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Catalogue 2021

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All prices, rates and publication dates are subject to change without notice. Check the website or contact the sales team for the most up-to-date information and prices.

HIGHLIGHTS

AI for Emerging Verticals: Human-robot computing, sensing and networking

Editors: Muhammad Zeeshan Shakir, University of the West of Scotland, UK; Naeem Ramzan, University of the West of Scotland, UK.

This edited book explores novel concepts and cutting-edge research and developments towards designing fully automated advanced digital systems. Fostered by technological advances in artificial intelligence and machine learning, such systems potentially have a wide range of applications in robotics, human computing, sensing and networking.

2020 / 400pp / £125 / \$160

Print PBPC0340 / 978-1-78561-982-3

eBook PBPC034E / 978-1-78561-983-0



Blockchains for Network Security: Principles, technologies, and applications

Editors: Haojun Huang, China University of Geoscience, P.R. China; Lizhe Wang, Chinese Academy of Science, P.R. China; Yulei Wu, University of Exeter, UK

Presenting a comprehensive view of blockchain technologies for network security from principles to core technologies and applications, this book offers unprecedented insights into recent advances and developments in these areas, and how they can make blockchain technologies associated with networks more secure and fit-for-purpose.

The IET Book Series on Big Data

2020 / 350pp / £120 / £155

Print PBPC0290 / 978-1-78561-873-4

eBook PBPC029E / 978-1-78561-874-1



Edge Computing: Models, technologies and applications

Editors: Javid Taheri, Karlstad University, Sweden; Shuiguang Deng, Zhejiang University, China

This book provides valuable insights for ICTs engineers, scientists, researchers, developers and practitioners who are involved in developing and implementing edge and cloud-based solutions ranging from sensors and actuators to cloud-based back-end systems.

2020 / 500pp / £130 / \$170

Print PBPC0330 / 978-1-78561-940-3

eBook PBPC033E / 978-1-78561-941-0



Network Classification for Traffic Management: Anomaly detection, feature selection, clustering and classification

Authors: Zahir Tari, RMIT University, Australia; Adil Fahad, University of Albaha, Saudi Arabia; Abdulmohsen Almalawi, University of King Abdulaziz, Saudi Arabia; Xun Yi, RMIT University, Australia

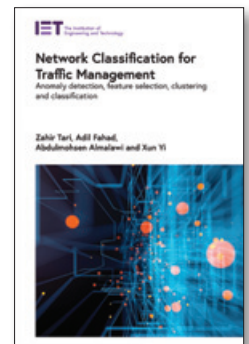
This book investigates network traffic classification solutions by proposing transport-layer methods to achieve better run and operated enterprise-scale networks. The authors explore novel methods for enhancing network statistics at the transport layer, helping to identify optimal feature selection through a global optimization approach and providing automatic labelling for raw traffic through a SemTra framework to maintain provable privacy on information disclosure properties.

The IET Book Series on Big Data

2020 / 288pp / £110 / \$145

Print PBPC0320 / 978-1-78561-921-2

eBook PBPC032E / 978-1-78561-922-9



FORTHCOMING - to be published in 2021 and 2022

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code
Computer Vision and Recognition Systems Using Machine and Deep Learning Approaches: Fundamentals, technologies and applications	Chowdhary, Alazab, Chaudhary, Hakak & Reddy (Eds)	£140	\$160	978-1-83953-323-5	978-1-83953-324-2	PBPC042
E-learning Methodologies: Fundamentals, technologies and applications	Goyal, Krishnamurthi & Yadav (Eds)	£125	\$165	978-1-83953-120-0	978-1-83953-121-7	PBPC040
Handbook of Big Data Analytics (2-volume set) ¹	Ravi & Cherukuri (Eds)	£210	\$270	978-1-83953-061-6	N/A	PBPC037X
Handbook of Big Data Analytics: Volume 1: Methodologies ¹	Ravi & Cherukuri (Eds)	£125	\$160	978-1-83953-064-7	978-1-83953-058-6	PBPC037A
Handbook of Big Data Analytics: Volume 2: Applications in ICT, security and business analytics ¹	Ravi & Cherukuri (Eds)	£140	\$180	978-1-83953-059-3	978-1-83953-060-9	PBPC037B
Managing Internet of Things Applications across Edge and Cloud Data Centres	Ranjan, Mitra, Jayaraman & Zomaya (Eds)	£145	\$190	978-1-78561-779-9	978-1-78561-780-5	PBPC027
Pattern Recognition and Machine and Deep Learning for Augmented and Virtual Reality Applications	Sagayam, Henesey, de Albuquerque & Edinborough (Eds)	£125	\$165	978-1-83953-069-2	978-1-83953-070-8	PBPC038
RRAM-based Machine Learning	Yu, Ni & Dinakarrao	£115	\$150	978-1-83953-081-4	978-1-83953-082-1	PBPC039
Trustworthy Autonomic Computing	Eze	£115	\$150	978-1-78561-883-3	978-1-78561-884-0	PBPC030
Visual Technologies for Virtual Reality	Lafruit & Tehrani	£125	\$160	978-1-78561-578-8	978-1-78561-579-5	PBPC021

¹ Part of the IET Book Series on Big Data

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RECENT

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
AI for Emerging Verticals: Human-robot computing, sensing and networking	Shakir & Ramzan (Eds)	£125	\$160	978-1-78561-982-3	978-1-78561-983-0	PBPC034	2020
Blockchains for Network Security: Principles, technologies, and applications ¹	Huang, Wang and Wu (Eds)	£120	£155	978-1-78561-873-4	978-1-78561-874-1	PBPC0290	2020
Edge Computing: Models, technologies and applications ¹	Taheri & Deng (Eds)	£130	\$170	978-1-78561-940-3	978-1-78561-941-0	PBPC033	2020
Network Classification for Traffic Management: Anomaly detection, feature selection, clustering and classification ¹	Tari, Fahad, Almalawi & Yi	£110	\$145	978-1-78561-921-2	978-1-78561-922-9	PBPC032	2020
Big Data Recommender Systems (2-volume set) ¹	Khalid, Khan & Zomaya (Eds)	£200	\$260	978-1-78561-979-3	N/A	PBPC035X	2019
Big Data Recommender Systems: Volume 1: Algorithms, architectures, big data, security and trust ¹	Khalid, Khan & Zomaya (Eds)	£120	\$155	978-1-78561-975-5	978-1-78561-976-2	PBPC035A	2019
Big Data Recommender Systems: Volume 2: Application paradigms ¹	Khalid, Khan & Zomaya (Eds)	£130	\$170	978-1-78561-977-9	978-1-78561-978-6	PBPC035B	2019
Big Data-Enabled Internet of Things ¹	Khan, Khan & Zomaya (Eds)	£140	\$180	978-1-78561-636-5	978-1-78561-637-2	PBPC025	2019
Handbook of Mathematical Models for Languages and Computation	Meduna, Horáček & Tomko	£125	\$160	978-1-78561-659-4	978-1-78561-660-0	PBPC026	2019
Many-Core Computing: Hardware and software	Al-Hashimi & Merrett (Eds)	£135	\$175	978-1-78561-582-5	978-1-78561-583-2	PBPC022	2019
Security and Privacy for Big Data, Cloud Computing and Applications ¹	Wang, Ren, Choo & Xhafa (Eds)	£120	\$155	978-1-78561-747-8	978-1-78561-748-5	PBPC028	2019
Ultrascale Computing Systems ¹	Carretero, Jeannot & Zomaya (Eds)	£115	\$150	978-1-78561-833-8	978-1-78561-834-5	PBPC024	2019
Big Data and Software Defined Networks ¹	Taheri (Ed)	£110	\$175	978-1-78561-304-3	978-1-78561-305-0	PBPC015	2018
Data as Infrastructure for Smart Cities ¹	Suzuki & Finkelstein (Eds)	£115	\$150	978-1-78561-599-3	978-1-78561-600-6	PBPC023	2018
Modeling and Simulation of Complex Communication Networks ¹	Niazi (Ed)	£125	\$160	978-1-78561-355-5	978-1-78561-356-2	PBPC018	2018
SysML for Systems Engineering: A model-based approach. 3rd Edition	Holt & Perry	£145	\$190	978-1-78561-554-2	978-1-78561-555-9	PBPC020	2018
Foundations for Model-based Systems Engineering: From patterns to models	Holt, Perry & Brownsword	£85	\$135	978-1-78561-050-9	978-1-78561-051-6	PBPC014	2016
Trusted Platform Modules: Why, when and how to use them	Segall	£75	\$120	978-1-84919-893-6	978-1-84919-894-3	PBPC013	2016

¹ Part of the IET Book Series on Big Data

For more details on these books please visit theiet.org/books

HIGHLIGHTS

Advances in Communications Satellite Systems 2:

Proceedings of The 37th International Communications Satellite Systems Conference (ICSSC-2019)

Editors: Iflok Otung, University of South Wales, UK; Thomas Butash, Innovative Aerospace IS, USA; Tetsushi Ikegami, Meiji University, Japan

The International Communications Satellite Systems Conference (ICSSC) is one of the most influential technical conferences in the field. The 37th edition was held from 20 Oct-1 Nov 2019 in Okinawa, Japan. These proceedings present a broad spectrum of space communications contributions from the conference including optical ground stations, global laser communication, and space quantum communications.

2020 / 300pp / £115 / \$150

Print PBTE0950 / 978-1-83953-145-3

eBook PBTE095E / 978-1-83953-146-0



Antennas and Propagation for 5G and Beyond

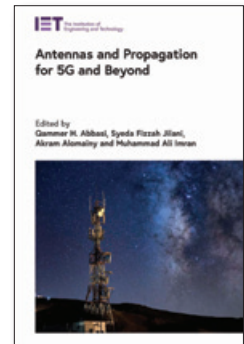
Editors: Qammer H. Abbasi, University of Glasgow, UK; Syeda Fizzah Jilani, University of Maine, USA; Akram Alomainy, Queen Mary University of London, UK; Muhammad Ali Imran, University of Glasgow, UK

5G and beyond technologies will bring much higher bandwidth and connectivity to billions of devices. In this book, the authors explore new approaches for exploiting challenging propagation channels and the development of efficient, cost-effective, scalable, and reliable antenna systems and solutions.

2020 / 400pp / £120 / \$155

Print PBTE0930 / 978-1-83953-097-5

eBook PBTE093E / 978-1-83953-098-2



Flexible and Cognitive Radio Access Technologies for 5G and Beyond

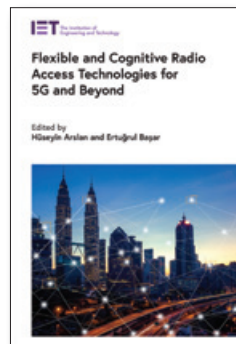
Editors: Hüseyin Arslan, University of South Florida, Tampa, USA; Ertuğrul Başar, Koç University, Istanbul, Turkey

This comprehensive book is intended to be both a tutorial on flexible and cognitive radio access technologies for 5G and beyond and an advanced overview for technical professionals and managers in the communications industry, as well as researchers in academia and industry.

2020 / 632pp / £140 / \$185

Print PBTE0920 / 978-1-83953-079-1

eBook PBTE092E / 978-1-83953-080-7



Green Communications for Energy-Efficient Wireless Systems and Networks

Editors: Himel Asanga Suraweera, University of Peradeniya, Sri Lanka; Jing Yang, The Pennsylvania State University, USA; Alessio Zappone, University of Cassino and Southern Lazio, Italy; John Thompson, University of Edinburgh, UK.

The energy crisis, growth in data traffic and increasing network complexity are driving the development of energy-efficient architectures, technologies and networks. This edited book presents research from theory to practice, plus methods and technologies for designing next generation green wireless communication networks.

2020 / 450pp / £125 / \$165

Print PBTE0910 / 978-1-83953-067-8

eBook PBTE091E / 978-1-83953-068-5



HIGHLIGHTS

Information and Communication Technologies for Humanitarian Services

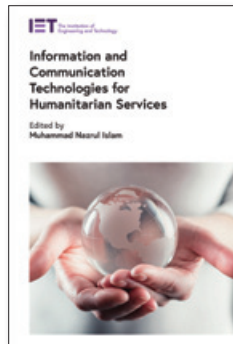
Editor: Muhammad Nazrul Islam, Military Institute of Science and Technology, Dhaka, Bangladesh

Information, mobile and networking applications foster information exchange and cooperation in the humanitarian and emergency management fields. This edited book covers developments, innovations, and research outcomes for the creation and deployment of ICT technologies and solutions supporting humanitarian services.

2020 / 450pp / £125 / \$165

Print PBTE0890 / 978-1-78561-996-0

eBook PBTE089E / 978-1-78561-997-7



The Nine Pillars of Technology for Industry 4.0

Editors: Wai Yie Leong, Mahsa University, Malaysia; Joon Huang Chuah, University of Malaya, Malaysia; Tee Boon Tuan, Universiti Teknikal Malaysia Melaka, Malaysia

This edited book focuses on the nine pillars of technology supporting the transition to Industry 4.0 and smart manufacturing, incorporating the internet of things, cloud computing, autonomous and robotics systems, big data analytics, augmented reality, cyber security, simulation, system integration, and additive manufacturing.

2020 / 616pp / £140 / \$185

Print PBTE0880 / 978-1-83953-005-0

eBook PBTE088E / 978-1-83953-006-7



FORTHCOMING - to be published in 2021 and 2022

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code
Antennas for Next-Generation IoT Networks: Design, measurement and applications	Ferrero & Gao (Eds)	£120	\$155	978-1-83953-275-7	978-1-83953-276-4	PBTE102
Artificial Intelligence Applied to Satellite-based Remote Sensing Data for Earth Observation	Del Rosso, Sebastianelli & Ullo (Eds)	£115	\$150	978-1-83953-212-2	978-1-83953-213-9	PBTE098
Communication Technologies for Networked Smart Cities	Sharma, Jayakody, Chatzinotas & Anpalagan (Eds)	£125	\$160	978-1-83953-029-6	978-1-83953-030-2	PBTE090
Digital Television Systems: Volume 1: Fundamentals & Broadcast Systems	Mozar & Glasman (Eds)	£120	\$155	978-1-78561-250-3	978-1-78561-251-0	PBTE075
Digital Television Systems: Volume 2: Digital Television Reception	Mozar & Glasman (Eds)	£120	\$155	978-1-78561-850-5	978-1-78561-851-2	PBTE085
Edge Caching for Mobile Networks	Poor & Chen (Eds)	£145	\$185	978-1-83953-122-4	978-1-83953-123-1	PBTE096
Emerging Evolutionary Algorithms for Antennas and Wireless Communications	Goudos	£110	\$145	978-1-78561-552-8	978-1-78561-553-5	SBEW534
Fundamentals, Advances and Applications of Blind Source Separation	Belouchrani & Abed-Meraim	£125	\$160	978-1-78561-749-2	978-1-78561-750-8	PBTE082
Intelligent Wireless Communications	Mastorakis, Mavromoustakis, Batalla & Pallis (Eds)	£120	\$155	978-1-83953-095-1	978-1-83953-096-8	PBTE094
Location-based Services: Architecture, technologies, applications and optimization	Chen, Lyu, Hwang & Kung	£120	\$155	978-1-83953-157-6	978-1-83953-158-3	PBTE097
Metrology for 5G and Emerging Wireless Technologies	Loh (Ed)	£125	\$160	978-1-83953-278-8	978-1-83953-279-5	PBTE099
Real Time Convex Optimisation for 5G Networks and Industrial IoT: Theory, models, techniques and applications	Duong, Nguyen & Hoang	£115	\$150	978-1-78561-959-5	978-1-78561-960-1	PBTE087
Resilience in Wireless Networks	Krishnamurthy	£110	\$145	978-1-84919-790-8	978-1-84919-791-5	PBTE062
Wireless Mesh Networks for IoT and Smart Cities: Technologies and applications	Davoli & Ferrari (Eds)	£125	\$160	978-1-83953-282-5	978-1-83953-283-2	PBTE101

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RECENT

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
Advances in Communications Satellite Systems 2: Proceedings of The 37th International Communications Satellite Systems Conference (ICSSC-2019)	Otung, Butash & Ikegami (Eds)	£115	\$150	978-1-83953-145-3	978-1-83953-146-0	PBTE095	2020
Antennas and Propagation for 5G and Beyond	Abbasi, Jilani, Alomainy & Imran (Eds)	£120	\$155	978-1-83953-097-5	978-1-83953-098-2	PBTE093	2020
Flexible and Cognitive Radio Access Technologies for 5G and Beyond	Arslan & Başar (Eds)	£140	\$185	978-1-83953-079-1	978-1-83953-080-7	PBTE092	2020
Green Communications for Energy-Efficient Wireless Systems and Networks	Suraweera, Yang, Zappone & Thompson (Eds)	£125	\$165	978-1-83953-067-8	978-1-83953-068-5	PBTE091	2020
Information and Communication Technologies for Humanitarian Services	Islam (Ed)	£125	\$165	978-1-78561-996-0	978-1-78561-997-7	PBTE089	2020
The Nine Pillars of Technology for Industry 4.0	Leong, Chuah & Tuan (Eds)	£140	\$185	978-1-83953-005-0	978-1-83953-006-7	PBTE088	2020
Advances in Satellite Communications: Proceedings of The 36th International Satellite Communications Systems Conference (ICSSC-2018)	Otung, Butash & Garland (Eds)	£135	\$175	978-1-78561-961-8	978-1-78561-962-5	PBTE086	2019
Applications of Machine Learning in Wireless Communications	He & Ding (Eds)	£125	\$165	978-1-78561-657-0	978-1-78561-658-7	PBTE081	2019
Low Electromagnetic Emission Wireless Network Technologies	Imran, Hélot & Sambo (Eds)	£120	\$155	978-1-78561-848-2	978-1-78561-849-9	PBTE084	2019
Microstrip and Printed Antenna Design. 3rd Edition	Bancroft	£125	\$160	978-1-78561-854-3	978-1-78561-855-0	PBTE083	2019
Principles and Applications of Free Space Optical Communications	Majumdar, Ghassemlooy & Raj (Eds)	£125	\$165	978-1-78561-415-6	978-1-78561-416-3	PBTE078	2019
Network Design, Modelling and Performance Evaluation	Vien	£120	\$155	978-1-78561-336-4	978-1-78561-337-1	PBTE077	2018
Satellite Communications in the 5G Era	Sharma, Chatzinotas & Arapoglou (Eds)	£135	\$175	978-1-78561-427-9	978-1-78561-428-6	PBTE079	2018
5G Wireless Technologies	Alexiou (Ed)	£100	\$160	978-1-78561-061-5	978-1-78561-062-2	PBTE069	2017
Access, Fronthaul and Backhaul Networks for 5G and Beyond	Imran, Zaidi & Shakir (Eds)	£110	\$175	978-1-78561-213-8	978-1-78561-214-5	PBTE074	2017
Cloud and Fog Computing in 5G Mobile Networks	Markakis, Mastorakis, Mavromoustakis & Pallis (Eds)	£90	\$145	978-1-78561-083-7	978-1-78561-084-4	PBTE070	2017
Introduction to Digital Wireless Communications	Yang	£75	\$120	978-1-78561-160-5	978-1-78561-161-2	PBTE072	2017
Network as a Service for Next Generation Internet	Duan & Wang (Eds)	£100	\$160	978-1-78561-176-6	978-1-78561-177-3	PBTE073	2017
Transceivers and System Design for Digital Communications. 5th Edition	Bullock	£120	\$190	978-1-78561-495-8	978-1-78561-496-5	PBTE080	2017
Trusted Communications with Physical Layer Security for 5G and Beyond	Duong, Zhou & Poor (Eds)	£90	\$145	978-1-78561-235-0	978-1-78561-236-7	PBTE076	2017
Understanding Telecommunications Networks. 2nd Edition	Valdar	£50	\$80	978-1-78561-164-3	978-1-78561-165-0	PBTE071	2017
Advanced Relay Technologies in Next Generation Wireless Communications	Krikidis & Zheng (Eds)	£105	\$170	978-1-78561-003-5	978-1-78561-004-2	PBTE068	2016
Advances in Body-Centric Wireless Communication: Applications and state-of-the-art	Alomainy, Abbasi, Rehman & Qaraqe (Eds)	£95	\$150	978-1-84919-989-6	978-1-84919-990-2	PBTE065	2016
Cognitive Radio Engineering ¹	Bostian, Kaminski & Fayez	£75	\$120	978-1-61353-211-9	978-161353-212-6	SBTE502	2016

¹ Part of the Mario Boella Series on Electromagnetism in Information and Communication

HIGHLIGHTS

Authentication Technologies for Cloud Computing, IoT and Big Data

Editors: Yasser M. Alginahi & Muhammad N. Kabir, Taibah University, Saudi Arabia & University Pahang Malaysia, Malaysia

This book covers state-of-the-art global research on authentication technologies for security and privacy in information systems, including applications, research challenges and future research directions. Topics include information security, data authentication algorithms, cryptography, digital watermarking, biometric authentication and data authentication. Essential for scientists, engineers and professionals involved in all aspects of authentication and information technology and systems security.

