DESCRIPTION

Building on the success of the first edition Digital Speech offers extensive new, updated and revised material based upon the latest research. This Second Edition continues to provide the fundamental technical background required for low bit rate speech coding and the hottest developments in digital speech coding techniques that are applicable to evolving communication systems.

• Features new chapters on Pitch Estimation and Voice-Unvoiced Classification of Speech, Harmonic Speech Coding and Multimode Speech Coding

• Presents a comprehensively revised chapter entitled Analysis by Synthesis LPC Coding including specific examples of popular speech coders such as CELP (Code-Excited Linear Predictive) Coding

• Contains an updated chapter on Efficient LPC Quantization Methods including MSVQ and anti-aliasing filtering

• Discusses Voice Activity Detection (VAD) methods

• Offers expanded coverage of speech enhancement techniques such as echo cancellation and noise suppression

Written by a well-known, highly respected academic, this authoritative volume will be invaluable to practising engineers, network designers, computer scientists and advanced students in communications, electrical and electronic engineering.
ABOUT THE AUTHOR

Professor Kondoz joined the university of Surrey as a PhD. student in October 1984. From 1986 to 1988 he was employed as a research fellow in the communications group. After completing his PhD, in 1988 he was appointed as a lecturer. In 1995 he became a Reader and in 1997 Professor and Deputy Director in the Centre for Communication Systems Research (CCSR). He has been involved in teaching of digital signal processing, telecommunications theory and source coding in both undergraduate and postgraduate levels. In research he has been heading Multimedia Communication Research Group since 1990. To date, Professor Kondoz has supervised 20 successful PhD students in Speech, Video and Channel coding, Source data packetisation, Error resilient speech and video transmission and Mobile multimedia communications. His current research interests are, Low bit rate speech, image and video coding error resilient video transmission, mobile multimedia communications, robust wireless ATM, real-time terminal design and implementation for mobile communications.

Outside the University, Professor Kondoz has been a member of both the IEE and IEEE. He is a CEng and served on E5. He is on EPSRC College for signal processing and communications.

FEATURES

• Fully updated material on the latest speech coders

• Examines both the theoretical design and practical application of speech coders

• Evaluates a range of speech coding techniques, speech analysis and modelling tools.

• Thorough approach on Linear Predictive based coding

• Additional chapters include Voice Activity Detection, pitch estimation and speech enhancement

For additional product details, please visit https://www.wiley.com/en-us