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**KEY=2014 - JENNINGS JULISSA**

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### Identifying the Culprit

## Assessing Eyewitness Identification

[National Academies Press](#) Eyewitnesses play an important role in criminal cases when they can identify culprits. Estimates suggest that tens of thousands of eyewitnesses make identifications in criminal investigations each year. Research on factors that affect the accuracy of eyewitness identification procedures has given us an increasingly clear picture of how identifications are made, and more importantly, an improved understanding of the principled limits on vision and memory that can lead to failure of identification. Factors such as viewing conditions, duress, elevated emotions, and biases influence the visual perception experience. Perceptual experiences are stored by a system of memory that is highly malleable and continuously evolving, neither retaining nor divulging content in an informational vacuum. As such, the fidelity of our memories to actual events may be compromised by many factors at all stages of processing, from encoding to storage and retrieval. Unknown to the individual, memories are forgotten, reconstructed, updated, and distorted. Complicating the process further, policies governing law enforcement procedures for conducting and recording identifications are not standard, and policies and practices to address the issue of misidentification vary widely. These limitations can produce mistaken identifications with significant consequences. What can we do to make certain that eyewitness identification convicts the guilty and exonerates the innocent? Identifying the Culprit makes the case that better data collection and research on eyewitness identification, new law enforcement training protocols, standardized procedures for administering line-ups, and improvements in the handling of eyewitness identification in court can increase the chances that accurate identifications are made. This report explains the science that has emerged during the past 30 years on eyewitness identifications and identifies best practices in eyewitness procedures for the law enforcement community and in the presentation of eyewitness evidence in the courtroom. In order to continue the advancement of eyewitness identification research, the report recommends a focused research agenda. Identifying the Culprit will be an essential resource to assist the law enforcement and legal communities as they seek to understand the value and the limitations of eyewitness identification and make improvements to procedures.

### Machine Drawing

[New Age International](#) **About the Book:** Written by three distinguished authors with ample academic and teaching experience, this textbook, meant for diploma and degree students of Mechanical Engineering as well as those preparing for AMIE examination, incorporates the latest st

### Writing Literature Reviews

## A Guide for Students of the Social and Behavioral Sciences

[Taylor & Francis](#) This useful guide educates students in the preparation of literature reviews for term projects, theses, and dissertations. The authors provide numerous examples from published reviews that illustrate the guidelines discussed throughout the book. ? New to the seventh edition: ? Each chapter breaks down the larger holistic review of literature exercise into a series of smaller, manageable steps Practical instructions for navigating today's digital libraries Comprehensive discussions about digital tools, including bibliographic and plagiarism detection software Chapter activities that reflect the book's updated content New model literature reviews Online resources designed to help instructors plan and teach their courses ([www.routledge.com/9780415315746](http://www.routledge.com/9780415315746)).

### Doing Global Science

## A Guide to Responsible Conduct in the Global Research Enterprise

[Princeton University Press](#) An essential introduction to the responsible conduct of science in today's interconnected world This concise introductory guide explains the values that should inform the responsible conduct of scientific research in today's global setting. Featuring accessible discussions and ample real-world scenarios, Doing Global Science covers proper conduct, fraud and bias, the researcher's responsibilities to society, communication with the public, and much more. The book places special emphasis on the international and highly networked environment in which modern research is done, presenting science as an enterprise that is being transformed by globalization, interdisciplinary research projects, team science, and information technologies. Accessibly written by an InterAcademy Partnership committee comprised of leading scientists from around the world, Doing Global Science is required reading for students, practitioners, and anyone concerned about the responsible conduct of science today. Provides practical guidance and instructions for doing scientific research in today's global setting Covers everything from responsible conduct to communication with the public Features numerous real-world scenarios drawn from an array of disciplines and national contexts Focuses on issues commonly encountered in international collaborations Written by a panel of leading experts from around the world An essential guide for practicing scientists and anyone concerned about fostering research integrity

