1. Record Nr. UNINA9910437587303321 Autore Du Suguo Titolo Security assessment in vehicular networks / / Suguo Du, Haojin Zhu Pubbl/distr/stampa New York:,: Springer,, 2013 **ISBN** 1-4614-9357-9 Edizione [1st ed. 2013.] 1 online resource (xi, 49 pages): illustrations (some color) Descrizione fisica SpringerBriefs in Computer Science, , 2191-5768 Collana 58 Disciplina Vehicular ad hoc networks (Computer networks) - Security measures Soggetti Computer science Data protection Data encryption (Computer science) **Telecommunication** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "ISSN: 2191-5768." Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Introduction to Vehicular Networks Security -- Security Assessment via Attack Tree Model -- Attack-Defense Tree Based Security Assessment -- A VANETs Attack-Defense Game -- Modelling of Multiple Phased Attack on VANET Security. This book presents several novel approaches to model the interaction Sommario/riassunto between the attacker and the defender and assess the security of Vehicular Ad Hoc Networks (VANETs). The first security assessment approach is based on the attack tree security assessment model, which leverages tree based methods to analyze the risk of the system and identify the possible attacking strategies the adversaries may launch. To further capture the interaction between the attacker and the defender, the authors propose to utilize the attack-defense tree model to express the potential countermeasures which could mitigate the system. By considering rational participants that aim to maximize their payoff function, the brief describes a game-theoretic analysis approach to investigate the possible strategies that the security administrator and the attacker could adopt. A phased attack-defense game allows the reader to model the interactions between the attacker and defender for VANET security assessment. The brief offers a variety of methods for

assessing the security of wireless networks. Professionals and

researchers working on the defense of VANETs will find this material valuable.