This book provides a scientific modeling approach for conducting metrics-based quantitative risk assessments of cybersecurity vulnerabilities and threats.

The author builds from a common understanding based on previous class-tested works to introduce the reader to the current and newly innovative approaches to address the maliciously-by-human-created (rather than by-chance-occurring) vulnerability and threat, and related cost-effective management to mitigate such risk. This book is purely statistical data-oriented (not deterministic) and employs computationally intensive techniques, such as Monte Carlo and Discrete Event Simulation. The enriched JAVA ready-to-go applications and solutions to exercises provided by the author at the book’s specifically preserved website will enable readers to utilize the course related problems.

- Enables the reader to use the book’s website’s applications to implement and see results, and use them making ‘budgetary’ sense
- Utilizes a data analytical approach and provides clear entry points for readers of varying skill sets and backgrounds
- Developed out of necessity from real in-class experience while teaching advanced undergraduate and graduate courses by the author
Cyber-Risk Informatics is a resource for undergraduate students, graduate students, and practitioners in the field of Risk Assessment and Management regarding Security and Reliability Modeling.

Mehmet Sahinoglu, a Professor (1990) Emeritus (2000), is the founder of the Informatics Institute (2009) and its SACS-accredited (2010) and NSA-certified (2013) flagship Cybersystems and Information Security (CSIS) graduate program (the first such full degree in-class program in Southeastern USA) at AUM, Auburn University’s metropolitan campus in Montgomery, Alabama. He is a fellow member of the SDPS Society, a senior member of the IEEE, and an elected member of ISI. Sahinoglu is the recipient of Microsoft's Trustworthy Computing Curriculum (TCC) award and the author of Trustworthy Computing (Wiley, 2007).

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