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5G Networks & Cybersecurity

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The 5G mobile system is a culmination of technological evolution of communication technologies, including IP based services, virtualization, the rise of smartphones, IoT and the convergence of wired and wireless networks. With the evolution of 5G mobile connectivity, its security mechanism needs to adapt to a wide range of users and technological shifts.

This book provides a simplified view of 5G security, bridging the gap between complex technical standards and practical understanding. Technical topics covered in this book include:

- Primary and secondary authentications
- Slice authentications
- Application-oriented authentication and key management support called AKMA
- Non-3GPP access and converged wireline–wireless authentication
- Non-public network
- UAV USS authentication and authorization
- Variability in 5G security feature adoption

As mobile networks have become an integral part of modern society and critical infrastructure, this book is a timely insight into how 5G security is structured, applied and shaped by the technological and regulatory forces.

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- 5G Introduction
- 5G Authentication Mechanisms
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River Publishers

River Publishers Series in Computer Engineering and Information Science and Technology

ISBN: 9788743810889

e-ISBN: 9788743810896

Available From: June 2026

Price:

KEYWORDS:

5G, 5G security, authentication, 3GPP, 3GPP access, trusted/untrusted non-3GPP access authentication, primary/secondary/slice authentication, AKMA, UAAA, mobile networks, critical infrastructure, security, resilience, cloud



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