Data Mining In Agriculture Springer Optimization And Its Applications

As organizations continue to develop, there is an increasing need for technological methods that can keep up with the rising amount of data and information that is being generated. Machine learning is a tool that has become powerful due to its ability to analyze large amounts of data quickly. Machine learning is one of many technological advancements that is being implemented into a multitude of specialized fields. An extensive study on the execution of these advancements within professional industries is necessary. The Handbook of Research on Big Data Clustering and Machine Learning is an essential reference source that synthesizes the analytic principles of clustering and machine learning to big data and provides an interface between the main disciplines of engineering/technology and the organizational, administrative, and planning abilities of management. Featuring research on topics such as project management, contextual data modeling, and business information systems, this book is ideally designed for engineers, economists, finance officers, marketers, decision makers, business professionals, industry practitioners, academicians, students, and researchers seeking coverage on the implementation of big data and machine learning within specific professional fields.

Data Mining in Agriculture represents a comprehensive effort to provide graduate students and researchers with an analytical text on data mining techniques applied to agriculture and environmental related fields. This book presents both theoretical and practical insights with a focus on presenting the context of each data mining technique rather intuitively with ample concrete examples represented

graphically and with algorithms written in MATLAB®.

This book presents software engineering methods in the context of the intelligent systems. It discusses real-world problems and exploratory research describing novel approaches and applications of software engineering, software design and algorithms. The book constitutes the refereed proceedings of the Software Engineering Methods in Intelligent Algorithms Section of the 8th Computer Science On-line Conference 2019 (CSOC 2019), held on-line in April 2019.

Recent developments in computer science, data mining and big data analytics have resulted in new operational frameworks in agriculture, food and the environment, which in fact, share a strong link between them. A key challenge for researchers is to extract new data patterns and utilize them in decision making. Managers, policy makers, and practitioners have to be aware of these methodologies in order to establish efficient and effective working groups for the tasks to be resolved. The book reviews the complexity of the interrelationship between agriculture, food production and processing, and environmental issues. It also highlights the prospects of modeling in various cases of problem solving in these sectors, and reviews the new and future challenges. Consumer awareness in food production and processing practices is continually increasing and the necessity for advanced behavioural tools follows the same trend. Furthermore, the value chain management challenge is becoming one of the most crucial tasks due to the increased importance of new parameters like the origin of products, its environmental footprint and the enhancement of local production, etc. The book addresses these topics in a holistic approach, merging modeling with advanced marketing practices in a coherent and innovative manner, being an effective tool in a continuously demanding world.

Since agriculture is one of the key parameters in assessing the gross domestic product (GDP) of any country, it has become crucial to transition from traditional agricultural practices to smart agriculture. New agricultural technologies provide numerous opportunities to maximize crop yield by recognizing and analyzing diseases and other natural variables that may affect it. Therefore, it is necessary to understand how computer-assisted technologies can best be utilized and adopted in the conversion to smart agriculture. Modern Techniques for Agricultural Disease Management and Crop Yield Prediction is an essential publication that widens the spectrum of computational methods that can aid in agriculture disease management, weed detection, and crop yield prediction. Featuring coverage on a wide range of topics such as soil and crop sensors, swarm robotics, and weed detection, this book is ideally designed for environmentalists, farmers, botanists, agricultural engineers, computer engineers, scientists, researchers, practitioners, and students seeking current research on technology and techniques for agricultural diseases and predictive trends.

This volume is a collection of research surveys on the Distance Geometry Problem (DGP) and its applications. It will be divided into three parts: Theory, Methods and Applications. Each part will contain at least one survey and several research papers. The first part, Theory, will deal with theoretical aspects of the DGP, including a new class of problems and the study of its complexities as well as the relation between DGP and other related topics, such as: distance matrix theory, Euclidean distance matrix completion problem, multispherical structure of distance matrices, distance geometry and geometric algebra, algebraic distance geometry theory, visualization of K-dimensional structures in the plane, graph rigidity, and theory of discretizable DGP: symmetry and complexity. The second part, Methods, will

discuss mathematical and computational properties of methods developed to the problems considered in the first chapter including continuous methods (based on Gaussian and hyperbolic smoothing, difference of convex functions, semidefinite programming, branch-and-bound), discrete methods (based on branch-and-prune, geometric build-up, graph rigidity), and also heuristics methods (based on simulated annealing, genetic algorithms, tabu search, variable neighborhood search). Applications will comprise the third part and will consider applications of DGP to NMR structure calculation, rational drug design, molecular dynamics simulations, graph drawing and sensor network localization. This volume will be the first edited book on distance geometry and applications. The editors are in correspondence with the major contributors to the field of distance geometry, including important research centers in molecular biology such as Institut Pasteur in Paris.