### Reinforcement Learning, second edition

## An Introduction

[MIT Press](#) The significantly expanded and updated new MIT edition of a widely used text on reinforcement learning, one of the most active research areas in artificial intelligence. Reinforcement learning, one of the most active research areas in artificial intelligence, is a computational approach to learning whereby an agent tries to maximize the total amount of reward it receives while interacting with a complex, uncertain environment. In Reinforcement Learning, Richard Sutton and Andrew Barto provide a clear and simple account of the field's key ideas and algorithms. This second edition has been significantly expanded and updated, presenting new topics and updating coverage of other topics. Like the first edition, this second edition focuses on core online learning algorithms, with the more mathematical material set off in shaded boxes. Part I covers as much of reinforcement learning as possible without going beyond the tabular case for which exact solutions can be found. Many algorithms presented in this part are new to the second edition, including UCB, Expected Sarsa, and Double Learning. Part II extends these ideas to function approximation, with new sections on such topics as artificial neural networks and the Fourier basis, and offers expanded treatment of off-policy learning and policy-gradient methods. Part III has new chapters on reinforcement learning's relationships to psychology and neuroscience, as well as an updated case-studies chapter including AlphaGo and AlphaGo Zero, Atari game playing, and IBM Watson's wagering strategy. The final chapter discusses the future societal impacts of reinforcement learning.

### Software-Defined Radio for Engineers

[Artech House](#) Based on the popular Artech House classic, Digital Communication Systems Engineering with Software-Defined Radio, this book provides a practical approach to quickly learning the software-defined radio (SDR) concepts needed for work in the field. This up-to-date volume guides readers on how to quickly prototype wireless designs using SDR for real-world testing and experimentation. This book explores advanced wireless communication techniques such as OFDM, LTE, WLA, and hardware targeting. Readers will gain an understanding of the core concepts behind wireless hardware, such as the radio frequency front-end, analog-to-digital and digital-to-analog converters, as well as various processing technologies. Moreover, this volume includes chapters on timing estimation, matched filtering, frame synchronization message decoding, and source coding. The orthogonal frequency division multiplexing is explained and details about HDL code generation and deployment are provided. The book concludes with coverage of the WLAN toolbox with OFDM beacon reception and the LTE toolbox with downlink reception. Multiple case studies are provided throughout the book. Both MATLAB and Simulink source code are included to assist readers with their projects in the field.

## Technical Abstract Bulletin

### STAR

## Global Climate Change Impacts in the United States

[Cambridge University Press](#) Summarizes the science of climate change and impacts on the United States, for the public and policymakers.

## Biotechnology Research in an Age of Terrorism

[National Academies Press](#) In recent years much has happened to justify an examination of biological research in light of national security concerns. The destructive application of biotechnology research includes activities such as spreading common pathogens or transforming them into even more lethal forms. Policymakers and the scientific community at large must put forth a vigorous and immediate response to this challenge. This new book by the National Research Council recommends that the government expand existing regulations and rely on self-governance by scientists rather than adopt intrusive new policies. One key recommendation of the report is that the government should not attempt to regulate scientific publishing but should trust scientists and journals to screen their papers for security risks, a task some journals have already taken up. With biological information and tools widely distributed, regulating only U.S. researchers would have little effect. A new International Forum on Biosecurity should encourage the adoption of similar measures around the world. Seven types of risky studies would require approval by the Institutional Biosafety Committees that already oversee recombinant DNA research at some 400 U.S. institutions. These "experiments of concern" include making an infectious agent more lethal and rendering vaccines powerless.

## Engineering Science N1

[Pearson South Africa](#)

### Operations (ADP 3-0)

[Lulu.com](#) ADP 3-0, Operations, constitutes the Army's view of how to conduct prompt and sustained operations across multiple domains, and it sets the foundation for developing other principles, tactics, techniques, and procedures detailed in subordinate doctrine publications. It articulates the Army's operational doctrine for unified land operations. ADP 3-0 accounts for the uncertainty of operations and recognizes that a military operation is a human undertaking. Additionally, this publication is the foundation for training and Army education system curricula related to unified land operations. The principal audience for ADP 3-0 is all members of the profession of arms. Commanders and staffs of Army headquarters serving as joint task force (JTF) or multinational headquarters should also refer to applicable joint or multinational doctrine concerning the range of military operations and joint or multinational forces. Trainers and educators throughout the Army will use this publication as well.

