

Decision Support Systems In Information Technology

As effective organizational decision making is a major factor in a company’s success, a comprehensive account of current available research on the core concepts of the decision support agenda is in high demand by academicians and professionals. Through 110 authoritative contributions by over 160 of the world’s leading experts the Encyclopedia of Decision Making and Decision Support Technologies presents a critical mass of research on the most up-to-date research on human and computer support of managerial decision making, including discussion on support of operational, tactical, and strategic decisions, human vs. computer system support structure, individual and group decision making, and multi-criteria decision making.

In recent years, much work has been done in formulating and clarifying the concept of sustainable development and related theoretical and research issues. Now, the challenge has shifted to designing and stimulating processes of effective planning and decision-making, at all levels of human activity, in such a way as to achieve local and global sustainable development. Information technology can help a great deal in achieving sustainable development by providing well-designed and useful tools for decision makers. One such tool is the decision support system, or DSS. This book explores the area of DSS in the context of sustainable development. As DSS is a very new technique, especially in the developing world, this book will serve as a reference text, primarily for managers, government officials, and information professionals in developing countries. It covers the concept of sustainable development, defines DSS and how it can be used in the planning and management of sustainable development, and examines the state of the art in DSS use. Other interested readers will include students, teachers, and analysts in information sciences; DSS designers, developers, and implementors; and international development agencies.

This book constitutes the proceedings of the 7th International Conference on Decision Support Systems Technologies, ICDSST 2021, held during May 26-28, 2021. The conference was planned to take place in Loughborough, UK, and changed to an online format due to the COVID-19 pandemic. The EWG-DSS series of International Conference on Decision Support System Technology (ICDSST) is planned to consolidate the tradition of annual events organized by the EWG-DSS in offering a platform for European and international DSS communities, comprising the academic and industrial sectors, to present state-of-the-art DSS research and developments, to discuss current challenges that surround decision-making processes, to exchange ideas about realistic and innovative solutions, and to co-develop potential business opportunities. The main aim of this year’s conference is to investigate the role DSS and related technologies can play in mitigating the impact of pandemics and post-crisis recovery. The 10 papers presented in this volume were carefully reviewed and selected from 44 submissions. They were organized in two topical sections named: multiple criteria approaches and advances in decision support systems| technologies and methods.

Praise for the First Edition "This is the most usable decision support systems text. [i]t is far better than any other text in the field" |Computing Reviews Computer-based systems known as decision support systems (DSS) play a vital role in helping professionals across various fields of practice understand what information is needed, when it is needed, and in what form in order to make smart and valuable business decisions. Providing a unique combination of theory, applications, and technology, Decision Support Systems for Business Intelligence, Second Edition supplies readers with the hands-on approach that is needed to understand the implications of theory to DSS design as well as the skills needed to construct a DSS. This new edition reflects numerous advances in the field as well as the latest related technological developments. By addressing all topics on three levels|general theory, implications for DSS design, and code development|the author presents an integrated analysis of what every DSS designer needs to know. This Second Edition features: Expanded coverage of data mining with new examples Newly added discussion of business intelligence and transnational corporations Discussion of the increased capabilities of databases and the significant growth of user interfaces and models Emphasis on analytics to encourage DSS builders to utilize sufficient modeling support in their systems A thoroughly updated section on data warehousing including architecture, data adjustment, and data scrubbing Explanations and implications of DSS differences across cultures and the challenges associated with transnational systems Each chapter discusses various aspects of DSS that exist in real-world applications, and one main example of a DSS to facilitate car purchases is used throughout the entire book. Screenshots from JavaScript® and Adobe® ColdFusion are presented to demonstrate the use of popular software packages that carry out the discussed techniques, and a related Web site houses all of the book’s figures along with demo versions of decision support packages, additional examples, and links to developments in the field. Decision Support Systems for Business Intelligence, Second Edition is an excellent book for courses on information systems, decision support systems, and data mining at the advanced undergraduate and graduate levels. It also serves as a practical reference for professionals working in the fields of business, statistics, engineering, and computer technology.

