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In today’s information age, the security of digital communication and transactions is of critical importance. Cryptography is the traditional, yet effective, practice of concealing personal information in cyberspace.

Applied Cryptography for Cyber Security and Defense: Information Encryption and Cyphering applies the principles of cryptographic systems to real-world scenarios, explaining how cryptography can protect businesses’ information and ensure privacy for their networks and databases. It delves into the specific security requirements within various emerging application areas and discusses procedures for engineering cryptography into system design and implementation.

Topics Covered:

- Network Security
- Cryptography-based Authentication
- E-mail Services and Web Services
- Wireless Sensor Networks
- E-Commerce
- Pervasive Computing Environments
- Steganography
- Secure Electronic Voting
- Biometric Security
- Applied Cryptography

Dr. Hamid Nemati is an Associate Professor of Information Systems at the Information Systems and Operations Management Department of The University of North Carolina at Greensboro. He holds a doctorate from the University of Georgia and a Master of Business Administration from The University of Massachusetts. Before coming to UNCG, he was on the faculty of J. Mack Robinson College of Business Administration at Georgia State University. He also has extensive professional experience as a consultant with a number of major corporations. Dr. Nemati is the Editor-in-Chief of International Journal of Information Security and Privacy and the Advances in Information Security and Privacy (AISP) Book Series. His research specialization is in the areas of decision support systems, data warehousing and mining, and information security and privacy. His research articles have appeared in a number of premier journals. He has presented numerous research and scholarly papers nationally and internationally.