Adaptive Blind Signal and Image Processing. Learning Algorithms and Applications

Description: With solid theoretical foundations and numerous potential applications, Blind Signal Processing (BSP) is one of the hottest emerging areas in Signal Processing. This volume unifies and extends the theories of adaptive blind signal and image processing and provides practical and efficient algorithms for blind source separation: Independent, Principal, Minor Component Analysis, and Multichannel Blind Deconvolution (MBD) and Equalization. Containing over 1400 references and mathematical expressions Adaptive Blind Signal and Image Processing delivers an unprecedented collection of useful techniques for adaptive blind signal/image separation, extraction, decomposition and filtering of multi-variable signals and data.

- Offers a broad coverage of blind signal processing techniques and algorithms both from a theoretical and practical point of view
- Presents more than 50 simple algorithms that can be easily modified to suit the reader's specific real world problems
- Provides a guide to fundamental mathematics of multi-input, multi-output and multi-sensory systems
- Includes illustrative worked examples, computer simulations, tables, detailed graphs and conceptual models within self contained chapters to assist self study
- Accompanying CD-ROM features an electronic, interactive version of the book with fully coloured figures and text. C and MATLAB user-friendly software packages are also provided

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By providing a detailed introduction to BSP, as well as presenting new results and recent developments, this informative and inspiring work will appeal to researchers, postgraduate students, engineers and scientists working in biomedical engineering, communications, electronics, computer science, optimisations, finance, geophysics and neural networks.

Contents:

Preface.

1. Introduction to Blind Signal Processing: Problems and Applications.
   Problem formulations - An Overview.

   Formulation of the Problem for Systems of Linear Equations.
   Least-Squares Problems.
   Least Absolute Deviation (1-norm) Solution of Systems of Linear Equations.
   Total Least-Squares and Data Least-Squares Problems.
   Sparse Signal Representation and Minimum Fuel Consumption Problem.

3. Principal/Minor Component Analysis and Related Problems.
   Introduction.
   Basic Properties of PCA.
   Extraction of Principal Components.
   Basic Cost Functions and Adaptive Algorithms for PCA.
Robust PCA.
Adaptive Learning Algorithms for MCA.
Unified Parallel Algorithms for PCA/MCA and PSA/MSA.
SVD in Relation to PCA and Matrix Subspaces.
Multistage PCA for BSS.

Spatial Decorrelation - Whitening Transforms.
SOS Blind Identification Based on EVD.
Improved Blind Identification Algorithms Based on EVD/SVD.
Joint Diagonalization - Robust SOBI.
Cancellation of Correlation.

5. Sequential Blind Signal Extraction.
Introduction and Problem Formulation.
Learning Algorithms Based on Kurtosis as Cost Function.
On Line Algorithms for Blind Signal Extraction of Temporally Correlated Sources.
Batch Algorithms for Blind Extraction of Temporally Correlated Sources.
Statistical Approach to Sequential Extraction of Independent Sources.
Statistical Approach to Temporally Correlated Sources.
On-line Sequential Extraction of Convolved and Mixed Sources.
Computer Simulation: Illustrative Examples.

Basic Natural Gradient Algorithms.
Generalizations of Basic Natural Gradient Algorithm.
NG Algorithms for Blind Extraction.
Generalized Gaussian Distribution Model.
Natural Gradient Algorithms for Non-stationary Sources.

7. Locally Adaptive Algorithm for ICA and their Implementations.
Iterative Matrix Inversion Approach to Derivation of Family of Robust ICA Algorithms.
Computer Simulation.
8. Robust Techniques for BSS and ICA with Noisy Data.

   Introduction.
   Bias Removal Techniques for Prewhitening and ICA Algorithms.
   Blind Separation of Signals Buried in Additive Convolutive Reference Noise.
   Cumulants Based Adaptive ICA Algorithms.
   Robust Extraction of Arbitrary Group of Source Signals.
   Recurrent Neural Network Approach for Noise Cancellation.

9. Multichannel Blind Deconvolution -
   Natural Gradient Approach.
   Multichannel Blind Deconvolution with Constraints Imposed on FIR Filters.
   General Models for Multiple-Input Multiple-Output Blind Deconvolution.
   Relationships between BSS/ICA and MBD.
   Natural Gradient Algorithms with Nonholonomic Constraints.
   MBD of Non-minimum Phase System Using Filter Decomposition Approach.
   Computer Simulations Experiments.

    Estimating Functions for Standard ICA.
    Estimating Functions in Noisy Case.
    Estimating Functions for Temporally Correlated Source Signals.
    Semiparametric Models for Multichannel Blind Deconvolution.
    Estimating Functions for MBD.

    Problem Formulation and Basic Models.
    Derivation of Basic Learning Algorithms.
    Estimation of Matrices \([A,B]\) by Information Back-propagation.
    State Estimator -
        The Kalman Filter.
    Two-stage Separation Algorithm.

12. Nonlinear State Space Models -
    Semi-Blind Signal Processing.
    General Formulation of the Problem.
    Supervised -
        Unsupervised Learning Approach.
References.

Appendix A. Mathematical Preliminaries.

Appendix B. Glossary of Symbols and Abbreviations.

Index.

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