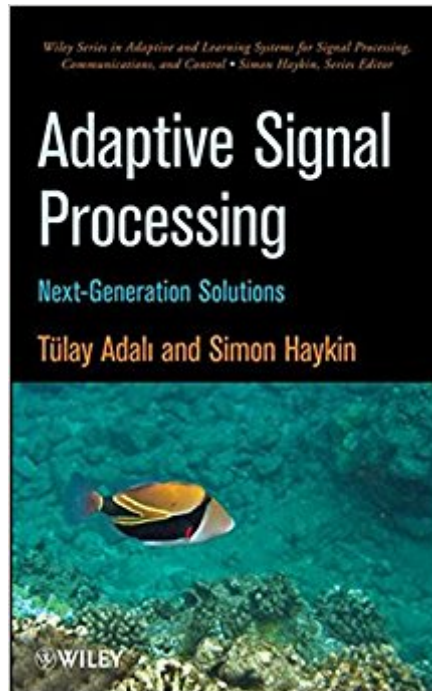




**Ebook Directory**  
the best source of ebook

The book was found

# Adaptive Signal Processing: Next Generation Solutions



## Synopsis

Leading experts present the latest research results in adaptive signal processing. Recent developments in signal processing have made it clear that significant performance gains can be achieved beyond those achievable using standard adaptive filtering approaches. Adaptive Signal Processing presents the next generation of algorithms that will produce these desired results, with an emphasis on important applications and theoretical advancements. This highly unique resource brings together leading authorities in the field writing on the key topics of significance, each at the cutting edge of its own area of specialty. It begins by addressing the problem of optimization in the complex domain, fully developing a framework that enables taking full advantage of the power of complex-valued processing. Then, the challenges of multichannel processing of complex-valued signals are explored. This comprehensive volume goes on to cover Turbo processing, tracking in the subspace domain, nonlinear sequential state estimation, and speech-bandwidth extension. Examines the seven most important topics in adaptive filtering that will define the next-generation adaptive filtering solutions. Introduces the powerful adaptive signal processing methods developed within the last ten years to account for the characteristics of real-life data: non-Gaussianity, non-circularity, non-stationarity, and non-linearity. Features self-contained chapters, numerous examples to clarify concepts, and end-of-chapter problems to reinforce understanding of the material. Contains contributions from acknowledged leaders in the field. Adaptive Signal Processing is an invaluable tool for graduate students, researchers, and practitioners working in the areas of signal processing, communications, controls, radar, sonar, and biomedical engineering.

## Book Information

Hardcover: 424 pages

Publisher: Wiley-IEEE Press (March 15, 2010)

Language: English

ISBN-10: 0470195177

ISBN-13: 978-0470195178

Product Dimensions: 9.4 x 1 x 9.6 inches

Shipping Weight: 1.5 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #775,860 in Books (See Top 100 in Books) #155 in [Books > Science & Math > Physics > Waves & Wave Mechanics](#) #2268 in [Books > Computers & Technology > Networking & Cloud Computing > Internet, Groupware, & Telecommunications](#) #2389 in [Books](#)

## Customer Reviews

Leading experts present the latest research results in adaptive signal processing Recent developments in signal processing have made it clear that significant performance gains can be achieved beyond those achievable using standard adaptive filtering approaches. Adaptive Signal Processing presents the next generation of algorithms that will produce these desired results, with an emphasis on important applications and theoretical advancements. This highly unique resource brings together leading authorities in the field writing on the key topics of significance, each at the cutting edge of its own area of specialty. It begins by addressing the problem of optimization in the complex domain, fully developing a framework that enables taking full advantage of the power of complex-valued processing. Then, the challenges of multichannel processing of complex-valued signals are explored. This comprehensive volume goes on to cover Turbo processing, tracking in the subspace domain, nonlinear sequential state estimation, and speech-bandwidth extension. Examines the seven most important topics in adaptive filtering that will define the next-generation adaptive filtering solutions Introduces the powerful adaptive signal processing methods developed within the last ten years to account for the characteristics of real-life data: non-Gaussianity, non-circularity, non-stationarity, and non-linearity Features self-contained chapters, numerous examples to clarify concepts, and end-of-chapter problems to reinforce understanding of the material Contains contributions from acknowledged leaders in the field Includes a Solutions Manual for instructors Adaptive Signal Processing is an invaluable tool for graduate students, researchers, and practitioners working in the areas of signal processing, communications, controls, radar, sonar, and biomedical engineering.

TÃfÅ“LAY ADALI, PhD, is Professor of Electrical Engineering and Director of the Machine Learning for Signal Processing Laboratory at the University of Maryland, Baltimore County. Her research interests are in statistical and adaptive signal processing, with emphasis on nonlinear and complex-valued signal processing, and applications in biomedical data analysis and communications. Simon Haykin, PhD, is Distinguished University Professor and Director of the Cognitive Systems Laboratory in the Faculty of Engineering at McMaster University. A world-renowned authority on adaptive and learning systems, Dr. Haykin has pioneered signal-processing techniques and systems for radar and communication applications, culminating in the study of cognitive dynamic systems, which has become his research passion.

[Download to continue reading...](#)

Adaptive Signal Processing: Next Generation Solutions Discrete-Time Signal Processing (3rd Edition) (Prentice-Hall Signal Processing Series) Multidimensional Digital Signal Processing (Prentice-Hall Signal Processing Series) Discrete-Time Signal Processing (2nd Edition) (Prentice-Hall Signal Processing Series) Robust and Adaptive Control: With Aerospace Applications (Advanced Textbooks in Control and Signal Processing) Biomedical Signal Processing and Signal Modeling Cellular Signal Processing: An Introduction to the Molecular Mechanisms of Signal Transduction From Generation to Generation: The Adaptive Challenge of Mainline Protestant Education in Forming Faith IntAR, Interventions Adaptive Reuse, Volume 03; Adaptive Reuse in Emerging Economies Energetic Materials: Advanced Processing Technologies for Next-Generation Materials The Fifty-Year Mission: The Next 25 Years: From the Next Generation to J. J. Abrams: The Complete, Uncensored, and Unauthorized Oral History of Star Trek Applications of Space-Time Adaptive Processing (Iee Radar, Sonar, Navigation and Avionics) Principles of Space Time Adaptive Processing (Iee Radar, Sonar, Navigation and Avionics Series, 12) Health Monitoring of Aerospace Structures: Smart Sensor Technologies and Signal Processing Essentials of Digital Signal Processing Signal Processing First Understanding Digital Signal Processing (3rd Edition) VLSI Digital Signal Processing Systems: Design and Implementation Vlsi Analog Signal Processing Circuits Digital Signal Processing (4th Edition)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)