Block-oriented Nonlinear System Identification [

Giri, Fouad

Springer London,
2010

Monografía

Block-oriented Nonlinear System Identification deals with an area of research that has been very active since the turn of the millennium. The book makes a pedagogical and cohesive presentation of the methods developed in that time. These include: \2022 iterative and over-parameterization techniques; \2022 stochastic and frequency approaches; \2022 support-vector-machine, subspace, and separable-least-squares methods; \2022 blind identification method; \2022 bounded-error method; and \2022 decoupling inputs approach. The identification methods are presented by authors who have either invented them or contributed significantly to their development. All the important issues e.g., input design, persistent excitation, and consistency analysis, are discussed. The practical relevance of block-oriented models is illustrated through biomedical/physiological system modeling. The book will be of major interest to all those who are concerned with nonlinear system identification whatever their activity areas. This is particularly the case for educators in electrical, mechanical, chemical and biomedical engineering and for practising engineers in process, aeronautic, aerospace, robotics and vehicles control. Block-oriented Nonlinear System Identification serves as a reference for active researchers, newcomers, industrial and education practitioners and graduate students alike

Título: Block-oriented Nonlinear System Identification Recurso electrónico-En línea] edited by Fouad Giri, Er-Wei Bai

Editorial: London Springer London 2010

Descripción física: XIX, 431p. 50 illus. digital

Tipo Audiovisual: Engineering Biological models Biology-Mathematics Systems theory Engineering Control Systems Theory, Control Systems Biology Biological Networks, Systems Biology Mathematical Biology in General Automotive Engineering

Mención de serie: Lecture Notes in Control and Information Sciences 0170-8643 404

Documento fuente: Springer eBooks

Nota general: Engineering (Springer-11647)

Contenido: Block-oriented Nonlinear Systems -- Nonlinear System Modelling Based on Wiener Theory -- Parametric Identification of Hammerstein: Over-parameterization Approach -- Compound Operator Decomposition and Its Application to Hammerstein and Wiener Systems -- Iterative Identification of Parametric Hammerstein --

Hammerstein System Identification -- Maximum Likelihood Estimation of Wiener Models -- Stochastic Identification of Wiener Systems -- Convergence Rate in Nonparametric and Semi-parametric Identification -- Identification of Block-oriented Systems Using the Invariance Property -- Frequency Identification of Hammerstein Systems -- Frequency Identification of Wiener Systems -- Frequency Identification of Wiener and Hammerstein Systems -- Kernel-based Methods in the Identification of Wiener\2013Hammerstein Systems in Closed Loop within a Subspace Context -- Least-squares Support Vector Machine Estimation of Hammerstein Systems -- Separable Least-squares Estimation of Hammerstein with Hard Nonlinearities -- Blind Identification of Block Structures with Unknown Input -- Blind Identification of Hammerstein\2013Wiener Systems -- Nonlinear Filtered-algorithm for a Class of Parallel Hammerstein Systems -- Bounded Error Identification of Hammersteini with Backlash -- Decouple Input Hammerstein System Identification -- Identification of Block-oriented System with Input Backlash -- Block-oriented Models in Biomedical/Physiological Applications -- Block-oriented Modelling in Biological Systems

Restricciones de acceso: Accesible sólo para usuarios de la UPV

Tipo recurso electrónico: Recurso a texto completo

Detalles del sistema: Forma de acceso: Web

ISBN: 9781849965132

Autores: Bai, Er-Wei

Entidades: SpringerLink (Servicio en línea)

Enlace a formato físico adicional: Printed edition 9781849965125

Punto acceso adicional serie-Título: Lecture Notes in Control and Information Sciences 0170-8643 404
