Applied Multivariate Techniques Subhash Sharma

This book focuses on when to use the various analytic techniques and how to interpret the resulting output from the most widely used statistical packages (e.g., SAS, SPSS).
These proceedings of the IAMG 2014 conference in New Delhi explore the current state of the art and inform readers about the latest geostatistical and space-based technologies for assessment and management in the contexts of natural resource exploration, environmental pollution, hazards and natural disaster research. The proceedings cover 3D visualization, time-series analysis, environmental geochemistry, numerical solutions in hydrology and hydrogeology, geotechnical engineering, multivariate geostatistics, disaster management, fractal modeling, petroleum exploration, geoinformatics, sedimentary basin analysis, spatiotemporal modeling, digital rock geophysics, advanced mining assessment and glacial studies, and range from the laboratory to integrated field studies. Mathematics plays a key part in the crust, mantle, oceans and atmosphere, creating climates that cause natural disasters, and influencing fundamental aspects of life-supporting systems and many other geological processes affecting Planet Earth. As such, it is essential to understand the synergy between the classical geosciences and mathematics, which can provide the methodological tools needed to tackle complex problems in modern geosciences. The development of science and technology, transforming from a descriptive stage to a more quantitative stage, involves qualitative interpretations such as conceptual models that are complemented by quantification, e.g. numerical models, fast dynamic geologic models, deterministic and stochastic models. Due to the increasing complexity of the problems faced by today’s geoscientists, joint efforts to

establish new conceptual and numerical models and develop new paradigms are called for.
This book on Thesis Writing for Master's and Ph.D. program focuses on the difficulties students encounter with regard to choosing a guide; selecting an appropriate research title considering the available resources; conducting research; and ways to overcome the hardships they face while researching, writing and preparing their dissertation for submission. Thesis writing is an essential skill that medical and other postgraduates are expected to learn during their academic career as a mandatory partial requirement in order to receive the Master's degree. However, at the majority of medical schools, writing a thesis is largely based on self-learning, which adds to the burden on students due to the tremendous amount of time spent learning the writing skills in addition to their exhausting clinical and academic work. Due to the difficulties faced during the early grooming years and lack of adequate guidance, acquiring writing skills continues to be a daunting task for most students. This book addresses these difficulties and deficiencies and provides comprehensive guidance, from selecting the research title to publishing in a scientific journal.
This handbook and ready reference presents a combination of statistical, information-theoretic, and data analysis methods to meet the challenge of designing empirical models involving molecular descriptors within bioinformatics. The topics range from investigating information processing in chemical and biological networks to studying statistical and information-theoretic techniques for analyzing chemical structures to employing data analysis and machine learning techniques for QSAR/QSPR. The high-profile international author and editor team ensures excellent coverage of the topic, making this a must-have for everyone working in chemoinformatics and structure-oriented drug design.

Increased Global Contacts Have Necessitated That Western Managers Acquire Greater Understanding Of The Eastern Doors , And Eastern Managers Look Beyond The Western Windows . Concepts And Frameworks Presented In The Book Arise From This View For A New Combination Of Management Ideas From The West And The East To Facilitate Holistic Globalization .Using The Methodology Of Position-Opposition-Proposition, Discussion-Dialogue-Discourse And The Innovative Idea Of Sabdh Yoga , This Book Looks At Various Perspective Related To Society, Organizations And Individuals With Which Managers In The New Age Have To Contend. Accordingly, The Foundations Of The Management In New Age Are Based On Holistic Development And Management (Hdm), Human Quality Development (Hqd) And Total Quality Of Mind (Tqm).The Book Explores The Interlink Ages Between Management Thought, Social Discourse And Spiritual Concerns That Constitute Three Foundational Themes Of The Book. Through An Integration Of Market, Society And Self, It Articulates The Vision Of Sacro-Civic Society And Sacro-Civic Nations Rooted In Harmony Paradigm That Aims At A New Balance Between Utilitarian, Ecotarian And Ethicotarian Philosophies Of Life. It Suggests The Need For A Paradigm Shift From, Survival Of The Fittest To Eliminate The Rest To Arrival Of The Best To Lead The Rest .

