

1. Record Nr.	UNISA996546828803316
Autore	Yao Junmei
Titolo	Cross-Technology Coexistence Design for Wireless Networks [[electronic resource] /] by Junmei Yao, Kaishun Wu
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
ISBN	981-9916-70-4
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (77 pages)
Collana	SpringerBriefs in Computer Science, , 2191-5776
Disciplina	621.382
Soggetti	Computer networks Mobile computing Wireless communication systems Mobile communication systems Computer Communication Networks Mobile Computing Wireless and Mobile Communication
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1 Introduction -- Chapter 2 Heterogeneous Signal Identification -- Chapter 3 Cross-Technology Communication through Symbol-Level Energy Modulation -- Chapter 4 Cross-Technology Interference Management in Frequency domain -- Chapter 5 Cross-Technology Interference Management in Time Domain -- Chapter 6 Conclusion and Future Work.
Sommario/riassunto	This book introduces readers to the fundamentals of the cross-technology coexistence problem in heterogeneous wireless networks. It also highlights a range of mechanisms designed to combat this problem and improve network performance, including protocol design, theoretical analysis, and experimental evaluation. In turn, the book proposes three mechanisms that can be combined to combat the cross-technology coexistence problem and improve network performance. First, the authors present a fast signal identification method. It provides the basis for the subsequent protocol design and allows heterogeneous devices to adopt proper transmission strategies. Second, the authors present two cross-technology interference

management mechanisms in both the time domain and the frequency domain, which can mitigate interference and increase transmission opportunities for heterogeneous devices, thus improving network performance. Third, they present a cross-technology communication mechanism based on symbol-level energy modulation, which allows heterogeneous devices to transmit information directly without a gateway, improving transmission efficiency and paving the way for new applications in IoT scenarios. Lastly, they outline several potential research directions to further improve the efficiency of cross-technology coexistence. This book is intended for researchers, computer scientists, and engineers who are interested in the research areas of wireless networking, wireless communication, mobile computing, and Internet of Things. Advanced-level students studying these topics will benefit from the book as well.