This volume is the third (III) of four under the main themes of Digitizing Agriculture and Information and Communication Technologies (ICT). The four volumes cover rapidly developing processes including Sensors (I), Data (II), Decision (III), and Actions (IV). Volumes are related to ‘digital transformation” within agricultural production and provision systems, and in the context of Smart Farming Technology and Knowledge-based Agriculture. Content spans broadly from data mining and visualization to big data analytics and decision making, alongside with the sustainability aspects stemming from the digital transformation of farming. The four volumes comprise the outcome of the 12th EFITA Congress, also incorporating chapters that originated from select presentations of the Congress. The focus of this book (III) is on the transformation of collected information into valuable decisions and aims to shed light on how best to use digital technologies to reduce cost, inputs, and time, toward

becoming more efficient and transparent. Fourteen chapters are grouped into 3 Sections. The first section of is dedicated to decisions in the value chain of agricultural products. The next section, titled Primary Production, elaborates on decision making for the improvement of processes taking place with the farm under the implementation of ICT. The last section is devoted to the development of innovative decision applications that also consider the protection of the environment, recognizing its importance in the preservation and considerate use of resources, as well as the mitigation of adverse impacts that are related to agricultural production. Planning and modeling the assessment of agricultural practices can provide farmers with valuable information prior to the execution of any task. This book provides a valuable reference for them as well as for those directly involved with decision making in planning and assessment of agricultural production. Specific advances covered in the volume: Modelling and Simulation of ICT-based agricultural systems Farm Management Information Systems (FMIS) Planning for unmanned aerial systems Agri-robotics awareness and planning Smart livestock farming Sustainable strategic planning in agri-production Food business information systems

This book discusses machine learning and artificial intelligence (AI) for agricultural economics. It is written with a view towards bringing the benefits of advanced analytics and prognostics capabilities to small scale farmers worldwide. This volume provides data science and software engineering teams with the skills and tools to fully utilize economic models to develop the software capabilities necessary for creating lifesaving applications. The book introduces essential agricultural economic concepts from the perspective of full-scale software development with the emphasis on creating niche blue ocean products. Chapters detail several

agricultural economic and AI reference architectures with a focus on data integration, algorithm development, regression, prognostics model development and mathematical optimization. Upgrading traditional AI software development paradigms to function in dynamic agricultural and economic markets, this volume will be of great use to researchers and students in agricultural economics, data science, engineering, and machine learning as well as engineers and industry professionals in the public and private sectors.

This book presents recent findings on virtually every aspect of wireless IoT and analytics for agriculture. It discusses IoT-based monitoring systems for analyzing the crop environment, and methods for improving the efficiency of decision-making based on the analysis of harvest statistics. In turn, it addresses the latest innovations, trends, and concerns, as well as practical challenges encountered and solutions adopted in the fields of IoT and analytics for agriculture. In closing, it explores a range of applications, including: intelligent field monitoring, intelligent data processing and sensor technologies, predictive analysis systems, crop monitoring, and weather data-enabled analysis in IoT agro-systems.

AI, Edge, and IoT Smart Agriculture integrates applications of IoT, edge computing, and data analytics for sustainable agricultural development and introduces Edge of Thing-based data analytics and IoT for predictability of crop, soil, and plant disease occurrence for improved sustainability and increased profitability. The book also addresses precision irrigation, precision horticulture, greenhouse IoT, livestock monitoring, IoT ecosystem for agriculture, mobile robot for precision agriculture, energy monitoring, storage management, and smart farming. The book provides an overarching focus on sustainable environment and sustainable economic development through smart and e-agriculture. Providing a

medium for the exchange of expertise and inspiration, contributions from both smart agriculture and data mining researchers around the world provide foundational insights. The book provides practical application opportunities for the resolution of real-world problems, including contributions from the data mining, data analytics, Edge of Things, and cloud research communities working in the farming production sector. The book offers broad coverage of the concepts, themes, and instruments of this important and evolving area of IOT-based agriculture, Edge of Things and cloud-based farming, Greenhouse IOT, mobile agriculture, sustainable agriculture, and big data analytics in agriculture toward smart farming. Integrates sustainable agriculture, Greenhouse IOT, precision agriculture, crops monitoring, crops controlling to prediction, livestock monitoring, and farm management Presents data mining techniques for precision agriculture, including weather prediction, plant disease prediction, and decision support for crop and soil selection Promotes the importance and uses in managing the agro ecosystem for food security Emphasizes low energy usage options for low cost and environmental sustainability