This book addresses microalgae, which represent a very promising biomass resource for wastewater treatment and producing biofuels. Accordingly, microalgae are also an expanding sector in biofuels and wastewater treatment, as can be seen in several high-profile start-ups from around the globe, including Solix Biofuels, Craig Venter’s Synthetic Genomics, PetroSun, Chevron Corporation, ENN Group etc. In addition, a number of recent studies and patent applications have confirmed the value of modern microalgae for biofuels production and

wastewater treatment systems. However, substantial inconsistencies have been observed in terms of system boundaries, scope, the cultivation of microalgae and oil extraction systems, production costs and economic viability, cost-lowering components, etc. Moreover, the downstream technologies and core principles involved in liquid fuel extraction from microalgae cells are still in their early stages, and not always adequate for industrial production. Accordingly, multilateral co-operation between universities, research institutes, governments, stakeholders and researchers is called for in order to make microalgae biofuels economical. Responding to this challenge, the book begins with a general introduction to microalgae and the algae industry, and subsequently discusses all major aspects of microalgal biotechnology, from strain isolation and robust strain development, to biofuel development, refinement and wastewater treatment.

This two-volume set (CCIS 1229 and CCIS 1230) constitutes the refereed proceedings of the 5th International Conference on Recent Developments in Science, Engineering and Technology, REDSET 2019, held in Gurugram, India, in November 2019. The 74 revised full papers presented were carefully reviewed and selected from total 353 submissions. The papers are organized in topical sections on data centric programming; next generation computing; social and web analytics; security in data science analytics; big data analytics.

This book features a collection of high-quality research papers presented at the International Conference on Advanced Computing Technology (ICACT 2020), held at the SRM Institute of Science and Technology, Chennai, India, on 23–24 January 2020. It covers the areas of computational intelligence, artificial intelligence, machine learning, deep learning, big data, and applications of artificial intelligence in networking, IoT and bioinformatics

This book includes high-quality research papers presented at the Third International Conference on Innovative Computing and Communication (ICICC 2020), which is held at the Shaheed Sukhdev College of Business Studies, University of Delhi, Delhi, India, on 21-23 February, 2020. Introducing the innovative works of scientists, professors, research scholars, students and industrial experts in the field of computing and communication, the book promotes the transformation of fundamental research into institutional and industrialized research and the conversion of applied exploration into real-time applications.

Distributed systems intertwine with our everyday lives. The benefits and current shortcomings of the underpinning technologies are experienced by a wide range of people and their smart devices. With the rise of large-scale IoT and similar distributed systems, cloud bursting technologies, and partial outsourcing solutions, private entities are encouraged to increase their efficiency and offer unparalleled availability and reliability to their users. The Research Anthology on Architectures, Frameworks, and Integration Strategies for Distributed and Cloud Computing is a vital reference source that provides valuable insight into current and emergent research occurring within the field of distributed computing. It also presents architectures and service frameworks to achieve highly integrated distributed systems and solutions to integration and efficient management challenges faced by current and future distributed systems. Highlighting a range of topics such as data sharing, wireless sensor networks, and scalability, this

multi-volume book is ideally designed for system administrators, integrators, designers, developers, researchers, academicians, and students.

Applied Multivariate TechniquesApplied Multivariate TechniquesWiley

Deep learning methods offer a lot of promise for time series forecasting, such as the automatic learning of temporal dependence and the automatic handling of temporal structures like trends and seasonality. With clear explanations, standard Python libraries, and step-by-step tutorial lessons you'll discover how to develop deep learning models for your own time series forecasting projects.

With its broad coverage of methodology, this comprehensive book is a useful learning and reference tool for those in applied sciences where analysis and research of time series is useful. Its plentiful examples show the operational details and purpose of a variety of univariate and multivariate time series methods. Numerous figures, tables and real-life time series data sets illustrate the models and methods useful for analyzing, modeling, and forecasting data collected sequentially in time. The text also offers a balanced treatment between theory and applications. Time Series Analysis is a thorough introduction to both time-domain and frequency-domain analyses of univariate and multivariate time series methods, with coverage of the most recently developed techniques in the field.

This text covers the fundamentals of pain, the pharmacology of drugs used, and summarises the current evidence base for the management of acute pain. It provides

practical direct clinical applications and strategies for the management of specific medical conditions in patient groups such as the elderly

"This book features high-quality papers presented at the International Conference on Computational Intelligence and Informatics (ICCII 2018), which was held on 28-29 December 2018 at the Department of Computer Science and Engineering, JNTUH College of Engineering, Hyderabad, India. The papers focus on topics such as data mining, wireless sensor networks, parallel computing, image processing, network security, MANETS, natural language processing and Internet of things. ." -- Prové de l'editor.