2019 / 368pp / £125 / \$160

Print PBSE0090 / 978-1-78561-556-6

eBook PBSE009E / 978-1-78561-557-3



Hand-Based Biometrics: Methods and technology

Editor: Martin Drahanský, Brno University of Technology, Czech Republic

This book describes the complete biometrics of the hand, drawing on the latest research of its identifiable characteristics into one unique volume. It includes material on inner and outer hand physiology and diseases; fingerprint recognition and processing; palmprint recognition using 3D features; synthetic fingerprints; palmvein biometrics; finger veins recognition; 3D hand shape recognition; and anti-spoofing methods. Essential reading for researchers, engineers, practitioners, academics, product managers and government agencies in the security, biometrics and image processing fields.

The IET Book Series on Advances in Biometrics

2018 / 448pp / £125 / \$160

Print PBSE0080 / 978-1-78561-224-4

eBook PBSE008E / 978-1-78561-225-1



Information Security: Foundations, technologies and applications

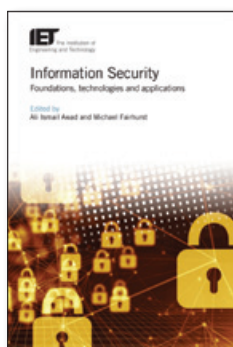
Editors: Ali Ismail Awad, Luleå University of Technology, Sweden; Michael Fairhurst, University of Kent, UK

This book outlines key emerging trends in information security in terms of foundations, technologies and applications. Studies covering information security and real-time challenges are combined with survey material which emphasizes the applications of information security in different domains. This book covers information security foundations such as information security in developing countries, biometrics, cybersecurity, and big data security. It features applications to hardware and embedded systems security, computer forensics, the Internet of Things security, and network security.

2018 / 416pp / £125 / \$160

Print PBSE0010 / 978-1-84919-974-2

eBook PBSE001E / 978-1-84919-976-6



Nature-Inspired Cyber Security and Resiliency: Fundamentals, techniques and applications

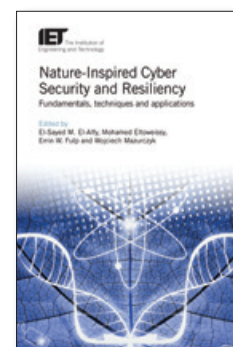
Editors: El-Sayed M. El-Alfy et al., King Fahd University of Petroleum and Minerals, Saudi Arabia

This is a timely review of the fundamentals, the latest developments and the diverse applications of nature-inspired algorithms in cyber security and resiliency. Based on concepts from natural processes, phenomena and organisms, it presents novel methodologies to cope with cyber security challenges. Coverage includes intrusion and malware detection, intelligent threat detection and traffic analysis, evolutionary and self-healing security systems, nature-inspired data protection, cooperative and self-configurable cyber defence, and more.

2019 / 480pp / £125 / \$165

Print PBSE0100 / 978-1-78561-638-9

eBook PBSE010E / 978-1-78561-639-6



FORTHCOMING - to be published in 2021 and 2022

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code
Essential Techniques and Algorithms of Digital Forensics	Gladyshev & Chilikov	£125	\$160	978-1-83953-302-0	978-1-83953-303-7	PBSE015
Hash Function Cryptanalysis	Roodt & Kallioinen	£115	\$150	978-1-83953-015-9	978-1-83953-016-6	PBSE013
Machine Learning Based Blockchain Technologies for IoTs and Big Data: Fundamentals, methods and applications	Tyagi, Abraham, Hussain, Kaklauskas & Kannan (Eds)	£140	\$180	978-1-83953-339-6	978-1-83953-340-2	PBSE016
Privacy by Design for the Internet of Things: Building accountability and security	Crabtree, Mortier & Haddadi (Eds)	£115	\$150	978-1-83953-139-2	978-1-83953-140-8	PBSE014
Security, Privacy and Trust in the Internet of Things	Xiao & Zhang	£130	\$170	978-1-78561-203-9	978-1-78561-204-6	PBSE006
The User Experience of Biometrics: Practical considerations for the deployment of biometric systems ¹	Krol & Sasse (Eds)	£120	\$155	978-1-78561-879-6	978-1-78561-880-2	PBSE011
Voice Biometrics: Technology, trust and security	Garcia-Mateo & Chollet (Eds)	£115	\$150	978-1-78561-900-7	978-1-78561-901-4	PBSE012

¹ Part of the IET Book Series on Advances in Biometrics

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RECENT

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
Authentication Technologies for Cloud Computing, IoT and Big Data	Alginahi & Kabir	£125	\$160	978-1-78561-556-6	978-1-78561-557-3	PBSE009	2019
Nature-Inspired Cyber Security and Resiliency: Fundamentals, techniques and applications	El-Alfy, Eltoweissy, Fulp & Mazurczyk (Eds)	£125	\$165	978-1-78561-638-9	978-1-78561-639-6	PBSE010	2019
Hand-Based Biometrics: Methods and technology ¹	Drahanský (Ed)	£125	\$160	978-1-78561-224-4	978-1-78561-225-1	PBSE008	2018
Information Security: Foundations, technologies and applications	Awad & Fairhurst (Eds)	£125	\$160	978-1-84919-974-2	978-1-84919-976-6	PBSE001	2018
Data Security in Cloud Computing	Kumar, Ko & Chaisiri (Eds)	£100	\$160	978-1-78561-220-6	978-1-78561-221-3	PBSE007	2017
Iris and Periocular Biometric Recognition ¹	Rathgeb & Busch (Eds)	£120	\$190	978-1-78561-168-1	978-1-78561-169-8	PBSE005	2017
Mobile Biometrics ¹	Guo & Wechsler (Eds)	£110	\$175	978-1-78561-095-0	978-1-78561-096-7	PBSE003	2017
User-Centric Privacy and Security in Biometrics ¹	Vielhauer (Ed)	£120	\$190	978-1-78561-207-7	978-1-78561-208-4	PBSE004	2017
Engineering Secure Internet of Things Systems	Aziz, Arenas & Crispo (Eds)	£105	\$165	978-1-78561-053-0	978-1-78561-054-7	PBSE002	2016

¹ Part of the IET Book Series on Advances in Biometrics

For more details on these books please visit theiet.org/books

HIGHLIGHTS

Fault Diagnosis and Fault-tolerant Control of Robotic and Autonomous Systems

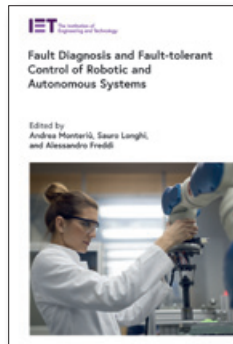
Editors: Andrea Monteriù, Università Politecnica delle Marche, Italy; Sauro Longhi, Università Politecnica delle Marche, Italy; Alessandro Freddi, Università Politecnica delle Marche, Italy

Robotic systems have experienced exponential growth thanks to their incredible adaptability. Modern robots require an increasing level of autonomy and the capability to interact with humans. This book addresses the challenges of increasing and ensuring reliability and safety of modern robotic and autonomous systems.

2020 / 350pp / £115 / \$150

Print PBCE1260 / 978-1-78561-830-7

eBook PBCE126E / 978-1-78561-831-4



Imaging and Sensing for Unmanned Aircraft Systems

Volume 1 - Control and Performance
Volume 2 - Deployment and Applications

Editors: Vania V. Estrela, Universidade Federal Fluminense, Brazil; Jude Hemanth, Karunya University (KU), India; Osamu Saitome, Instituto Tecnológico de Aeronáutica (ITA), Brazil; George Nikolakopoulos, Luleå University of Technology (LTU), Sweden; Roberto Sabatini, RMIT, Australia

This two-volume book set explores how sensors and computer vision technologies are used for the navigation, control, stability, reliability, guidance, fault detection, self-maintenance, strategic re-planning and reconfiguration of unmanned aircraft systems (UAS). Volume 1 concentrates on UAS control and performance while Volume 2 focuses on UAS deployment and applications. Chapters are provided by an international panel of leading researchers working in the field.

Vol 1: 2020 / 366pp / £120 / \$155

Print PBCE120A / 978-1-78561-642-6

eBook PBCE120F / 978-1-78561-643-3

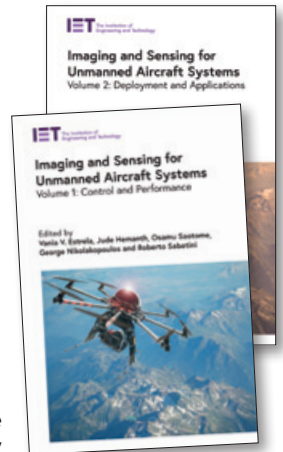
Vol 2: 2020 / 277pp / £110 / \$145

Print PBCE120B / 978-1-78561-644-0

eBook PBCE120G / 978-1-78561-645-7

Set: 2020 / £185 / \$240

Print PBCE120X / 978-1-78561-679-2



Imaging Sensor Technologies and Applications

Editor: Wuqiang Yang, University of Manchester, UK

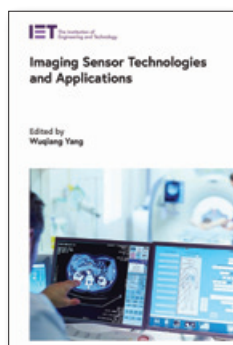
This edited book presents state-of-the-art research on imaging sensors covering a wide frequency range and different sensing modalities and applications.

The IET International Series on Sensors

2020 / 350pp / £130 / \$170

Print PBCE1160 / 978-1-78561-497-2

eBook PBCE116E / 978-1-78561-498-9



IoT Technologies in Smart-Cities: From sensors to big data, security and trust

Editors: Fadi Al-Turjman, Near East University, Turkey; Muhammad Imran, King Saud University (KSU), Saudi Arabia

This book focuses on both the design and implementation aspects for smart city and sensing applications that are enabled and supported by IoT paradigms. Attention is also given to data delivery approaches and performance aspects.

The IET International Series on Sensors

2020 / 264pp / £125 / \$160

Print PBCE1280 / 978-1-78561-869-7

eBook PBCE128E / 978-1-78561-870-3



HIGHLIGHTS

Sensors, Actuators, and Their Interfaces: A multidisciplinary introduction

2nd Edition

Author: Nathan Ida, University of Akron, USA

In this revised and expanded second edition, the author looks at sensors and actuators based on a broad area of detection technologies and methods. He takes a general and applications-oriented approach to the topic and makes it discipline-independent to cater for a broad audience. Topics covered include different type of sensors and actuators (temperature, thermal, optical, electric, magnetic, mechanical, acoustic, chemical, radiation, and smart sensors) and their interfaces. The book contains numerous examples and problem sets as well as useful appendices.

The IET International Series on Sensors

2020 / 928pp / £145 / \$190

Print PBCE1270 / 978-1-78561-835-2

eBook PBCE127E / 978-1-78561-836-9



Signal Processing to Drive Human-Computer Interaction: EEG and eye-controlled interfaces

Editors: Ioannis Kompatsiaris, Information Technologies Institute (ITI), Greece; Chandan Kumar, Institute for Web Science and Technologies, Koblenz, Germany; Spiros Nikolopoulos, Information Technologies Institute (ITI), Greece

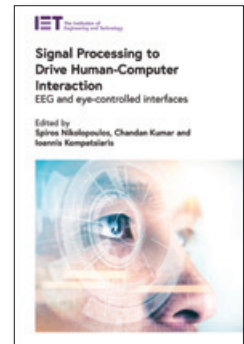
In this book, the contributors show how brain-signal processing can be used to drive a human-computer interface (HCI) using processing results from a single modality or a combination. They present concrete usage scenarios and applications in multimedia interfaces, drawing on a wide range of examples covering communications and healthcare.

The IET International Series on Sensors

2020 / 312pp / £115 / \$150

Print PBCE1290 / 978-1-78561-919-9

eBook PBCE129E / 978-1-78561-920-5



Systems Engineering for Ethical Autonomous Systems

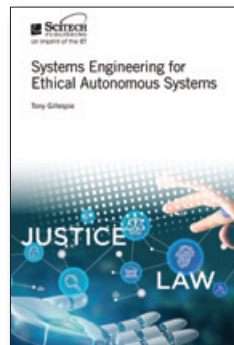
Author: Tony Gillespie, University College London, UK

The transfer of responsibility for decisions and actions from humans to machines presents difficult problems for all those concerned with new concepts, their development and use. This book gives practical help by discussing the issues in the context of product design, and gives a methodology to solve them.

2019 / 512pp / £130 / \$170

Print SBRA5170 / 978-1-78561-372-2

eBook SBRA517E / 978-1-78561-373-9



Transparency for Robots and Autonomous Systems: Fundamentals, technologies and applications

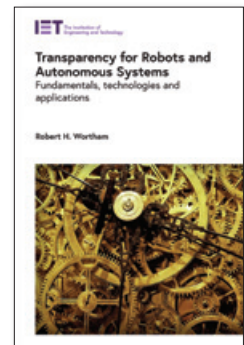
Author: Robert Wortham, University of Bath, UK

Based on scientific understanding and empirical evidence of how humans understand and interact with robotic and autonomous systems, this book reviews the concerns that have been raised around the deployment of AI and robots in human society, and the potential for disruption and harm. The author explains why transparency ought to be a fundamental design consideration for Human Computer Interaction (HCI) and artificial intelligent systems.

2020 / 240pp / £110 / \$145

Print PBCE1300 / 978-1-78561-994-6

eBook PBCE130E / 978-1-78561-995-3



FORTHCOMING - to be published in 2021 and 2022

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code
Energy Harvesting in Wireless Sensor Networks and Internet of Things ¹	Shaikh & Zeaddally (Eds)	£115	\$145	978-1-78561-736-2	978-1-78561-737-9	PBCE124
Ground Penetrating Radar : Improving Sensing and Imaging through Numerical Modeling	Travassos, Pantoja & Ida	£125	\$160	978-1-78561-493-4	978-1-78561-494-1	PBCE115
Sensory Systems for Robotic Applications ¹	Dahiya, Cheng & Ozioko (Eds)	£130	\$170	978-1-84919-948-3	978-1-84919-949-0	PBCE097
Space Robotics and Autonomous Systems: Technologies, advances and applications	Gao (Ed)	£120	\$155	978-1-83953-225-2	978-1-83953-226-9	PBCE131

¹ Part of the IET International Series on Sensors

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RECENT

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
Fault Diagnosis and Fault-tolerant Control of Robotic and Autonomous Systems	Monteriù, Longhi & Freddi (Eds)	£115	\$150	978-1-78561-830-7	978-1-78561-831-4	PBCE126	2020
Imaging and Sensing for Unmanned Aerial Vehicles (2-volume set)	Estrela, Hemanth, Saotomo, Sabatini & Nikolakopoulos (Eds)	£230	\$300	978-1-78561-679-2	N/A	PBCE120X	2020
Imaging and Sensing for Unmanned Aerial Vehicles: Volume 1 - Control and Performance	Estrela, Hemanth, Saotomo, Sabatini & Nikolakopoulos (Eds)	£120	\$155	978-1-78561-642-6	978-1-78561-643-3	PBCE120A	2020
Imaging and Sensing for Unmanned Aerial Vehicles: Volume 2. Deployment and Applications	Estrela, Hemanth, Saotomo, Sabatini & Nikolakopoulos (Eds)	£110	\$145	978-1-78561-644-0	978-1-78561-645-7	PBCE120B	2020
Imaging Sensor Technologies and Applications	Yang (Ed)	£130	\$170	978-1-78561-497-2	978-1-78561-498-9	PBCE116	2020
IoT Technologies in Smart-Cities: From sensors to big data, security and trust ¹	Al-Turjman & Imran (Eds)	£125	\$160	978-1-78561-869-7	978-1-78561-870-3	PBCE128	2020
Sensors, Actuators, and Their Interfaces: A multidisciplinary introduction. 2nd edition ¹	Ida	£145	\$190	978-1-78561-835-2	978-1-78561-836-9	PBCE127	2020
Signal Processing to Drive Human-Computer Interaction: EEG and eye-controlled interfaces ¹	Nikolopoulos, Kumar & Kompatsiaris (Eds)	£115	\$150	978-1-78561-919-9	978-1-78561-920-5	PBCE129	2020
Transparency for Robots and Autonomous Systems: Fundamentals, technologies and applications	Wortham	£110	\$145	978-1-78561-994-6	978-1-78561-995-3	PBCE130	2020
Data-Driven Modeling, Filtering and Control: Methods and applications	Novara & Formentin (Eds)	£115	\$150	978-1-78561-712-6	978-1-78561-713-3	PBCE123	2019
Data Fusion in Wireless Sensor Networks: A statistical signal processing perspective ¹	Ciuonzo & Rossi (Eds)	£115	\$150	978-1-78561-584-9	978-1-78561-585-6	PBCE117	2019
Modeling, Simulation and Control of Electrical Drives	Rahman & Dwivedi (Eds)	£145	\$190	978-1-78561-587-0	978-1-78561-588-7	PBCE118	2019
Sensors in the Age of the Internet of Things: Technologies and Applications ¹	Postolache, Sazanov & Mukhopadhyay (Eds)	£115	\$150	978-1-78561-634-1	978-1-78561-635-8	PBCE122	2019

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Continued...

RECENT

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
Short-Range Micro-Motion Sensing with Radar Technology ¹	Gu & Lien (Eds)	£120	\$155	978-1-78561-760-7	978-1-78561-761-4	PBCE125	2019
Systems Engineering for Ethical Autonomous Systems	Gillespie	£130	\$170	978-1-78561-372-2	978-1-78561-373-9	SBRA517	2019
Design of Embedded Robust Control Systems Using MATLAB® / Simulink®	Petkov, Slavov & Kralev	£130	\$170	978-1-78561-330-2	978-1-78561-331-9	PBCE113	2018
Embedded Mechatronics System Design for Uncertain Environments	Chin	£130	\$170	978-1-78561-322-7	978-1-78561-323-4	PBCE109	2018
Integrated Fault Diagnosis and Control Design of Linear Complex Systems	Davoodi, Meskin & Khorasani	£110	\$145	978-1-78561-705-8	978-1-78561-706-5	PBCE121	2018
Motion-Induced Eddy Current Techniques for Non-Destructive Testing and Evaluation ¹	Brauer, Ziolkowski, Ulig, Zec, Weise & Carlstedt	£120	\$155	978-1-78561-215-2	978-1-78561-216-9	PBCE106	2018
Open Resonator Microwave Sensor Systems for Industrial Gauging: A practical design approach ¹	Ida	£125	\$160	978-1-78561-140-7	978-1-78561-141-4	PBCE103	2018
Signal Processing and Machine Learning for Brain-Machine Interfaces	Tanaka & Arvaneh (Eds)	£120	\$155	978-1-78561-398-2	978-1-78561-399-9	PBCE114	2018
Swarm Intelligence (3-volume set)	Tan (Ed)	£300	\$480	978-1-78561-633-4	N/A	PBCE119X	2018
Swarm Intelligence: Volume 1: Principles, current algorithms and methods	Tan (Ed)	£140	\$180	978-1-78561-627-3	978-1-78561-628-0	PBCE119A	2018
Swarm Intelligence: Volume 2: Innovation, new algorithms and methods	Tan (Ed)	£130	\$170	978-1-78561-629-7	978-1-78561-630-3	PBCE119B	2018
Swarm Intelligence: Volume 3: Applications	Tan (Ed)	£145	\$190	978-1-78561-631-0	978-1-78561-632-7	PBCE119C	2018
Wearable Exoskeleton Systems: Design, control and applications	Bai, Virk & Sugar (Eds)	£100	\$160	978-1-78561-302-9	978-1-78561-303-6	PBCE108	2018
Control of Mechatronic Systems	Guvenc, Guvenc, Demirel & Emirler	£85	\$135	978-1-78561-144-5	978-1-78561-145-2	PBCE104	2017
Flexible Robot Manipulators: Modelling, simulation and control. 2nd Edition	Tokhi & Azad	£120	\$190	978-1-84919-583-6	978-1-84919-584-3	PBCE086	2017
RFID Protocol Design and Optimization for the Internet of Things	Liu, Shahzad, Liu & Li	£100	\$160	978-1-78561-332-6	978-1-78561-333-3	PBCE112	2017
The Inverted Pendulum in Control Theory and Robotics: From theory to new innovations	Boubaker & Iriarte (Eds)	£100	\$160	978-1-78561-320-3	978-1-78561-321-0	PBCE111	2017
Cyber-Physical System Design with Sensor Networking Technologies	Zeadally & Jabbour (Eds)	£85	\$140	978-1-84919-824-0	978-1-84919-825-7	PBCE096	2016
Mechatronic Hands: Prosthetic and robotic Design	Chappell	£105	\$170	978-1-78561-154-4	978-1-78561-155-1	PBCE105	2016
Organic Sensors: Materials and applications	Garcia-Breijo, Pérez & Cosseddu (Eds)	£105	\$170	978-1-84919-985-8	978-1-84919-986-5	PBCE100	2016
Practical Robotics and Mechatronics: Marine, space and medical Applications	Yamamoto	£95	\$150	978-1-84919-968-1	978-1-84919-969-8	PBCE099	2016
Recent Trends in Sliding Mode Control	Fridman, Barbot & Plestan (Eds)	£120	\$190	978-1-78561-076-9	978-1-78561-077-6	PBCE102	2016
Solved Problems in Dynamical Systems and Control	Tenreiro-Machado, Galhano, Lopes & Valerio	£50	\$80	978-1-78561-174-2	978-1-78561-175-9	PBCE107	2016

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HIGHLIGHTS

Advances in Mathematical Methods for Electromagnetics

Editors: Kazuya Kobayashi, Chuo University, Japan; Paul Denis Smith, Macquarie University, Australia

This book covers recent achievements in the area of advanced analytical and associated numerical methods as applied to various problems arising in all branches of electromagnetics. The unifying theme is the application of advanced or novel mathematical techniques to produce analytical solutions or effective analytical-numerical methods for computational electromagnetics addressing more general problems.

