1. Record Nr. UNINA9910742501303321 Autore Morais Douglas H **Titolo** 5G NR, Wi-Fi 6, and Bluetooth LE 5: A Primer on Smartphone Wireless Technologies / / by Douglas H Morais Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2023 Pubbl/distr/stampa **ISBN** 3-031-33812-X Edizione [1st ed. 2023.] 1 online resource (191 pages) Descrizione fisica Disciplina 621.38456 Soggetti **Telecommunication** Wireless communication systems Mobile communication systems Cooperating objects (Computer systems) Communications Engineering, Networks Wireless and Mobile Communication Cyber-Physical Systems Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter 1 5G Nr, Wi-Fi 6, and Bluetooth LE 5 Introduction -- Chapter 2 Data Communications Systems Protocol Stacks -- Chapter 3 The Wireless Path -- Chapter 4 Digital Modulation: The Basic Principles --Chapter 5 Channel Coding and Link Adaptation -- Chapter 6 Channel Usage Techniques -- Chapter 7 Multiple Antenna Techniques --Chapter 8 5G NR Overview -- Chapter 9 Wi-Fi 6 Overview -- Chapter 10 Bluetooth LE Overview. Sommario/riassunto This book provides, at a high level and in a tractable fashion, a description of how wireless communications are achieved in the latest smartphones. The author shows how smartphones communicate via three separate systems, namely 5G NR, Wi-Fi 6, and Bluetooth Low Energy 5. He explains how 5G NR allows mobile voice and high-speed data communication, how Wi-Fi allows smartphone attachment to the Internet independent of 5G NR, and how Bluetooth allows smartphone attachment to speakers, in-car entertainment systems, smart watches,

etc. This text explains the key basic technologies employed and then addresses how each system operates. This book is of interest to anyone

with a rudimentary scientific understanding who desires to know more at an intuitive level rather than rigorous one how smartphones achieve wireless communications. Shows how smartphones communicate via 5G NR, Wi-Fi 6, and Bluetooth Low Energy 5; Aimed at those wanting a deeper understanding of how smartphone wireless communication works; Conveys at a high level and in a tractable fashion how wireless communication is achieved in smartphones.