The volume presents high quality research papers presented at Second International Conference on Information and Communication Technology for Intelligent Systems (ICICC 2017). The conference was held during 2–4 August 2017, Pune, India and organized communally by Dr. Vishwanath Karad MIT World Peace University, Pune, India at MIT College of Engineering, Pune and supported by All India Council for Technical Education (AICTE) and Council of Scientific and Industrial Research (CSIR). The volume contains research papers focused on ICT for intelligent computation, communications and audio, and video data processing.

This book constitutes the refereed proceedings of the 4th International Conference on Recent Developments in Science, Engineering and Technology, REDSET 2017, held in Gurgaon, India, in October 2017. The 66 revised full papers presented were carefully

reviewed and selected from 329 submissions. The papers are organized in topical sections on big data analysis, data centric programming, next generation computing, social and web analytics, security in data science analytics.

This book provides a non-mathematical introduction to the theory and application of Exploratory Factor Analysis. Among the issues discussed are the use of confirmatory versus exploratory factor analysis, the use of principal components analysis versus common factor analysis, and procedures for determining the appropriate number of factors.

This book comprises select proceedings of the International Conference on Future Learning Aspects of Mechanical Engineering (FLAME 2018). The book discusses different topics of industrial and production engineering such as sustainable manufacturing systems, computer-aided engineering, rapid prototyping, manufacturing management and automation, metrology, manufacturing process optimization, casting, welding, machining, and machine tools. The contents of this book will be useful for researchers as well as professionals.

This edited book, is a collection of 20 articles describing the recent advancements in the application of microbial technology for sustainable development of agriculture and environment. This book covers many aspects like agricultural nanotechnology, promising applications of biofuels production by algae, advancements and application of microbial keratinase, biocontrol agents, plant growth promoting rhizobacteria,

bacterial siderophore, use of microbes in detoxifying organophosphate pesticides, bio-surfactants, biofilms, bioremediation degradation of phenol and phenolic compounds and bioprospecting of endophytes. This book intends to bring the latest research advancements and technologies in the area of microbial technology in one platform, providing the readers an up-to-date view on the area. This book would serve as an excellent reference book for researchers and students in the agricultural, environmental and microbiology fields.

The Handbook of Marketing Research: Uses, Misuses, and Future Advances comprehensively explores the approaches for delivering market insights for fact-based decision making in a market-oriented firm. Divided into four parts, the Handbook addresses (1) the different nuances of delivering insights; (2) quantitative, qualitative, and online data gathering techniques; (3) basic and advanced data analysis methods; and (4) the substantial marketing issues that clients are interested in resolving through marketing research.

This book explains both the basic science and the applications of biotechnology-derived pharmaceuticals, with special emphasis on their clinical uses. The foundations of pharmaceutical biotechnology lie mainly in the capability of plants, microorganism, and animals to produce low and high molecular weight compounds useful as therapeutics. Pharmaceutical biotechnology has flourished since the advent of recombinant DNA technology and metabolic engineering, supported by the well-developed bioprocess

technology. A large number of monoclonal antibodies and therapeutic proteins have been approved, delivering meaningful contributions to patients' lives, and the techniques of biotechnology are also a driving force in modern drug discovery. Due to this rapid growth in the importance of biopharmaceuticals and the techniques of biotechnologies to modern medicine and the life sciences, the field of pharmaceutical biotechnology has become an increasingly important component in the education of pharmacists and pharmaceutical scientists. This book will serve as a complete one-stop source on the subject for undergraduate and graduate pharmacists, pharmaceutical science students, and pharmaceutical scientists in industry and academia.

Applied Psychometry is designed as a core textbook on practice of psychometry for undergraduate and post-graduate students of psychology and human resource management. It will help the students in their study of the following papers: B.A. Program Psychology (Core): Psychological Assessment B.A. Honors Psychology (Core): Psychology: Psychometry or Psychological Assessment 1 and 2 M.A. Psychology: Psychological Assessment 1 and 2 Human Resource Management: Recruitment and Selection, Psychological Assessment

This is an essential how-to guide on the application of structural equation modeling (SEM) techniques with the AMOS software, focusing on the practical applications of both simple and advanced topics. Written in an easy-to-understand conversational style, the book covers everything from data collection and screening to confirmatory

factor analysis, structural model analysis, mediation, moderation, and more advanced topics such as mixture modeling, censored date, and non-recursive models. Through step-by-step instructions, screen shots, and suggested guidelines for reporting, Collier cuts through abstract definitional perspectives to give insight on how to actually run analysis. Unlike other SEM books, the examples used will often start in SPSS and then transition to AMOS so that the reader can have full confidence in running the analysis from beginning to end. Best practices are also included on topics like how to determine if your SEM model is formative or reflective, making it not just an explanation of SEM topics, but a guide for researchers on how to develop a strong methodology while studying their respective phenomenon of interest. With a focus on practical applications of both basic and advanced topics, and with detailed work-through examples throughout, this book is ideal for experienced researchers and beginners across the behavioral and social sciences.

