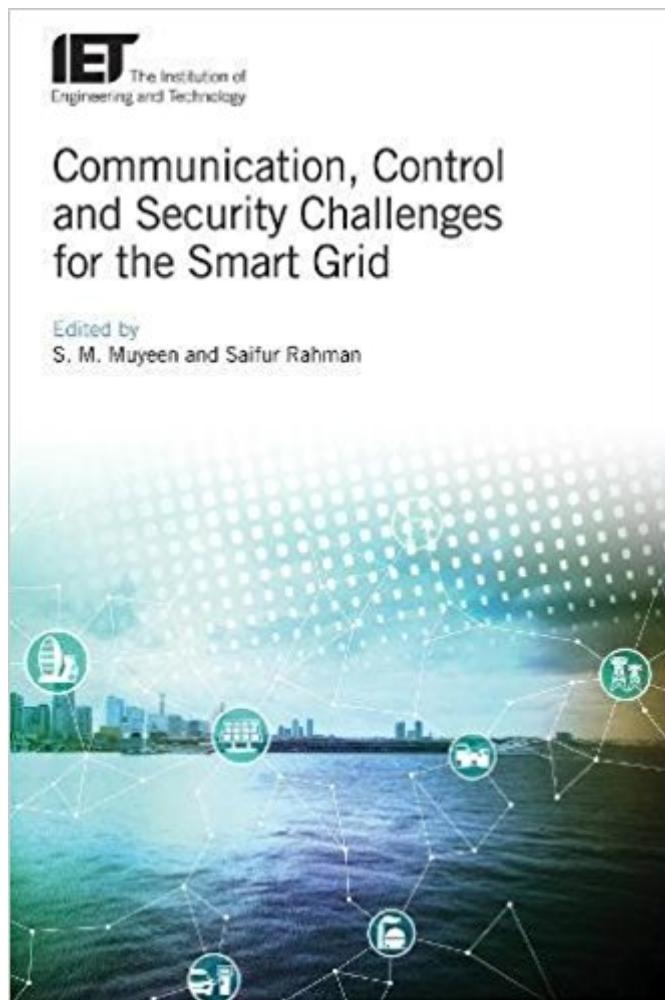


The book was found

# Communication, Control And Security Challenges For The Smart Grid (Iet Power And Energy)



## Synopsis

The Smart Grid is a modern electricity grid allowing for distributed, renewable intermittent generation, partly owned by consumers. This requires advanced control and communication technologies in order to provide high quality power supply and secure generation, transmission and distribution. This book outlines these emerging technologies. This essential reading focuses specifically on security and control aspects of the smart grid. It covers various related topics including smart grid architecture; communications and networking features; measuring and sensing devices; and smart transmission and distribution. Particular emphasis is placed on security, reliability, and stability features. Different control aspects of smart grid are also covered. Each chapter includes examples, case studies, simulations and experimental results, making this a practical and essential resource for professional researchers and advanced students alike. Topics covered include:

- \* An introduction to smart grid architecture
- \* Smart grid communications and standards
- \* Measurement and sensing devices for smart grids
- \* Smart transmission and wide area monitoring system
- \* Bad data detection in smart grids
- \* Optimal energy management in smart grids
- \* Communication and control for the smart grid
- \* Smart consumer systems
- \* Importance of energy storage systems in smart grids
- \* Control and optimisation for integration of plug-in vehicles in smart grids
- \* Multi-agent based control of smart grids
- \* Compressive sensing for smart grid security and reliability
- \* Optimum placement of FACTS devices in smart grids
- \* Security analysis of smart grid
- \* Smart grid security policies and regulations

## Book Information

Series: Iet Power and Energy

Hardcover: 576 pages

Publisher: The Institution of Engineering and Technology (March 8, 2017)

Language: English

ISBN-10: 1785611429

ISBN-13: 978-1785611421

Product Dimensions: 1.2 x 6.2 x 9.2 inches

Shipping Weight: 2.1 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #1,074,183 in Books (See Top 100 in Books) #153 in Books > Engineering & Transportation > Engineering > Energy Production & Extraction > Power Systems #248 in Books > Engineering & Transportation > Engineering > Energy Production & Extraction >