Foundations of Decision Support Systems

Variations

Principles and Practices

Fusing Decision Support Systems Into the Fabric of the Context

Frequently Asked Questions

Decision Support Systems XI: Decision Support Systems, Analytics and Technologies in Response to Global Crisis Management

Decision support systems (DSS) are widely touted for their effectiveness in aiding decision making, particularly across a wide and diverse range of industries including healthcare, business, and engineering applications. The concepts, principles, and theories of enhanced decision making are essential points of research as well as the exact methods, tools, and technologies being implemented in these industries. From both a standpoint of DSS interfaces, namely the design and development of these technologies, along with the implementations, including experiences and utilization of these tools, one can get a better sense of how exactly DSS has changed the face of decision making and management in multi-industry applications. Furthermore, the evaluation of the impact of these technologies is essential in moving forward in the future. The Research Anthology on Decision Support Systems and Decision Management in Healthcare, Business, and Engineering explores how decision support systems have been developed and implemented across diverse industries through perspectives on the technology, the utilizations of these tools, and from a decision management standpoint. The chapters will cover not only the interfaces, implementations, and functionality of these tools, but also the overall impacts they have had on the specific industries mentioned. This book also evaluates the effectiveness along with benefits and challenges of using DSS as well as the outlook for the future. This book is ideal for decision makers, IT consultants and specialists, software developers, design professionals, academicians, policymakers, researchers, professionals, and students interested in how DSS is being used in different industries.

'Strategic Information Management' has been completely up-dated to reflect the rapid changes in IT and the business environment since the publication of the second edition. Half of the readings in the book have been replaced to address current issues and the latest thinking in Information Management. It goes without saying that Information technology has had a major impact on individuals, organizations and society over the past 50 years or so. There are few organizations that can afford to ignore IT and few individuals who would prefer to be without it. As managerial tasks become more complex, so the nature of the required information systems (IS) changes - from structured, routine support to ad hoc, unstructured, complex enquiries at the highest levels of management. As with the first and second editions, this third edition of 'Strategic Information Management: Challenges and strategies in managing information systems' aims to present the many complex and inter-related issues associated with the management of information systems. The book provides a rich source of material reflecting recent thinking on the key issues facing executives in information systems management. It draws from a wide range of contemporary articles written by leading experts from North America and Europe. 'Strategic Information Management' is designed as a course text for MBA, Master's level students and senior undergraduate students taking courses in information management. It provides a wealth of information and references for researchers in addition.

This volume of Annals of Information Systems will acknowledge the twentieth anniversary of the founding of the International Society for Decision Support Systems (ISDSS) by documenting some of the current best practices in teaching and research and envisioning the next twenty years in the decision support systems field. The volume is intended to complement existing DSS literature by offering an outlet for thoughts and research particularly suited to the theme of describing the next twenty years in the area of decision support. Several subthemes are planned for the volume. One subtheme draws on the assessments of internationally known DSS researchers to evaluate where the field has been and what has been accomplished. A second subtheme of the volume will be describing the current best practices of DSS research and teaching efforts. A third subtheme will be an assessment by top DSS scholars on where the DSS discipline needs to focus in the future. The tone of this volume is one of enthusiasm for the potential contributions to come in the area of DSS; contributions that must incorporate an understanding of what has been accomplished in the past, build on the best practices of today, and be integrated into future decision making practices. The primary questions raised by this volume are: What will information systems-based decision support entail in twenty years? What research is needed to realize the envisioned future of information systems-based decision support? How will the teaching of information systems-based decision support change over the next twenty years? What are the best practices of teaching in the decision support area that can be leveraged to best disseminate DSS knowledge advances to students and practitioners?

