Record Nr. Titolo	UNINA9910824289303321 Application of neural networks and other learning technologies in process engineering / / editors, I.M. Mujtaba, M.A. Hussain		
Pubbl/distr/stampa  ISBN	River Edge, NJ, : ICP, 2001 1-281-86600-8 9786611866006 1-84816-146-8		
Edizione	[1st ed.]		
Descrizione fisica	1 online resource (423 p.)		
Altri autori (Persone)	Mujtabal. M HussainM. A <1958-> (Mohamed Azlan)		
Disciplina	006.3/2		
Soggetti	Neural networks (Computer science) Process control Manufacturing processes		
Lingua di pubblicazione	Inglese		
Formato	Materiale a stampa		
Livello bibliografico	Monografia		
Note generali	Description based upon print version of record.		
Nota di bibliografia	Includes bibliographical references.		
Nota di contenuto	Contents; Foreword; Acknowledgements; Part I: Modelling and Identification; 1.Simulation of Liquid-Liquid Extraction Data with Artificial NeuralNetworks; 2.RBFN Identification of an Industrial Polymerization Reactor Model; 3. Process Identification with Self-Organizing Networks4. Training Radial Basis Function Networks for Process Identificationwith an Emphasis on the Bayesian Evidence Approach5. Process Identification of a Fed-Batch Penicillin Production Process - Training with the Extended Kalman Filter; Part II: Hybrid Schemes6. Combining Neural Networks and First Principle Models for Bioprocess ModelingModeling7.Neural Networks in a Hybrid Scheme for Optimisation of Dynamic Processes: Application to Batch Distillation; 8. Hierarchical Neural Fuzzy Models as a Tool for Process Identification: A Bioprocess Application Part III: Estimation and Control9. Adaptive		

1.

	Inverse Model Control of a Continuous Fermentation Process R Neural Networks ; 10. Set Point Tracking in Batch Reactors: Use of PID and Ge Control with Neural Network Techniques 11. Inferential Estimation and Optimal Control of a Batch Polymerisation Reactor Using Stacked Neural Networks Part IV: New Learning Technologies Reinforcement Learning in Batch Processes ; 13. Knowledge Discovery through Mining Process Operational Part V: Experimental and Industrial Applications	neric Model ; 12.
Sommario/riassunto	This book is a follow-up to the IChemE symposium on "Neural Networks and Other Learning Technologies", held at Imperial College, UK, in May 1999. The interest shown by the participants, especially those from the industry, has been instrumental in producing the book. The papers have been written by contributors of the symposium and experts in this field from around the world. They present all the important aspects of neural network utilisation as well as show the versatility of neural networks in various aspects of process engineering problems - modelling, estimation, control, optimisation and	