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Titolo	Cybersecurity Systems for Human Cognition Augmentation / / edited by Robinson E. Pino, Alexander Kott, Michael Shevenell
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Descrizione fisica	1 online resource (222 p.)
Collana	Advances in Information Security, , 1568-2633 ; ; 61
Disciplina	004 004.6 005.7 005.8
Soggetti	Computer security Artificial intelligence Neurosciences Computers Computer networks Systems and Data Security Artificial Intelligence Information Systems and Communication Service Computer Communication Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Situational awareness, sensemaking, and situation understanding in cyber warfare -- Neuromorphic Computing for Cognitive Augmentation in Cyber Defense -- Automated Cyber Situation Awareness Tools and Models for Improving Analyst Performance -- Data Mining in Cyber Operations -- Trusted Computation through Biologically Inspired Processes -- Dynamic Logic Machine Learning for Cybersecurity -- Towards Neural Network Based Malware Detection on Android Mobile Devices -- Sustainability Problems and a Novelty in the Concept of Energy -- Memristors as Synapses in Artificial Neural Networks: Biomimicry Beyond Weight Change -- Low Power Neuromorphic

	Architectures to Enable Pervasive Deployment of Intrusion Detection Systems -- Memristor SPICE Model Simulation and Device Hardware Correlation -- Reconfigurable Memristor Based Computing Logic -- Cyber Security Considerations for Reconfigurable Systems.
Sommario/riassunto	This book explores cybersecurity research and development efforts, including ideas that deal with the growing challenge of how computing engineering can merge with neuroscience. The contributing authors, who are renowned leaders in this field, thoroughly examine new technologies that will automate security procedures and perform autonomous functions with decision making capabilities. To maximize reader insight into the range of professions dealing with increased cybersecurity issues, this book presents work performed by government, industry, and academic research institutions working at the frontier of cybersecurity and network sciences. Cybersecurity Systems for Human Cognition Augmentation is designed as a reference for practitioners or government employees working in cybersecurity. Advanced-level students or researchers focused on computer engineering or neuroscience will also find this book a useful resource.