Explore the multidisciplinary nature of complex networks through machine learning techniques Statistical and Machine Learning Approaches for Network Analysis provides an accessible framework for structurally analyzing graphs by bringing together known and novel approaches on graph classes and graph measures for classification. By providing different approaches based on experimental data, the book uniquely sets itself apart from the current literature by exploring the application of machine learning techniques to various types of complex networks. Comprised of chapters written by internationally renowned researchers in the field of interdisciplinary network theory, the book presents current and classical methods to analyze

networks statistically. Methods from machine learning, data mining, and information theory are strongly emphasized throughout. Real data sets are used to showcase the discussed methods and topics, which include: A survey of computational approaches to reconstruct and partition biological networks An introduction to complex networks—measures, statistical properties, and models Modeling for evolving biological networks The structure of an evolving random bipartite graph Density-based enumeration in structured data Hyponym extraction employing a weighted graph kernel Statistical and Machine Learning Approaches for Network Analysis is an excellent supplemental text for graduate-level, cross-disciplinary courses in applied discrete mathematics, bioinformatics, pattern recognition, and computer science. The book is also a valuable reference for researchers and practitioners in the fields of applied discrete mathematics, machine learning, data mining, and biostatistics.

Classic graduate-level introduction to theory of computability. Discusses general theory of computability, computable functions, operations on computable functions, Turing machines self-applied, unsolvable decision problems, applications of general theory, mathematical logic, Kleene hierarchy, more.

This book constitutes the refereed proceedings of the First International Conference on Advances in Computing and Data Sciences, ICACDS 2016, held in Ghaziabad, India, in November 2016. The 64 full papers were carefully reviewed and selected from 502 submissions. The papers are organized in topical sections on Advanced Computing; Communications; Informatics; Internet of Things; Data Sciences.

This book highlights recent research on bio-inspired computing and its various innovative applications in information and communication technologies. It presents 51 high-quality papers

from the 11th International Conference on Innovations in Bio-Inspired Computing and Applications (IBICA 2020) and 10th World Congress on Information and Communication Technologies (WICT 2020), which was held online during December 16-18, 2019. As a premier conference, IBICA--ICT brings together researchers, engineers and practitioners whose work involves bio-inspired computing, computational intelligence and their applications in information security, real-world contexts, etc. Including contributions by authors from 25 countries, the book offers a valuable reference guide for all researchers, students and practitioners in the fields of Computer Science and Engineering.

This unique volume presents the scientific achievements, significant discoveries and pioneering contributions of various academicians, industrialist and research scholars. The book is an essential source of reference and provides a comprehensive overview of the author's work in the field of mathematics, statistics and computer science. Contents:Databased Intrinsic Weights of Indicators of Multi-Indicator Systems and Performance Measures of Multivariate Rankings of Systemic Objects (G P Patil & S W Joshi)Statistical Aspects of SuDoKu-Based Experimental Designs (Jyotirmoy Sarkar & Bikas K Sinha)Multi Criteria Decision Making Model for Optimal Selection of Recovery Facility Location and Collection Routes for a Sustainable Reverse Logistics Network under Fuzzy Environment (J D Darbari, V Agarwal & P C Jha)Optimal allocation of SKU and Safety Stock in Supply Chain System Network (K Gandhi, K Goyal, A Jha & J D Darbari)Bi-Objective Optimization Model for Fault-Tolerant Embedded Systems Under Build-Or-Buy Strategy Incorporating Recovery Block Scheme (R Kaur, S Arora, P C Jha & S Madan)Study of a Problem of Annular Cylinder Under Two-Temperature Thermoelasticity with Thermal Relaxation Parameters (Santwana Mukhopadhyay & Roushan

