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Autore	Jiang Wei <1930-2012, >
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Nota di contenuto	Introduction -- Standards History of Mobile Systems -- First-Generation Mobile Communication -- Evolution to Second-Generation Mobile Communication, 2G -- The Global System for Mobile Communications (GSM) -- Evolution to Third-Generation Mobile Communication, 3G -- Wideband Code-Division Multiple Access -- Evolution to Fourth-Generation Mobile Communication, 4G -- Long-Term Evolution (LTE) -- Evolution to Fifth-Generation Mobile Communication, 5G -- 5G New Radio -- Evolution Towards Sixth-Generation Mobile Communication, 6G -- Key Technologies for Sixth-Generation Mobile Communication -- Conclusion.
Sommario/riassunto	This textbook provides a comprehensive review of the evolution of mobile communications and networking from the birth of cellular networks to the forthcoming sixth-generation mobile communications, which is envisioned to be commercially deployed first in 2030. New

students who are coming to wireless communications/electrical engineering/computer networking/telecommunications and network engineering can benefit from this book by quickly grasping the whole history of cellular networks, understanding its trends. This tutorial styled textbook provides a comprehensive overview, but also provides details of the system design aspects of the various cellular generations up to 6G and how they build on each other. The book also gives the student an overview of different cellular generations' motivations, core technologies, architecture, key performance indicators, killer applications, market drivers, and the general/main features of each. The authors capture the big picture and fundamental drivers of wireless communication technologies, and then motivate students to understand the importance of learning related subjects such as electromagnetics theory, antenna design, analog and digital circuits, signal processing, Internet protocols, artificial intelligence, etc. The book features homework questions and case studies throughout. Includes a comprehensive overview of all cellular standards; Provides a holistic view of mobile communications generation-by-generation; Features a suite of classroom material including homework questions and study cases.