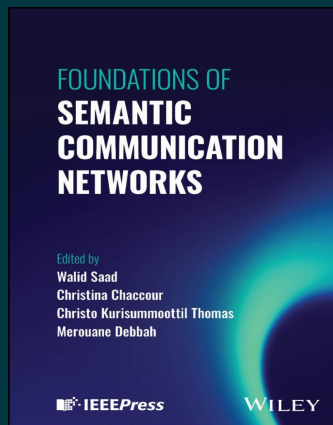




eBook - Foundations of Semantic Communication Networks

By [Walid Saad](#), [Christina Chaccour](#), [Christo Kurisummoottil Thomas](#), [Merouane Debbah](#)

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9789373326542

₹ - Price

Pages: 416

Description

This advanced reference provides an in-depth treatment of semantic communication networks, presenting foundational theories and mathematical frameworks essential for next-generation connectivity. It explores how semantic information processing, joint source-channel coding, and intelligent resource management can enhance network performance and efficiency, particularly in 6G and beyond systems. The book integrates interdisciplinary perspectives on AI-enhanced communication, secure and privacy-preserving systems, and heterogeneous network interoperability. With rigorous analysis and case studies, it serves as a comprehensive guide for graduate students, researchers, and engineers engaged in wireless communications and intelligent network design.

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