Record Nr. UNINA9910800052103321 Security of self-organizing networks: MANET, WSN, WMN, VANET // **Titolo** editor, Al-Sakib Khan Pathan Pubbl/distr/stampa Boca Raton:,: Auerbach Publications,, 2011 **ISBN** 0-429-09439-6 1-282-90290-3 9786612902901 1-4398-1920-3 Descrizione fisica 1 online resource (614 p.) Altri autori (Persone) PathanAl-Sakib Khan Disciplina 005.8 Ad hoc networks (Computer networks) - Security measures Soggetti Self-organizing systems - Security measures Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Front cover; Contents; Preface; Acknowledgments; Editor; Contributors; Part I: GENERAL TOPICS-SECURITY OF WIRELESS AND SELF-ORGANIZINGNETWORKS; Chapter 1: Secure Device Association; Chapter 2: Securing Route and PathIntegrity in Multihop Wireless Networks; Chapter 3: Handling Security Threatsto the RFID System of EPC Networks; Chapter 4: Survey of Anomaly Detection Algorithms; Chapter 5: Reputation- and Trust-BasedSystems forWirelessSelf-Organizing Networks; Part II: MOBILE AD HOC NETWORK ANDVEHICULAR AD HOCNETWORK SECURITY; Chapter 6: Security Threats in Mobile Ad Hoc Networks Chapter 7: Key Management in Mobile Ad Hoc NetworksChapter 8: Combating against SecurityAttacks against MobileAd Hoc Networks (MANETs); Chapter 9: Classification of AttacksonWireless Mobile Ad HocNetworks and Vehicular Ad Hoc Networks; Chapter 10: Security in Vehicular Ad Hoc Networks; Chapter 11: Toward a Robust Trust Modelfor Ensuring Security and Privacy in VANETs; Chapter 12: Sybil Attack in VANETs; Part III: WIRELESS SENSORNETWORK SECURITY; Chapter 13: Key Management SchemesofWireless Sensor Networks:

Chapter 14: Key Management TechniquesforWireless Sensor Networks

Chapter 15: Bio-Inspired IntrusionDetection forWireless Sensor NetworksChapter 16: Biological InspiredAutonomously SecureMechanism forWireless Sensor Networks; Chapter 17:Controlled Link Establishment Attack on KeyPre-Distribution Schemes forDistributed Sensor Networksand Countermeasures; Chapter 18: Proactive Key VariationOwing to Dynamic Clustering(PERIODIC) in Sensor Networks; Chapter 19: Secure Routing ArchitecturesUsing Cross-LayerInformation for AttackAvoidance (with Case Study on Wormhole Attacks); Chapter 20: Reputation-Based TrustSystems in Wireless Sensor Networks
Chapter 21: Major Works on the Necessityand Implementations of PKC

Chapter 21: Major Works on the Necessityand Implementations of PKC in WSNsPart IV: WIRELESS MESH NETWORK SECURITY; Chapter 22: Secure Access Control andAuthentication inWireless Mesh Networks; Chapter 23: Misbehavior Detection in Wireless Mesh Networks; Back cover

## Sommario/riassunto

Reflecting recent advancements, Security of Self-Organizing Networks: MANET, WSN, WMN, VANET explores wireless network security from all angles. It begins with a review of fundamental security topics and often-used terms to set the foundation for the following chapters. Examining critical security issues in a range of wireless networks, the book proposes specific solutions to security threats. Ideal for those with a basic understanding of network security, the text provides a clear examination of the key aspects of security in self-organizing networks and othe