



Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications

By Amirnaser Yazdani, Reza Iravani

Download now

Read Online 

Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani

Presents Fundamentals of Modeling, Analysis, and Control of Electric Power Converters for Power System Applications

Electronic (static) power conversion has gained widespread acceptance in power systems applications; electronic power converters are increasingly employed for power conversion and conditioning, compensation, and active filtering. This book presents the fundamentals for analysis and control of a specific class of high-power electronic converters—the three-phase voltage-sourced converter (VSC). *Voltage-Sourced Converters in Power Systems* provides a necessary and unprecedented link between the principles of operation and the applications of voltage-sourced converters. The book:

- Describes various functions that the VSC can perform in electric power systems
- Covers a wide range of applications of the VSC in electric power systems—including wind power conversion systems
- Adopts a systematic approach to the modeling and control design problems
- Illustrates the control design procedures and expected performance based on a comprehensive set of examples and digital computer time-domain simulation studies

This comprehensive text presents effective techniques for mathematical modeling and control design, and helps readers understand the procedures and analysis steps. Detailed simulation case studies are included to highlight the salient points and verify the designs.

Voltage-Sourced Converters in Power Systems is an ideal reference for senior undergraduate and graduate students in power engineering programs, practicing engineers who deal with grid integration and operation of distributed energy resource units, design engineers, and researchers in the area of electric power generation, transmission, distribution, and utilization.

 [Download Voltage-Sourced Converters in Power Systems: Model ...pdf](#)

 [Read Online Voltage-Sourced Converters in Power Systems: Mod ...pdf](#)

Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications

By Amirnaser Yazdani, Reza Iravani

Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani

Presents Fundamentals of Modeling, Analysis, and Control of Electric Power Converters for Power System Applications

Electronic (static) power conversion has gained widespread acceptance in power systems applications; electronic power converters are increasingly employed for power conversion and conditioning, compensation, and active filtering. This book presents the fundamentals for analysis and control of a specific class of high-power electronic converters—the three-phase voltage-sourced converter (VSC). *Voltage-Sourced Converters in Power Systems* provides a necessary and unprecedented link between the principles of operation and the applications of voltage-sourced converters. The book:

- Describes various functions that the VSC can perform in electric power systems
- Covers a wide range of applications of the VSC in electric power systems—including wind power conversion systems
- Adopts a systematic approach to the modeling and control design problems
- Illustrates the control design procedures and expected performance based on a comprehensive set of examples and digital computer time-domain simulation studies

This comprehensive text presents effective techniques for mathematical modeling and control design, and helps readers understand the procedures and analysis steps. Detailed simulation case studies are included to highlight the salient points and verify the designs.

Voltage-Sourced Converters in Power Systems is an ideal reference for senior undergraduate and graduate students in power engineering programs, practicing engineers who deal with grid integration and operation of distributed energy resource units, design engineers, and researchers in the area of electric power generation, transmission, distribution, and utilization.

Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani **Bibliography**

- Sales Rank: #1304896 in Books
- Published on: 2010-02-15
- Original language: English
- Number of items: 1
- Dimensions: 9.50" h x 1.10" w x 6.40" l, 1.70 pounds
- Binding: Hardcover
- 451 pages

 [Download Voltage-Sourced Converters in Power Systems: Model ...pdf](#)

 [Read Online Voltage-Sourced Converters in Power Systems: Mod ...pdf](#)

Download and Read Free Online Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani

Editorial Review

From the Back Cover

Presents Fundamentals of Modeling, Analysis, and Control of Electric Power Converters for Power System Applications

Electronic (static) power conversion has gained widespread acceptance in power systems applications; electronic power converters are increasingly employed for power conversion and conditioning, compensation, and active filtering. This book presents the fundamentals for analysis and control of a specific class of high-power electronic converters—the three-phase voltage-sourced converter (VSC). *Voltage-Sourced Converters in Power Systems* provides a necessary and unprecedented link between the principles of operation and the applications of voltage-sourced converters. The book:

- Describes various functions that the VSC can perform in electric power systems
- Covers a wide range of applications of the VSC in electric power systems—including wind power conversion systems
- Adopts a systematic approach to the modeling and control design problems
- Illustrates the control design procedures and expected performance based on a comprehensive set of examples and digital computer time-domain simulation studies

This comprehensive text presents effective techniques for mathematical modeling and control design, and helps readers understand the procedures and analysis steps. Detailed simulation case studies are included to highlight the salient points and verify the designs.

Voltage-Sourced Converters in Power Systems is an ideal reference for senior undergraduate and graduate students in power engineering programs, practicing engineers who deal with grid integration and operation of distributed energy resource units, design engineers, and researchers in the area of electric power generation, transmission, distribution, and utilization.

About the Author

Amirnaser Yazdani, PhD, is an assistant professor in the Department of Electrical and Computer Engineering at the University of Western Ontario. Formerly, he was with Digital Predictive Systems (DPS) Inc., Mississauga, Ontario, active in the design and production of power converters for wind energy systems. Dr. Yazdani has more than ten years of industry experience in the design, modeling, and analysis of switching power converters and railway signaling systems. He is a Senior Member of the IEEE and a professional engineer in the province of Ontario, Canada.

Reza Iravani, PhD, is a professor in the Department of Electrical and Computer Engineering at the University of Toronto. Dr. Iravani is a Fellow of the IEEE and a professional engineer in the province of Ontario, Canada.

Users Review

From reader reviews:

Ian Coghlan:

Hey guys, do you desire to find a new book to see? Maybe the book with the concept Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications suitable to you? The particular book was written by a well-known writer in this era. The actual book titled Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications is the one of several books that everyone reads now. This specific book has inspired many people in the world. When you read this e-book you will enter the new shape that you never knew ahead of. The author explained their concept in a simple way, and so all of people can easily recognize the core of this book. This book will give you a wide range of information about this world now. In order to see the representation of the world with this book.

Jeanne Crank:

The e-book with title Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications possesses a lot of information that you can understand it. You can get a lot of help after reading this book. This specific book exists to provide new knowledge; the information that exists in this guide represents the condition of the world today. That is important to you to find out how the improvement of the world. This book will bring you with the new era of the positive effect. You can read the e-book on your own smart phone, so you can read it anywhere you want.

Douglas Wyss:

A lot of people always spent all their free time on vacation as well as go to the outside with their family or their friend. Are you aware? Many a lot of people spend their free time just watching TV, or even playing video games all day long. If you want to try to find a new activity this is look different you can read a book. It is really fun for yourself. If you enjoy the book that you just read you can spend the whole day to reading an e-book. The book Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications it is extremely good to read. There are a lot of individuals who recommended this book. These folks were enjoying reading this book. When you did not have enough space bringing this book you can buy the particular e-book. You can more quickly to read this book from the smart phone. The price is not too high but this book provides high quality.

Thomas Crittenden:

Does one of the book lovers? If yes, do you ever feeling doubt if you are in the book store? Attempt to pick one book that you find out the inside because don't judge book by its handle may doesn't work this is difficult job because you are afraid that the inside maybe not as fantastic as in the outside appearance likes. Maybe your answer can be Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications why because the amazing cover that make you consider concerning the content will not disappoint a person. The inside or content is actually fantastic as the outside or cover. Your reading sixth sense will directly guide you to pick up this book.

Download and Read Online Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani #PT8G0LHFK14

Read Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani for online ebook

Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani 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 Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani books to read online.

Online Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani ebook PDF download

Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani Doc

Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani Mobipocket

Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani EPub

PT8G0LHFK14: Voltage-Sourced Converters in Power Systems: Modeling, Control, and Applications By Amirnaser Yazdani, Reza Iravani