Although interest in Spatial Decision Support Systems (SDSS) continues to grow rapidly in a wide range of disciplines, students, planners, managers, and the research community have lacked a book that covers the fundamentals of SDSS along with the advanced design concepts required for building SDSS. Filling this need, Spatial Decision Support Systems: Principles and Practices provides a comprehensive examination of the various aspects of SDSS evolution, components, architecture, and implementation. It integrates research from a variety of disciplines, including the geosciences, to supply a complete overview of SDSS technologies and their application from an interdisciplinary perspective. This groundbreaking reference provides thorough coverage of the roots of SDSS. It explains the core principles of SDSS, how to use them in various decision making contexts, and how to design and develop them using readily available enabling technologies and commercial tools. The book consists of four major parts, each addressing different topic areas in SDSS: Presents an introduction to SDSS and the evolution of SDSS Covers the essential and optional components of SDSS Focuses on the design and implementation of SDSS Reviews SDSS applications from various domains and disciplines—investigating current challenges and future directions The text includes numerous detailed case studies, example applications, and methods for tailoring SDSS to your work environment. It also integrates sample code segments throughout. Addressing the technical and organizational challenges that affect the success or failure of SDSS, the book concludes by considering future directions of this rapidly emerging field of study.

Real-World Decision Support Systems

Clinical Decision Support Systems

Theory and Practice

Springer Handbook of Automation

Decision Support Systems and Industrial IoT in Smart Grid, Factories, and Cities

Spatial Decision Support Systems

Decision Support SystemsConcepts and Resources for ManagersGreenwood Publishing Group

For MIS specialists and nonspecialists alike, a comprehensive, readable, understandable guide to the concepts and applications of decision support systems.

This open access book comprehensively covers the fundamentals of clinical data science, focusing on data collection, modelling and clinical applications. Topics covered in the first section on data collection include: data sources, data at scale (big data), data stewardship (FAIR data) and related privacy concerns. Aspects of predictive modelling using techniques such as classification, regression or clustering, and prediction model validation will be covered in the second section. The third section covers aspects of (mobile) clinical decision support systems, operational excellence and value-based healthcare. Fundamentals of Clinical Data Science is an essential resource for healthcare professionals and IT consultants intending to develop and refine their skills in personalized medicine, using solutions based on large datasets from electronic health records or telemonitoring programmes. The book’s promise is “no math, no code”and will explain the topics in a style that is optimized for a healthcare audience.

Coral reefs are critical to ocean and human life because they provide food, living area, storm protection, tourism income, and more. However, human-induced stressors, such as overfishing, sediment, pollution, and habitat destruction have threatened ocean ecosystems globally for decades. In the face of climate change, these ecosystems now face an array of unfamiliar challenges due to destructive rises in ocean temperature, acidity and sea level. These factors lead to an increased frequency of bleaching events, hindered growth, and a decreasing rate of calcification. Research on interventions to combat these relatively new stressors and a reevaluation of longstanding interventions is necessary to understand and protect coral reefs in this changing climate. Previous research on these methods prompts further questions regarding the decision making process for site-specific interventions. A Decision Framework for Interventions to Increase the Persistence and Resilience of Coral Reefs builds upon a previous report that reviews the state of research on methods that have been used, tested, or proposed to increase the resilience of coral reefs. This new report aims to help coral managers evaluate the specific needs of their site and navigate the 23 different interventions described in the previous report. A case study of the Caribbean, a region with low coral population plagued by disease, serves as an example for coral intervention decision making. This report provides complex coral management decision making tools, identifies gaps in coral biology and conservation research, and provides examples to help individuals and communities tailor a decision strategy to a local area.

Decision Support Systems for Sustainable Development

Research Anthology on Decision Support Systems and Decision Management in Healthcare, Business, and Engineering

7th International Conference on Decision Support System Technology, ICDSST 2021, Loughborough, UK, May 26–28, 2021, Proceedings

Decision Support

Decision Support Systems for Business Intelligence

Information Systems and Decision Support Systems

The second edition of this bestselling title is a perfect blend of theoretical knowledge and practical application. It progresses gradually from basic to advance concepts in database management systems, with numerous solved exercises to make learning easier and interesting. New to this edition are discussions on more commercial database management systems.

