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Altri autori (Persone)	AlfarhanFaris AdveRaviraj
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Nota di contenuto	Introduction -- Introduction to wireless communications and networks -- RF concepts in cellular communication -- Spectrum and RF characteristics of cellular systems -- MIMO and cellular antennas -- Introduction to multicarrier transmission -- Radio access network architecture -- 3GPP based air interface: Layer 1 -- 3GPP based air interface: Layer 2 -- 3GPP based air interface: Layer 3 -- Performance and analysis of cellular systems -- Carrier aggregation and unlicensed bands -- Cellular Network Planning and Design -- Conclusion.
Sommario/riassunto	This textbook goes to the heart of telecommunications engineering by developing the underlying concepts and linking them to how system specifications are determined by standards bodies – and how systems are designed and implemented by equipment manufacturers. In this regard, the book is comprehensive in covering all important aspects of wireless networks. Tailored to undergraduate/graduate students and practicing engineers, this book presents the fundamental concepts in a

concise manner, while retaining the rigor needed to truly understand wireless communications. Importantly, the book ties these developments to how these concepts are implemented in fielded systems, discussing the motivations behind the design choices made in 4G and 5G wireless communications. The book bridges the gap between theory and application, presenting key practical issues. Presents RF concepts, RAN protocols, and radio planning and optimization; Bridges the gap between theoretical and application-driven textbooks on cellular radio access networks; Includes a full suite of classroom materials including PowerPoint slides, a solutions manual, and tutorials.