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Nota di contenuto	""EXAMINING ROBUSTNESS AND VULNERABILITY OF NETWORKED SYSTEMS""; ""Preface""; ""Contents""; ""A Survey of Interdependency Models for Critical Infrastructure Networks""; ""Using GRASP for the Cover by s-Defective Independent Sets Problem""; ""Local Search for Hop-Constrained Directed Steiner Tree Problem with Application to UAV-Based Multi-Target Surveillance""; ""Variable Neighborhood Search for Edge-Ratio Network Clustering""; ""On Data Clustering: Exact and Approximate Solutions""; ""A Hybrid Metaheuristic for the Maximum k-Plex Problem"" ""Monotonic and Non-Monotonic Infections on Networks""""Navigation Function Based Decentralized Control of A Multi-Agent System with Network Connectivity Constraints""; ""Evaluation of the Reliability of Repairable sa??t Networks by Fast Simulation Method""; ""Analysis and Design of Robust Network Clusters with Bounded Diameter""; ""Multiobjective Particle Swarm Optimization for a Multicast Routing Problem""; ""Robust Networked Control Systems with Communication Constraints""; ""Hop-Constrained Tree-Shaped Networks"" ""Bilinear Markovian Processes of Search for Stationary and Moving

Objects""""On Risk-Averse Weighted k-Club Problems""; ""Distributed Computer Attack Detection System for Corporate Networks""; ""Optimal Balanced Packing Using Phi-Function Technique""; ""Security in Wireless Networks: A Tutorial""; ""Approximation Algorithms for Detecting Critical Nodes""; ""Subject Index""; ""Author Index""

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Sommario/riassunto

Modern critical infrastructure is characterized by complex, heterogeneous and dynamically evolving networks. But these can be vulnerable to component failure, and this is a problem which must be addressed by realistic mathematical models. This book presents papers from the NATO Advanced Research Workshop (ARW), Examining Robustness and Vulnerability of Critical Infrastructure Networks, held in Kiev, Ukraine, in June 2013. Contributions were from workshop participants as well as invited experts in the field, and cover topics including: mathematical models; probability-based risk measures; algor

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