1. Record Nr. UNINA9910877830903321

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Titolo	Security in wireless ad hoc and sensor networks / / Erdal Cayrc, Chunming Rong
Pubbl/distr/stampa	Chichester, U.K., : Wiley, 2009
ISBN	9786612689987 9781282689985 1282689983 9780470516782 047051678X 9780470516775 0470516771
Edizione	[1st edition]
Descrizione fisica	1 online resource (283 p.)
Altri autori (Persone)	RongChunming
Disciplina	005.8
Soggetti	Ad hoc networks (Computer networks) - Security measures Computer networks - Security measures
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 (p. [245]-252) and index.
Nota di contenuto	About the Authors -- Preface -- Acknowledgements -- List of Acronyms -- Part One Wireless Ad Hoc, Sensor and Mesh Networking -- 1 Introduction -- 1.1 Information Security -- 1.2 Scope of the Book -- 1.3 Structure of the Book -- 1.4 Electronic Resources for the Book -- 1.5 Review Questions -- 2 Wireless Ad Hoc, Sensor and Mesh Networks -- 2.1 Ad Hoc Networks and Applications -- 2.2 Sensor and Actuator Networks -- 2.3 Mesh Networks. / -- 2.4 Tactical Communications and Networks -- 2.5 Factors Influencing the Design of Wireless Ad Hoc, Sensor and Mesh Networks -- .6 Review Questions -- 3 The Wireless Medium -- 3.1 Wireless Channel Fundamentals and Security -- 3.2 Advanced Radio Technologies -- 3.3 Review Questions -- 4 Medium Access and Error Control -- 4.1 Medium Access Control -- 4.2 Error Control -- 4.3 Wireless Metropolitan Area Networks -- 4.4 Wireless Local Area Networks -- 4.5 Wireless Personal Area Networks. / -- 4.6 Review Questions -- 5 Routing -- 5.1 Internet Protocol and Mobile IP -- 5.2 Routing in Wireless Ad Hoc Networks -- 5.3 Routing in

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Sommario/riassunto

This book provides an in-depth guide to security in wireless ad hoc and sensor networks Security in Wireless Ad Hoc and Sensor Networks introduces the reader to the fundamentals and key issues related to wireless ad hoc networking, with an emphasis on security. It discusses the security attacks and counter measures in wireless ad hoc, sensor and mesh networks, and briefly presents the standards on related topics. The authors offer a clear exposition of various challenges and solutions in this field including bootstrapping, key distribution and exchange, authentication issues, privacy, anonymity and tamper resilience. Key Features: *Introduces the fundamentals and key issues of the new technologies followed by comprehensive presentation on security attacks and counter measures *Covers Denial of Service (DoS) attacks, hardware aspects of secure wireless ad hoc and sensor networks and secure routing *Contains information on cryptographic primitives and electronic warfare *Includes problems at the end of each chapter to enhance learning. This book is an invaluable resource for graduate students studying computer, electrical and communications engineering, researchers in academia and industry, and C4I engineers and officers in the military. Wireless network designers for internet service providers and mobile communications operators will also find this book very useful.