The three-volume set IFIP AICT 368-370 constitutes the refereed post-conference proceedings of the 5th IFIP TC 5, SIG 5.1 International Conference on Computer and Computing Technologies in Agriculture, CCTA 2011, held in Beijing, China, in October 2011. The 189 revised papers presented were carefully selected from numerous submissions. They cover a wide range of interesting theories and applications of information technology in agriculture, including simulation models and decision-support systems for agricultural production, agricultural product quality testing, traceability and e-commerce technology, the application of information and communication technology in agriculture, and universal information service technology and service systems

development in rural areas. The 62 papers included in the first volume focus on decision support systems, intelligent systems, and artificial intelligence applications.

Data Mining in AgricultureSpringer Science & Business Media

This book offers a transdisciplinary perspective on the concept of "smart villages" Written by an authoritative group of scholars, it discusses various aspects that are essential to fostering the development of successful smart villages. Presenting cutting-edge technologies, such as big data and the Internet-of-Things, and showing how they have been successfully applied to promote rural development, it also addresses important policy and sustainability issues. As such, this book offers a timely snapshot of the state-of-the-art in smart village research and practice.

"This book presents high quality research on the design and implementation of information systems in the fields of agronomics, mathematics, economics, computer science, and the environment, offering holistic approaches to the design, development, and implementation of complex agricultural and environmental information systems"--Provided by publisher.

This book constitutes the refereed proceedings of the 14th Industrial Conference on Advances in Data Mining, ICDM 2014, held in St. Petersburg, Russia, in July 2014. The 16 revised full papers presented were carefully reviewed and selected from various submissions. The topics range from theoretical aspects of data mining to applications of data mining, such as in multimedia data, in marketing, in medicine and agriculture and in process control, industry and society.

Through expanded intelligence, the use of robotics has fundamentally transformed a variety of fields, including manufacturing, aerospace, medical, social services, and agriculture. Providing successful techniques in robotic design allows for increased autonomous mobility, which leads to a greater productivity level. Novel Design and Applications of

Robotics Technologies provides innovative insights into the state-of-the-art technologies in the design and development of robotic technologies and their real-world applications. The content within this publication represents the work of interactive learning, microrobot swarms, and service robots. It is a vital reference source for computer engineers, robotic developers, IT professionals, academicians, and researchers seeking coverage on topics centered on the application of robotics to perform tasks in various disciplines.

K-Means is arguably the most popular clustering algorithm; this is why it is of great interest to tackle its shortcomings. The drawback in the heart of this project is that this algorithm gives the same level of relevance to all the features in a dataset. This can have disastrous consequences when the features are taken from a database just because they are available. To address the issue of unequal relevance of the features we use a three-stage extension of the generic K-Means in which a third step is added to the usual two steps in a K-Means iteration: feature weighting update. We extend the generic K-Means to what we refer to as Minkowski Weighted K-Means method. We apply the developed approaches to problems in distinguishing between different mental tasks over high-dimensional EEG data.

ICDM / MLDM Medaillie (limited edition) Meissner Porcellan, the “White Gold” of King August the Strongest of Saxonia ICDM 2008 was the eighth event of the Industrial Conference on Data Mining held in Leipzig (www.data-mining-forum.de). For this edition the Program Committee received 116 submissions from 20 countries. After the peer-review process, we accepted 36 high-quality papers for oral presentation, which are

