

1. Record Nr.	UNINA9910485581603321
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Titolo	Erneuerbare Energien für Regionen : Flächenbedarfe und Flächenkonkurrenzen
Pubbl/distr/stampa	Vienna, : TU Wien Academic Press, 2020
Descrizione fisica	1 electronic resource (227 p.)
Soggetti	Alternative & renewable energy industries Sustainability Alternative & renewable energy sources & technology Regional & area planning Austria
Lingua di pubblicazione	Tedesco
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>Every human action consumes energy: heating, cooling, hot water, electricity and transport requirements – all of these require energy. But climate change demands that our energy needs also change, that we use more and more renewable energies and less and less CO₂. To do this, we must look at area requirements. In other words, what area per energy quantity per year does a renewable energy source require? Which sources require additional sealing and land use? How strongly does the production of renewable energy compete with other area and land uses? And what are the consequences for spatial and regional planning? The following publication will help answer these questions by providing a catalogue of area requirements for renewable energy sites. In addition, it makes clear that achieving integrated and regional energy planning involves not only energy technology, but requires further research into planning and participation processes. The concept of a regional cooperation area shows great potential in this aspect</p>

2. Record Nr.	UNINA9910830752003321
Titolo	Kalman filtering and neural networks [[electronic resource] /] / edited by Simon Haykin
Pubbl/distr/stampa	New York, : Wiley, c2001
ISBN	1-280-36756-3 9786610367566 0-470-31226-2 0-471-46421-X 0-471-22154-6
Descrizione fisica	1 online resource (302 p.)
Collana	Adaptive and learning systems for signal processing, communications, and control
Altri autori (Persone)	HaykinSimon S. <1931->
Disciplina	006.3/2 621.3815324
Soggetti	Kalman filtering Neural networks (Computer science)
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 and index.
Nota di contenuto	KALMAN FILTERING AND NEURAL NETWORKS; CONTENTS; Preface; Contributors; 1 Kalman Filters; 1.1 Introduction; 1.2 Optimum Estimates; 1.3 Kalman Filter; 1.4 Divergence Phenomenon: Square-Root Filtering; 1.5 Rauch-Tung-Striebel Smoother; 1.6 Extended Kalman Filter; 1.7 Summary; References; 2 Parameter-Based Kalman Filter Training: Theory and Implementation; 2.1 Introduction; 2.2 Network Architectures; 2.3 The EKF Procedure; 2.3.1 Global EKF Training; 2.3.2 Learning Rate and Scaled Cost Function; 2.3.3 Parameter Settings; 2.4 Decoupled EKF (DEKF); 2.5 Multistream Training 2.5.1 Some Insight into the Multistream Technique2.5.2 Advantages and Extensions of Multistream Training; 2.6 Computational Considerations; 2.6.1 Derivative Calculations; 2.6.2 Computationally Efficient Formulations for Multiple-Output Problems; 2.6.3 Avoiding Matrix Inversions; 2.6.4 Square-Root Filtering; 2.7 Other Extensions and Enhancements; 2.7.1 EKF Training with Constrained Weights; 2.7.2 EKF Training with an Entropic Cost Function; 2.7.3 EKF Training with

Scalar Errors; 2.8 Automotive Applications of EKF Training; 2.8.1 Air/Fuel Ratio Control; 2.8.2 Idle Speed Control; 2.8.3 Sensor-Catalyst Modeling; 2.8.4 Engine Misfire Detection; 2.8.5 Vehicle Emissions Estimation; 2.9 Discussion; 2.9.1 Virtues of EKF Training; 2.9.2 Limitations of EKF Training; 2.9.3 Guidelines for Implementation and Use; References; 3 Learning Shape and Motion from Image Sequences; 3.1 Introduction; 3.2 Neurobiological and Perceptual Foundations of our Model; 3.3 Network Description; 3.4 Experiment 1; 3.5 Experiment 2; 3.6 Experiment 3; 3.7 Discussion; References; 4 Chaotic Dynamics; 4.1 Introduction; 4.2 Chaotic (Dynamic) Invariants; 4.3 Dynamic Reconstruction; 4.4 Modeling Numerically Generated Chaotic Time Series; 4.4.1 Logistic Map; 4.4.2 Ikeda Map; 4.4.3 Lorenz Attractor; 4.5 Nonlinear Dynamic Modeling of Real-World Time Series; 4.5.1 Laser Intensity Pulsations; 4.5.2 Sea Clutter Data; 4.6 Discussion; References; 5 Dual Extended Kalman Filter Methods; 5.1 Introduction; 5.2 Dual EKF-Prediction Error; 5.2.1 EKF-State Estimation; 5.2.2 EKF-Weight Estimation; 5.2.3 Dual Estimation; 5.3 A Probabilistic Perspective; 5.3.1 Joint Estimation Methods; 5.3.2 Marginal Estimation Methods; 5.3.3 Dual EKF Algorithms; 5.3.4 Joint EKF; 5.4 Dual EKF Variance Estimation; 5.5 Applications; 5.5.1 Noisy Time-Series Estimation and Prediction; 5.5.2 Economic Forecasting-Index of Industrial Production; 5.5.3 Speech Enhancement; 5.6 Conclusions; Acknowledgments; Appendix A: Recurrent Derivative of the Kalman Gain; Appendix B: Dual EKF with Colored Measurement Noise; References; 6 Learning Nonlinear Dynamical System Using the Expectation-Maximization Algorithm; 6.1 Learning Stochastic Nonlinear Dynamics; 6.1.1 State Inference and Model Learning; 6.1.2 The Kalman Filter; 6.1.3 The EM Algorithm; 6.2 Combining EKS and EM; 6.2.1 Extended Kalman Smoothing (E-step)

Sommario/riassunto

State-of-the-art coverage of Kalman filter methods for the design of neural networks This self-contained book consists of seven chapters by expert contributors that discuss Kalman filtering as applied to the training and use of neural networks. Although the traditional approach to the subject is almost always linear, this book recognizes and deals with the fact that real problems are most often nonlinear. The first chapter offers an introductory treatment of Kalman filters with an emphasis on basic Kalman filter theory, Rauch-Tung-Striebel smoother, and the extended Kalman filter. O