1. Record Nr. UNINA9910583484403321

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Titolo	5G NR : the next generation wireless access technology / / Erik Dahlman, Stefan Parkvall and Johan Skold
Pubbl/distr/stampa	London : , : Academic Press, , [2018] ©2018
ISBN	0-12-814324-X
Edizione	[1st edition]
Descrizione fisica	1 online resource (469 pages)
Disciplina	003.7
Soggetti	Wireless communication systems - Automatic control
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	What is 5G? -- 5G standardization -- Spectrum for 5G -- LTE : an overview -- NR overview -- Radio-interface architecture -- Overall transmission structure -- Channel sounding -- Transport-channel processing -- Physical-layer control signaling -- Multi-antenna transmission -- Beam management -- Retransmission protocols -- Scheduling -- Uplink power and timing control -- Initial access -- LTE/NR interworking and coexistence -- RF characteristics -- RF technologies at mm-wave frequencies -- Beyond the first release of 5G.
Sommario/riassunto	5G NR: The Next Generation Wireless Access Technology follows the authors' highly celebrated books on 3G and 4G by providing a new level of insight into 5G NR. After an initial discussion of the background to 5G, including requirements, spectrum aspects and the standardization timeline, all technology features of the first phase of NR are described in detail. Included is a detailed description of the NR physical-layer structure and higher-layer protocols, RF and spectrum aspects and co-existence and interworking with LTE. The book provides a good understanding of NR and the different NR technology components, giving insight into why a certain solution was selected. Content includes: Key radio-related requirements of NR, design principles, technical features Details of basic NR transmission structure, showing where it has been inherited from LTE and where it deviates from it, and the reasons why NR Multi-antenna transmission functionality Detailed

description of the signals and functionality of the initial NR access, including signals for synchronization and system information, random access and paging LTE/NR co-existence in the same spectrum, the benefits of their interworking as one system The different aspects of mobility in NR RF requirements for NR will be described both for BS and UE, both for the legacy bands and for the new mm-wave bands Gives a concise and accessible explanation of the underlying technology and standards for 5G NR radio-access technology Provides detailed description of the NR physical-layer structure and higher-layer protocols, RF and spectrum aspects and co-existence and interworking with LTE Gives insight not only into the details of the NR specification but also an understanding of why certain solutions look like they do