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Sommario/riassunto

Voice communications remains the most important facet of mobile radio services, which may be delivered over conventional fixed links, the Internet or wireless channels. This all-encompassing volume reports on the entire 50-year history of voice compression, on recent audio compression techniques and the protection as well as transmission of these signals in hostile wireless propagation environments. Audio and Voice Compression for Wireless and Wireline Communications, Second Edition is divided into four parts with Part I covering the basics, while Part II outlines the design of analysis-by-synthesis coding, including a 100-page chapter on virtually all existing standardised speech codecs. The focus of Part III is on wideband and audio coding as well as transmission. Finally, Part IV concludes the book with a range of very low rate encoding techniques, scanning a range of research-oriented topics. . Fully updated and revised second edition of "Voice Compression and Communications<U+009d>, expanded to cover Audio features. Includes two new chapters, on narrowband and wideband AMR coding, and MPEG audio coding. Addresses the new developments in the field of wideband speech and audio compression. Covers compression, error resilience and error correction coding, as well as transmission aspects, including cutting-edge turbo transceivers. Presents both the historic and current view of speech compression and communications. Covering fundamental concepts in a non-mathematical way before moving to detailed discussions of theoretical principles, future concepts and solutions to various specific wireless voice communication problems, this book will appeal to both advanced readers and those with a background knowledge of signal processing and communications.