

1. Record Nr.	UNINA9910299877603321
Titolo	Frontiers in Computational Intelligence [[electronic resource] /] / edited by Sanaz Mostaghim, Andreas Nürnberg, Christian Borgelt
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-67789-6
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (IX, 143 p. 43 illus., 32 illus. in color.)
Collana	Studies in Computational Intelligence, , 1860-949X ; ; 739
Disciplina	620
Soggetti	Computational intelligence Artificial intelligence Computational Intelligence Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	<p>Intro -- Preface -- Contents -- 1 What a Fuzzy Set Is and What It Is not? -- Abstract -- 1 Introduction -- 2 What Is It a Fuzzy Set? -- 3 How Fuzzy Sets Can Be Computationally Managed? -- 4 Towards Approaching Qualitative and Working Meanings -- 5 Conclusion -- References -- Fuzzy Random Variables a la Kruse & Meyer and a la Puri & Ralescu: Key Differences and Coincidences -- 1 Introduction -- 2 Two Approaches to Model Fuzzy Random Variables -- 3 Distribution and Independence of Fuzzy Random Variables -- 4 Parameters of the Distribution of Fuzzy Random Variables -- 5 Statistical Data Analysis from Fuzzy Random Variables -- References -- Statistical Inference for Incomplete Ranking Data: A Comparison of Two Likelihood-Based Estimators -- 1 Introduction -- 2 Preliminaries and Notation -- 3 Probabilistic Models -- 3.1 The Plackett-Luce Model -- 3.2 A Stochastic Model of Coarsening -- 4 Statistical Inference -- 4.1 The Marginal Likelihood -- 4.2 The Face-Value Likelihood -- 5 Comparison of the Approaches -- 5.1 Known Coarsening -- 5.2 Unknown Coarsening -- 6 Conclusion -- References -- Interval Type--2 Defuzzification Using Uncertainty Weights -- 1 Introduction -- 2 Karnik-Mendel Interval Type--2 Defuzzification -- 3 Nie-Tan Interval Type--2 Defuzzification -- 4 The Uncertainty Weight Method -- 5 Experiments</p>

-- 6 Conclusions -- References -- Exploring Time-Resolved Data for Patterns and Validating Single Clusters -- 1 What Cluster Analysis is Meant for and What it is used for -- 2 Short Revision of Dynamic Data Assigning Assessment Clustering in the Context of Fuzzy Clustering -- 3 DDAA for Exploring Time-Resolved Data -- 4 An Example -- 5 Conclusions -- References -- Interpreting Cluster Structure in Waveform Data with Visual Assessment and Dunn's Index -- 1 Introduction -- 2 Related Work -- 3 Dunn's Index.
4 Visualization of High Dimensional Data -- 5 Single Linkage Clustering, iVAT and Dunn's Index -- 6 Experiments with Simulated Waveform Data -- 7 Customizing Dunn's Index for Waveform Data -- 8 Single Linkage Revisited -- 9 Conclusions -- References -- A Shared Encoder DNN for Integrated Recognition and Segmentation of Traffic Scenes -- 1 Introduction -- 2 Related Work -- 3 Deep Neural Networks -- 3.1 Processing Layers -- 3.2 Parameter Optimization -- 4 Architecture for Integrated Recognition and Segmentation -- 4.1 Feature Encoder -- 4.2 Segmentation Decoder -- 4.3 Spatial Priors for Scene Segmentation -- 4.4 Recognition Decoder -- 5 Experiments -- 5.1 Recognition -- 5.2 Segmentation -- 6 Summary and Outlook -- References -- 8 Fuzzy Ontology Support for Knowledge Mobilisation -- Abstract -- 1 Introduction -- 1.1 Management Science -- 1.2 Analytics -- 2 Fuzzy Ontology in Industrial Applications -- 2.1 Fuzzy Ontology for Process Industry -- 2.2 The Keyword Ontology -- 2.3 A Minimax Approach to Assess Keyword Dependencies -- 2.4 Demo Architecture and Implementation -- 3 Digital Coaching -- 3.1 Coaching with Markov Decision Processes -- 3.2 Coaching with Virtual Environments -- 4 Summary and Future, Next Scenarios -- References.

Sommario/riassunto

This book is a collection of several contributions which show the state of the art in specific areas of Computational Intelligence. This carefully edited book honors the 65th birthday of Rudolf Kruse. The main focus of these contributions lies on treating vague data as well as uncertain and imprecise information with automated procedures, which use techniques from statistics, control theory, clustering, neural networks etc. to extract useful and employable knowledge. .