The ACES Series on Computational Electromagnetics and Engineering

2020 / 700pp / £145 / \$190

Print SBEW5280 / 978-1-78561-384-5

eBook SBEW528E / 978-1-78561-385-2



Electromagnetic Reverberation Chambers: Recent advances and innovative applications

Editor: Guillaume Andrieu, University of Limoges, France

This book contains state of the art information about a novel range of applications for electromagnetic reverberation chambers. Topics covered include over-the-air testing of wireless devices, characterization of antenna efficiency, the most popular stirring techniques for broadband EMC and radar cross section estimation in reverberation chambers.

2020 / 250pp / £110 / \$145

Print SBEW5440 / 978-1-78561-931-1

eBook SBEW544E / 978-1-78561-932-8



Nanoantennas and Plasmonics: Modelling, Design and Fabrication

Editors: Douglas H. Werner, Penn State University, USA; Sawyer D. Campbell, Penn State University, USA; Lei Kang, Penn State University, USA

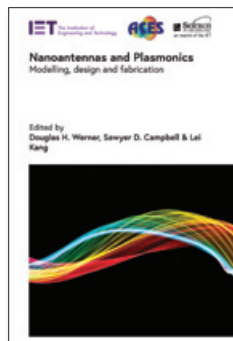
This book presents cutting-edge research advances in the rapidly growing areas of nanoantennas and plasmonics as well as their related enabling technologies and applications.

The ACES Series on Computational Electromagnetics and Engineering

2020 / 500pp / £125 / \$165

Print SBEW5400 / 978-1-78561-837-6

eBook SBEW540E / 978-1-78561-838-3



Nano-Electromagnetic Communication at Terahertz and Optical Frequencies: Principles and applications

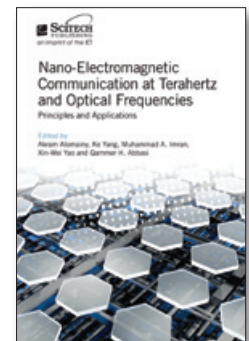
Editors: Akram Alomainy, Queen Mary University of London, UK; Ke Yang, Queen Mary University of London, UK; Qammer H. Abbasi, University of Glasgow, UK; Muhammad Ali Imran, University of Glasgow, UK; Xin-Wei Yao, Zhejiang University of Technology, China

Recent advancements in carbon and molecular electronics have opened the door to a new generation of electronic nanoscale components. This book outlines the basic principles of electromagnetic-based communication at this nanoscale using terahertz and optical frequencies with a focus on theoretical principles and applications.

2019 / 224pp / £110 / \$145

Print SBEW5420 / 978-1-78561-903-8

eBook SBEW542E / 978-1-78561-904-5



HIGHLIGHTS

New Trends in Computational Electromagnetics

Editor: Özgür Ergül, Middle East Technical University (METU), Ankara, Turkey

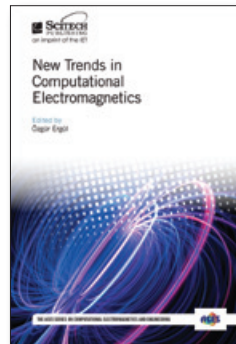
The authors present a broad overview of the recent efforts in computational electromagnetics to develop and implement more robust, accurate and efficient algorithms. With the recent improvement in available computing power, this is a timely overview of a rapidly developing subject.

The ACES Series on Computational Electromagnetics and Engineering

2019 / 708pp / £145 / \$190

Print SBEW5330 / 978-1-78561-548-1

eBook SBEW533E / 978-1-78561-549-8



Radiowave Propagation in Vehicular Environments

Leyre Azpilicueta, Tecnologico de Monterrey, Mexico; Cesar Vargas-Rosales, Tecnologico de Monterrey, Mexico; Francisco Falcone, Public University of Navarre, Spain; Ana Vazquez Alejos, University of Vigo, Spain

This book covers radio wave propagation in the vehicular environment. It comes at a timely moment in the development of connected and automated vehicles, as they move from concept and system design studies to actual demonstrations and pilot projects.

2020 / 400pp / £125 / \$160

Print SBEW5410 / 978-1-78561-823-9

eBook SBEW541E / 978-1-78561-824-6



Numerical Methods for Engineering: An introduction using MATLAB and computational electromagnetics examples

2nd Edition

Author: Karl Warnick, Brigham Young University, USA

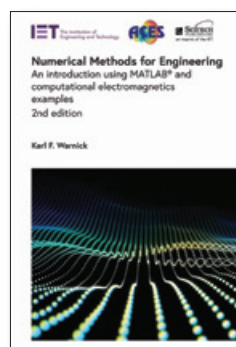
The revised and updated second edition of this textbook teaches students to create modeling codes used to analyze, design, and optimize structures and systems used in wireless communications, microwave circuits, and other applications of electromagnetic fields and waves. Worked code examples are provided for key algorithms using the MATLAB technical computing language.

The ACES Series on Computational Electromagnetics and Engineering

2020 / 350pp / £75 / \$95

Print SBEW5480 / 978-1-83953-073-9

eBook SBEW548E / 978-1-83953-074-6



Theory and Practice of Modern Antenna Range Measurements

2nd Expanded Edition
Volume 1
Volume 2

Authors: Clive Parini, Queen Mary University of London, UK; Stuart Gregson, Queen Mary University of London, UK; John McCormick, Leonardo MW, UK; Daniël Janse van Rensburg, NSI-MI Technologies, USA; Thomas Eibert, University of Munich, Germany

This new greatly expanded two-volume edition of this popular text provides a comprehensive introduction and explanation of both the theory and practice of modern antenna measurements, from their most basic postulates and assumptions, to the intricate details of their applications in various demanding modern measurement scenarios. Extensive examples illustrate the concepts and techniques covered. This second edition is thoroughly expanded and now includes new chapters on near-field to far-field transforms from non-canonical surfaces, electromagnetic modelling of CATRs and near-field antenna measurement systems. In addition, there is an expanded chapter on coordinate systems, polarization basis and antenna pattern plotting and new sections on more specialized topics such as 5G and Radome measurements.

Vol 1: 2020 / 424pp / £125 / \$165

Print SBRA538A / 978-1-83953-126-2

eBook SBRA538F / 978-1-83953-127-9

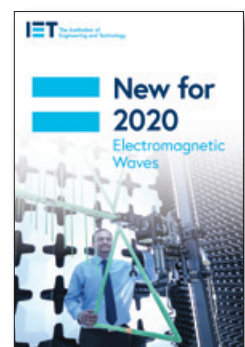
Vol 2: 2020 / 693pp / £145 / \$190

Print SBRA538B / 978-1-83953-128-6

eBook SBRA538G / 978-1-83953-129-3

Set: 2020 / £215 / \$285

Print SBRA538X / 978-1-83953-130-9



FORTHCOMING - to be published in 2021 and 2022

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code
Advanced Numerical Methods for Time-Dependent Electromagnetic Applications	Kantartzis, Zygidis & Tsiboukis (Eds)	£125	\$165	978-1-78561-396-8	978-1-78561-397-5	SBEW532
Advanced Time Domain Modelling for Electrical Engineering ¹	Araneo (Ed)	£135	\$175	978-1-83953-153-8	978-1-83953-154-5	SBEW550
Beamforming Techniques in Microwave Power Transmission	Wang & Lu	£115	\$150	978-1-78561-803-1	978-1-78561-804-8	SBEW539
Cable Construction and Shielding Termination Techniques for Control of EM Interference	Scully	£120	\$155	978-1-78561-935-9	978-1-78561-936-6	SBEW547
Computational Electromagnetics for Modelling of Metamaterials ¹	Uno, Michishita & Arima	£125	\$160	978-1-78561-805-5	978-1-78561-806-2	SBEW538
Higher Order Methods in Computational Electromagnetics ¹	Notaros	£130	\$170	978-1-78561-964-9	978-1-78561-965-6	SBEW545
Integral Equation Methods for Solving Wave Equations : Analytical and engineering aspects	Bleszynski, Bleszynski & Jaroszewicz	£115	\$150	978-1-78561-777-5	978-1-78561-778-2	SBEW536
Leaky Waves in Electromagnetics ²	Burghignoli, Galli, Baccarelli, Lovat & Jackson	£120	\$155	978-1-61353-213-3	978-1-61353-214-0	SBEW522
Light Filaments: Structures, Challenges and Applications	Diels, Richardson & Arissian (Eds)	£125	\$165	978-1-78561-240-4	978-1-78561-241-1	SBEW527
Low Frequency Magnetic Fields: Design, Modelling and Characterization ¹	Formisano	£120	\$155	978-1-83953-151-4	978-1-83953-152-1	SBEW551
Near Vertical Incidence Skywaves	Witvliet	£130	\$170	978-1-78561-519-1	978-1-78561-520-7	SBEW530
Non-redundant Near-Field to Far-Field Transformation Techniques ¹	D'Agostino, Ferrara, Gennarelli & Guerriero	£115	\$150	978-1-83953-141-5	978-1-83953-142-2	SBEW549
Propagation Modelling in Railway Environments	Briso (Ed)	£115	\$150	978-1-78561-945-8	978-1-78561-946-5	SBEW546
Sensors for Ranging and Imaging. 2nd Edition	Brooker	£145	\$190	978-1-83953-199-6	978-1-83953-200-9	SBEW553
Uncertainty Quantification of Electromagnetic Devices, Circuits, and Systems ¹	Roy (Ed)	£110	\$145	978-1-83953-171-2	978-1-83953-172-9	SBEW552

¹ Part of the ACES Series on Computational Electromagnetics and Engineering

² Part of the Mario Boella Series on Electromagnetism in Information and Communication

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RECENT

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
Advances in Mathematical Methods for Electromagnetics ¹	Kobayashi & Smith (Eds)	£145	\$190	978-1-78561-384-5	978-1-78561-385-2	SBEW528	2020
Electromagnetic Reverberation Chambers: Recent advances and innovative applications	Andrieu (Ed)	£110	\$145	978-1-78561-931-1	978-1-78561-932-8	SBEW544	2020
Nanoantennas and Plasmonics: Modelling, Design and Fabrication ¹	Werner, Campbell & Kang (Eds)	£125	\$165	978-1-78561-837-6	978-1-78561-838-3	SBEW540	2020
Numerical Methods for Engineering: An introduction using MATLAB and computational electromagnetics examples. 2nd Edition ¹	Warnick	£75	\$95	978-1-83953-073-9	978-1-83953-074-6	SBEW548	2020
Radiowave Propagation in Vehicular Environments	Azpilicueta, Vargas-Rosales, Falcone and Alejos	£125	\$160	978-1-78561-823-9	978-1-78561-824-6	SBEW541	2020
Theory and Practice of Modern Antenna Range Measurement. 2nd Expanded Edition (2-volume set)	Gregson, Parini, McCormick, van Renseberg & Eibert	£215	\$285	978-1-83953-130-9	N/A	SBRA538X	2020
Theory and Practice of Modern Antenna Range Measurements. 2nd Expanded Edition. Volume 1	Gregson, Parini, McCormick, van Renseberg & Eibert	£125	\$165	978-1-83953-126-2	978-1-83953-127-9	SBRA538A	2020
Theory and Practice of Modern Antenna Range Measurement. 2nd Expanded Edition. Volume 2	Gregson, Parini, McCormick, van Renseberg & Eibert	£145	\$190	978-1-83953-128-6	978-1-83953-129-3	SBRA538B	2020
Advances in Planar Filters Design	Hong (Ed)	£125	\$165	978-1-78561-589-4	978-1-78561-590-0	SBEW535	2019
Nano-Electromagnetic Communication at Terahertz and Optical Frequencies: Principles and applications	Alomainy, Yang, Imran, Yao & Abbasi (Eds)	£110	\$145	978-1-78561-903-8	978-1-78561-904-5	SBEW542	2019
New Trends in Computational Electromagnetics ¹	Ergül (Ed)	£145	\$190	978-1-78561-548-1	978-1-78561-549-8	SBEW533	2019
Post-processing Techniques in Antenna Measurement	Castañer & Foged (Eds)	£110	\$145	978-1-78561-537-5	978-1-78561-538-2	SBEW529	2019
Developments in Antenna Analysis and Design: Volume 1	Mittra (Ed)	£125	\$165	978-1-78561-888-8	978-1-78561-889-5	SBEW543A	2018
Developments in Antenna Analysis and Design: Volume 2	Mittra (Ed)	£125	\$165	978-1-78561-890-1	978-1-78561-891-8	SBEW543B	2018
Developments in Antenna Analysis and Design (2-vol set)	Mittra (Ed)	£200	\$260	978-1-78561-892-5	N/A	SBEW543X	2018
Slotted Waveguide Array Antennas ²	Rangarajan & Josefsson	£125	\$160	978-1-61353-189-1	978-1-61353-190-7	SBEW517	2018
Adjoint Sensitivity Analysis of High Frequency Structures with MATLAB® ¹	Bakr, Elsherbeni & Demir	£95	\$150	978-1-61353-231-7	978-1-61353-232-4	SBEW525	2017
Scattering of Electromagnetic Waves by Obstacles ²	Kristenssen	£95	\$149	978-1-61353-221-8	978-1-61353-222-5	SBEW524	2016

¹ Part of the ACES Series on Computational Electromagnetics and Engineering

² Part of the Mario Boella Series on Electromagnetism in Information and Communication

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HIGHLIGHTS

Advanced Characterization of Thin Film Solar Cells

Editors: Nancy Haegel, National Renewable Energy Laboratory (NREL), USA; Mowafak Al-Jassim, National Renewable Energy Laboratory (NREL), USA

This book provides researchers with a concise overview of the status of thin-film solar cell technology and characterization. Chapters describe material systems and their properties, and then provide an in-depth look at relevant characterization methods and the learning facilitated by each of these.



2020 / 300pp / £125 / \$165

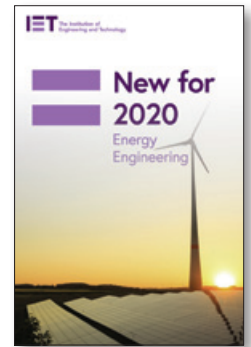
Print PBPO1660 / 978-1-83953-023-4

eBook PBPO166E / 978-1-83953-024-1

Advanced Dielectric Materials for Electrostatic Capacitors

Editor: Qi Li, Tsinghua University, China

This book provides an overview of key dielectric materials for capacitor technology. It covers preparation and characterization of state-of-the-art dielectric materials including ceramics, polymers and polymer nanocomposites, for popular applications including energy storage, microwave communication and multi-layer ceramic capacitors.



2020 / 300pp / £125 / \$165

Print PBPO1580 / 978-1-78561-988-5

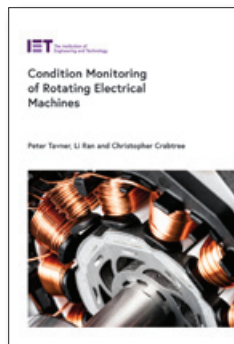
eBook PBPO158E / 978-1-78561-989-2

Condition Monitoring of Rotating Electrical Machines

3rd Edition

Authors: Peter Tavner, Durham University, UK; Li Ran, University of Warwick, UK; Christopher Crabtree, Durham University, UK

Condition monitoring is now being applied to a range of systems from fault-tolerant drives of a few hundred watts to machinery of a few hundred MW in major plants. This book covers a large range of machines and their condition monitoring. This 3rd edition builds on the 2nd edition through a major revision, update of chapters and a comprehensive list of references & standards. Permanent magnet, switched reluctance and other types of machines are now covered, as well as variable speed drive machines and off-line techniques.



2020 / 432pp / £125 / \$160

Print PBPO1450 / 978-1-78561-865-9

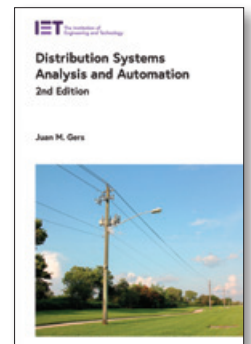
eBook PBPO145E / 978-1-78561-866-6

Distribution Systems Analysis and Automation

2nd Edition

Author: Juan Gers, GERS, USA

This popular book has been fully updated and revised for this new edition. Coverage includes smart grid, load flow analysis, determination of optimal topology, voltage control and capacitor application, power quality and harmonics in distribution systems, distribution system restoration, numerical relaying and distribution feeder protection, distributed generation and microgrid technology. New material related to renewable energy and microgrids are included, and maturity models and evaluation of smart grid projects are presented, along with material on the transition to the new distribution system technologies.



2020 / 442pp / £125 / \$160

Print PBPO1470 / 978-1-78561-871-0

eBook PBPO147E / 978-1-78561-872-7

HIGHLIGHTS

Electrical Steels

Volume 1: Fundamentals and basic concepts

Volume 2: Performance and applications

Authors: Anthony Moses, Philip Anderson, Keith Jenkins and Hugh Stanbury, University of Cardiff, UK

Electrical steels are critical components of magnetic cores used in applications ranging from large rotating machines, including energy generating equipment, and transformers to small instrument transformers and harmonic filters. Presented over two volumes, this comprehensive handbook provides full coverage of the state-of-the-art in electrical steels. Volume 1 covers the fundamentals and basic concepts of electrical steels, including production, differences between alloys and magnetic and mechanic properties. Volume 2 describes performance and outlines applications of electrical steels.

Vol 1: 2019 / 584pp / £135 / \$175
Print PBPO157A / 978-1-78561-970-0
eBook PBPO157F / 978-1-78561-971-7

Vol 2: 2019 / 664pp / £125 / \$165
Print PBPO157B / 978-1-78561-972-4
eBook PBPO157G / 978-1-78561-973-1

Set: 2019 / £210 / \$240
Print PBPO157X / 978-1-78561-974-8



Lightning Interaction with Power Systems

Volume 1: Fundamentals and Modelling

Volume 2: Applications

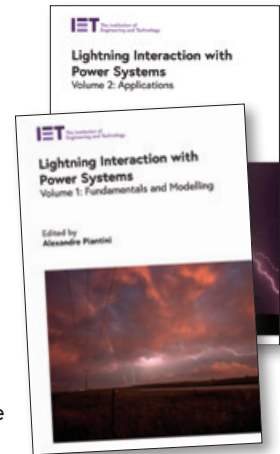
Editor: Alexandre Piantini, University of São Paulo, Brazil

This two-volume set provides thorough coverage of the lightning phenomenon and its interaction with various power system objects, and covers methods for the effective protection of structures and systems. Volume 1 covers fundamentals and modelling of lightning interaction with power systems; Volume 2 addresses various applications including power substations, transmission lines, overhead distribution systems and networks, smart grids, and wind and photovoltaic systems.