Internet of things (IoT) is an emerging research field that is rapidly becoming an important part of our everyday lives including home automation, smart buildings, smart things, and more. This is due to cheap, efficient, and wirelessly-enabled circuit boards that are enabling the functions of remote sensing/actuating, decentralization, autonomy, and other essential functions. Moreover, with the advancements in embedded artificial intelligence, these devices are becoming more self-aware and autonomous, hence making decisions themselves. Current research is devoted to the understanding of how decision support systems are integrated into industrial IoT. Decision Support Systems and Industrial IoT in Smart Grid, Factories, and Cities presents the internet of things and its place during the technological revolution, which is taking place now to bring us a better, sustainable, automated, and safer world. This book also covers the challenges being faced such as relations and implications of IoT with existing communication and networking technologies; applications like practical use-case scenarios from the real world including smart cities, buildings, and grids; and topics such as cyber security, user privacy, data ownership, and information handling related to IoT networks. Additionally, this book focuses on the future applications, trends, and potential benefits of this new discipline. This book is essential for electrical engineers, computer engineers, researchers in IoT, security, and smart cities, along with practitioners, researchers, academicians, and students interested in all aspects of industrial IoT and its applications.

As national and international concern over sustainable resources becomes more prevalent, the need for decision support systems (DSS) increases. The applicable uses of a successful system can assist in the sustainability of resources, as well as the efficiency and management of the agri-environment industry. Decision Support Systems in Agriculture, Food and the Environment: Trends, Applications and Advances presents the development of DSS for managing agricultural and environmental systems, focusing on the exposition of innovative methodologies, from web-mobile systems to artificial intelligence and knowledge-based DSS, as well as their applications in every aspect from harvest planning to international food production and land management. This book provides an in depth look into the growing importance of DSS in agriculture.

The focus of Decision Support Systems is on how one can & should use what has been learned in programming & modeling courses to develop systems that provide decision support. Pages on the World Wide Web will be available to support this book.

Investment Management

Concepts and Resources for Managers

Building Effective Decision Support Systems

An Applied Managerial Approach

Fundamentals of Clinical Data Science

Researchers and practitioners interested in the current De- cision Support System (DSS) and the shape of future DSS are the intended audience of this book. There is a particular, recurring emphasis on the adaptation of artificial intelli- gence techniques for use in the DSS world. The chapters are organized in two major sections, the first dealing with the- oretical topics and the second with applications.

This is a resource book on clinical decision support systems for informatics specialists, a textbook for teachers or students in health informatics and a comprehensive introduction for clinicians. It has become obvious that, in addition to physicians, other health professionals have need of decision support. Therefore, the issues raised in this book apply to a broad range of clinicians. The book includes chapters written by internationally recognized experts on the design, evaluation and application of these systems, who examine the impact of computer-based diagnostic tools both from the practitioner’s perspective and that of the patient.

Intelligent Support Systems for Marketing Decisions examines new product development, market penetration strategies, and other marketing decisions utilizing a confluence of methods, including Decision Support Systems (DSS), Artificial Intelligence in Marketing and Multicriteria Analysis. The authors systematically examine the use and implementation of these methodologies in making strategic marketing decisions. Part I discusses the basic concepts of multicriteria analysis vis-à-vis marketing decisions and in new product development situations. Part II presents basic concepts from the fields of Information Systems, Decision Support Systems, and Intelligent Decision Support Methods. In addition, specialized categories of DSS (multicriteria DSS, web-based DSS, group DSS, spatial DSS) are discussed in terms of their key features and current use in marketing applications. Part III presents IDSS and a multicriteria methodology for new product development. Further chapters present a developmental strategy for analyzing, designing, and implementing an Intelligent Marketing Decision Support System. The implementation discussion is illustrated with a real-world example of the methods and system in use.

