1. Record Nr. UNINA9910988284503321 Autore Morais Douglas H **Titolo** 5G/5G-Advanced, Wi-Fi 6/7, and Bluetooth 5/6: A Primer on Smartphone Wireless Technologies / / by Douglas H Morais Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 9783031828300 3031828305 Edizione [2nd ed. 2025.] Descrizione fisica 1 online resource (XX, 209 p. 106 illus., 1 illus. in color.) Disciplina 621.382 **Telecommunication** Soggetti Cooperating objects (Computer systems) Wireless communication systems Mobile communication systems Communications Engineering, Networks Cyber-Physical Systems Wireless and Mobile Communication Lingua di pubblicazione Inglese Materiale a stampa **Formato** Livello bibliografico Monografia Nota di contenuto Chapter 1. 5G/5G-Advanced, Wi-Fi 6/7, and Bluetooth 5/6 Introduction -- Chapter 2. Data Communication 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/5G-Advanced Overview -- Chapter 9. Wi-Fi 6/6E and Wi-Fi 7 Overview -- Chapter 10. Bluetooth 5/6 Overview -- Chapter 72. Menstruation Effect on Wellbeing: Exploring the Mediating Role of Physical Pain and Psychological Anguish. Sommario/riassunto This second edition of 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/5G-

Advanced, Wi-Fi 6/7, and Bluetooth 5/6. The book explores how 5G/5G-Advanced allows mobile voice and high-speed data

communication, how Wi-Fi 6/7 allows smartphone attachment to the Internet independent of 5G/5G-Advanced, and how Bluetooth 5/6 allows smartphone attachment to speakers, in-car entertainment systems, smart watches, etc. This text explains the key basic technologies employed and addresses how each system operates. In addition, a cursory overview is provided of smartphone GPS navigation and iPhone satellite messaging. This book is of interest to anyone with a rudimentary scientific understanding who desires to know more at an intuitive level, rather than at a rigorous one, how smartphones achieve wireless communications. Conveys in a tractable fashion how smartphones communicate via 5G/5G-Advanced, Wi-Fi 6/7, and Bluetooth 5/6; Introduces key technologies such as digital modulation, channel coding, OFDM/OFDMA, and multiple antenna techniques; Updated to include the latest technological advancements that support the newest capabilities.