included in these proceedings. The topics range from aspects of classification and prediction, clustering, Web mining, data mining in medicine, applications of data mining, time series and frequent pattern mining, and association rule mining. Thirteen papers were selected for poster presentations that are published in the ICDM Poster Proceeding Volume. In conjunction with ICDM there were three workshops focusing on special hot application-oriented topics in data mining. The workshop Data Mining in Life Science DMLS 2008 was held the third time this year and the workshop Data Mining in Marketing DMM 2008 ran for the second time this year. Additionally, we introduced an International Workshop on Case-Based Reasoning for Multimedia Data CBR-MD. Intelligent Data Mining and Fusion Systems in Agriculture presents methods of computational intelligence and data fusion that have applications in agriculture for the non-destructive testing of agricultural products and crop condition monitoring. Sections cover the combination of sensors with artificial intelligence architectures in precision agriculture, including algorithms, bio-inspired hierarchical neural maps, and novelty detection algorithms capable of detecting sudden changes in different conditions. This book offers advanced students and entry-level professionals in agricultural science and engineering, geography and geoinformation science an in-depth overview of the connection between decision-making in agricultural operations and the decision support features offered by advanced computational intelligence algorithms. Covers crop protection, automation in agriculture, artificial

intelligence in agriculture, sensing and Internet of Things (IoTs) in agriculture Addresses AI use in weed management, disease detection, yield prediction and crop production Utilizes case studies to provide real-world insights and direction

The main goal of this book is to provide a state of the art of hybrid metaheuristics. The book provides a complete background that enables readers to design and implement hybrid metaheuristics to solve complex optimization problems (continuous/discrete, mono-objective/multi-objective, optimization under uncertainty) in a diverse range of application domains. Readers learn to solve large scale problems quickly and efficiently combining metaheuristics with complementary metaheuristics, mathematical programming, constraint programming and machine learning. Numerous real-world examples of problems and solutions demonstrate how hybrid metaheuristics are applied in such fields as networks, logistics and transportation, bio-medical, engineering design, scheduling.

This volume comprises the proceedings of the Industrial Conference on Data Mining (ICDM 2009) held in Leipzig (www.data-mining-forum.de). For this edition the Program Committee received 130 submissions. After the pe- review process, we accepted 32 high-quality papers for oral presentation that are included in this book. The topics range from theoretical aspects of data mining to app- cations of data mining, such as on multimedia data, in marketing, finance and telec- munication, in medicine and agriculture, and in process control, industry and society. Ten papers were selected for poster

presentations that are published in the ICDM Poster Proceedings Volume by ibai-publishing (www.ibai-publishing.org). In conjunction with ICDM two workshops were run focusing on special hot app- cation-oriented topics in data mining. The workshop Data Mining in Marketing DMM 2009 was run for the second time. The papers are published in a separate workshop book "Advances in Data Mining on Markting" by ibai-publishing (www.ibai-publishing.org). The Workshop on Case-Based Reasoning for Multimedia Data CBR-MD ran for the second year. The papers are published in a special issue of the International Journal of Transactios on Case-Based Reasoning (www.ibai-publishing.org/journal/cbr).

This book constitutes the refereed proceedings of the 13th Industrial Conference on Data Mining, ICDM 2013, held in New York, NY, in July 2013. The 22 revised full papers presented were carefully reviewed and selected from 112 submissions. The topics range from theoretical aspects of data mining to applications of data mining, such as in multimedia data, in marketing, finance and telecommunication, in medicine and agriculture, and in process control, industry and society.

This book constitutes the refereed proceedings of the 15th Industrial Conference on Advances in Data Mining, ICDM 2015, held in Hamburg, Germany, in July 2015. The 16 revised full papers presented were carefully reviewed and selected from numerous submissions. The topics range from theoretical aspects of data mining to applications of data mining, such as in multimedia data, in marketing, in medicine and agriculture, and in process

control, industry and society.

This book constitutes the refereed proceedings of the 6th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2002, held in Taipei, Taiwan, in May 2002. The 32 revised full papers and 20 short papers presented together with 4 invited contributions were carefully reviewed and selected from a total of 128 submissions. The papers are organized in topical sections on association rules; classification; interestingness; sequence mining; clustering; Web mining; semi-structure and concept mining; data warehouse and data cube; bio-data mining; temporal mining; and outliers, missing data, and causation.

This book covers the fundamental concepts of data mining, to demonstrate the potential of gathering large sets of data, and analyzing these data sets to gain useful business understanding. The book is organized in three parts. Part I introduces concepts. Part II describes and demonstrates basic data mining algorithms. It also contains chapters on a number of different techniques often used in data mining. Part III focuses on business applications of data mining.