Vol 1: 2020 / 456pp / £125 / \$165
Print PBPO172A / 978-1-83953-090-6
eBook PBPO172F / 978-1-83953-091-3

Vol 2: 2020 / 496pp / £130 / \$170
Print PBPO172B / 978-1-83953-092-0
eBook PBPO172G / 978-1-83953-093-7

Set: 2020 / £205 / \$270
Print PBPO172X / 978-1-83953-094-4



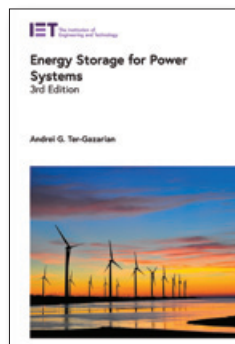
Energy Storage for Power Systems

3rd Edition

Author: Andrej Ter-Gazarian, Moscow Power Engineering Institute (MIE), Russia

The supply of energy from renewables is not constant, and energy storage is essential in enabling higher shares of renewable energy. This 3rd Edition has been thoroughly revised, reviewing different types of renewables and considering possibilities arising from integrating a combination of different storage technologies into a system.

2020 / 335pp / £115 / \$150
Print PBPO1460 / 978-1-78561-867-3
eBook PBPO146E / 978-1-78561-868-0

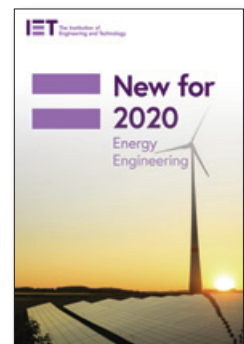


Lightning-Induced Effects in Electrical and Telecommunication Systems

Authors: Yoshihiro Baba, Doshisha University, Japan; Vladimir A. Rakov, University of Florida, USA

Providing an overview of modelling and understanding lightning-related effects on complex power and telecommunications systems, this book explores both traditional transmission-line theory as well as the state-of-the-art finite difference time-domain (FDTD) method. Coverage includes modelling of lightning return strokes and distributed-circuit models.

2020 / 280pp / £110 / \$145
Print PBPO1140 / 978-1-78561-353-1
eBook PBPO114E / 978-1-78561-354-8



HIGHLIGHTS

Monitoring and Control using Synchrophasors in Power Systems with Renewables

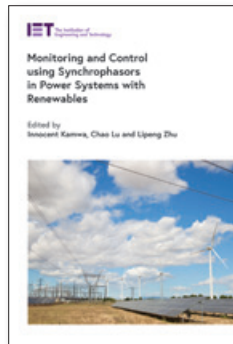
Editors: Innocent Kamwa, Hydro-Quebec Research Institute, Canada; Professor Chao Lu, Tsinghua University, China; Lipeng Zhu, The University of Hong Kong, China

This book addresses the emerging concepts, methodologies and applications of wide area monitoring, control and protection in power systems with integrated large scale renewables. Chapters cover monitoring, modelling and validation, control, and data mining with an emphasis on synchrophasor technology, and experiences with real power grids.

2020 / 400pp / £125 / \$165

Print PBPO1210 / 978-1-78561-477-4

eBook PBPO121E / 978-1-78561-478-1



Microgrids for Rural Areas: Research and case studies

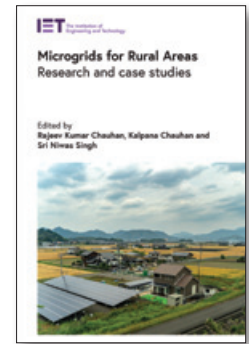
Editors: Rajeev Kumar Chauhan, Dayalbagh Educational Institute, India; Kalpana Chauhan, Galgotias College of Engineering and Technology, India; Sri Niwas Singh, Madan Mohan Malaviya University of Technology, India

This book focuses on the challenges of rural electrification, particularly in poorer regions. It covers low voltage DC distribution system for various applications, and explores microgrid architectures, converters, energy storage, control, EV integration, business models and economic scheduling, and the role of blockchain technology. The authors have used case studies to provide illustrative examples of the technologies discussed and solutions proposed.

2020 / 520pp / £140 / \$180

Print PBPO1600 / 978-1-78561-998-4

eBook PBPO160E / 978-1-78561-999-1



Power Grids with Renewable Energy: Storage, integration and digitalization

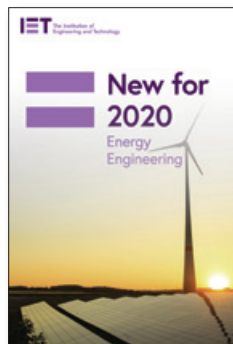
Authors: Abdelhay Sallam, Port Said University, Egypt; Om Malik, University of Calgary, Canada

This work provides a systematic overview of a modern power system with renewable energy. Chapters provide concise coverage of renewable energy generation, of storage technologies including chemical, electrostatic and thermal storage systems, and of energy integration, power conditioning systems, economic dispatch and scheduling, EV integration, as well as communications and cyber-security in power systems

2020 / 600pp / £140 / \$180

Print PBPO1670 / 978-1-83953-027-2

eBook PBPO167E / 978-1-83953-028-9



Power Electronic Devices: Applications, failure mechanisms and reliability

Editor: Francesco Iannuzzo, Aalborg University, Denmark

Power devices are key to modern power systems, performing functions such as inverting and changing voltages, buffering and switching. Following a device-centric approach, this book covers power electronic applications, semiconductor physics, materials science, application engineering, and key technologies such as MOSFET, IGBT and WBG

2020 / 300pp / £115 / \$150

Print PBPO1520 / 978-1-78561-917-5

eBook PBPO152E / 978-1-78561-918-2



HIGHLIGHTS

Transforming the Grid Towards Fully Renewable Energy

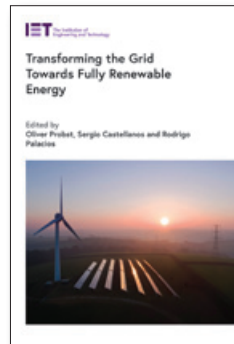
Editors: Oliver Probst, Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Mexico; Sergio Castellanos, University of California, Berkeley, USA; Rodrigo Palacios, Iniciativa Climática de México

This book provides clarity on the interlinked processes of the transformation towards fully renewable power, taking the reader from the conceptual foundations of a deeply decarbonized electricity sector in Part 1, via insights into essential building blocks (transmission, distributed generation, smart grids, demand response, storage, and forecasting) in Part 2, to new strategies for the renewable energy transition in Part 3.

2020 / 350pp / £120 / \$155

Print PBPO1590 / 978-1-83953-021-0

eBook PBPO159E / 978-1-83953-022-7



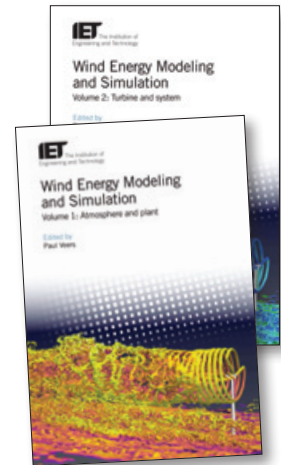
Wind Energy Modeling and Simulation

Volume 1:
Atmosphere and Plant

Volume 2:
Turbine and System

Editor: Paul Veers, National Wind Technology Center, NREL, USA

In order to optimise the yield of wind power from existing and future wind plants, the entire breadth of the system of a plant, from the wind field to the turbine components, needs to be modelled in the design process. The modelling and simulation approaches used in each subsystem as well as the system-wide solution methods to optimize across subsystem boundaries are described in this reference. Volume 1 covers the computing challenges in full turbine modelling, then discusses bridging scales in the atmosphere and turbulence modelling, wind forecasting, wind plant flow, and plant level controller design. Volume 2 covers turbine level aerodynamics, aeroelasticity, rotors drivetrains and electrical systems, wind turbine control, offshore foundations, system optimization, and grid modelling.



Vol 1: 2019 / 424pp / £110 / \$145

Print PBPO125A / 978-1-78561-521-4

eBook PBPO125F / 978-1-78561-522-1

Vol 2: 2019 / 416pp / £110 / \$165

Print PBPO125B / 978-1-78561-523-8

eBook PBPO125G / 978-1-78561-524-5

Set: 2019 / £175 / \$230

Print PBPO125X / 978-1-78561-528-3

FORTHCOMING - to be published in 2021 and 2022

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code
Artificial Intelligence for Smarter Power Systems: Fuzzy Logic and Neural Networks	Simoes	£110	\$145	978-1-83953-000-5	978-1-83953-001-2	PBPO161
Control and Optimisation of Microgrids	Pariso & Schiffer (Eds)	£125	\$160	978-1-78561-875-8	978-1-78561-876-5	PBPO149
Cooling of Rotating Electrical Machines: Fundamentals, modelling, testing and design	Staton, Pickering, Boglietti & Chong	£110	\$145	978-1-78561-351-7	978-1-78561-352-4	PBPO109
Cyber Security for Microgrids	Blaabjerg, Sahoo & Dragicevic (Eds)	£110	\$145	978-1-83953-331-0	978-1-83953-332-7	PBPO196
Digital Protection for Power Systems. 2nd Edition	Salman	£115	\$150	978-1-83953-043-2	978-1-83953-044-9	PBPO165
Hydrogen Passivation and Laser Doping for Silicon Solar Cells	Hallam & Chan (Eds)	£110	\$145	978-1-78561-623-5	978-1-78561-624-2	PBPO134
Lightning Electromagnetics. 2nd Edition (2-Volume Set)	Cooray, Rachidi & Rubinstein (Eds)	£200	\$260	978-1-78561-543-6	N/A	PBPO127X
Lightning Electromagnetics. 2nd Edition Volume 1: Electrodynamics	Cooray, Rachidi & Rubinstein (Eds)	£140	\$180	978-1-78561-539-9	978-1-78561-540-5	PBPO127A
Lightning Electromagnetics. 2nd Edition Volume 2: Effects and modeling	Cooray, Rachidi & Rubinstein (Eds)	£145	\$190	978-1-78561-541-2	978-1-78561-542-9	PBPO127B
Lithium-ion Batteries Enabled by Silicon Anodes	Ban & Xu (Eds)	£115	\$150	978-1-78561-955-7	978-1-78561-956-4	PBPO156
Lithium-ion Batteries: Testing, modeling, state estimation and smart battery applications	Stroe, Meng & Teodorescu (Eds)	£115	\$150	978-1-83953-010-4	978-1-83953-011-1	PBPO164
Matrix Converters: A direct AC/AC power electronic converter technology	Wheeler, Clare, Cardenas & Rivera (Eds)	£110	\$145	978-1-78561-648-8	978-1-78561-649-5	PBPO135
Medium Voltage DC System Architectures	Grainger, Kelly-Pitou & Reed (Eds)	£115	\$150	978-1-78561-844-4	978-1-78561-845-1	PBPO143
Modelling and Simulation of Complex Power Systems	Monti & Benigni (Eds)	£125	\$160	978-1-78561-404-0	978-1-78561-405-7	PBPO118
Modelling and Simulation of HVDC Transmission	Han & Gole (Eds)	£115	\$145	978-1-78561-380-7	978-1-78561-381-4	PBPO116
Modular Multilevel Converters for Power Systems	Prieto-Araujo, Gomis-Bellmunt, Ferreria, Junyent-Ferré & Schönleber	£125	\$165	978-1-78561-741-6	978-1-78561-742-3	PBPO140
Offshore Wind Power: Reliability, availability and maintenance. 2nd Edition	Tavner	£125	\$160	978-1-83953-333-4	978-1-83953-334-1	PBPO194
Photovoltaic Technology for Hot and Arid Environments	Tabet (Ed)	£110	\$145	978-1-78561-911-3	978-1-78561-912-0	PBPO144
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Second and Third Generation Photovoltaics: Research and manufacturing for CIGSSe, CdTe and perovskite tandem solar cells	Alberts (Ed)	£115	\$150	978-1-83953-327-3	978-1-83953-328-0	PBPO195
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Silicon Solar Cell Metallization and Module Technology	Dullweber & Tous (Eds)	£115	\$150	978-1-83953-155-2	978-1-83953-156-9	PBPO174
Understanding and Managing Power Quality Issues	Agarwal, George & Sebastian	£130	\$170	978-1-83953-337-2	978-1-83953-338-9	PBPO189
Utility-Scale Wind Turbines and Wind Farms	Vasel-Be-Hagh & Ting (Eds)	£110	\$145	978-1-83953-099-9	978-1-83953-100-2	PBPO171
Wide Bandgap Semiconductors and their Applications in Power Electronics	Mawby & Ran (Eds)	£115	\$150	978-1-78561-743-0	978-1-78561-744-7	PBPO138
Wind Turbine System Design (2-volume set)	Wenske (Ed)	£200	\$255	978-1-78561-864-2	N/A	PBPO142X
Wind Turbine System Design: Vol. 1: Nacelles, Drive Trains and Verification	Wenske (Ed)	£125	\$160	978-1-78561-856-7	978-1-78561-857-4	PBPO142A
Wind Turbine System Design: Vol. 2: Electrical Systems, Grid Integration, Control and Monitoring	Wenske (Ed)	£125	\$160	978-1-78561-858-1	978-1-78561-859-8	PBPO142B

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RECENT

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
Advanced Characterization of Thin Film Solar Cells	Al-Jassim & Haegel (Eds)	£125	\$165	978-1-83953-023-4	978-1-83953-024-1	PBPO166	2020
Advanced Dielectric Materials for Electrostatic Capacitors	Li (Ed)	£125	\$165	978-1-78561-988-5	978-1-78561-989-2	PBPO158	2020
Condition Monitoring of Rotating Electrical Machines. 3rd Edition	Tavner, Ran & Crabtree	£125	\$160	978-1-78561-865-9	978-1-78561-866-6	PBPO145	2020
Distribution Systems Analysis and Automation. 2nd Edition	Gers	£125	\$160	978-1-78561-871-0	978-1-78561-872-7	PBPO147	2020
Energy Storage for Power Systems. 3rd Edition	Ter-Gazarian	£115	\$150	978-1-78561-867-3	978-1-78561-868-0	PBPO146	2020
Lightning Interaction with Power Systems (2-volume set)	Piantini (Ed)	£205	\$270	978-1-83953-094-4	N/A	PBPO172X	2020
Lightning Interaction with Power Systems: Volume 1: Fundamentals and Modelling	Piantini (Ed)	£125	\$165	978-1-83953-090-6	978-1-83953-091-3	PBPO172A	2020
Lightning Interaction with Power Systems: Volume 2: Applications	Piantini (Ed)	£130	\$170	978-1-83953-092-0	978-1-83953-093-7	PBPO172B	2020
Lightning-Induced Effects in Electrical and Telecommunication Systems	Baba & Rakov	£110	\$145	978-1-78561-353-1	978-1-78561-354-8	PBPO114	2020
Microgrids for Rural Areas: Research and case studies	Chauhan, Chauhan & Singh (Eds)	£140	\$180	978-1-78561-998-4	978-1-78561-999-1	PBPO160	2020
Monitoring and Control using Synchrophasors in Power Systems with Renewables	Kamwa & Lu (Eds)	£125	\$165	978-1-78561-477-4	978-1-78561-478-1	PBPO121	2020
Power Electronic Devices: Applications, failure mechanisms and reliability	Iannuzzo (Ed)	£115	\$150	978-1-78561-917-5	978-1-78561-918-2	PBPO152	2020
Power Grids with Renewable Energy: Storage, integration and digitalization	Sallam & Malik	£140	\$180	978-1-83953-027-2	978-1-83953-028-9	PBPO167	2020
Transforming the Grid Towards Fully Renewable Energy	Probst, Palacios & Castellanos (Eds)	£120	\$155	978-1-83953-021-0	978-1-83953-022-7	PBPO159	2020
Electrical Steels (2-volume set)	Moses, Jenkins, Anderson & Stanbury	£210	\$240	978-1-78561-974-8	N/A	PBPO157X	2019
Electrical Steels Volume 1: Fundamentals and basic concepts	Moses, Jenkins, Anderson & Stanbury	£135	\$175	978-1-78561-970-0	978-1-78561-971-7	PBPO157A	2019
Electrical Steels Volume 2: Performance and applications	Moses, Jenkins, Anderson & Stanbury	£125	\$165	978-1-78561-972-4	978-1-78561-973-1	PBPO157B	2019
Energy Generation and Efficiency Technologies for Green Residential Buildings	Ting & Cariveau (Eds)	£115	\$150	978-1-78561-947-2	978-1-78561-948-9	PBPO155	2019
Renewable Energy from the Oceans: From wave, tidal and gradient systems to offshore wind and solar	Sant & Coiro (Eds)	£125	\$165	978-1-78561-766-9	978-1-78561-767-6	PBPO129	2019
Variability, Scalability and Stability of Microgrids	Muyeen, Islam & Blaabjerg (Eds)	£140	\$185	978-1-78561-693-8	978-1-78561-694-5	PBPO139	2019
Wind Energy Modeling and Simulation: Volume 1: Atmosphere and Plant	Veers (Ed)	£110	\$145	978-1-78561-521-4	978-1-78561-522-1	PBPO125A	2019
Wind Energy Modeling and Simulation: Volume 2: Turbine and System	Veers (Ed)	£110	\$145	978-1-78561-523-8	978-1-78561-524-5	PBPO125B	2019
Bifacial Photovoltaics: Technology, applications and economics	Kopecek & Libal (Eds)	£115	\$150	978-1-78561-274-9	978-1-78561-275-6	PBPO107	2018
Characterization of Wide Bandgap Power Semiconductor Devices	Wang, Zhang & Jones	£120	\$155	978-1-78561-491-0	978-1-78561-492-7	PBPO128	2018
DC Distribution Systems and Microgrids	Dragičević, Blaabjerg & Wheeler (Eds)	£125	\$160	978-1-78561-382-1	978-1-78561-383-8	PBPO115	2018
Diagnosis and Fault Tolerance of Electrical Machines, Power Electronics and Drives	Cardoso (Ed)	£120	\$155	978-1-78561-531-3	978-1-78561-532-0	PBPO126	2018
Energy Storage at Different Voltage Levels: Technology, integration, and market aspects	Zobam Ribeiro, Aleem & Afifi (Eds)	£115	\$150	978-1-78561-349-4	978-1-78561-350-0	PBPO111	2018

Continued...