Kumar)Multi-Criteria Advertisement Allocation Model of Multiple Advertisers on a Television Network (G Kaur, S Aggarwal & P C Jha)Computation of Maximum Likelihood Estimates in Three Parameter Weibull for Censored Data (Sanjeeva Kumar Jha)On Statistical Quality Control Techniques Based on Ranked Set Sampling (Md Sarwar Alamand, Arun Kumar Sinha & Rahbar Ali)Approximate Solution for Nonlinear Oscillator with Cubic and Quintic Nonlinearities (Jitendra Singh)Fuzzy DEA Cross-Efficiency Model for Ranking and Performance Evaluation Using Ideal and Anti-Ideal Decision Making Units (Seema Gupta, K N Rajeshwari & P C Jha)Poverty Analysis Using Scan Statistic Methods (Arun Kumar Sinha & Mukesh Kumar)Joint Performance Evaluation Data Envelopment Analysis Problem: An Interactive Approach (Riju Chaudhary, Pankaj Kumar Garg & P C Jha)Stochastic Modeling of a Repairable System Under Different Weather Conditions (S C Malik)Estimation of Risk Surfaces and Identification of District Boundaries for Tuberculosis in North-Eastern Indian States (Sanjeeva Kumar Jha & Ningthoukhongjam Vikimchandra Singh)Optimal Advertisement Allocation for Product Promotion on Television Channels (A Kaul, S Aggarwal, P C Jha & A Gupta)Fitting Linear Regressions: Development and Scope (Pranesh Kumar & J N Singh)The Impact of Family Planning on Fertility in Jharkhand State (Dilip Kumar)Spatial Analysis of AFP Surveillance Strategy for Polio Eradication in India (Pankaj Srivastava & Arun Kumar Sinha)On the Stochastic Modeling and Analysis of Bloom Caster System of Continuous Casting Shop Area of an Integrated Steel Plant (S K Singh)A Generalized Exponential-Lindley Distribution (A Mishra & Binod Kumar Sah)On Estimating the Urban Populations Using Minimum Information (Arun Kumar Sinha, Vijay Kumar & Ravi B P Verma)Fitting of Some Statistical Distributions of Daily Precipitation Data on North West India (NWI) Regions (Ranjan Kumar Sahoo)On

Systematic Sampling Strategies for a Varying Sample Size (K B Panda)Estimation of Measurement Variance Under Two-Stage Sampling: Estimation of Population Mean (Pulakesh Maiti)The Interior-Point Revolution in Mathematical Programming and its Place in Applied Mathematics (J N Singh)Combined Exponential Type Estimators of Population Mean in Stratified Random Sampling (R Pandey, K Yadav & N S Thakur)An Analytical Study on Fractional Fokker-Planck Equation by Homotopy Analysis Transform Method (Jitendra Singh & Rajeev Kumar)L-Primitive Words in Submonoids of a Free Monoid (Shubh Narayan Singh & K V Krishna)Comparison of the Performance of Ranked Set Sampling with the Linear Regression Estimation (Rahbar Ali & Arun Kumar Sinha)Optimal Selection of Logistics Operating Channels for a Sustainable Reverse Supply Chain (Vernika Agarwal, Jyoti Dhingra Darbari & P C Jha)Reliability Measures of a Parallel-Unit System with Arbitrary Distributions of Random Variables (Jitender Kumar, M S Kadyan & S C Malik)Adoption and Evolution of FOSS: Key Factors in the Development of the Apache Web Server (Ranjan Kumar, Subhash Kumar & Sukanta Deb)Android/Tizen Based Artificial Intelligence Techniques for Prognosis and Diagnosis of Electrical Machines (K V Satya Bharath, Sheikh Suhail Muhammad & Priya Ranjan)Performance Analysis of Quality of Service for Different Service Classes in WiMAX Network (Jokhu Lal & Neeraj Tyagi)A Review of Application of Artificial Neural Network in Ground Water Modeling (Neeta Kumari, Gopal Pathak & Om Prakash)Density Based Outlier Detection (DBOD) in Data Mining: A Novel Approach (Govind Kumar Jha, Neeraj Kumar, Prabhat Ranjan & K G Sharma)Enhanced Velocity BPSO and Convergence Analysis on Dimensionality Reduction (Shikha Agarwal, R Rajesh & Prabhat Ranjan)Modification of the Android Operating System to Predict the Human Body Temperature Using Capacitive Touch