Praise for the First Edition "This is the most usable decision support systems text. [i]t isfar better than any other text in the field" —ComputingReviews Computer-based systems known as decision support systems (DSS)play a vital role in helping professionals across various fields ofpractice understand what information is needed, when it is needed,and in what form in order to make smart and valuable businessdecisions. Providing a unique combination of theory, applications,and technology, Decision Support Systems for Business Intelligence,Second Edition supplies readers with the hands-on approach that isneeded to understand the implications of theory to DSS design aswell as the skills needed to construct a DSS. This new edition reflects numerous advances in the field as wellas the latest related technological developments. By addressing alltopics on three levels—general theory, implications for DSSdesign, and code development—the author presents anintegrated analysis of what every DSS designer needs to know. ThisSecond Edition features: Expanded coverage of data mining with new examples Newly added discussion of business intelligence andtransnational corporations Discussion of the increased capabilities of databases and thesignificant growth of user interfaces and models Emphasis on analytics to encourage DSS builders to utilizesufficient modeling support in their systems A thoroughly updated section on data warehousing includingarchitecture, data adjustment, and data scrubbing Explanations and implications of DSS differences across culturesand the challenges associated with transnational systems Each chapter discusses various aspects of DSS that exist inreal-world applications, and one main example of a DSS tofacilitate car purchases is used throughout the entire book.Screenshots from JavaScript® and Adobe® ColdFusion arepresented to demonstrate the use of popular software packages thatcarry out the discussed techniques, and a related Web site housesall of the book’s figures along with demo versions of decisionsupport packages, additional examples, and links to developments inthe field. Decision Support Systems for Business Intelligence, SecondEdition is an excellent book for courses on information systems,decision support systems, and data mining at the advancedundergraduate and graduate levels. It also serves as a practicalreference for professionals working in the fields of business,statistics, engineering, and computer technology.

Handbook on Decision Support Systems 2

Decision Support and Expert Systems

Tools and Techniques

Intelligent Support Systems for Marketing Decisions

Management Information and Decision Support Systems in Libraries

Usability

Decision Support Systems: Frequently Asked Questions is the authoritative reference guide to computerized Decision Support Systems. Author Dan Power has spent almost 30 years building, studying and teaching others about computerized Decision Support Systems. Dr. Power is first and foremost a Decision Support evangelist and generalist. From his vantage point as editor of DSSResources.COM, he tracks a broad range of contemporary DSS topics. In this DSS FAQ, Dr. Power answers 83 frequently asked questions about computerized decision support systems. The FAQ covers a broad range of contemporary topics and the questions are organized into 8 chapters. DSS FAQ helps readers understand questions like: What is a DSS? What kind of DSS does Mr. X need? Does data modeling differ for a Data-Driven DSS? Is a Data Warehouse a DSS? Is tax preparation software an example of a DSS? What do I need to know about Data Warehousing/OLAP? What is a cost estimation DSS? What is a Spreadsheet-based DSS? Decision Support Systems: Frequently Asked Questions is a useful resource for IT specialists, students, professors and managers. It organizes important Ask Dan! questions (with answers) published in DSS News from 2000 through 2004.

This book is targeted to busy managers and MBA students who need to grasp the basics of computerized decision support. Some of the topics covered include: What is a DSS? What do managers need to know about computerized decision support? And how can managers identify opportunities to create innovative DSS? Overall the book addresses 35 fundamental questions that are relevant to understanding computerized decision support.

For a Decision Support System course offered in business schools. Packed with essential information, this valuable text helps future business management professionals learn to make and support managerial decisions, providing a thorough understanding of the support aspect of DSS. Written from a cognitive processes and decision-making perspective, it concentrates on issues that emphasize managerial applications and the implication of decision support technology on those issues.

As the most comprehensive reference work dealing with decision support systems (DSS), this book is essential for the library of every DSS practitioner, researcher, and educator. Written by an international array of DSS luminaries, it contains more than 70 chapters that approach decision support systems from a wide variety of perspectives. These range from classic foundations to cutting-edge thought, informative to provocative, theoretical to practical, historical to futuristic, human to technological, and operational to strategic. The chapters are conveniently organized into ten major sections that novices and experts alike will refer to for years to come.

