful Review Questions

- Includes MATLAB/SIMULINK models of different control strategies for power conditioning units in the context of Solar PV

- Presents soft computing techniques for Solar PV and WECS, as well as MATLAB/SIMULINK models, e.g. for wind turbine topologies and grid integration

- Covers hybrid solar PV and Wind Energy Conversion Systems with converters and MATLAB/SIMULINK models

- Reviews harmonic reduction in Solar PV and Wind Energy Conversion Systems in connection with power quality issues

- Covers fuel cells and converters with implementation using MATLAB/SIMULINK

Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology)

By S. Sumathi, L. Ashok Kumar, P. Surekha Bibliography

- Sales Rank: #3282738 in Books
- Published on: 2015-04-09
- Original language: English
- Number of items: 1
- Dimensions: 9.21" h x 1.69" w x 6.14" l, .0 pounds
- Binding: Hardcover
- 790 pages

Download and Read Free Online Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) By S. Sumathi, L. Ashok Kumar, P. Surekha

---

Editorial Review

From the Back Cover

This textbook starts with a review of the principles of operation, modeling and control of common solar energy and wind-power generation systems before moving on to discuss grid compatibility, power quality issues and hybrid models of Solar PV and Wind Energy Conversion Systems (WECS). MATLAB/SIMULINK models of fuel cell technology and associated converters are discussed in detail. The impact of soft computing techniques such as neural networks, fuzzy logic, and genetic algorithms in the context of solar and wind energy is explained with practical implementation using MATLAB/SIMULINK models.

This book is intended for final year undergraduate, post-graduate and research students interested in understanding the modeling and control of Solar PV and Wind Energy Conversion Systems based on MATLAB/SIMULINK.

- Each chapter includes "Learning Objectives" at the start, a "Summary" at the end, and helpful Review Questions

- Includes MATLAB/SIMULINK models of different control strategies for power conditioning units in the context of Solar PV

- Presents soft computing techniques for Solar PV and WECS, as well as MATLAB/SIMULINK models, e.g. for wind turbine topologies and grid integration

- Covers hybrid solar PV and Wind Energy Conversion Systems with converters and MATLAB/SIMULINK models

- Reviews harmonic reduction in Solar PV and Wind Energy Conversion Systems in connection with power quality issues

- Covers fuel cells and converters with implementation using MATLAB/SIMULINK

About the Author

Dr.S. Sumathi has pursued her B.E. (Electronics and Communication Engineering), M.E. (Applied Electronics) and PhD (Data Mining). She has a teaching experience of 24 years. Currently she is an Associate Professor in the Department of Electrical and Electronics Engineering, PSG College of Technology, Coimbatore. She has published about 46 Technical papers in reputed National and International Journals and 52 papers in National and International Conferences. In addition, she has authored 5 books with leading publishers like Springer-Verlag and CRC press. She is a recipient of several awards from Institution of Engineers and ISTE. Her areas of specialization are Neural Networks, Fuzzy Systems and Genetic Algorithms, Pattern Recognition and Classification, Data Warehousing and Data Mining, Operating systems and Parallel Computing.

Dr. L. Ashok Kumar has completed his B.E. (EEE), ME (Electrical Machines) MBA (HRM) PhD (Wearable Electronics). He has both teaching and industrial experience of 17 years. At present he is working as a Professor in the Dept. of EEE, PSG College of Technology, Coimbatore. He has got 16 research projects from various Government funding agencies. He has published 72 Technical papers in reputed National and International Journal and presented 77 research articles in International and National Conferences. He is a recipient of many National and International Awards. He is a member of various National & International Technical bodies like ISTE, IETE, TSI, BMSI, ISSS, SESI, SSI CSI & TAI. His areas of specializations are Wearable Electronics, Power Electronics & Drives and Renewable Energy Systems.

Dr. P. Surekha completed her B.E. (Electrical and Electronics Engineering), M.E. (Control Systems) and Ph.D (Computational Intelligence). Her experience includes 10 years with a combination of teaching and industry. She is presently working in the Department of Electrical and Electronics Engineering, PES University, Bangalore. She has published 22 technical papers in International Journals and 16 papers in National and International conferences. Along with journals, to her credit, she has published 3 books with publishers like Springer-Verlag and CRC Press. Her areas of interest include Robotics, Virtual Instrumentation, Mobile Communication and Computational Intelligence.

Users Review

From reader reviews:

Bill Underhill:

Book is to be different for every single grade. Book for children until finally adult are different content. As it is known to us that book is very important for all of us. The book Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) seemed to be making you to know about other know-how and of course you can take more information. It doesn't matter what advantages for you. The publication Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) is not only giving you a lot more new information but also being your friend when you sense bored. You can spend your own personal spend time to read your guide. Try to make relationship while using book Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology). You never experience lose out for everything if you read some books.

Hilda Szymanski:

Do you certainly one of people who can't read pleasurable if the sentence chained within the straightway, hold on guys this particular aren't like that. This Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) book is readable simply by you who hate the perfect word style. You will find the info here are arrange for enjoyable looking at experience without leaving possibly decrease the knowledge that want to deliver to you. The writer associated with Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) content conveys thinking easily to understand by many individuals. The printed and e-book are not different in the information but it just different as it. So , do you nevertheless thinking Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling

with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) is not loveable to be your top list reading book?

Tyler Emery:

That reserve can make you to feel relax. This particular book Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) was vibrant and of course has pictures around. As we know that book Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) has many kinds or category. Start from kids until young adults. For example Naruto or Investigator Conan you can read and believe you are the character on there. Therefore not at all of book usually are make you bored, any it offers up you feel happy, fun and unwind. Try to choose the best book for you and try to like reading that.

Charlotte Cooper:

Reading a guide make you to get more knowledge from this. You can take knowledge and information originating from a book. Book is published or printed or created from each source which filled update of news. With this modern era like currently, many ways to get information are available for anyone. From media social just like newspaper, magazines, science reserve, encyclopedia, reference book, new and comic. You can add your understanding by that book. Isn't it time to spend your spare time to open your book? Or just searching for the Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) when you required it?

Download and Read Online Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) By S. Sumathi, L. Ashok Kumar, P. Surekha #7XFJ6TBVKN8

Read Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) By S. Sumathi, L. Ashok Kumar, P. Surekha for online ebook

Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) By S. Sumathi, L. Ashok Kumar, P. Surekha Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) By S. Sumathi, L. Ashok Kumar, P. Surekha books to read online.

Online Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) By S. Sumathi, L. Ashok Kumar, P. Surekha ebook PDF download

Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) By S. Sumathi, L. Ashok Kumar, P. Surekha Doc

Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) By S. Sumathi, L. Ashok Kumar, P. Surekha Mobipocket

Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) By S. Sumathi, L. Ashok Kumar, P. Surekha EPub

7XFJ6TBVKN8: Solar PV and Wind Energy Conversion Systems: An Introduction to Theory, Modeling with MATLAB/SIMULINK, and the Role of Soft Computing Techniques (Green Energy and Technology) By S. Sumathi, L. Ashok Kumar, P. Surekha