This volume is the second (II) of four under the main themes of Digitizing Agriculture and Information and Communication Technologies (ICT). The four volumes cover rapidly developing processes including Sensors (I), Data (II), Decision (III), and Actions (IV). Volumes are related to ‘digital transformation” within agricultural production and provision systems, and in the context of Smart Farming Technology and Knowledge-based Agriculture. Content spans broadly from data mining and

visualization to big data analytics and decision making, alongside with the sustainability aspects stemming from the digital transformation of farming. The four volumes comprise the outcome of the 12th EFITA Congress, also incorporating chapters that originated from select presentations of the Congress. The first part of this book (II) focuses on data technologies in relation to agriculture and presents three key points in data management, namely, data collection, data fusion, and their uses in machine learning and artificial intelligent technologies. Part 2 is devoted to the integration of these technologies in agricultural production processes by presenting specific applications in the domain. Part 3 examines the added value of data management within agricultural products value chain. The book provides an exceptional reference for those researching and working in or adjacent to agricultural production, including engineers in machine learning and AI, operations management, decision analysis, information analysis, to name just a few. Specific advances covered in the volume: Big data management from heterogenous sources Data mining within large data sets Data fusion and visualization IoT based management systems Data Knowledge Management for converting data into valuable information Metadata and data standards for expanding knowledge through different data platforms AI - based image processing for agricultural systems Data - based agricultural business Machine learning application in agricultural products value chain

Key features: Unique in its combination of serving as an introduction to spatial statistics and to modeling

agricultural and ecological data using R Provides exercises in each chapter to facilitate the book's use as a course textbook or for self-study Adds new material on generalized additive models, point pattern analysis, and new methods of Bayesian analysis of spatial data. Includes a completely revised chapter on the analysis of spatiotemporal data featuring recently introduced software and methods Updates its coverage of R software including newly introduced packages Spatial Data Analysis in Ecology and Agriculture Using R, 2nd Edition provides practical instruction on the use of the R programming language to analyze spatial data arising from research in ecology, agriculture, and environmental science. Readers have praised the book's practical coverage of spatial statistics, real-world examples, and user-friendly approach in presenting and explaining R code, aspects maintained in this update. Using data sets from cultivated and uncultivated ecosystems, the book guides the reader through the analysis of each data set, including setting research objectives, designing the sampling plan, data quality control, exploratory and confirmatory data analysis, and drawing scientific conclusions. Additional material to accompany the book, on both analyzing satellite data and on multivariate analysis, can be accessed at https://www.plantsciences.ucdavis.edu/plant/additionaltopics.htm.

This book constitutes the refereed proceedings of five workshops that were held in conjunction with the 25th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2021, in Delhi, India, in May 2021. The 17 revised full papers presented were carefully

reviewed and selected from a total of 39 submissions.. The five workshops were as follows: Workshop on Smart and Precise Agriculture (WSPA 2021) PAKDD 2021 Workshop on Machine Learning for Measurement Informatics (MLMEIN 2021) The First Workshop and Shared Task on Scope Detection of the Peer Review Articles (SDPRA 2021) The First International Workshop on Data Assessment and Readiness for AI (DARAI 2021) The First International Workshop on Artificial Intelligence for Enterprise Process Transformation (AI4EPT 2021)

The field of SMART technologies is an interdependent discipline. It involves the latest burning issues ranging from machine learning, cloud computing, optimisations, modelling techniques, Internet of Things, data analytics, and Smart Grids among others, that are all new fields. It is an applied and multi-disciplinary subject with a focus on Specific, Measurable, Achievable, Realistic & Timely system operations combined with Machine intelligence & Real-Time computing. It is not possible for any one person to comprehensively cover all aspects relevant to SMART Computing in a limited-extent work. Therefore, these conference proceedings address various issues through the deliberations by distinguished Professors and researchers. The SMARTCOM 2020 proceedings contain tracks dedicated to different areas of smart technologies such as Smart System and Future Internet, Machine Intelligence and Data Science, Real-Time and VLSI Systems, Communication and Automation Systems. The proceedings can be used as an advanced reference for research and for courses in smart

technologies taught at graduate level.