RECENT

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
Fault Diagnosis for Robust Inverter Power Drives	Ginart (Ed)	£115	\$150	978-1-78561-410-1	978-1-78561-411-8	PBPO120	2018
High Voltage Power Network Construction	Harker	£130	\$210	978-1-78561-423-1	978-1-78561-424-8	PBPO110	2018
Industrial Power Systems with Distributed and Embedded Generation	Belu	£140	\$180	978-1-78561-152-0	978-1-78561-153-7	PBPO096	2018
Metaheuristic Optimization in Power Engineering	Radosavljević	£135	\$175	978-1-78561-546-7	978-1-78561-547-4	PBPO131	2018
Power Line Communication Systems for Smart Grids	Casella & Anpalagan (Eds)	£125	\$165	978-1-78561-550-4	978-1-78561-551-1	PBPO132	2018
Power Market Transformation: Reducing emissions and empowering consumers	Murray	£100	\$160	978-1-78561-481-1	978-1-78561-482-8	PBPO124	2018
Power Systems Electromagnetic Transients Simulation. 2nd Edition	Watson	£135	\$175	978-1-78561-499-6	978-1-78561-500-9	PBPO123	2018
Power Transformer Condition Monitoring and Diagnosis	Abu-Siada (Ed)	£115	\$150	978-1-78561-254-1	978-1-78561-255-8	PBPO104	2018
Structural Control and Fault Detection of Wind Turbine Systems	Karimi (Ed)	£115	\$150	978-1-78561-394-4	978-1-78561-395-1	PBPO117	2018
Surface Passivation of Industrial Crystalline Silicon Solar Cells	John (Ed)	£115	\$150	978-1-78561-246-6	978-1-78561-247-3	PBPO106	2018
Thermal Power Plant Control and Instrumentation: The control of boilers and HRSGs. 2nd edition	Lindsley, Grist & Parker	£120	\$155	978-1-78561-419-4	978-1-78561-420-0	PBPO119	2018
Wind Energy Modeling and Simulation (2-volume set)	Veers (Ed)	£175	\$230	978-1-78561-528-3	N/A	PBPO125X	2018
Wireless Power Transfer: Theory, technology, and applications	Shinohara (Ed)	£115	\$150	978-1-78561-346-3	978-1-78561-347-0	PBPO112	2018
Clean Energy Microgrids	Obara & Morel (Eds)	£120	\$190	978-1-78561-097-4	978-1-78561-098-1	PBPO090	2017
Cogeneration: Technologies, optimisation and implementation	Frangopoulos (Ed)	£100	\$160	978-1-78561-055-4	978-1-78561-056-1	PBPO087	2017
Communication, Control and Security Challenges for the Smart Grid	Muyeen & Rahman (Eds)	£120	\$190	978-1-78561-142-1	978-1-78561-143-8	PBPO095	2017
Fault Diagnosis of Induction Motors	Faiz, Ghorbanian & Joksimović	£120	\$190	978-1-78561-328-9	978-1-78561-329-6	PBPO108	2017
Fuzzy Logic Control in Energy Systems with design applications in MATLAB®/Simulink®	Altas	£110	\$175	978-1-78561-107-0	978-1-78561-108-7	PBPO091	2017
Hydrogen Production, Separation and Purification for Energy	Basile, Dalena, Tong & Veziroğlu (Eds)	£105	\$165	978-1-78561-100-1	978-1-78561-101-8	PBPO089	2017
Introduction to the Smart Grid: Concepts, technologies and evolution	Salman K. Salman	£100	\$160	978-1-78561-119-3	978-1-78561-120-9	PBPO094	2017
Large Scale Grid Integration of Renewable Energy Sources	Moreno-Munoz (Ed)	£100	\$160	978-1-78561-162-9	978-1-78561-163-6	PBPO098	2017
Modeling and Dynamic Behaviour of Hydropower Plants	Kishor & Fraile-Ardunuy (Eds)	£120	\$190	978-1-78561-195-7	978-1-78561-196-4	PBPO100	2017
Power Quality in Future Electrical Power Systems	Zobaa & Aleem (Eds)	£120	\$190	978-1-78561-123-0	978-1-78561-124-7	PBPO092	2017
Synchronized Phasor Measurements for Smart Grids	Mohanta & Reddy (Eds)	£110	\$175	978-1-78561-011-0	978-1-78561-012-7	PBPO097	2017
Wave and Tidal Generation Devices: Reliability and availability	Tavner	£90	\$150	978-1-84919-734-2	978-1-84919-735-9	PBRN018	2017
Advances in Power System Modelling, Control and Stability Analysis	Milano (Ed)	£105	\$170	978-1-78561-001-1	978-1-78561-002-8	PBPO086	2016
Cogeneration and District Energy Systems: Modelling, analysis and optimization	Rosen & Koohi-Fayegh	£110	\$175	978-1-78561-126-1	978-1-78561-127-8	PBPO093	2016
Control Circuits in Power Electronics: Practical issues in design and implementation	Castilla (Ed)	£95	\$150	978-1-84919-822-6	978-1-84919-823-3	PBPO072	2016

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HIGHLIGHTS

Advances in Telemedicine for Health Monitoring: Technologies, design and applications

Editors: Tarik Rashid, University of Kurdistan Hewlêr (UKH), Kurdistan Region of Iraq; Chinmay Chakraborty, Birla Institute of Technology, Mesra, India; Kym Fraser, University of South Australia, Australia

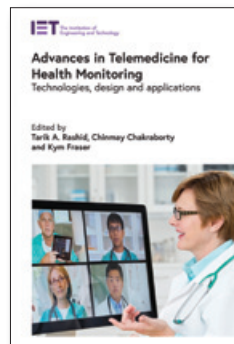
This book presents a variety of technologies with applications in telemedicine, originating from the fields of biomedical sensors, wireless sensor networking, computer-aided diagnosis methods, signal and image processing and analysis, automation and control, virtual and augmented reality, multivariate analysis, and data acquisition devices.

The IET Book Series on e-Health Technologies

2020 / 320pp / £115 / \$150

Print PBHE0230 / 978-1-78561-986-1

eBook PBHE023E / 978-1-78561-987-8



Blockchain and Machine Learning for e-Healthcare Systems

Editors: Balamurugan Balusamy, Galgotias University, India; Naveen Chilamkurti, La Trobe University, Australia; Lucia Agnes Beena, St. Joseph's College, India; Poongodi Thangamuthu, Galgotias University, India

This book covers the basic concepts of blockchain and machine learning in various healthcare settings, and explores these technologies with an eye on improving clinical outcomes and improving the patient's experience. These topics are illustrated with reference to issues around the supply chain, drug verification, reimbursement, control access and clinical trials.

The IET Book Series on e-Health Technologies

2020 / 400pp / £125 / \$160

Print PBHE0290 / 978-1-83953-114-9

eBook PBHE029E / 978-1-83953-115-6



Control of Prosthetic Hands: Emerging avenues and challenges

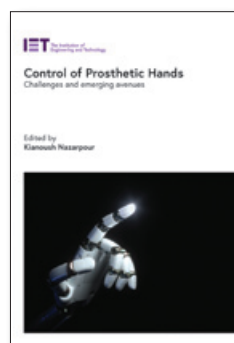
Editor: Kianoush Nazarpour, Newcastle University, UK

This edited book brings together research from laboratories across the world, offering a global perspective on advances in prosthetic hand control. State-of-the-art control of prosthetics in laboratories and clinical spaces are presented and challenges discussed, and effects of user training on control of prosthetics are also highlighted.

2020 / 222pp / £110 / \$145

Print PBHE0220 / 978-1-78561-984-7

eBook PBHE022E / 978-1-78561-985-4



Mobile Technologies for Delivering Healthcare in Remote, Rural or Developing Regions

Editors: Pradeep Kumar Ray, University of Michigan-Shanghai Jiao Tong University Joint Institute, China; Naoki Nakashima, Kyushu University Hospital, Japan; Ashir Ahmed, Global Communication Centre Project, Bangladesh; Soon-Chul (Sam) Ro, University of Michigan-Shanghai Jiao Tong University Joint Institute, China; Yasuhiro Soshino, Red Cross Kumamoto Hospital, Japan

This edited book explores the use of mobile technologies such as phones, drones, robots, apps, and wearable monitoring devices for improving access to healthcare for socially disadvantaged populations in remote, rural or developing regions.

The IET Book Series on e-Health Technologies

2020 / 400pp / £125 / \$165

Print PBHE0240 / 978-1-83953-047-0

eBook PBHE024E / 978-1-83953-048-7



HIGHLIGHTS

Neurotechnology: Methods, advances and applications

Editors: Victor Hugo C. de Albuquerque, University of Fortaleza (UNIFOR), Brazil; Alkinoos Athanasiou, Aristotle University of Thessaloniki (AUTH), Greece; Sidarta Ribeiro, Federal University of Rio Grande do Norte, Brazil

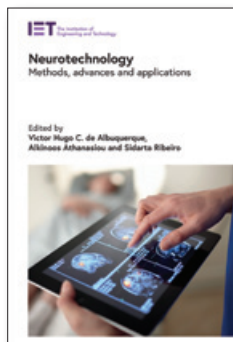
This book focuses on recent advances and future trends in the methods and applications of technologies that are used in neuroscience for the evaluation, diagnosis and treatment of neurological diseases and conditions or for the improvement of quality of life.

The IET Book Series on e-Health Technologies

2020 / 312pp / £120 / \$155

Print PBHE0190 / 978-1-78561-813-0

eBook PBHE019E / 978-1-78561-814-7



Patient-Centered Healthcare Technology: The way to better health

Editors: Leonard Goldschmidt, Stanford University School of Medicine, USA; Rona Margaret Relova, VA Palo Alto Health Care System, USA

This book explores technologies that will lead the way to a revolution in healthcare delivery. Topics include information systems in healthcare, big data for public health, home monitoring, mobile apps, gamification, minimally disruptive medicine, medical robotics, immersive technologies, blockchain and artificial intelligence.

The IET Book Series on e-Health Technologies

2020 / 250pp / £110 / \$145

Print PBHE0170 / 978-1-78561-565-8

eBook PBHE017E / 978-1-78561-566-5



Security and Privacy of Healthcare Records: Concepts, paradigms and solutions

Editors: Sudeep Tanwar, Nirma University, India; Sudhanshu Tyagi, Deemed University, India; Neeraj Kumar, Deemed University, India

Presenting a detailed framework as well as comparative case studies for security protection, data integrity, privacy preservation, scalability, and healthcare legislation, this book covers state of the art research and addresses privacy and security methods and technologies for EHRs.

The IET Book Series on e-Health Technologies

2019 / 432pp / £125 / \$160

Print PBHE0200 / 978-1-78561-898-7

eBook PBHE020E / 978-1-78561-899-4



Wireless Medical Sensor Networks for IoT-eHealth

Editor: Fadi Al-Turjman, Near East University, Cyprus

This book addresses the major challenges in realizing Wireless Medical Sensor Networks in forthcoming IoT-based eHealth systems, including cost, energy efficiency, security and service quality. Addressing both design and implementation, the book provides a valuable overview for researchers, scientists and engineers on this evolving field.

The IET Book Series on e-Health Technologies

2020 / 300pp / £115 / \$150

Print PBHE0260 / 978-1-83953-056-2

eBook PBHE026E / 978-1-83953-057-9



FORTHCOMING - to be published in 2021 and 2022

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code
Applications of Machine Learning in Digital Healthcare ¹	Hernandez-Silviera & Ang (Eds)	£115	\$150	978-1-83953-335-8	978-1-83953-336-5	PBHE036
Blockchain for 5G Healthcare Applications: Security and privacy solutions ¹	Tanwar (Ed)	£125	\$165	978-1-83953-325-9	978-1-83953-326-6	PBHE035
Control of Prosthetic Hands: Emerging avenues and challenges	Nazarpour (Ed)	£115	\$150	978-1-78561-984-7	978-1-78561-985-4	PBHE022
Electromagnetic Waves and Antennas for Biomedical Applications	Wang (Ed)	£125	\$165	978-1-83953-167-5	978-1-83953-168-2	PBHE033
Handbook of Cybersecurity for eHealth ¹	Buchanan & Chute (Eds)	£130	\$170	978-1-78561-764-5	978-1-78561-765-2	PBHE018
Healthcare Technologies for Elderly Populations ¹	Davis (Ed)	£120	\$155	978-1-83953-112-5	978-1-83953-113-2	PBHE030
Security in Health Information Systems: Challenges, opportunities and recent developments ¹	Gawanmeh, Yoo & Saleem (Eds)	£120	\$155	978-1-83953-134-7	978-1-83953-135-4	PBHE025
Technologies and Techniques in Gait Analysis: Past, present and future	Chockalingam (Ed)	£125	\$160	978-1-83953-131-6	978-1-83953-132-3	PBHE031
The Internet of Medical Things: Enabling technologies and emerging applications ¹	Pani, Patra, Ferrari, Kraveva & Wang (Eds)	£125	\$160	978-1-83953-273-3	978-1-83953-274-0	PBHE034

¹ Part of the IET Book Series on e-Health Technologies

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RECENT

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
Advances in Telemedicine for Health Monitoring: Technologies, design and applications ¹	Rashid, Chakraborty & Fraser (Eds)	£115	\$150	978-1-78561-986-1	978-1-78561-987-8	PBHE023	2020
Control of Prosthetic Hands: Emerging avenues and challenges	Nazarpour (Ed)	£110	\$145	978-1-78561-984-7	978-1-78561-985-4	PBHE022	2020
Mobile Technologies for Delivering Healthcare in Remote, Rural or Developing Regions ¹	Ray, Nakashima, Mukkamala, Ahmed, Ro & Soshino (Eds)	£125	\$165	978-1-83953-047-0	978-1-83953-048-7	PBHE024	2020
Neurotechnology: Methods, advances and applications ¹	de Albuquerque, Athanasiou & Ribeiro (Eds)	£120	\$155	978-1-78561-813-0	978-1-78561-814-7	PBHE019	2020
Wireless Medical Sensor Networks for IoT-eHealth ¹	Al-Turjman (Ed)	£115	\$150	978-1-83953-056-2	978-1-83953-057-9	PBHE026	2020
EEG Signal Processing: Feature extraction, selection and classification methods ¹	Leong (Ed)	£110	\$145	978-1-78561-370-8	978-1-78561-371-5	PBHE016	2019
Security and Privacy of Healthcare Records: Concepts, paradigms and solutions ¹	Tanwar, Tyagi & Kumar (Eds)	£125	\$160	978-1-78561-898-7	978-1-78561-899-4	PBHE020	2019
Wearable Technologies and Wireless Body Sensor Networks for Healthcare ¹	Velez & Miyandoab (Eds)	£140	\$180	978-1-78561-217-6	978-1-78561-218-3	PBHE011	2019
Engineering High Quality Medical Software: Regulations, standards, methodologies and tools for certification ¹	Coronato	£100	\$160	978-1-78561-248-0	978-1-78561-249-7	PBHE012	2018
Handbook of Speckle Filtering and Tracking in Cardiovascular Ultrasound Imaging and Video	Loizou, Pattichis & D'Hooge (Eds)	£130	\$210	978-1-78561-290-9	978-1-78561-291-6	PBHE013	2018
Semiconductor Lasers and Diode-based Light Sources for Biophotonics	Andersen & Petersen (Eds)	£130	\$170	978-1-78561-272-5	978-1-78561-273-2	PBHE007	2018
Value-based Learning Healthcare Systems: Integrative modeling and simulation ¹	Zeigler, Traore, Zacharewicz & Duboz	£125	\$165	978-1-78561-326-5	978-1-78561-327-2	PBHE015	2018
Enhanced Living Environments: From models to technologies ¹	Dobre, Valderrama, Ganchev, Garcia & Goleva (Eds)	£100	\$160	978-1-78561-211-4	978-1-78561-212-1	PBHE010	2017
Human Monitoring, Smart Health and Assisted Living: Techniques and technologies	Longhi, Monteriu & Freddi (Eds)	£90	\$145	978-1-78561-150-6	978-1-78561-151-3	PBHE009	2017
Portable Biosensors and Point-of-Care Systems	Kintzios (Ed)	£125	\$200	978-1-84919-962-9	978-1-84919-963-6	PBHE003	2017
Soft Robots for Healthcare Applications: Design, modelling and control	Xie, Zhang & Meng	£90	\$145	978-1-78561-311-1	978-1-78561-312-8	PBHE014	2017
Active and Assisted Living: Technologies and applications	Florez-Revuelta & Chaaraoui (Eds)	£110	\$170	978-1-84919-987-2	978-1-84919-988-9	PBHE006	2016
Biomedical Nanomaterials: From design to implementation	Webster & Yazici (Eds)	£105	\$170	978-1-84919-964-3	978-1-84919-965-0	PBHE004	2016
Machine Learning for Healthcare Technologies	Clifton (Ed)	£95	\$150	978-1-84919-978-0	978-1-84919-979-7	PBHE002	2016
Nanobiosensors for Personalized and Onsite Biomedical Diagnosis	Chandra (Ed)	£105	\$175	978-1-84919-950-6	978-1-84919-951-3	PBHE001	2016

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HIGHLIGHTS

Advanced Materials and Technologies for Next Generation Integrated Circuits

Editors: Saraju P. Mohanty, University of North Texas (UNT), USA; Ashok Srivastava, Louisiana State University, USA

Novel devices with the potential to provide alternatives to existing nanometer CMOS technology are the subject of research in the fields of electronic materials and electronic design automation. This book explores the materials and design requirements of emerging integrated circuit technologies, and outlines their prospective applications.

2020 / 320pp / £115 / \$150

Print PBCS0490 / 978-1-78561-664-8

eBook PBCS049E / 978-1-78561-665-5



Analysis and Design of CMOS Clocking Circuits For Low Phase Noise

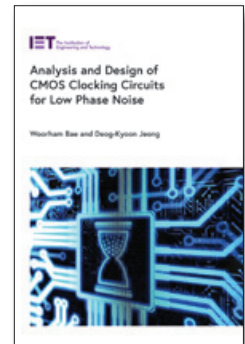
Authors: Woorham Bae, Ayar Labs, USA; Deog-Kyoon Jeong, Seoul National University, South Korea

As electronics continue to become faster, smaller and more efficient, development and research around clocking signals and circuits has accelerated to keep pace. This book bridges the gap between the classical theory of clocking circuits and recent technological advances.

2020 / 300pp / £115 / \$150

Print PBCS0590 / 978-1-78561-801-7

eBook PBCS059E / 978-1-78561-802-4



Cross-Layer Reliability of Computing Systems

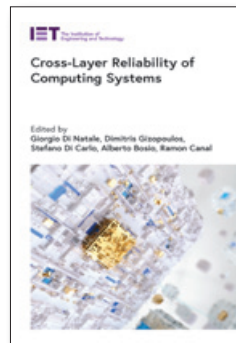
Editors: Giorgio Di Natale, National Research Center TIMA Laboratory, France; Alberto Bosio, Ecole Centrale de Lyon - INL, France; Ramon Canal, Universitat Politècnica de Catalunya-Barcelona Tech (UPC), Spain; Stefano Di Carlo, Politecnico di Torino, Italy; Dimitris Gizopoulos, National and Kapodistrian University of Athens, Greece

This book presents state-of-the-art solutions for increasing the resilience of computing systems, both at single levels of abstraction and multi-layers. It is a valuable resource for researchers, postgraduate students and professional computer architects focusing on the dependability of computing systems.

2020 / 300pp / £115 / \$150

Print PBCS0570 / 978-1-78561-797-3

eBook PBCS057E / 978-1-78561-798-0



Frontiers in Hardware Security and Trust: Theory, design and practice

Editors: Chip Hong Chang, Nanyang Technological University, Singapore; Yuan Cao, Hohai University, China

This book provides a comprehensive review of emerging security threats and privacy protection issues, and the versatile state-of-the-art hardware-based security countermeasures proposed by the hardware security community. It serves as an advanced reference for researchers on current hardware security problems, challenges and solutions.

2020 / 440pp / £125 / \$160

Print PBCS0660 / 978-1-78561-927-4

eBook PBCS066E / 978-1-78561-928-1



HIGHLIGHTS

Frontiers in Securing IP Cores: Forensic detective control and obfuscation techniques

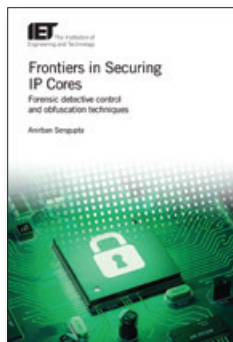
Author: Anirban Sengupta, Indian Institute of Technology Indore, India

This book presents advanced forensic detective control and obfuscation techniques for securing hardware IP cores by exploring beyond conventional technologies. The book begins by introducing forensic detective control and obfuscation mechanisms for hardware and IP core security. Further chapters cover hardware stenography, digital signature driven hardware authentication, fault-secured IP cores using digital signature-based watermarks, multi-level watermarking, cryptosystem-based multi-variable fingerprinting, multi-phase and hologram-based obfuscation, and security of functionally obfuscated DSP cores.

2019 / 344pp / £115 / \$150

Print PBCS0670 / 978-1-83953-031-9

eBook PBCS067E / 978-1-83953-032-6



Gyrators, Simulated Inductors and Related Immittances: Realizations and applications

Authors: Raj Senani, Netaji Subhas Institute of Technology (NSIT), India; Data Ram Bhaskar, Jamia Millia Islamia, New Delhi, India; Vinod Kumar Singh, Institution of Engineering and Technology, Lucknow, India; Abdhesh Kumar Singh, Delhi Technical Campus, India

This book provides coverage of the major gyrator circuits, simulated inductors and related synthetic impedances. It offers a review of research in this field to date, and includes a wide range and number of circuit examples, along with their relevant design equations, limitations, performance features, advantages and shortcomings.

