

Symbol Synchronization Techniques in Digital Communications
Telecommunication Systems Engineering
Signal Processing for Mobile Communications Handbook
Transmission Techniques for Digital Communications

Do you need to know how to develop more efficient digital communication systems? Based on the author's experience of over thirty years in industrial design, this practical guide provides detailed coverage of synchronization subsystems and their relationship with other system components. Readers will gain a comprehensive understanding of the techniques needed for the design, performance analysis and implementation of synchronization functions for a range of different modern communication technologies. Specific topics covered include frequency-looked loops in wireless receivers, optimal OFDM timing phase determination and implementation, and interpolation filter design and analysis in digital resamplers. Numerous implementation examples help readers to develop the necessary practical skills, and slides summarizing key concepts accompany the book online. This is an invaluable guide and essential reference for both practicing engineers and graduate students working in digital communications.

Iterative processing is an important technique with numerous applications. Exploiting the power of factor graphs, this detailed survey provides a general framework for systematically developing iterative algorithms for digital receivers, and highlights connections between important algorithms. Starting with basic concepts in digital communications, progressively more complex ideas are presented and integrated resulting in the development of cutting-edge algorithms for iterative receivers. Real-world applications are covered in detail, including decoding for turbo and LDPC codes, and detection for multi-antenna and multi-user systems. This accessible framework will allow the reader to apply factor graphs to practical problems, leading to the design of new algorithms in applications beyond digital receivers. With many examples and algorithms in pseudo-code, this book is an invaluable resource for graduate students and researchers in electrical engineering and computer science, and for practitioners in the communications industry. Additional resources for this title are available online at www.cambridge.org/9780521873154.

The three volume set LNCS 8226, LNCS 8227 and LNCS 8228 constitutes the proceedings of the 20th International Conference on Neural Information Processing, ICONIP 2013, held in Daegu, Korea, in November 2013. The 180 full and 75 poster papers presented together with 4 extended abstracts were carefully reviewed and selected from numerous submissions. These papers cover all major topics of theoretical research, empirical study and applications of neural information processing research. The specific topics covered are as follows: cognitive science and artificial intelligence; learning theory, algorithms and architectures; computational neuroscience and brain imaging; vision, speech and signal processing; control, robotics and hardware technologies and novel approaches and applications.

Iterative Receiver Design