DESCRIPTION

2009 CHOICE AWARD OUTSTANDING ACADEMIC TITLE

Information and communications security is a hot topic in private industry as well as in government agencies. This book provides a complete conceptual treatment of securing information and transporting it over a secure network in a manner that does not require a strong mathematical background. It stresses why information security is important, what is being done about it, how it applies to networks, and an overview of its key issues. It is written for anyone who needs to understand these important topics at a conceptual rather than a technical level.

ABOUT THE AUTHOR

STAMATIOS V. KARTALOPOULOS, PHD, is the Williams Professor in Telecommunications Networking at the ECE/TCOM graduate program at the University of Oklahoma and conducts research activities in optical networking and network security. He is also principal consultant of PhotonExperts, a consultancy on advanced optical technology and optical communications systems and networks. Previously, he defined, led, and managed research and development teams at Bell Laboratories, where he was awarded the President's Award as well as several other awards for excellence. Dr. Kartalopoulos has published both books and
research papers extensively, has been awarded nineteen patents, and has lectured at international forums. An IEEE Distinguished Lecturer, he is an IEEE Fellow and member of SPIE, Sigma XI, and Etta Kappa Nu.

FEATURES

- Provides the mathematical foundation upon which cryptographic methods and cipher algorithms (DH, ECC, RSA, etc.) are used to cipher texts in a manner that is accessible even to those without strong mathematical backgrounds.

- Thoroughly covers network security issues and vulnerabilities.

- Topics covered include quantum cryptography, intrusion detection, network self-defense against attacks, and countermeasure intelligent methods.

- It describes security mechanisms in the next-generation optical network, and it provides a treatment of biometrics and authentication issues over communications networks.

SERIES

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