## Law of Persons and the Family

### Parentology

## Everything You Wanted to Know about the Science of Raising Children but Were Too Exhausted to Ask

[Simon and Schuster](#) An award-winning scientist offers his unorthodox approach to childrearing: "Parentology is brilliant, jaw-droppingly funny, and full of wisdom...bound to change your thinking about parenting and its conventions" (Amy Chua, author of *Battle Hymn of the Tiger Mother*). If you're like many parents, you might ask family and friends for advice when faced with important choices about how to raise your kids. You might turn to parenting books or simply rely on timeworn religious or cultural traditions. But when Dalton Conley, a dual-doctorate scientist and full-blown nerd, needed childrearing advice, he turned to scientific research to make the big decisions. In *Parentology*, Conley hilariously reports the results of those experiments, from bribing his kids to do math (since studies show conditional cash transfers improved educational and health outcomes for kids) to teaching them impulse control by giving them weird names (because evidence shows kids with unique names learn not to react when their peers tease them) to getting a vasectomy (because fewer kids in a family mean smarter kids). Conley encourages parents to draw on the latest data to rear children, if only because that level of engagement with kids will produce solid and happy ones. Ultimately these experiments are very loving, and the outcomes are redemptive—even when Conley's sassy kids show him the limits of his profession. *Parentology* teaches you everything you need to know about the latest literature on parenting—with lessons that go down easy. You'll be laughing and learning at the same time.

## Dugard's International Law

### A South African Perspective

This fifth edition of *International Law: A South African Perspective* is now titled *Dugard's International Law: A South African Perspective*, in recognition of the fact that this work is a continuation of the earlier editions written by John Dugard. The substance of the work has undergone major changes to take account of new developments both on the international legal scene and in South Africa. *Dugard's International Law: A South African Perspective* presents a South African perspective of international law. The basic principles of international law are described and examined with reference to the principal sources of international law. This examination, however, takes place within the context of South African law. South African state practice, judicial decisions and legislation on international law receive equal treatment with international law as it is practised and taught abroad. The present work is designed to assist judicial officers and practitioners, educate students, and guide diplomats in the intricacies of international law both at home in South Africa and abroad.

## Law and the Party in Xi Jinping's China

### Ideology and Organization

[Cambridge University Press](#) In the Xi Jinping era, it has become clear that the rule of law, as understood in the West, will not appear in China soon. But was this ever a likely option? This book argues China's legal system needs to be studied from an internal perspective, to take into account the characteristic architecture of China's Party-state. To do so, it addresses two key elements: ideology and organisation. Part One of the book discusses ideology and the law, exploring how the Chinese Communist Party conceives of the nature of law and its position within its broader range of policy tools. Part Two, on organisation and the law, reviews how these ideological principles manifest themselves in the application of law, as well as the reform of the Party-state. As such, it highlights how the Party's plans and approaches run counter to mainstream theoretical expectations, and advocates a greater attention to the inherent logic of the system itself.

## Concise Computer Vision

### An Introduction into Theory and Algorithms

[Springer Science & Business Media](#) This textbook provides an accessible general introduction to the essential topics in computer vision. Classroom-tested programming exercises and review questions are also supplied at the end of each chapter. Features: provides an introduction to the basic notation and mathematical concepts for describing an image and the key concepts for mapping an image into an image; explains the topologic and geometric basics for analysing image regions and distributions of image values and discusses identifying patterns in an image; introduces optic flow for representing dense motion and various topics in sparse motion analysis; describes special approaches for image binarization and segmentation of still images or video frames; examines the basic components of a computer vision system; reviews different techniques for vision-based 3D shape reconstruction; includes a discussion of stereo matchers and the phase-congruency model for image features; presents an introduction into classification and learning.

## The Mathematical Theory of Communication

[University of Illinois Press](#) Scientific knowledge grows at a phenomenal pace—but few books have had as lasting an impact or played as important a role in our modern world as *The Mathematical Theory of Communication*, published originally as a paper on communication theory more than fifty years ago. Republished in book form shortly thereafter, it has since gone through four hardcover and sixteen paperback printings. It is a revolutionary work, astounding in its foresight and contemporaneity. The University of Illinois Press is pleased and honored to issue this commemorative reprinting of a classic.

