



CYBEROLOGY

AN OPTIMIZED APPROACH
TO THE CYBER-WORLD

Edited by Mohd. Shahid Husain,
Mohammad Faisal, Halima Sadia, Tasneem Ahmed,
Saurabh Shukla, and Adil Kaleem

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Cyberology

This book provides an insightful examination of cybersecurity threats and their implications across various sectors, including healthcare, agriculture, and government. It covers fundamental concepts in cybersecurity, including cybercrime laws, cyberbullying, and emerging technologies. It discusses challenges in detecting and preventing cyber threats and analyzes trends in cyber warfare and resilience. This book serves as a resource for understanding the complex relationship between technology and society, equipping readers with the knowledge needed to navigate the evolving cyber landscape. It is for scholars, students, and professionals interested in cybersecurity and challenges.

This book

- introduces the fundamental principles and theories of cybersecurity, focusing on the relationship between humans and technology;
- details various cyber threats affecting the digital world, healthcare, and agriculture, emphasizing their real-world implications;
- discusses issues like cyberbullying, threats in cloud computing, and vulnerabilities in cyber-physical systems;
- examines the difficulties in detecting cybercrimes, addressing advanced persistent threats, and fostering cyber resilience;
- analyzes current trends in cyber warfare and terrorism, providing insights into new security challenges.



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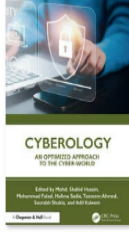
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Chapter

Cybersecurity Challenges and Countermeasures in Smart Cities for Sustainable Environment Development

A Comprehensive Analysis of Threats and Resilience Strategies

By Saurabh Srivastava, Tasneem Ahmed, Nayyar Ali Usmani, Syed Adnan Afaq, Mohammad Faisal

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ABSTRACT

The smart city aims to raise the standard of living for its citizens. Intelligent transportation, automated traffic control, computerized medical services, and health monitoring systems are basic requirements of a smart city. Smart cities have greatly multiplied, mostly in developing countries. Urban resilience is garnering greater attention and interest concurrently due to growing worry over significant concerns such as climate change, natural catastrophes, and other hazards. Despite the emphasis on enhancing urban resilience, the majority of study has been on defining urban resilience rather than how to put policies that would support urban resilience into practice. A growing number of cities around the world have begun to develop smart plans to address these problems, promote citizen well-being, drive economic growth, and effectively and sustainably administer modern cities. The application can be installed on a smartphone and the application uses the resources of a smartphone like WiFi, sensors, and Internet which decreases the cost of the application but increases the chances of the user's personal information being stolen. Since the smartphone holds a lot of private information about the user, including social networking and bank account details, hackers may be able to utilize the personal facts to harm the user.