Gaining a Competitive Edge

Database Systems

Case Studies

A Resource Book of Methods and Applications

Decision Support Systems in the Twenty-first Century

A Decision Framework for Interventions to Increase the Persistence and Resilience of Coral Reefs

Medical informatics has revolutionized healthcare in recent years, and one of the major challenges now faced by health professionals everywhere is the further improvement of healthcare by making more effective use of the data from biomedical informatics, not least for education and decision support. This book presents the 52 full papers (accepted from 95 initial submissions) delivered at the Special Topic Conference of the European Federation for Medical Informatics (EFMI STC 2018), held in Zagreb, Croatia, on 15 and 16 October 2018. The EFMI STC is one of Europe's leading conferences for the sharing of current professional and scientific knowledge in health informatics processes, and the topics covered here have been broadly divided into two sections: decision support and education. Offering an overview of current medical informatics research, this book will undoubtedly prove invaluable for the professional development of healthcare practitioners, as well as contributing to knowledge sustainability within the field of medical informatics.

Packed with essential information, this valuable volume helps future business management professionals learn to make and support managerial decisions, providing a thorough understanding of the support aspect of DSS. Written from a cognitive processes and decision-making perspective, it concentrates on issues that emphasize managerial applications and the implication of decision support technology on those issues. The volume examines data warehouses, intelligent software agents and DSS system development, as well as an introduction to decision support systems, decision in the organization, modeling decision processes, group decision support and groupware technologies, executive information systems, expert systems and artificial intelligence, knowledge engineering and acquisition, and data mining and data visualization. For Data Warehouse Administrators, CIO and Directors of Information Systems.

This book presents real-world decision support systems, i.e., systems that have been running for some time and as such have been tested in real environments and complex situations; the cases are from various application domains and highlight the best practices in each stage of the system's life cycle, from the initial requirements analysis and design phases to the final stages of the project. Each chapter provides decision-makers with recommendations and insights into lessons learned so that failures can be avoided and successes repeated. For this reason unsuccessful cases, which at some point of their life cycle were deemed as failures for one reason or another, are also included. All decision support systems are presented in a constructive, coherent and deductive manner to enhance the learning effect. It complements the many works that focus on theoretical aspects or individual module design and development by offering 'good' and 'bad' practices when developing and using decision support systems. Combining high-quality research with real-world implementations, it is of interest to researchers and professionals in industry alike.

This handbook incorporates new developments in automation. It also presents a widespread and well-structured conglomeration of new emerging application areas, such as medical systems and health, transportation, security and maintenance, service, construction and retail as well as production or logistics. The handbook is not only an ideal resource for automation experts but also for people new to this expanding field.

Decision Support Systems

Strategic Information Management

An Examination of the DSS Discipline

Handbook on Decision Support Systems 1

Basic Themes

Management Support Systems

Seminar paper from the year 2016 in the subject Computer Science - Miscellaneous, language: English, abstract: Information Systems are developed to help users to achieve their goals. If we look at the international level, the introduction of information technology and general information systems in everyday life, we will see that this admission has been made successful by producing the expected results in countries characterized by good organization of public life other, individual systems, banking system, health system, are well organized and staffed. On the other hand, Decision Support Systems represent a combined approach of decision making from the Administration area with tools and IT techniques. A widely accepted definition describes the DSS as computer software which accepts as input data a large number of events and methods to convert comparisons, graphs and directions in some sense, that facilitate and expand the capabilities of what takes decisions.

Decision support systems; management support systems: an overview; decision making, systems, modeling, and support; data management; modeling and model management; user interface; constructing a decision support system; organizational DSS and advanced topics; enterprise support systems; Group decision support systems; executive information and support systems; fundamentals of artificial intelligence and expert systems; applied artificial intelligence: an overview; fundamentals of expert systems; knowledge acquisition and validation; knowledge representation; inferences, explanations, and uncertainty; building expert systems: process and tools; cutting edge decision support technologies; neural computing: the basics; neural computing applications, genetic algorithms, and fuzzy logic; integrating and implementation; integrating decision support technologies; Implementing management support systems; organizational and societal impacts of management support systems; appendix and student project.

Describes how Decision Support Systems (DSS) computer-based systems, and described the steps and components necessary to develop effective DSS.