(Shubhnkar Upadhyay, Avadhesh Singh, Kumar Abhishek & M P Singh)Context-Aware Based Clustering in Wireless Sensor Networks — A Survey (Santu Paul, M P Singh, J P Singh & Prabhat Kumar)Speech Emotion Recognition Using Vowel Onset and Offset Points (Manish Kumar & Jainath Yadav)A Novel Algorithm for Magic Squares (Govind Kumar Jha, Neeraj Kumar, Prabhat Ranjan & A P Shakya)A Note on Intelligent Street Light System (J Satheesh Kumar & C G Sreekaviya)An Overview of Test Case Optimization Using Meta-Heuristic Approach (Sushant Kumar, Prabhat Ranjan & R Rajesh)Smart City Traffic Management and Surveillance System for Indian Scenario (Tarun Kumar, Rohit Kumar Sachan & Dharmender Singh Kushwaha)Improving Attribute Inference Attack Using Link Prediction in Online Social Networks (Ashish Kumar & N C Rathore)A Dynamic Model on Computer Virus (Upendra Kumar)State of the Art In-Service Condition Monitoring Techniques of Rotary Machines (Krishna Kant Agrawal, Shekhar Verma & G N Pandey)Image Segmentation: A survey (K M Pooja & R Rajesh)Empirical Reliability Modeling of Transaction Oriented Autonomic Grid Service (Dharmendra Prasad Mahato & Ravi Shankar Singh)Performance Degradation of Language Identification System in Noisy Environment (Randheer Bagi & Jainath Yadav)Analysis of Software Fault Detection and Correction Processes with Log-Logistic Testing-Effort (Md Zafar Imam, Ishrat Jahan Ara & N Ahmad)Skewness Removal of LEACH Protocol for Wireless Sensor Networks (Vishal Gupta & M N Doja)A Novel Approach for Fast Handoff in WLAN (Mithilesh Patel, Bhavna Singh, Sonam Gupta, Anurag Jajoo & Pavan Kumar Mishra)Facial Expression Recognition Using Histogram of Oriented Gradients (Jyoti Kumari & R Rajesh)Cloud Computing: Comparative Study Own Server vs Cloud Server (Surendra Kumar Singh)Mobile and GIS Framework for Plantations and Nursery (E-

Plantations) (Shailesh Kumar Shrivastava & S K Mahendran)Internet Traffic Classification: A Survey (Gargi Srivastava, M P Singh, Prabhat Kumar & J P Singh)Comprehensive Study of Search Engine (Sarowar Kumar, Kumar Abhishek, Abhay Kumar & M P Singh)A Survey on Social Networks: Issues and Attacks (Anubha Maurya & M P Singh)Reduced Rule for Banknote Genuinity (Chhotu Kumar & Anil Kumar Dudyala)A Study on Medical Diagnosis Based on Inter Valued Fuzzy Cluster Analysis (Bhagwan Sahay Meena & Sharmila Bhattacharjee) Readership: Undergraduate students, graduate students and researchers in mathematics, computer science and statistics.

This book, divided in two volumes, originates from Techno-Societal 2020: the 3rd International Conference on Advanced Technologies for Societal Applications, Maharashtra, India, that brings together faculty members of various engineering colleges to solve Indian regional relevant problems under the guidance of eminent researchers from various reputed organizations. The focus of this volume is on technologies that help develop and improve society, in particular on issues such as advanced and sustainable technologies for manufacturing processes, environment, livelihood, rural employment, agriculture, energy, transport, sanitation, water, education. This conference aims to help innovators to share their best practices or products developed to solve specific local problems which in turn may help the other researchers to take inspiration to solve problems in their region. On the other hand, technologies proposed by expert researchers may find applications in different regions. This offers a multidisciplinary platform for researchers from a broad range of disciplines of Science, Engineering and Technology for reporting innovations at different levels.

