

1. Record Nr.	UNINA9910298969803321
Titolo	Cyber Defense and Situational Awareness // edited by Alexander Kott, Cliff Wang, Robert F. Erbacher
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
ISBN	3-319-11391-7
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (337 p.)
Collana	Advances in Information Security, , 1568-2633 ; ; 62
Disciplina	004 004.6 005.7 005.8
Soggetti	Computer security Computer networks Data encryption (Computer science) Application software Systems and Data Security Computer Communication Networks Cryptography Information Systems Applications (incl. Internet)
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.
Nota di contenuto	Preview -- Foundations and Challenges -- Cyber and Kinetic -- Formation of Awareness -- Network-wide Awareness -- Cognition and Technology -- Cognitive Process -- Visualization and Analysts -- Inference and Ontology -- Learning and Semantics -- Impact Assessment -- Attack Projection -- Metrics of Security -- Mission Resilience -- Concluding Thoughts.
Sommario/riassunto	This book is the first publication to give a comprehensive, structured treatment to the important topic of situational awareness in cyber defense. It presents the subject in a logical, consistent, continuous discourse, covering key topics such as formation of cyber situational awareness, visualization and human factors, automated learning and

inference, use of ontologies and metrics, predicting and assessing impact of cyber attacks, and achieving resilience of cyber and physical mission. Chapters include case studies, recent research results and practical insights described specifically for this book. Situational awareness is exceptionally prominent in the field of cyber defense. It involves science, technology and practice of perception, comprehension and projection of events and entities in cyber space. Chapters discuss the difficulties of achieving cyber situational awareness – along with approaches to overcoming the difficulties - in the relatively young field of cyber defense where key phenomena are so unlike the more conventional physical world. Cyber Defense and Situational Awareness is designed as a reference for practitioners of cyber security and developers of technology solutions for cyber defenders. Advanced-level students and researchers focused on security of computer networks will also find this book a valuable resource.
