Record Nr. UNISA996204095203316 Autore **Burbank Jack** Titolo An introduction to network modeling and simulation for the practicing engineer / / Jack Burbank, William Kasch, Jon Ward Pubbl/distr/stampa Picataway: ,: IEEE Press, , c2011 [Piscatagay, New Jersey]:,: IEEE Xplore,, [2011] **ISBN** 1-283-23977-9 9786613239778 1-118-06364-3 1-118-06363-5 Edizione [1st ed.] Descrizione fisica 1 online resource (217 p.) Collana The comsoc guides to communications technologies; ; 5 Altri autori (Persone) WardJon KaschWilliam Disciplina 620.00113 620.0042 Communication and technology Soggetti Simulation methods 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 and index. Nota di contenuto Modeling and Simulation for RF Propagation -- Physical Layer Modeling and Simulation -- Medium Access Control Modeling and Simulation --Modeling and Simulation for Higher Layer Protocols -- Hardware-inthe-Loop Simulations -- Complete Network Modeling and Simulation -- Other Vital Aspects of Successful Network Modeling and Simulation -- Network Modeling and Simulation: Summary. Sommario/riassunto Clear guidelines and rules for using the latest modeling and simulation toolsWith this practical guide as a reference, engineers and students can select and take full advantage of the best tools for network modeling and simulation (M&S). It alerts readers to all the potential pitfalls that can occur in developing and implementing network M&S, offering a clear set of rules to streamline the entire process and ensure the validity of results. The book focuses on wireless network M&S; however, the authors' expert advice, based on their own firsthand

experience and review of the current literature, is applicable to network M&S in general.An Introduction to Network Modeling and Simulation for

the Practicing Engineer begins with a brief summary of the advantages and disadvantages of M&S as well as an overview of common M&S tools. Next, it explores the core components of wireless network M&S:. Radio frequency propagation M&S. Physical layer M&S. Medium access control M&S. Higher layer M&SAfter discussing each of these components, the authors explain how they can be integrated in order to perform M&S of a complete wireless networking system. Throughout the book, examples guide readers through each M&S task, with descriptive diagrams providing additional clarification. In many cases, M&S is the only viable way to understand the behavior of a proposed network prior to its deployment. Working with An Introduction to Network Modeling and Simulation for the Practicing Engineer, readers can ensure that their models and simulations are as accurate a reflection of reality as possible.