The 31st European Symposium on Computer Aided Process Engineering: ESCAPE-31,

Volume 50 contains the papers presented at the 31st European Symposium of Computer Aided Process Engineering (ESCAPE) event held in Istanbul, Turkey. It is a valuable resource for chemical engineers, chemical process engineers, researchers in industry and academia, students and consultants in the chemical industries. Presents findings and discussions from the 31st European Symposium of Computer Aided Process Engineering (ESCAPE) event
This proceedings book includes the results from the International Conference on Deep Learning, Artificial Intelligence and Robotics, held in Malaviya National Institute of Technology, Jawahar Lal Nehru Marg, Malaviya Nagar, Jaipur, Rajasthan, 302017. The scope of this conference includes all subareas of AI, with broad coverage of traditional topics like robotics, statistical learning and deep learning techniques. However, the organizing committee expressly encouraged work on the applications of DL and AI in the important fields of computer/electronics/electrical/mechanical/chemical/textile engineering, health care and agriculture, business and social media and other relevant domains. The conference welcomed papers on the following (but not limited to) research topics: · Deep Learning: Applications of deep learning in various engineering streams, neural information processing systems, training schemes, GPU computation and paradigms, human-computer interaction, genetic algorithm, reinforcement learning, natural language processing, social computing, user customization, embedded computation, automotive design and bioinformatics · Artificial Intelligence: Automatic control, natural language processing, data mining and machine learning tools, fuzzy logic, heuristic optimization techniques (membrane-based separation, wastewater treatment, process control, etc.) and soft computing · Robotics: Automation and advanced control-based applications in engineering, neural networks on low powered devices, human-robot interaction

and communication, cognitive, developmental and evolutionary robotics, fault diagnosis, virtual reality, space and underwater robotics, simulation and modelling, bio-inspired robotics, cable robots, cognitive robotics, collaborative robotics, collective and social robots and humanoid robots It was a collaborative platform for academic experts, researchers and corporate professionals for interacting their research in various domain of engineering like robotics, data acquisition, human-computer interaction, genetic algorithm, sentiment analysis as well as usage of AI and advanced computation in various industrial challenges based applications such as user customization, augmented reality, voice assistants, reactor design, product formulation/synthesis, embedded system design, membrane-based separation for protecting environment along with wastewater treatment, rheological properties estimation for Newtonian and non-Newtonian fluids used in micro-processing industries and fault detection.
Discriminant Analysis and Applications comprises the proceedings of the NATO Advanced Study Institute on Discriminant Analysis and Applications held in Kifissia, Athens, Greece in June 1972. The book presents the theory and applications of Discriminant analysis, one of the most important areas of multivariate statistical analysis. This volume contains chapters that cover the historical development of discriminant analysis methods; logistic and quasi-linear discrimination; and distance functions. Medical and biological applications, and computer graphical analysis and graphical techniques for multidimensional data are likewise discussed. Statisticians, mathematicians, and biomathematicians will find the book very interesting.
Rebecca M. Warner's Applied Statistics: From Bivariate Through Multivariate Techniques, Second Edition provides a clear introduction to widely used topics in bivariate and multivariate statistics, including multiple regression, discriminant analysis, MANOVA, factor analysis, and

binary logistic regression. The approach is applied and does not require formal mathematics; equations are accompanied by verbal explanations. Students are asked to think about the meaning of equations. Each chapter presents a complete empirical research example to illustrate the application of a specific method. Although SPSS examples are used throughout the book, the conceptual material will be helpful for users of different programs. Each chapter has a glossary and comprehension questions.

BIG DATA, ARTIFICIAL INTELLIGENCE AND DATA ANALYSIS SET Coordinated by Jacques Janssen Data analysis is a scientific field that continues to grow enormously, most notably over the last few decades, following rapid growth within the tech industry, as well as the wide applicability of computational techniques alongside new advances in analytic tools. Modeling enables data analysts to identify relationships, make predictions, and to understand, interpret and visualize the extracted information more strategically. This book includes the most recent advances on this topic, meeting increasing demand from wide circles of the scientific community. Applied Modeling Techniques and Data Analysis 2 is a collective work by a number of leading scientists, analysts, engineers, mathematicians and statisticians, working on the front end of data analysis and modeling applications. The chapters cover a cross section of current concerns and research interests in the above scientific areas. The collected material is divided into appropriate sections to provide the reader with both theoretical and applied information on data analysis methods, models and techniques, along with appropriate applications.

Scaling Procedures: Issues and Applications examines the issues involved in developing and validating multi-item self-report scales of latent constructs. Distinguished researchers and

award-winning educators Richard G. Netemeyer, William O. Bearden, and Subhash Sharma present a four-step approach for multi-indicator scale development. With these steps, the authors include relevant empirical examples and a review of the concepts of dimensionality, reliability, and validity. Scaling Procedures: Issues and Applications supplies cutting-edge strategies for developing and refining measures. Providing concise chapter introductions and summaries, as well as numerous tables, figures, and exhibits, the authors present recommended steps and overlapping activities in a logical, sequential progression.