Agricultural automation is the core technology for computer-aided agricultural production management and implementation. An integration of equipment, infotronics, and precision farming technologies, it creates viable solutions for challenges facing the food, fiber, feed, and fuel needs of the human race now and into the future. Agricultural Automat

This volume is the first (I) of four under the main themes of Digitizing Agriculture and Information and Communication Technologies (ICT). The four volumes cover rapidly developing processes including Sensors (I), Data (II), Decision (III), and Actions (IV). Volumes are related to 'digital transformation" within agricultural production and provision systems, and in the context of Smart Farming Technology and Knowledge-based Agriculture. Content spans broadly from data mining and visualization to big data analytics and decision making, alongside with the sustainability aspects stemming from the digital transformation of farming. The four volumes comprise the outcome of the 12th EFITA Congress, also incorporating chapters that originated from select presentations of the Congress. The focus in this volume is on different aspects of sensors implementation in agricultural production (e.g., types of sensors, parameters monitoring, network types, connectivity, accuracy, reliability, durability, and needs to be covered) and provides variety of information and knowledge in the subject of sensors design, development, and deployment for monitoring agricultural production parameters. The book consists of four (4) Sections. The first section

presents an overview on the state-off-the art in sensing technologies applied in agricultural production while the rest of the sections are dedicated to remote sensing, proximal sensing, and wireless sensor networks applications. Topics include: Emerging sensing technologies Soil reflectance spectroscopy LoRa technologies applications in agriculture Wireless sensor networks deployment and applications Combined remote and proximal sensing solutions Crop phenology monitoring Sensors for geophysical properties Combined sensing technologies with geoinformation systems

This book gathers outstanding research papers presented at the International Joint Conference on Advances in Computational Intelligence (IJCACI 2020), organized by Daffodil International University (DIU) and Jahangirnagar University (JU) in Bangladesh and South Asian University (SAU) in India. These proceedings present novel contributions in the areas of computational intelligence and offer valuable reference material for advanced research. The topics covered include collective intelligence, soft computing, optimization, cloud computing, machine learning, intelligent software, robotics, data science, data security, big data analytics, and signal and natural language processing.

The eventual aim when applying digital technologies in agriculture is to replace or reduce the human labor required for agricultural production. Large amounts of heterogeneous data are essential for integration studies of automated agriculture, and the digitalization of agriculture is helping to fulfill the demand for this data, but management of the data gathered presents its own

challenges. That is where the Intelligent Environment (IE) paradigm comes into play to guide the design of the systems, techniques and algorithms able to analyze the data and provide recommendations for farmers, managers and other stakeholders. This book, Agriculture and Environment Perspectives in Intelligent Systems, is divided into 5 chapters. Chapter 1 explores the use of intelligent systems in Controlled Environment Agriculture (CEA) facilities; Chapter 2 reviews the adoption of intelligent systems in the research field of biomonitoring; Chapter 3 proposes an intelligent system to acquire and pre-process data for precision agriculture applications; Chapter 4 illustrates the use of intelligent algorithms to make more efficient use of scarce resources such as water; and Chapter 5 focuses on the generation of intelligent models to predict frosts in crops in south-eastern Spain. There is still a need to bridge the gap between the needs of farmers, environmental managers and stakeholders and the solutions offered by information and communication technology. This book will be of interest to all those working in the field.

This book constitutes the refereed proceedings of the 11th Industrial Conference on Data Mining, ICDM 2011, held in New York, USA in September 2011. The 22 revised full papers presented were carefully reviewed and selected from 100 submissions. The papers are organized in topical sections on data mining in medicine and agriculture, data mining in marketing, data mining for Industrial processes and in telecommunication, Multimedia Data Mining, theoretical aspects of data mining, Data Warehousing, WebMining and Information

Mining.

The book constitutes the refereed proceedings of the 13th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, IPMU 2010, held in Dortmund, Germany from June 28 - July 2, 2010. The 77 revised full papers were carefully reviewed and selected from 320 submissions and reflect the richness of research in the field of Computational Intelligence and represent developments on topics as: machine learning, data mining, pattern recognition, uncertainty handling, aggregation and fusion of information as well as logic and knowledge processing.

"Intelligent Data Mining – Techniques and Applications" is an organized edited collection of contributed chapters covering basic knowledge for intelligent systems and data mining, applications in economic and management, industrial engineering and other related industrial applications. The main objective of this book is to gather a number of peer-reviewed high quality contributions in the relevant topic areas. The focus is especially on those chapters that provide theoretical/analytical solutions to the problems of real interest in intelligent techniques possibly combined with other traditional tools, for data mining and the corresponding applications to engineers and managers of different industrial sectors. Academic and applied researchers and research students working on data mining can also directly benefit from this book.