## Vehicle Dynamics

### Theory and Application

[Springer Science & Business Media](#) This textbook is appropriate for senior undergraduate and first year graduate students in mechanical and automotive engineering. The contents in this book are presented at a theoretical-practical level. It explains vehicle dynamics concepts in detail, concentrating on their practical use. Related theorems and formal proofs are provided, as are real-life applications. Students, researchers and practicing engineers alike will appreciate the user-friendly presentation of a wealth of topics, most notably steering, handling, ride, and related components. This book also: Illustrates all key concepts with examples Includes exercises for each chapter Covers front, rear, and four wheel steering systems, as well as the advantages and disadvantages of different steering schemes Includes an emphasis on design throughout the text, which provides a practical, hands-on approach

## Solar Engineering of Thermal Processes

[Wiley](#) The updated, cornerstone engineering resource of solar energy theory and applications. Solar technologies already provide energy for heat, light, hot water, electricity, and cooling for homes, businesses, and industry. Because solar energy only accounts for one-tenth of a percent of primary energy demand, relatively small increases in market penetration can lead to very rapid growth rates in the industry—??which is exactly what has been projected for coming years as the world moves away from carbon-based energy production. *Solar Engineering of Thermal Processes, Third Edition* provides the latest thinking and practices for engineering solar technologies and using them in various markets. This Third Edition of the acknowledged leading book on solar engineering features: Complete coverage of basic theory, systems design, and applications Updated material on such cutting-edge topics as photovoltaics and wind power systems New homework problems and exercises

## The Energy Index

### Applied Multivariate Statistical Analysis (Classic Version)

[Pearson](#) This title is part of the Pearson Modern Classics series. Pearson Modern Classics are acclaimed titles at a value price. Please visit [www.pearsonhighered.com/math-classics-series](http://www.pearsonhighered.com/math-classics-series) for a complete list of titles. For courses in Multivariate Statistics, Marketing Research, Intermediate Business Statistics, Statistics in Education, and graduate-level courses in Experimental Design and Statistics. Appropriate for experimental scientists in a variety of disciplines, this market-leading text offers a readable introduction to the statistical analysis of multivariate observations. Its primary goal is to impart the knowledge necessary to make proper interpretations and select appropriate techniques for analyzing multivariate data. Ideal for a junior/senior or graduate level course that explores the statistical methods for describing and analyzing multivariate data, the text assumes two or more statistics courses as a prerequisite.

## Computer Science

### An Overview

[Addison-Wesley Longman](#) *Computer Science: An Overview* uses broad coverage and clear exposition to present a complete picture of the dynamic computer science field. Accessible to students from all backgrounds, Glenn Brookshear uses a language-independent context to encourage the development of a practical, realistic understanding of the field. An overview of each of the important areas of Computer Science (e.g. Networking, OS, Computer Architecture, Algorithms) provides students with a general level of proficiency for future courses. The Eleventh Edition features two new contributing authors (David Smith — Indiana University of PA; Dennis Brylow — Marquette University), new, modern examples, and updated coverage based on current technology.

## Navy Planning, Programming, Budgeting and Execution

### A Reference Guide for Senior Leaders, Managers, and Action Officers

This tool documents key but enduring aspects of how the Navy implements the Planning, Programming, Budgeting, and Execution process so that action officers and Navy leaders can successfully navigate and effectively contribute to the process.

## Economic and Management Sciences, Grade 8

Study & master economic and management sciences grade 8 has been especially developed by an experienced author team for the Curriculum and Assessment Policy Statement (CAPS). This new and easy-to-use course helps learners to master essential content and skills in economic and management sciences.