2020 / 576pp / £140 / \$185

Print PBCS0480 / 978-1-78561-670-9

eBook PBCS048E / 978-1-78561-671-6



Hardware Architectures for Deep Learning

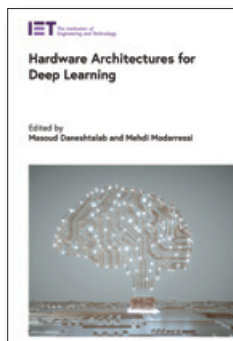
Editors: Masoud Daneshmand, Mälardalen University (MDH), Sweden; Mehdi Modarressi, University of Tehran, Iran

This book discusses innovative ideas in the design, modelling, implementation, and optimization of hardware platforms for neural networks. The book provides an overview of this emerging field, from principles to applications, for researchers, postgraduate students and engineers who work on learning-based services and hardware platforms.

2020 / 328pp / £115 / \$150

Print PBCS0550 / 978-1-78561-768-3

eBook PBCS055E / 978-1-78561-769-0



Integrated Optics

Volume 1: Modeling, material platforms and fabrication

Volume 2: Characterization, devices, and applications

Editors: Giancarlo Righini, Enrico Fermi Center & IFAC CNR, Italy; Maurizio Ferrari, Institute for Photonics and Nanotechnologies, CNR, Italy

Edited by two recognised experts, this work provides a comprehensive overview of integrated optics, from modelling to fabrication, materials to integration platforms, and characterization techniques to applications. The technology is explored in detail, and set in a broad context that addresses a range of current and potential future research and development trends. Volume 1 addresses modeling, material platforms and fabrication of integrated optics while Volume 2 explores characterization, devices and applications.

Vol 1: 2020 / 328pp / £115 / \$150

Print PBCS077A / 978-1-83953-341-9

eBook PBCS077F / 978-1-83953-342-6

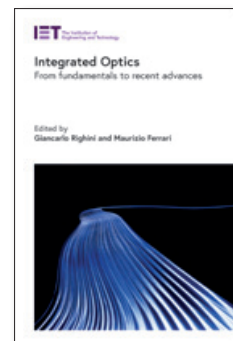
Vol 2: 2020 / 301pp / £115 / \$150

Print PBCS077B / 978-1-83953-343-3

eBook PBCS077G / 978-1-83953-344-0

Set: 2020 / £180 / \$240

Print PBCS077X / 978-1-83953-345-7



HIGHLIGHTS

MEMS Resonator Filters

Editor: Rajendra M Patrikar, VNIT Nagpur, India

This book explores the challenges and opportunities of developing circuits with MEMS resonator filters. The replacement of classical electrical components with electromechanical components is explored, and the specific properties of MEMS resonators required in various frequency ranges are discussed.



2020 / 432pp / £125 / \$160

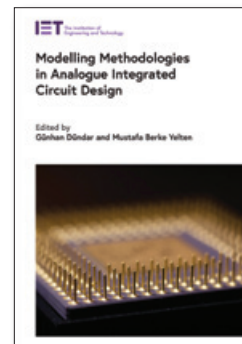
Print PBCS0650 / 978-1-78561-896-3

eBook PBCS065E / 978-1-78561-897-0

Modelling Methodologies in Analogue Integrated Circuit Design

Editors: Günhan Dündar, Bogazici University, Turkey; Mustafa Berke Yelten, Istanbul Technical University, Turkey

This book provides a holistic view of modelling for analogue, high frequency, mixed signal, and heterogeneous systems for designers working towards improving efficiency, reducing design times, and addressing the challenges of representing aging, variability, and other technical challenges at the nanometre scale.



2020 / 320pp / £115 / \$150

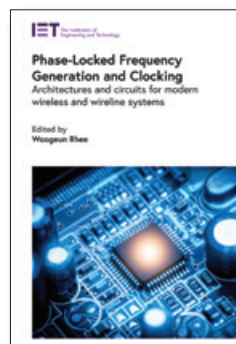
Print PBCS0510 / 978-1-78561-695-2

eBook PBCS051E / 978-1-78561-696-9

Phase-Locked Frequency Generation and Clocking: Architectures and circuits for wireless and wireline systems

Editor: Woogeun Rhee, Tsinghua University, China

This book covers essential topics and issues in current Phase-Locked Loop design, from fundamentals to practical design aspects. Both wireless and wireline systems are considered in the design of low noise frequency generation and clocking systems.



2020 / 736pp / £140 / \$180

Print PBCS0640 / 978-1-78561-885-7

eBook PBCS064E / 978-1-78561-886-4

Secured Hardware Accelerators for DSP and Image Processing Applications

Anirban Sengupta, Indian Institute of Technology Indore, India

Written by an acknowledged expert in the field, this book focuses on approaches for designing secure hardware accelerators for digital signal processing and image processing. State-of-the art security and optimization algorithms are presented, and their roles in the design of secured hardware accelerators explored.



2020 / 300pp / £115 / \$150

Print PBCS0760 / 978-1-83953-306-8

eBook PBCS076E / 978-1-83953-307-5

HIGHLIGHTS

Tensorial Analysis of Networks (TAN) Modelling for PCB Signal Integrity and EMC Analysis

Editors: Blaise Ravelo, NUIST University, China; Zhifei Xu, Missouri S&T EMC Laboratory, USA

This book describes a fast, accurate and flexible modelling methodology for PCBs. With its systematic approach to addressing tensorial analysis of networks (TAN) modelling methods, the book provides information and solutions to the designers and manufacturers of analogue, RF, digital and mixed signal electronic circuits and systems.



2020 / 400pp / £125 / \$160

Print PBCS0720 / 978-1-83953-049-4

eBook PBCS072E / 978-1-83953-050-0

RECENT

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
Advanced Materials and Technologies for Next Generation Integrated Circuits	Srivastava & Mohanty (Eds)	£115	\$150	978-1-78561-664-8	978-1-78561-665-5	PBCS049	2020
Analysis and Design of CMOS Clocking Circuits For Low Phase Noise	Bae & Jeong	£115	\$150	978-1-78561-801-7	978-1-78561-802-4	PBCS059	2020
Cross-Layer Reliability of Computing Systems	Di Natale, Bosio, Canal, Di Carlo & Gizopoulos (Eds)	£115	\$150	978-1-78561-797-3	978-1-78561-798-0	PBCS057	2020
Frontiers in Hardware Security and Trust: Theory, design and practice	Chang & Cao (Eds)	£125	\$165	978-1-78561-927-4	978-1-78561-928-1	PBCS066	2020
Gyrators, Simulated Inductors and Related Immittances: Realizations and applications	Senani, Bhaskar & Singh	£140	\$185	978-1-78561-670-9	978-1-78561-671-6	PBCS048	2020
Hardware Architectures for Deep Learning	Daneshtalab & Modarressi (Eds)	£115	\$150	978-1-78561-768-3	978-1-78561-769-0	PBCS055	2020
Integrated Optics (2-Volume Set)	Righini & Ferrari (Eds)	£180	\$240	978-1-83953-345-7	N/A	PBCS077X	2020
Integrated Optics: Volume 1 - Modeling, material platforms and fabrication	Righini & Ferrari (Eds)	£115	\$150	978-1-83953-341-9	978-1-83953-342-6	PBCS077A	2020
Integrated Optics: Volume 2 - Characterization, devices, and applications	Righini & Ferrari (Eds)	£115	\$150	978-1-83953-343-3	978-1-83953-344-0	PBCS077B	2020
MEMS Resonator Filters	Patrikar (Ed)	£125	\$160	978-1-78561-896-3	978-1-78561-897-0	PBCS065	2020
Modelling Methodologies in Analogue Integrated Circuit Design	Dündar & Yelten (Eds)	£115	\$150	978-1-78561-695-2	978-1-78561-696-9	PBCS051	2020
Phase-Locked Frequency Generation and Clocking: Architectures and circuits for wireless and wireline systems	Rhee (Ed)	£140	\$180	978-1-78561-885-7	978-1-78561-886-4	PBCS064	2020
Secured Hardware Accelerators for DSP and Image Processing Applications	Sengupta	£115	\$150	978-1-83953-306-8	978-1-83953-307-5	PBCS0760	2020
Tensorial Analysis of Networks (TAN) Modelling for PCB Signal Integrity and EMC Analysis	Ravelo & Yu (Eds)	£125	\$160	978-1-83953-049-4	978-1-83953-050-0	PBCS0720	2020

Continued...

RECENT

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
Advances in High-Power Fiber and Diode Laser Engineering	Divliansky (Ed)	£120	\$155	978-1-78561-751-5	978-1-78561-752-2	PBCS054	2019
Asynchronous Circuit Applications	Di & Smith (Eds)	£120	\$155	978-1-78561-817-8	978-1-78561-818-5	PBCS061	2019
Characterisation and Control of Defects in Semiconductors	Tuomisto (Ed)	£130	\$170	978-1-78561-655-6	978-1-78561-656-3	PBCS045	2019
Design of Terahertz CMOS Integrated Circuits for High-Speed Wireless Communication	Fujishima & Amakawa	£110	\$145	978-1-78561-387-6	978-1-78561-388-3	PBCS035	2019
Digitally Enhanced Mixed Signal Systems	Jabbour, Desgreys & Dallet (Eds)	£120	\$155	978-1-78561-609-9	978-1-78561-610-5	PBCS040	2019
Fibre Bragg Gratings in Harsh and Space Environments: Principles and applications	Aissa, Haddad, Kruzelecky & Jamroz	£110	\$145	978-1-78561-980-9	978-1-78561-981-6	PBCS069	2019
Frontiers in Securing IP Cores: Forensic detective control and obfuscation techniques	Sengupta	£115	\$150	978-1-83953-031-9	978-1-83953-032-6	PBCS067	2019
High Quality Liquid Crystal Displays and Smart Devices (2-volume set)	Ishihara, Kobayashi and Ukai (Eds)	£190	\$250	978-1-78561-939-7	N/A	PBCS068X	2019
High Quality Liquid Crystal Displays and Smart Devices Volume 1: Development, display applications and components	Ishihara, Kobayashi and Ukai (Eds)	£120	\$155	978-1-78561-925-0	978-1-78561-926-7	PBCS068A	2019
High Quality Liquid Crystal Displays and Smart Devices Volume 2: Surface alignment, new technologies and smart device applications	Ishihara, Kobayashi and Ukai (Eds)	£120	\$155	978-1-78561-923-6	978-1-78561-924-3	PBCS068B	2019
IP Core Protection and Hardware-Assisted Security for Consumer Electronics	Sengupta & Mohanty	£135	\$175	978-1-78561-799-7	978-1-78561-800-0	PBCS060	2019
Magneto-Rheological Materials and their Applications	Choi & Li (Eds)	£125	\$165	978-1-78561-770-6	978-1-78561-771-3	PBCS058	2019
Radio Frequency and Microwave Power Amplifiers (2-volume set)	Grebennikov (Ed)	£210	\$275	978-1-83953-040-1	N/A	PBCS071X	2019
Radio Frequency and Microwave Power Amplifiers: Efficiency and linearity enhancement techniques	Grebennikov (Ed)	£130	\$170	978-1-83953-038-8	978-1-83953-039-5	PBCS071B	2019
Radio Frequency and Microwave Power Amplifiers: Principles, device modeling and matching networks	Grebennikov (Ed)	£135	\$175	978-1-83953-036-4	978-1-83953-037-1	PBCS071A	2019
RF and Microwave Module Level Design and Integration	Almalkawi	£120	\$155	978-1-78561-359-3	978-1-78561-360-9	PBCS034	2019
Self-Healing Materials: From fundamental concepts to advanced space and electronics applications. 2nd Edition	Aissa, Haddad & Jamroz	£110	\$145	978-1-78561-992-2	978-1-78561-993-9	PBCS070	2019
Understandable Electric Circuits: Key concepts. 2nd edition	Wang	£120	\$155	978-1-78561-697-6	978-1-78561-698-3	PBCS047	2019
VLSI and Post-CMOS Electronics (2-volume set)	Dhiman & Chandel (Eds)	£190	\$250	978-1-83953-055-5	N/A	PBCS073X	2019
VLSI and Post-CMOS Electronics: Design, modelling and simulation	Dhiman & Chandel (Eds)	£120	\$155	978-1-83953-051-7	978-1-83953-052-4	PBCS073A	2019
VLSI and Post-CMOS Electronics: Materials, devices and interconnects	Dhiman & Chandel (Eds)	£120	\$155	978-1-83953-053-1	978-1-83953-054-8	PBCS073B	2019
VLSI Architectures for Future Video Coding	Martina (Ed)	£115	\$145	978-1-78561-710-2	978-1-78561-711-9	PBCS053	2019
Functionality-Enhanced Devices: An alternative to Moore's Law	Gillardon (Ed)	£115	\$150	978-1-78561-558-0	978-1-78561-559-7	PBCS039	2018
Negative Group Delay Devices: From concepts to applications	Ravelo (Ed)	£115	\$150	978-1-78561-640-2	978-1-78561-641-9	PBCS043	2018
System Design with Memristor Technologies	Buckert & Swartzlander	£100	\$160	978-1-78561-561-0	978-1-78561-562-7	PBCS038	2018
High Frequency MOSFET Gate Drivers: Technologies and applications	Zhang & Liu	£100	\$160	978-1-78561-365-4	978-1-78561-366-1	PBCS033	2017

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HIGHLIGHTS

Advanced Sparsity-Driven Models and Methods for Radar Applications

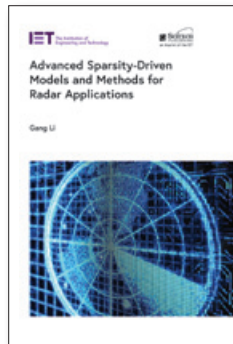
Author: Gang Li, Tsinghua University, China

This book introduces advanced sparsity-driven models and methods and their applications in radar tasks such as detection, imaging and classification. It is based on research from the last decade, with a particular focus on applying compressed-sensing-based models and algorithms to solve practical problems in radar.

2020 / 264pp / £110 / \$145

Print SBRA5350 / 978-1-83953-075-3

eBook SBRA535E / 978-1-83953-076-0



Autonomous Underwater Vehicles: Design and practice

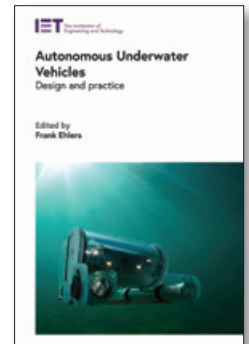
Editor: Frank Ehlers, Bundeswehr Technical Center for Ships and Naval Weapons, Maritime Technology and Research (WTD 71), Germany

This book gives a state-of-the-art overview of the hot topic of autonomous underwater vehicle (AUV) design and practice. It covers a wide range of AUV application areas such as education and research, biological and oceanographic studies, surveillance purposes, military and security applications and industrial underwater applications.

2020 / 650pp / £140 / \$185

Print SBRA5250 / 978-1-78561-703-4

eBook SBRA525E / 978-1-78561-704-1



Deep Neural Network Design for Radar Applications

Editor: Sevgi Zubeyde Gurbuz, University of Alabama, USA

Novel deep learning models are achieving state-of-the-art accuracy in the area of radar target recognition, sometimes exceeding human-level performance. The book provides an introduction to the key aspects of machine learning that any radar engineer seeking to apply deep learning to radar signal processing ought to be aware of.

2020 / 400pp / £125 / \$160

Print SBRA5290 / 978-1-78561-852-9

eBook SBRA529E / 978-1-78561-853-6



Electronic Scanned Array Design

Author: John S. Williams

This book covers the fundamental principles of ESA antennas including basic design approaches and inherent design limitations. These insights will enable better appreciation of existing and planned ESA systems including their application to earth observation.

2020 / 350pp / £120 / \$155

Print SBRA5260 / 978-1-78561-929-8

eBook SBRA526E / 978-1-78561-930-4



HIGHLIGHTS

Maritime Surveillance with Synthetic Aperture Radar

Editors: Gerardo Di Martino, University of Naples Federico II, Italy; Antonio Iodice, University of Naples Federico II, Italy

This book covers the use of SAR for maritime surveillance applications. It provides a comprehensive source of material on the subject, intended for SAR system engineers, private and public corporations, oceanographers, and remote-sensing researchers and end-users.



2020 / 300pp / £115 / \$150

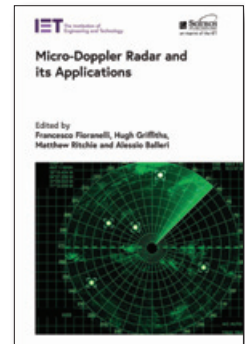
Print SBRA5210 / 978-1-78561-601-3

eBook SBRA521E / 978-1-78561-602-0

Micro-Doppler Radar and Its Applications

Editors: Francesco Fioranelli, Technical University of Delft, the Netherlands; Hugh Griffiths, University College London, UK; Matthew Ritchie, University College London, UK; Alessio Balleri, Cranfield University, UK

This book covers developments in radar micro-Doppler signatures and non-cooperative target recognition of moving targets including signatures of small drones and birds, automotive radar, passive radar for indoor applications, novel signal processing approaches using sparsity and deep learning, and Ultra Wide Band and FMCW radar chips.



2020 / 350pp / £125 / \$160

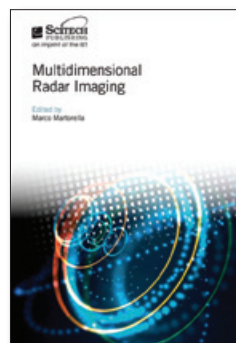
Print SBRA5310 / 978-1-78561-933-5

eBook SBRA531E / 978-1-78561-934-2

Multidimensional Radar Imaging

Editor: Marco Martorella, University of Pisa, Italy, and Radar and Surveillance Systems National Laboratory of the Italian Inter-University Consortium for Telecommunications (CNIT)

This book introduces a new framework which addresses the problem of radar imaging and target recognition as it jointly looks at optimising the use of multiple channels to significantly outperform classical radar imaging systems. It has been used in the military within NATO for the last few years and the technology is now declassified.



2019 / 356pp / £115 / \$150

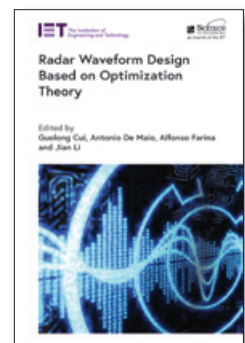
Print SBRA5270 / 978-1-78561-807-9

eBook SBRA527E / 978-1-78561-808-6

Radar Waveform Design Based on Optimization Theory

Editors: Guolong Cui, University of Electronic Science and Technology of China, Chengdu, China; Antonio De Maio, University of Naples Federico II, Italy; Alfonso Farina, consultant, Italy; Jian Li, University of Florida, USA.

This book provides an overview of radar waveform synthesis obtained as the result of computational optimization processes and covers the most challenging application fields. The book balances a practical point of view with a rigorous mathematical approach corroborated with a wealth of numerical case studies and some real experiments.



2020 / 350pp / £120 / \$155

Print SBRA5330 / 978-1-78561-943-4

eBook SBRA533E / 978-1-78561-944-1

HIGHLIGHTS

Ultra-Wideband Surveillance Radar

Author: Mark E. Davis, Medavis Consulting, USA

This text describes several UWB surveillance radar prototypes, including Multiple Antenna Surveillance Radar, Multibeam Synthetic Radar, and Geoscience SAR. These illustrate the recent development of multi-mode capabilities and based on the results of these prototypes, a novel multi-mode, multi-channel radar is presented.