An in-depth examination of the tools and techniques needed to design and implement a decision support system (DSS) in an organization. The work covers modeling and simulation, and explains how a DSS can help managers make their decisions and indicates how the DSS fits in the overall management information system in an organization. It features case studies of decision support systems and a discussion of future trends in DSS.

Decision Support Systems: Theory and Application

Help and Support in Healthcare

Concepts, Design and Applications

Decision Support Basics

Trends, Applications and Advances

An Organizational Perspective

Foundations of Decision Support Systems focuses on the frameworks, strategies, and techniques involved in decision support systems (DSS). The publication first takes a look at information processing, decision making, and decision support: frameworks for organizational information processing and decision making; and representative decision support systems. Discusses the requirements for decision making, division of information-processing labor within an organization, and decision support. The text then elaborates on ideas in decision support, formalizations of purposive systems, and conceptual and operational constructs for building a data base knowledge system. The book takes a look at building a data base knowledge system, language processing systems for data base knowledge systems. Topics include problem processors for computationally oriented DSS, major varieties of logical data structures, and indirect associations among concepts. The manuscript also examines operationalizing modeling knowledge in terms of predicate calculus; combining the data base and formal logic approaches; and formal logic. The publication is a valuable reference for researchers interested in decision support systems.

Decision support systems have experienced a marked increase in attention and importance over the past 25 years. The aim of this book is to survey the decision support system (DSS) field – covering both developed territory and emergent frontiers. It will give the reader a clear understanding of fundamental DSS concepts, methods, technologies, trends, and issues in decision support practice, and instruction. To achieve these goals, the book has been designed according to a ten-part structure, divided in two volumes with chapters authored by well-known, well-versed scholars and practitioners from the DSS community.

The field of Information Systems has been shifting from an aemersion viewAE, which relies on the immersion of information technology (IT) as part of the business environment, to a aefusion viewAE in which IT is fused within the business environment, forming a unified fabric that integrates work and personal life, as well as personal and public information. In the new view, the organization should achieve a total alignment with the context and the personal preferences of users. The advantage of such a view is an opportunity of seamless integration between enterprise environments and decision support system components. Thus, researchers and practitioners have to address the challenges of dealing with this shift in viewpoint and its consequences in decision support applications. This book presents the latest innovations and advances in decision support systems with a special focus on the fusion view. These achievements will be of interest to all those involved and interested in decision making practice and research, as well as, more generally, in the fusion view of modern information systems. The book covers a wide range of topics, including data warehousing, applications of multi-criteria decision analysis, intelligent models and technologies for decision making, knowledge management, decision support approaches and models for emergency management, and medical and other specific domains.

GEODATA ANALYSIS AND DISPLAY SYSTEM: GENERALIZED MANAGEMENT INFORMATION SYSTEM.

Encyclopedia of Decision Making and Decision Support Technologies

Decision Support Systems in the 21st Century

Decision Support Systems and Education

Decision Support Systems in Agriculture, Food and the Environment: Trends, Applications and Advances

Usability has become increasingly important as an essential part of the design and development of software and systems for all sectors of society, business, industry, government and education, as well as a topic of research. Today, we can safely say that, in many parts of the world, information technology and communications is or is becoming a central force in revolutionising the way that we all live and how our societies function. IFIP's mission states clearly that it "encourages and assists in the development, exploitation and application of information technology for the benefit of all people". The question that must be considered now is how much attention has been given to the usability of the IT-based systems that we use in our work and daily lives. There is much evidence to indicate that the real interests and needs of people have not yet been embraced in a substantial way by IT decision makers and when developing and implementing the IT systems that shape our lives, both as private individuals and at work. But some headway has been made. Three years ago, the IFIP Technical Committee on Human Computer Interaction (IFIP TC13) gave the subject of usability its top priority for future work in advancing HCI within the international community. This Usability Stream of the IFIP World Computer Congress is a result of this initiative. It provides a showcase on usability involving some practical business solutions and experiences, and some research findings.