## Knowledge Graphs

[Morgan & Claypool Publishers](#) This book provides a comprehensive and accessible introduction to knowledge graphs, which have recently garnered notable attention from both industry and academia. Knowledge graphs are founded on the principle of applying a graph-based abstraction to data, and are now broadly deployed in scenarios that require integrating and extracting value from multiple, diverse sources of data at large scale. The book defines knowledge graphs and provides a high-level overview of how they are used. It presents and contrasts popular graph models that are commonly used to represent data as graphs, and the languages by which they can be queried before describing how the resulting data graph can be enhanced with notions of schema, identity, and context. The book discusses how ontologies and rules can be used to encode knowledge as well as how inductive techniques—based on statistics, graph analytics, machine learning, etc.—can be used to encode and extract knowledge. It covers techniques for the creation, enrichment, assessment, and refinement of knowledge graphs and surveys recent open and enterprise knowledge graphs and the industries or applications within which they have been most widely adopted. The book closes by discussing the current limitations and future directions along which knowledge graphs are likely to evolve. This book is aimed at students, researchers, and practitioners who wish to learn more about knowledge graphs and how they facilitate extracting value from diverse data at large scale. To make the book accessible for newcomers, running examples and graphical notation are used throughout. Formal definitions and extensive references are also provided for those who opt to delve more deeply into specific topics.

## Quantum Computing

### Progress and Prospects

[National Academies Press](#) Quantum mechanics, the subfield of physics that describes the behavior of very small (quantum) particles, provides the basis for a new paradigm of computing. First proposed in the 1980s as a way to improve computational modeling of quantum systems, the field of quantum computing has recently garnered significant attention due to progress in building small-scale devices. However, significant technical advances will be required before a large-scale, practical quantum computer can be achieved. *Quantum Computing: Progress and Prospects* provides an introduction to the field, including the unique characteristics and constraints of the technology, and assesses the feasibility and implications of creating a functional quantum computer capable of addressing real-world problems. This report considers hardware and software requirements, quantum algorithms, drivers of advances in quantum computing and quantum devices, benchmarks associated with relevant use cases, the time and resources required, and how to assess the probability of success.

## The Power of Culture Encounters between China and the United States

[Cambridge Scholars Publishing](#) China and the United States, two massive economic and military powers, cannot avoid engaging with each other. Enjoying what is often termed “the most important bilateral relationship in the world”, the two sometimes cooperate, but often compete, as their interests come into conflict. Both countries are separated not just by the Pacific Ocean, but also by their very different histories, experiences, societies, customs, and outlooks. Non-governmental, unofficial relationships and exchanges are often as important as formal dealings in determining the climate of Sino-American relations. For several decades in the mid-twentieth century, Chinese and Americans were virtually isolated from each other, trapped in icy hostility. Chinese scholars are now making up for lost time. This assortment of essays, most by mainland Chinese academics and students, focuses upon the role of culture - very broadly defined - in Sino-American affairs. Taking a holistic approach, in this collection over thirty authors focus on such topics as the influence of ideology, the impact of geopolitics, the use of rhetoric, soft power, educational encounters and exchanges, immigration, gender, race, identity, literature, television, movies, music, and the press. Cultural factors are, as the authors demonstrate, enormously significant in affecting how Chinese and Americans think about and approach each other, both as individuals and at the state level.

## Financial Management of Flood Risk

[OECD Publishing](#) Disasters present a broad range of human, social, financial, economic and environmental impacts, with potentially long-lasting effects. This report applies the lessons from the OECD's analysis of disaster risk financing practices and its risk guidance to the specific case of floods.

## Modern Industrial Statistics

### with applications in R, MINITAB and JMP

[John Wiley & Sons](#) Fully revised and updated, this book combines a theoretical background with examples and references to R, MINITAB and JMP, enabling practitioners to find state-of-the-art material on both foundation and implementation tools to support their work. Topics addressed include computer-intensive data analysis, acceptance sampling, univariate and multivariate statistical process control, design of experiments, quality by design, and reliability using classical and Bayesian methods. The book can be used for workshops or courses on acceptance sampling, statistical process control, design of experiments, and reliability. Graduate and post-graduate students in the areas of statistical quality and engineering, as well as industrial statisticians, researchers and practitioners in these fields will all benefit from the comprehensive combination of theoretical and practical information provided in this single volume. **Modern Industrial Statistics: With applications in R, MINITAB and JMP:** Combines a practical approach with theoretical foundations and computational support. Provides examples in R using a dedicated package called MISTAT, and also refers to MINITAB and JMP. Includes exercises at the end of each chapter to aid learning and test knowledge. Provides over 40 data sets representing real-life case studies. Is complemented by a comprehensive website providing an introduction to R, and installations of JMP scripts and MINITAB macros, including effective tutorials with introductory material: [www.wiley.com/go/modern\\_industrial\\_statistics](http://www.wiley.com/go/modern_industrial_statistics).