## Customer Reviews

S. M. Muyeen is an Associate Professor in the Department of Electrical and Computer Engineering at Curtin University, Perth, Australia. He was the founder of the Renewable Energy Lab at The Petroleum Institute, Abu Dhabi, UAE and faculty lab coordinator for Energy Lab-1 of the Petroleum Institute Research Centre (PIRC). His research interests include power system stability and control, electrical machines, energy storage system, renewable energy and smart grids. He has published about 150 scientific articles on these topics, and he has authored, edited, or co-edited several related books. Dr. Muyeen serves as Editor for IET Renewable Power Generation, IEEE Transaction on Sustainable Energy, IEEE Power Engineering Letters and several other journals. Saifur Rahman is the founding director of the Advanced Research Institute at Virginia Tech where he also directs the Center for Energy and the Global Environment. He served as a vice president of the IEEE Power and Energy Society from 2009 to 2013 and currently is serving as a member of the Board of Governors of the IEEE Society on Social Implications of Technology. In addition, he was founding editor of key journals in his area, and has published numerous papers, and given lectures in over 30 countries on all six continents.

[Download to continue reading...](#)

Communication, Control and Security Challenges for the Smart Grid (Iet Power and Energy) Solar Power: The Ultimate Guide to Solar Power Energy and Lower Bills: (Off Grid Solar Power Systems, Home Solar Power System) (Living Off Grid, Wind And Solar Power Systems) Nuclear Power (Iet Power and Energy) Solar PV Off-Grid Power: How to Build Solar PV Energy Systems for Stand Alone LED Lighting, Cameras, Electronics, Communication, and Remote Site Home Power Systems Dot Grid Journal: A Dotted Notebook with Bullet Dots & Dot Grid Paper to Stay Organized / Dotted Grid to Bullet Journal Your Notes Dot Grid Notebook 8 Dots Per Inch: Dot Grid Composition Book Dotted 0.5 inches (approx 12.5 mm) Precise Dot-Grid Journal. Paper Size 7.50"W-9.75"H (Volume 5) Mechatronic Hands: Prosthetic and Robotic Design (Iet Control, Robotics and Sensors) Social Security & Medicare Facts 2016: Social Security Coverage, Maximization Strategies for Social Security Benefits, Medicare/Medicaid, Social Security Taxes, Retirement & Disability, Ser Off-Grid Living: How To Build Wind Turbine, Solar Panels And Micro Hydroelectric Generator To Power Up Your House: (Wind Power, Hydropower, Solar Energy, Power Generation) Tiny House Engineers Notebook: Volume 1, Off Grid Power: Tiny House Engineers Notebook: Volume 1, Off Grid Power

Human Systems Integration to Enhance Maritime Domain Awareness for Port/Harbour Security: Volume 28 NATO Science for Peace and Security Series - D: ... D: Information and Communication Security) Smart Power Anniversary Edition: Climate Change, the Smart Grid, and the Future of Electric Utilities NLP: Persuasive Language Hacks: Instant Social Influence With Subliminal Thought Control and Neuro Linguistic Programming (NLP, Mind Control, Social Influence, ... Thought Control, Hypnosis, Communication) Reiki: The Healing Energy of Reiki - Beginner's Guide for Reiki Energy and Spiritual Healing: Reiki: Easy and Simple Energy Healing Techniques Using the ... Energy Healing for Beginners Book 1) Master Your Mind: Achieve Greatness by Powering Your Subconscious Mind [mental power, mind control, thought control] (brain power, subconscious mind power, NLP, Neuro Linguistic Programming) Energy Harvesting: Solar, Wind, and Ocean Energy Conversion Systems (Energy, Power Electronics, and Machines) The Renewable Energy Handbook: A Guide to Rural Energy Independence, Off-Grid and Sustainable Living Nuclear Safeguards, Security and Nonproliferation: Achieving Security with Technology and Policy (Butterworth-Heinemann Homeland Security) Security Camera For Home: Learn Everything About Wireless Security Camera System, Security Camera Installation and More Fundamentals Of Information Systems Security (Information Systems Security & Assurance) - Standalone book (Jones & Bartlett Learning Information Systems Security & Assurance)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)