Essentials in Cyber Defence

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This book is a part of the "**Periodic Series in Multidisciplinary Studies**", designed to showcase interdisciplinary research and academic contributions from various fields including science, humanities, technology, education, and more.

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This volume offers unique insights and case studies contributed by experts and researchers from around the world. Each chapter reflects the authors' individual perspectives and scholarly expertise. Readers are encouraged to engage critically with the content, reflect on the findings, and explore how these insights may apply to their own fields of interest or professional practice.

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Preface of the Series

In a world where digital systems underpin almost every aspect of modern life from government and finance to healthcare and critical infrastructure cybersecurity has emerged as one of the defining challenges of our time. The rapid evolution of cyber threats, combined with the increasing sophistication of attackers, demands not only reactive measures but proactive, strategic defense frameworks. It is in this context that **Essentials in Cyber Defence** has been developed.

This volume brings together foundational concepts, practical techniques, and current best practices in the field of cyber defence. The aim is to provide readers with a clear, accessible, and comprehensive understanding of the key elements required to defend against digital threats effectively. Topics span across network security, threat intelligence, incident response, endpoint protection, encryption, and the human factors that so often play a critical role in cyber incidents.

As the editor, my intent has been to ensure that this work serves as both a primer and a reference suitable for students beginning their journey in cybersecurity, professionals seeking to strengthen their defensive capabilities, and decision-makers looking to shape cyber-resilient organizations. Each chapter is authored by experts who bring not only theoretical knowledge but also valuable practical insights from the field.

In an age of growing cyber dependence, knowledge is perhaps the most powerful defense we have. It is my hope that the material presented here equips readers with the essential tools and perspectives to better understand, anticipate, and respond to the challenges of the cyber domain.

I am deeply grateful to the contributors for their commitment, and to the readers who continue to advance the conversation and practice of cybersecurity. May this volume serve as a meaningful step forward in our shared mission to secure the digital future.

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