

George K. Kostopoulos

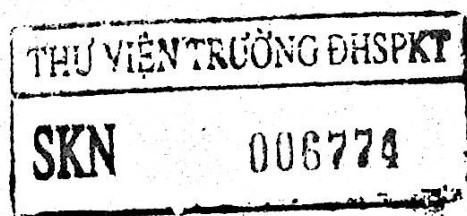
CYBERSPACE and CYBERSECURITY



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George K. Kostopoulos



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... a timely read, and even more so, a trusted resource ... covers a great deal of ground very well and its tutorial and comprehensive checklist style pulls even the risk discussions together in an understandable and educational manner that reinforces awareness to the critical attributes found within this manmade domain. ... each individual chapter deals with an important and realistic aspect of cybersecurity together with the vulnerabilities and risks. Together, the chapters provide a first-rate overview of this exceedingly complex topic, a perspective that has equally horizontal as well as vertical implications, and will keep the reader cognizant of the interrelationships among the disparate disciplines making up cyberspace.

—Riley Repko, CEO, Trusted Cyber Solutions LLC & Senior Research Fellow,
Virginia Tech University

Based on related courses and research on the cyber environment in Europe, the United States, and Asia, *Cyberspace and Cybersecurity* supplies complete coverage of cyberspace and cybersecurity. It not only emphasizes technologies but also pays close attention to human factors and organizational perspectives.

Detailing guidelines for quantifying and measuring vulnerabilities, the book also explains how to avoid these vulnerabilities through secure coding. It covers organizational-related vulnerabilities, including access authorization, user authentication, and human factors in information security. Providing readers with the understanding required to build a secure enterprise, block intrusions, and handle delicate legal and ethical issues, the text:

- Examines the risks inherent in information system components, namely, hardware, software, and people
- Explains why asset identification should be the cornerstone of any information security strategy
- Identifies the traits a CIO must have to address cybersecurity challenges
- Describes how to ensure business continuity in the event of adverse incidents, including acts of nature
- Considers intrusion detection and prevention systems (IDPS), focusing on configurations, capabilities, selection, management, and deployment

Explaining how to secure a computer against malware and cyber attacks, the text's wide-ranging coverage includes security analyzers, firewalls, antivirus software, file shredding, file encryption, and anti-loggers. It reviews international and U.S. federal laws and legal initiatives aimed at providing a legal infrastructure for what transpires over the Internet. The book concludes by examining the role of the U.S. Department of Homeland Security in our country's cyber preparedness.

Exercises with solutions, updated references, electronic presentations, evaluation criteria for projects, guidelines to project preparations, and teaching suggestions are available upon qualified course adoption.



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