2020 / 350pp / £120 / \$155

Print SBRA5340 / 978-1-83953-077-7

eBook SBRA534E / 978-1-83953-078-4

FORTHCOMING - to be published in 2021 and 2022

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code
An Introduction to RF Stealth. 2nd edition	Lynch	£145	\$190	978-1-83953-159-0	978-1-83953-160-6	SBRA540
Aviation Cybersecurity: Foundations, principles, and applications	Song, Hopkinson, de Cola, Alexandrovich and Liu (Eds)	£130	\$170	978-1-83953-321-1	978-1-83953-322-8	SBRA545
Electronic Warfare Against Passive Radar	O'Hagan, Schuepbach & Paine	£115	\$150	978-1-83953-197-2	978-1-83953-198-9	SBRA541
New Methodologies for Understanding Radar Data	Mishra & Brüggewirth (Eds)	£110	\$145	978-1-83953-188-0	978-1-83953-189-7	SBRA542
Radar Countermeasures for Unmanned Aerial Vehicles	Clemente, Fioranelli, Colone & Li (Eds)	£115	\$150	978-1-83953-190-3	978-1-83953-191-0	SBRA543
Staring Radar	Oswald & Baker	£120	\$155	978-1-78561-389-0	978-1-78561-390-6	SBRA518
Target Detection by Marine Radar. 2nd Edition	Wade	£130	\$210	978-1-78561-860-4	978-1-78561-861-1	SBRA528

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Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
Advanced Sparsity-Driven Models and Methods for Radar Applications	Li	£110	\$145	978-1-83953-075-3	978-1-83953-076-0	SBRA535	2020
Autonomous Underwater Vehicles: Design and practice	Ehlers (Ed)	£140	\$185	978-1-78561-703-4	978-1-78561-704-1	SBRA525	2020
Deep Neural Network Design for Radar Applications	Gurbuz (Ed)	£125	\$160	978-1-78561-852-9	978-1-78561-853-6	SBRA529	2020
Electronic Scanned Array Design	Williams	£120	\$155	978-1-78561-929-8	978-1-78561-930-4	SBRA526	2020
Maritime Surveillance with Synthetic Aperture Radar	Di Martino & Iodice (Eds)	£115	\$150	978-1-78561-601-3	978-1-78561-602-0	SBRA521	2020
Micro-Doppler Radar and Its Applications	Fioranelli, Griffiths, Ritchie & Balleri (Eds)	£125	\$160	978-1-78561-933-5	978-1-78561-934-2	SBRA531	2020
Radar Waveform Design Based on Optimization Theory	Cui, de Maio, Farina & Li (Eds)	£120	\$155	978-1-78561-943-4	978-1-78561-944-1	SBRA533	2020
Ultra-Wideband Surveillance Radar	Davis	£120	\$155	978-1-83953-077-7	978-1-83953-078-4	SBRA534	2020
Photonics for Radar Networks and Electronic Warfare Systems	Bogoni, Laghezza & Ghelfi (Eds)	£110	\$145	978-1-78561-376-0	978-1-78561-377-7	SBRA516	2019
Multidimensional Radar Imaging	Martorella (Ed)	£115	\$150	978-1-78561-807-9	978-1-78561-808-6	SBRA527	2019
Shadowing Function from Randomly Rough Surfaces: Derivation and applications	Bourlier & Li	£110	\$145	978-1-78561-535-1	978-1-78561-536-8	SBRA519	2019
Systems Engineering for Ethical Autonomous Systems	Gillespie	£130	\$170	978-1-78561-372-2	978-1-78561-373-9	SBRA517	2019
Radar and Communication Spectrum Sharing	Blunt & Perrins (Eds)	£145	\$190	978-1-78561-357-9	978-1-78561-358-6	SBRA515	2018
Tactical Persistent Surveillance Radar with Applications	Lynch	£110	\$160	978-1-78561-650-1	978-1-78561-651-8	SBRA524	2018
Biologically-Inspired Radar and Sonar: Lessons from nature	Balleri, Griffiths & Baker (Eds)	£100	\$160	978-1-61353-235-5	978-1-61353-236-2	SBRA514	2017
Novel Radar Techniques and Applications (2-volume set)	Klemm, Nickel, Gierull, Lombardo, Griffiths & Koch (Eds)	£250	\$395	978-1-61353-229-4	N/A	SBRA512X	2017
Novel Radar Techniques and Applications: Volume 1: Real Aperture Array Radar, Imaging Radar, and Passive and Multistatic Radar	Klemm, Nickel, Gierull, Lombardo, Griffiths & Koch (Eds)	£130	\$195	978-1-61353-225-6	978-1-61353-227-0	SBRA512A	2017
Novel Radar Techniques and Applications: Volume 2: Waveform Diversity and Cognitive Radar, and Target Tracking and Data Fusion	Klemm, Nickel, Gierull, Lombardo, Griffiths & Koch (Eds)	£130	\$195	978-1-61353-226-3	978-1-61353-228-7	SBRA512B	2017
The Impact of Cognition on Radar Technology	Farina, De Maio & Haykin (Eds)	£100	\$160	978-1-78561-580-1	978-1-78561-581-8	SBRA520	2017

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HIGHLIGHTS

Collection and Delivery of Traffic and Travel Information

Editors: Paul Burton, consultant, UK; Alan Stevens, University of Southampton, UK

Technologies for traffic and travel information (TTI) have been evolving rapidly in recent years. This book focuses on an emerging generation of machine to machine communication, covering gathering information from automated sensors, digital processing and transmission, and its use by increasingly intelligent agents and vehicles.

2020 / 300pp / £115 / \$150

Print PBTR0180 / 978-1-78561-772-0

eBook PBTR018E / 978-1-78561-773-7



ICT for Electric Vehicle Integration with the Smart Grid

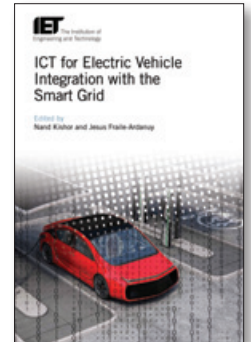
Editors: Nand Kishor, Motilal Nehru National Institute of Technology Allahabad, India; Jesus Fraile-Ardanuy, Universidad Politecnica de Madrid, Spain

This book provides a basis for full integration of electric vehicles into the smart grid, through the use of ICT tools. It looks at transport and energy system modelling, simulation and optimisation processes; vehicle on-line optimal control, estimation and prediction; energy system strategic planning; and services such as smart charging.

2019 / 442pp / £125 / \$160

Print PBTR0160 / 978-1-78561-762-1

eBook PBTR016E / 978-1-78561-763-8



Smart Sensing for Traffic Monitoring

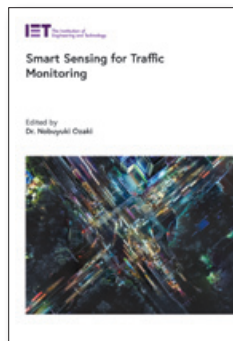
Editor: Nobuyuki Ozaki, Nagoya University, Japan

Intelligent infrastructure for smart sensing has the potential to revolutionise traffic management, and to play a key role in the future automation of vehicles. The book systematically covers the key elements of intelligent infrastructure for an audience of researchers, practitioners and advanced students.

2020 / 250pp / £110 / \$145

Print PBTR0170 / 978-1-78561-774-4

eBook PBTR017E / 978-1-78561-775-1



Traffic Information and Control

Editors: Ruimin Li, Tsinghua University, China, and Zhengbing He, Beijing University of Technology, China

Written by an international team of researchers, this book focuses on traffic information processing and signal control using emerging types of traffic data. This is a valuable resource for researchers and engineers working in the field of traffic information and control, and intelligent transport systems.

2020 / 300pp / £115 / \$150

Print PBTR0260 / 978-1-83953-025-8

eBook PBTR026E / 978-1-83953-026-5



FORTHCOMING - to be published in 2021 and 2022

Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code
Behavioral Modelling and Simulation of Bicycle Traffic	Huang & Wu	£115	\$150	978-1-78561-951-9	978-1-78561-952-6	PBTR023
Cable Based and Wireless Charging Systems for EV: Technology and control, management and grid integration	Singh, Padmanaban, Dwivedi, Molinas & Blaabjerg (Eds)	£140	\$180	978-1-83953-178-1	978-1-83953-179-8	PBTR032
Computational Traffic Flow Modelling and Control	Kotsialos	£125	\$160	978-1-78561-166-7	978-1-78561-167-4	PBTR003
Cybersecurity in Transport Systems	Hawley (Ed)	£120	\$155	978-1-78561-668-6	978-1-78561-669-3	PBTR015
Hybrid and All-Electric Aircraft	Turton, Cutcher & Ren (Eds)	£120	\$155	978-1-83953-019-7	978-1-83953-020-3	PBTR021
ICT Solutions and Digitalisation in Ports and Shipping	Fiorini & Gupta (Eds)	£120	\$155	978-1-83953-086-9	978-1-83953-087-6	PBTR030
ITS for Freight Logistics	Kawashima (Ed)	£110	\$145	978-1-83953-313-6	978-1-83953-314-3	PBTR034
Mobility as a Service: Development, technology and case studies	Kubitz & Gleave (Eds)	£110	\$145	978-1-83953-143-9	978-1-83953-144-6	PBTR029
Pedestrian Dynamics: Data, informatics, models, and simulation	Farooq	£110	\$145	978-1-78561-839-0	978-1-78561-840-6	PBTR019
Shared Mobility and Automated Vehicles	Khan & Shaheen (Eds)	£120	\$155	978-1-78561-862-8	978-1-78561-863-5	PBTR020
Simulators for Evaluation of Human-Machine Interfaces in Assisted and Autonomous Driving	Ito & Hirose (Eds)	£110	\$145	978-1-83953-008-1	978-1-83953-009-8	PBTR024
Smart Road Infrastructure: Innovative technologies	Guo (Ed)	£115	\$150	978-1-83953-183-5	978-1-83953-184-2	PBTR033
Traffic Safety Data: Data sources, observations and safety measures	Agerholm	£115	\$150	978-1-83953-045-6	978-1-83953-046-3	PBTR028
Travel Technologies for Elderly and Disabled People	Edwards & Matthews (Eds)	£110	\$145	978-1-83953-104-0	978-1-83953-105-7	PBTR031
V2X Communications for Autonomous Transportation: A comprehensive survey of driving use-cases	Abdulla	£125	\$160	978-1-78561-953-3	978-1-78561-954-0	PBTR022

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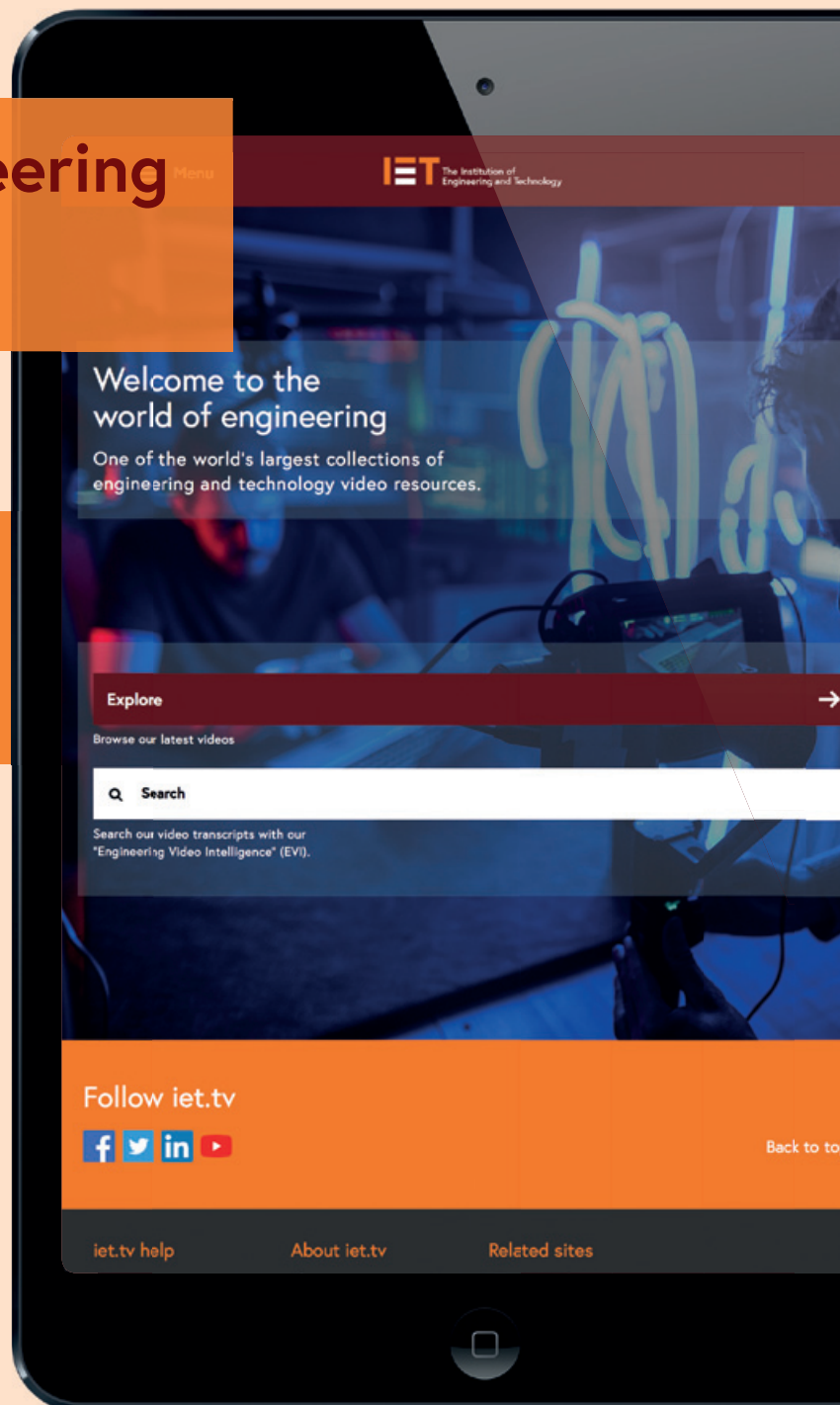
Title	Author(s)/Editor(s)	Price (£)	Price (\$)	ISBN	eISBN	Product code	Year
Collection and Delivery of Traffic and Travel Information	Burton & Stevens (Eds)	£115	\$150	978-1-78561-772-0	978-1-78561-773-7	PBTR018	2020
Smart Sensing for Traffic Monitoring	Ozaki (Ed)	£110	\$145	978-1-78561-774-4	978-1-78561-775-1	PBTR017	2020
Traffic Information and Control	Li & He (Eds)	£115	\$150	978-1-83953-025-8	978-1-83953-026-5	PBTR026	2020
Cooperative Intelligent Transport Systems: Towards high-level automated driving	Lu (Ed)	£125	\$160	978-183953-012-8	978-183953-013-5	PBTR025	2019
ICT for Electric Vehicle Integration with the Smart Grid	Kishor & Fraile-Ardanuy (Eds)	£125	\$160	978-1-78561-762-1	978-1-78561-763-8	PBTR016	2019
Navigation and Control of Autonomous Marine Vehicles	Sharma & Subudhi (Eds)	£120	\$155	978-1-78561-338-8	978-1-78561-339-5	PBTR011	2019
Autonomous Decentralized Systems and their Applications in Transport and Infrastructure	Mori & Kunifuji (Eds)	£120	\$155	978-1-78561-281-7	978-1-78561-282-4	PBTR009	2018
EMC and Functional Safety of Automotive Electronics	Borgeest	£110	\$145	978-1-78561-408-8	978-1-78561-409-5	PBTR012	2018
Road Pricing: Technologies, economics and acceptability	Walker (Ed)	£130	\$210	978-1-78561-205-3	978-1-78561-206-0	PBTR008	2018
Low Carbon Mobility for Future Cities: Principles and applications	Dia (Ed)	£105	\$170	978-1-78561-197-1	978-1-78561-198-8	PBTR006	2017
Sliding Mode Control of Vehicle Dynamics	Ferrara (Ed)	£100	\$160	978-1-78561-209-1	978-1-78561-210-7	PBTR005	2017
Energy Systems for Electric and Hybrid Vehicles	Chau (Ed)	£110	\$175	978-1-78561-008-0	978-1-78561-009-7	PBTR002	2016
Evaluation of Intelligent Road Transport Systems: Methods and results	Lu (Ed)	£105	\$170	978-1-78561-172-8	978-1-78561-173-5	PBTR007	2016

For more details on these books please visit theiet.org/books

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E: ietusa@theiet.org

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T: +852 2521 2140

F: +852 2778 1711

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BS 7671 (The IET Wiring Regulations) sets the standard for electrical installations in the UK and many other countries. The IET co-publishes BS 7671 with the British Standards Institution (BSI) and is the authority on electrical installation.

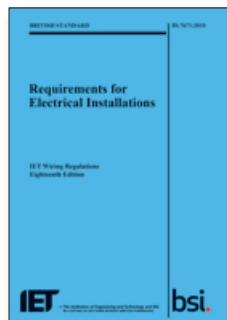
Amendment 1 to BS 7671:2018 was published in early 2020. This is a free-to-view stand-alone update available at theiet.org/updates. All titles below will remain up-to-date with BS 7671:2018 and will not be updated at this time.

eBook versions of BS 7671 and IET guidance are available on subscription via VitalSource Bookshelf. Please contact digitalwiringregs@theiet.org for more information on packages and ordering.

Requirements for Electrical Installations: IET Wiring Regulations

18th Edition
BS 7671:2018

- the 18th Edition is a major update to this title, with changes included throughout the book
- vital for all involved in the electrical industry, including designers, installers, and those involved in testing and inspection of electrical installations

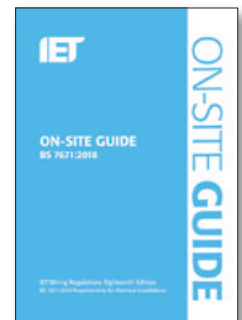


2018 / 560pp / £95 / \$120

Print PWR1800B / 978-1-78561-170-4

On-Site Guide to BS 7671:2018

- an essential guide to BS 7671
- incorporates the extensive changes in BS 7671:2018, making this a vital guide for keeping up to date
- enables the competent electrician to deal with installations (up to 100 A, 3-phase) providing essential information in a convenient, easy-to-use format



2018 / 220pp / £30 / \$38

Print PWGO180B / 978-1-78561-442-2

VS eBook PWGO180V / 978-1-78561-444-6

Guidance Note 1: Selection & Erection

8th Edition

- a fundamental guide for specifiers, installers and those inspecting and testing installations
- contains clear guidance on how to apply the relevant sections of BS 7671
- fully updated to BS 7671:2018



2018 / 244pp / £38 / \$48

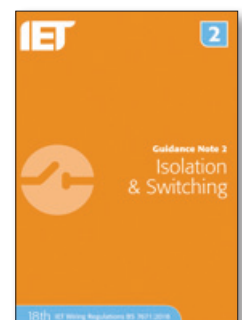
Print PWG1180B / 978-1-78561-445-3

VS eBook PWG1180V / 978-1-78561-447-7

Guidance Note 2: Isolation & Switching

8th Edition

- provides clear guidance on what can be a confusing aspect of BS 7671
- ideal for those working in specification, testing and inspection and for consulting engineers, as well as electrical installers
- fully updated to BS 7671:2018



2018 / 96pp / £32 / \$40

Print PWG2180B / 978-1-78561-449-1

VS eBook PWG2180V / 978-1-78561-451-4

Guidance Note 3: Inspection & Testing

8th Edition

- a fundamental guidance book for all those involved with the testing and inspection of electrical installations
- also contains essential guidance for those studying for inspection and testing qualifications
- fully updated to BS 7671:2018



2018 / 160pp / £35 / \$44

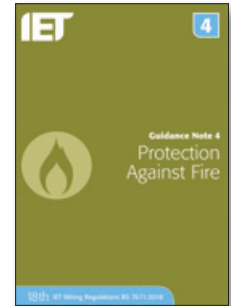
Print PWG3180B / 978-1-78561-452-1

VS eBook PWG3180V / 978-1-78561-454-5

Guidance Note 4: Protection Against Fire

8th Edition

- a vital guide to an important safety aspect of working with electricity
- aimed at everyone involved with fire safety in electrical installations, including consulting engineers, electrical installers, inspectors and technicians
- fully updated to BS 7671:2018



2018 / 120pp / £32 / \$40

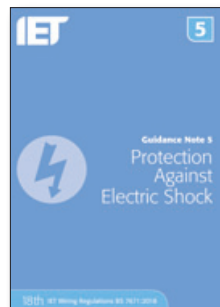
Print PWG4180B / 978-1-78561-455-2

VS eBook PWG4180V / 978-1-78561-457-6

Guidance Note 5: Protection Against Electric Shock

8th Edition

- a core element of safety for specifiers, designers, contractors and inspectors
- provides clear guidance on how to apply the safety requirements of BS 7671 concerning electric shock
- fully updated to BS 7671:2018



2018 / 152pp / £32 / \$40

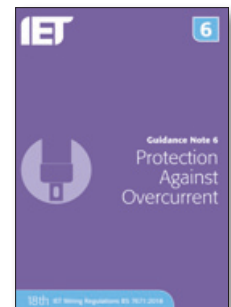
Print PWG5180B / 978-1-78561-458-3

VS eBook PWG5180V / 978-1-78561-460-6

Guidance Note 6: Protection Against Overcurrent

8th Edition

- a key guide to this important area of BS 7671
- for all involved with specifying, designing, installing or verifying electrical installations
- fully updated to BS 7671:2018



2018 / 124pp / £32 / \$40

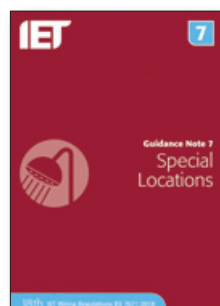
Print PWG6180B / 978-1-78561-461-3

VS eBook PWG6180V / 978-1-78561-463-7

Guidance Note 7: Special Locations

6th Edition

- provides a comprehensive guide to the various special locations and installations for which additional measures are required to comply with BS 7671
- designed for anyone working in special locations where guidance may vary, including consulting engineers, electricians, electrical installers, inspectors and technicians
- fully updated to BS 7671:2018



2018 / 208pp / £32 / \$40

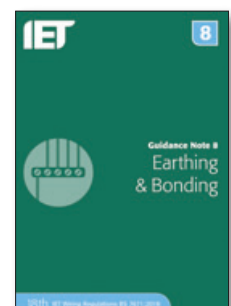
Print PWG7180B / 978-1-78561-464-4

VS eBook PWG7180V / 978-1-78561-466-8

Guidance Note 8: Earthing and Bonding

4th Edition

- includes information from BS 7430 Code of Practice for Earthing
- key guidance for all involved with specifying, designing, installing or verifying electrical installations
- fully updated to BS 7671:2018



2018 / 208pp / £32 / \$40

Print PWG8180B / 978-1-78561-413-2

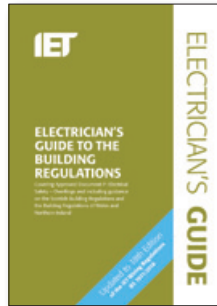
VS eBook PWG8180V / 978-1-78561-467-5

Electrical Regulations

Electrician's Guide to the Building Regulations

5th Edition

- includes the latest guidance on third-party certification schemes
- covers relevant parts of the Building Regulations, including Fire Safety, Ventilation and Conservation of Energy
- fully updated to BS 7671:2018



2018 / 284pp / £27 / \$34

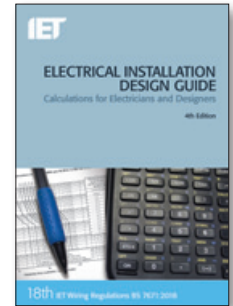
Print PWGP180B / 978-1-78561-468-2

VS eBook PWGP180V / 978-1-78561-470-5

Electrical Installation Design Guide

4th Edition

- provides step-by-step guidance on the design of electrical installations
- useful for apprentices and trainees carrying out the calculations necessary for a basic installation
- fully updated to BS 7671:2018



2018 / 224pp / £40 / \$50

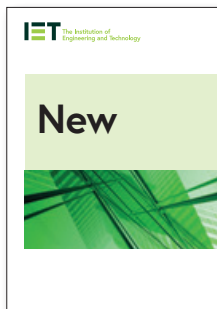
Print PWGC180B / 978-1-78561-471-2

VS eBook PWGC180V / 978-1-78561-473-6

NEW

Guide to Electrical Testing

- a practical guide to electrical testing for use in the development of a product, completing of an installation or during maintenance and repair
- provides explanations for why testing may be required, how to conduct relevant testing, and how to interpret test results
- intended to be complementary to Guidance Note 3 with detail regarding testing methods and test equipment



2021 / c.180pp / £45 / \$72

Print PWR80110 / 978-1-83953-206-1

VS eBook PWR8011V / 978-1-83953-208-5

NEW

Guide to Maximum Demand and Electrical Diversity

- a detailed guide to determining the maximum demand of an installation
- special consideration is given to the requirements of new circuits or technologies (such as an electric vehicle charging point)
- expands upon information found within BS 7671, the On-Site Guide and Guidance Note 1



2021 / c.120pp / £35 / \$44

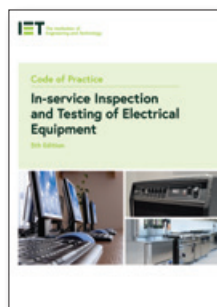
Print PWR80210 / 978-1-83953-209-2

VS eBook PWR8021V / 978-1-83953-211-5

Code of Practice for In-service Inspection and Testing of Electrical Equipment

5th Edition

- promotes a risk-based approach to assessing the safety of electrical equipment and appliances
- will assist duty-holders and all those responsible for electrical equipment and testers of the electrical equipment to determine whether the equipment is fit for continued service
- will help to achieve conformity with the relevant parts of the Electricity at Work Regulations and will assist in preparation for C&G 2377



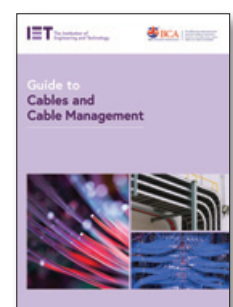
2020 / 106pp / £60 / \$99

Print PWR02350 / 978-1-78561-966-3

VS eBook PWR0235V / 978-1-78561-968-7

Guide to Cables and Cable Management

- comprehensive guide for all electrical contractors and designers selecting and installing cables
- provides clear information on the classes, sizes and types of cable, detailing appropriate and common applications and information on fire performance, accreditation and cable marking and IP ratings
- also provides a clear understanding of the complex regulatory provisions in this area



2019 / 200pp / £45 / \$72

Print PWCC190B / 978-1-83953-017-3

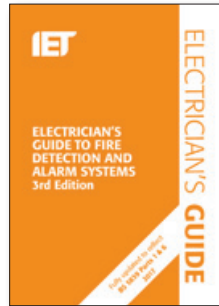
VS eBook PWCC190V / 978-1-83953-018-0

NEW

Electrician's Guide to Fire Detection and Alarm Systems

3rd Edition

- advice on managing the requirements of both BS 7671 and BS 5839 for electrical installations
- ideal guide for those involved in the design and installation of fire detection systems as part of an electrical installation
- fully updated to the latest versions of BS 5839-1 and BS 5839-6



2021 / 160pp / £29 / \$35

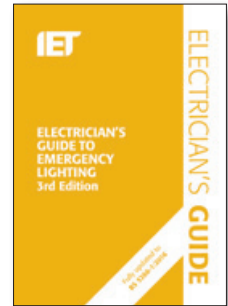
Print PWR25130 / 978-1-78561-674-7

VS eBook PWR2513V / 978-1-78561-676-1

Electrician's Guide to Emergency Lighting

3rd Edition

- provides guidance on how to manage the requirements of both BS 7671 and BS 5266
- for designers and installers working on electrical installations involving emergency lighting
- fully updated to BS 5266-1:2016



2019 / 110pp / £27 / \$34

Print PWR25020 / 978-1-78561-613-6

VS eBook PWR2502V / 978-1-78561-615-0

Practitioner's Guide to Temporary Power Systems

- accessible, concise and relevant information pertinent to the electrical safety of events for those working under pressure and to tight timescales
- the guide assists the reader in complying with BS 7671 and BS 7909, and in turn the Electricity at Work Regulations 1989; Construction, Design and Management; and Management of Health and Safety at Work Regulations 1999
- perfect for self-employed technicians and employers, such as, broadcast or rental organisations



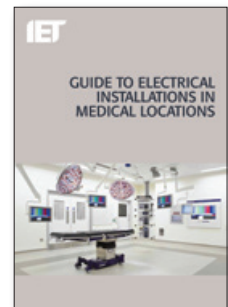
2019 / 200pp / £29 / \$35

Print PWTG1800 / 978-1-78561-432-3

VS eBook PWTG180V / 978-1-78561-434-7

Guide to Electrical Installations in Medical Locations

- for designers, installers and maintainers of electrical installations in medical locations
- definitive guidance on earthing and bonding arrangements in medical locations



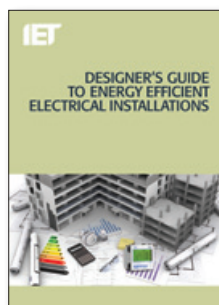
2017 / 180pp / £45 / \$72

Print PWR11711 / 978-1-84919-767-0

VS eBook PWR1171V / 978-1-78561-661-7

Designer's Guide to Energy Efficient Electrical Installations

- explains the areas incorporated into Appendix 17 (Energy Efficiency) of BS 7671:2018
- prepares users for meeting the new challenges and
- opportunities presented by Energy Efficiency
- explains the responsibilities of designers and clients in ensuring an energy efficient electrical design



2016 / 72pp / £30 / \$45.34

Print PWGE173B / 978-1-78561-181-0

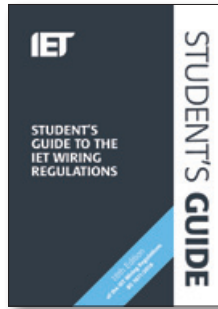
VS eBook PWGE173V / 978-1-78561-183-4

STUDENT GUIDES

Student's Guide to the IET Wiring Regulations

2nd Edition

- integrates with current qualifications being delivered
- using diagrams and examples, provides students with guidance to navigate their way through the information available in BS 7671 while studying electrical courses
- provides the information that students will need throughout their studies and into their careers, including information about the various Acts and Regulations that may have implications on electrical installations



2018 / 280pp / £20 / \$25

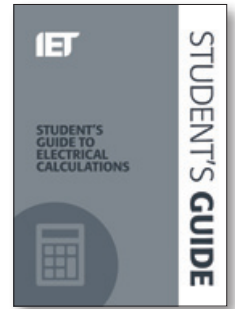
Wiro-bound PWGS180B / 978-1-78561-474-3

VS eBook PWGS180V / 978-1-78561-476-7

NEW

Student's Guide to Electrical Calculations

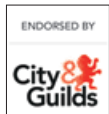
- provides fundamental guidance on the importance of carrying out accurate electrical calculations when designing and testing electrical installations
- easy to understand step-by-step diagrams and instructions to improve knowledge and understanding of calculations that form an integral part of level 2 and 3 electrical qualifications
- provides essential information for anyone working in the electrical industry, from apprentice to designer



2021 / 200pp / £15 / \$22.67

Print PWSC173B / 978-1-78561-244-2

VS eBook PWSC173V / 978-1-78561-738-6

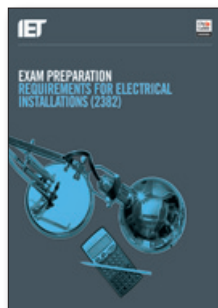


The IET works with City & Guilds to provide expert exam preparation materials to complement key electrical courses. All of the below publications have been written by the IET and approved by City & Guilds to help learners prepare for exams.

Exam Preparation

Requirements for Electrical Installations (2382)

- the 2381 qualification ensures learners are up to date with the latest BS 7671 requirements
- this course is updated to BS 7671:2018
- includes practice examinations with fully worked and 'model' answers



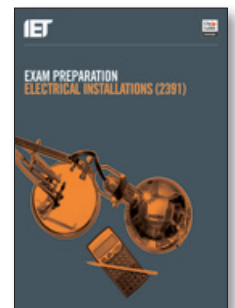
2019 / 130pp / £20 / \$28

Print PWR5140B / 978-1-78561-575-7

Exam Preparation

Electrical Installations (2391)

- the 2391 qualification is for the inspection and testing of electrical installations
- helps students prepare for examinations
- includes practice examinations with fully worked and 'model' answers



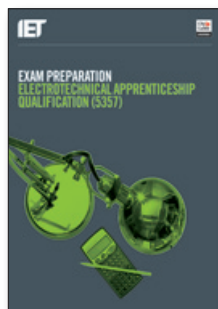
2018 / 130pp / £20 / \$28

Print PWR5110B / 978-1-78561-569-6

Exam Preparation

Electrotechnical Apprenticeship Qualification (5357)

- the 5357 qualification is for apprentices wishing to commence a career in the electrotechnical industry
- this book helps students prepare for examinations
- includes practice examinations with fully worked and 'model' answers



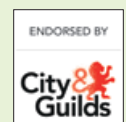
2018 / 198pp / £20 / \$28

Print PWR5100B / 978-1-78561-567-2

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- Full and update courses available

theiet.org/18th-course



Model Form of Contract for the design, supply and installation of electrical, electronic and mechanical plant.

The IET's Model Form of Contract (more commonly known as MF/1) is a key industry template for the supply and installation of electrical, electronic, or mechanical plant.

Used by the engineering community for over 100 years, this highly regarded and well-developed form can be customised for a specific purpose and has been adapted to be applicable internationally.

This standard form of contract is recommended for use by contracts officers in private and public sector organisations, mechanical and electrical engineers, facilities managers, lawyers and in-house legal representatives.

Model Form of Contract

For the design, supply and installation of electrical, electronic and mechanical plant, MF/1 (Revision 6)

- accommodates the views of purchasers, engineers and the manufacturing industry, resulting in a fair balance between contractor and purchaser
- provides flexibility for the parties by providing 'Special Conditions' for particular requirements
- reflects accepted best practice and standards such as ICC terms



2014 / 96pp / £70 / \$116

Print PMPA1080 / 978-1-84919-804-2

Commentary to MF/1 Revision 6

- this updated commentary helps users work with this 100-page Model Form of Contract in practical situations
- helps to interpret the clauses and the various schedules, explaining why they form part of the contract and indicating where they may be of particular value to those relying on the contract
- contains expanded coverage on parts of the contract likely to be most controversial and most likely to be an area of dispute



2017 / 48pp / £48 / \$68

Print PMPA108C / 978-1-78561-425-5

Package of MF/1 (Revision 6) and Commentary to MF/1 (Revision 6)

PMPA108V / 978-1-78561-776-8 / £95

There are four primary publications within the IET/IMEchE's Model Forms of Electromechanical Contract series. Please visit theiet.org/model-forms for details.

INTERACTIVE PDF VERSION

This downloadable version allows you to download and keep the PDF to use for multiple contracts, saving the cost of downloading a contract each time you need one. The document can be completed on screen, you can select pre-filled options and it is easy to print and circulate.

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ADDITIONAL MODEL FORMS TITLES

Title	Price (£)	Price (\$)	ISBN	Product Code
MF/1 (Revision 6) PDF version	350	580	978-1-78561-022-6	PMPA108D
MF/1 (Revision 6) eBook version	70	116	978-1-84919-805-9	PMPA108E
MF/2 (Revision 1) Model Form of General Conditions of Contract	60	96	978-0-85296-858-1	PM0TRO09
Commentary on MF/2 (Revision 1)	45	72	978-0-85296-758-4	PMPA1020
MF/3 (Revision 1) Model Form of General Conditions of Contract	35	56	978-0-85296-202-2	PMPA1040

IET Standards works with industry-leading bodies and experts to achieve consensus on good practice in both emerging and established fields of engineering and technology. The end results form a range of Codes of Practice and guidance materials for professional engineers and technicians.

eBook versions of many of these titles are available via VitalSource Bookshelf.

Please contact digitalwiringregs@theiet.org for more information.

See the IET Academy e-learning platform for courses based on our standards, including topics on:

- Electric Vehicle Charging Installation
- LED Lighting
- Smart Homes
- Electrical Energy Storage Systems
- Electrical Safety Management

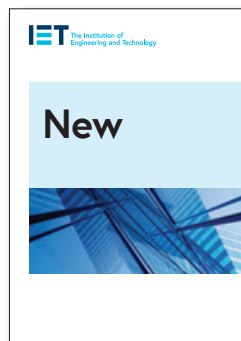
theiet.org/academy

NEW

Code of Practice for Cyber Security in the Built Environment

2nd Edition

- this Code has been updated to take into consideration the vast changes to the cyber security landscape over the past five years
- it provides clear practical guidance on the key aspects of cyber security relating to specific jobs and responsibilities in maintaining the security of a building
- the Code will be of use to any job functions connected to the design, management, operation and security of any building related systems, as well as board-level decision makers.



2021 / c.120pp / £80 / \$132

Print PSCS002P / 978-1-83953-346-4

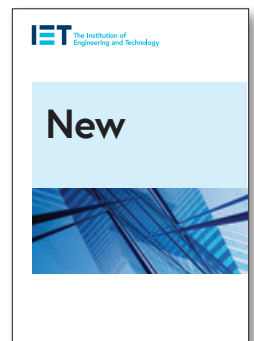
VS eBook PSCS002V / 978-1-83953-348-8

NEW

Code of Practice for the Application of LED Lighting Systems

2nd Edition

- continuing to provide confidence to users as a minimum standard for LED lighting systems installation
- serves as a useful reference on the application of LED lighting systems
- online technical specification and procurement and business case guidance available free of charge



2021 / 130pp / £65 / \$107

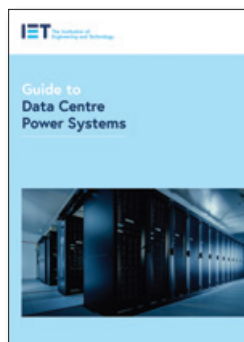
Print PSLS002P / 978-1-83953-084-5

VS eBook PSLS002V / 978-1-83953-085-2

NEW

Guide to Data Centre Power Systems

- a unique and comprehensive review of power systems that can be applied to all types of data centres
- impartial independent guidance
- a go-to guide for all those involved in the specification, design, commissioning, operation and maintenance of data centre power systems



2020 / 150pp / £65 / \$107

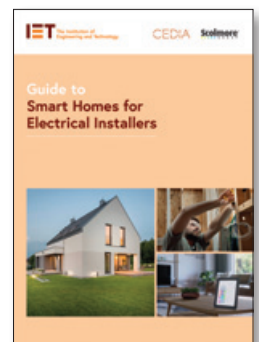
Print PSDA101P / 978-1-78561-828-4

VS eBook PSDA101V / 978-1-78561-893-2

NEW

Guide to Smart Homes for Electrical Installers

- clarifies the implementation of smart home solutions and provides good-practice guidance in line with current regulations
- provides content developed by a committee of experts ensuring industry-robust, trusted information
- focuses on progressive technology solutions, providing a practical basis for the high-level work taking place in this industry



2020 / 100pp / £50 / \$83

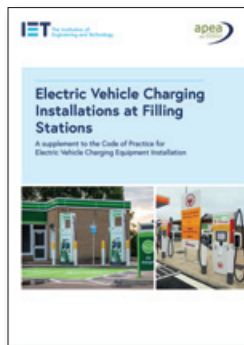
Print PSSH101P / 978-1-78561-654-9

VS eBook PSSH101V / 978-1-78561-894-9

NEW

Guide to EV Installations at Filling Stations

- this Supplement complements the *Code of Practice for Electric Vehicle Charging Equipment Installation*
- the guidance provides information specific to the particular safety requirements for installations at filling stations
- it is relevant to anyone installing charging equipment at filling station locations



2020 / 30pp / £50 / \$83

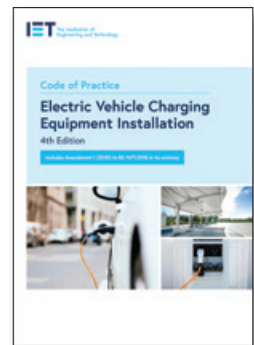
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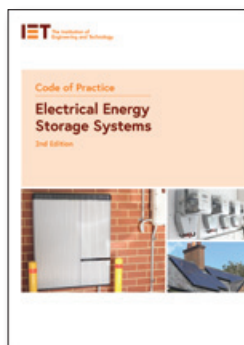
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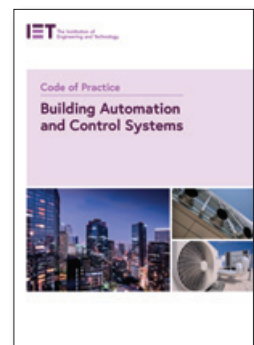
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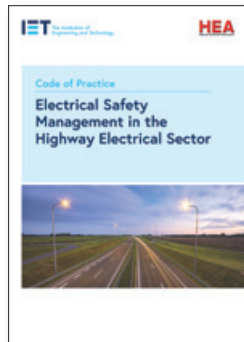
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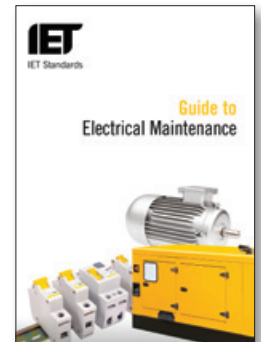
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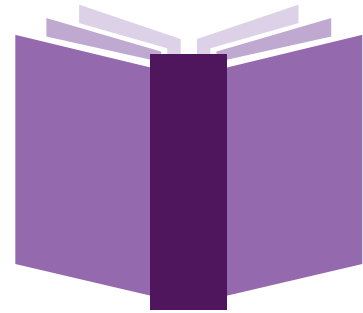
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