## IBM Power Systems SR-IOV: Technical Overview and Introduction

[IBM Redbooks](#) This IBM® Redpaper™ publication describes the adapter-based virtualization capabilities that are being deployed in high-end IBM POWER7+™ processor-based servers. Peripheral Component Interconnect Express (PCIe) single root I/O virtualization (SR-IOV) is a virtualization technology on IBM Power Systems servers. SR-IOV allows multiple logical partitions (LPARs) to share a PCIe adapter with little or no run time involvement of a hypervisor or other virtualization intermediary. SR-IOV does not replace the existing virtualization capabilities that are offered as part of the IBM PowerVM® offerings. Rather, SR-IOV compliments them with additional capabilities. This paper describes many aspects of the SR-IOV technology, including: A comparison of SR-IOV with standard virtualization technology Overall benefits of SR-IOV Architectural overview of SR-IOV Planning requirements SR-IOV deployment models that use standard I/O virtualization Configuring the adapter for dedicated or shared modes Tips for maintaining and troubleshooting your system Scenarios for configuring your system This paper is directed to clients, IBM Business Partners, and system administrators who are involved with planning, deploying, configuring, and maintaining key virtualization technologies.

## Mathematical Statistics with Applications in R

[Elsevier](#) **Mathematical Statistics with Applications in R, Second Edition**, offers a modern calculus-based theoretical introduction to mathematical statistics and applications. The book covers many modern statistical computational and simulation concepts that are not covered in other texts, such as the Jackknife, bootstrap methods, the EM algorithms, and Markov chain Monte Carlo (MCMC) methods such as the Metropolis algorithm, Metropolis-Hastings algorithm and the Gibbs sampler. By combining the discussion on the theory of statistics with a wealth of real-world applications, the book helps students to approach statistical problem solving in a logical manner. This book provides a step-by-step procedure to solve real problems, making the topic more accessible. It includes goodness of fit methods to identify the probability distribution that characterizes the probabilistic behavior or a given set of data. Exercises as well as practical, real-world chapter projects are included, and each chapter has an optional section on using Minitab, SPSS and SAS commands. The text also boasts a wide array of coverage of ANOVA, nonparametric, MCMC, Bayesian and empirical methods; solutions to selected problems; data sets; and an image bank for students. Advanced undergraduate and graduate students taking a one or two semester mathematical statistics course will find this book extremely useful in their studies. Step-by-step procedure to solve real problems, making the topic more accessible Exercises blend theory and modern applications Practical, real-world chapter projects Provides an optional section in each chapter on using Minitab, SPSS and SAS commands Wide array of coverage of ANOVA, Nonparametric, MCMC, Bayesian and empirical methods

## Communicating Science

### A Global Perspective

[ANU Press](#) Modern science communication has emerged in the twentieth century as a field of study, a body of practice and a profession—and it is a practice with deep historical roots. We have seen the birth of interactive science centres, the first university actions in teaching and conducting research, and a sharp growth in employment of science communicators. This collection charts the emergence of modern science communication across the world. This is the first volume to map investment around the globe in science centres, university courses and research, publications and conferences as well as tell the national stories of science communication. How did it all begin? How has development varied from one country to another? What motivated governments, institutions and people to see science communication as an answer to questions of the social place of science? **Communicating Science** describes the pathways followed by 39 different countries. All continents and many cultures are represented. For some countries, this is the first time that their science communication story has been told.

## Neural Network Design

### Minefill 2020-2021

## Proceedings of the 13th International Symposium on Mining with Backfill, 25-28 May 2021, Katowice, Poland

[CRC Press](#) The series of International Symposia on Mining with Backfill explores both the theoretical and practical aspects of the application of mine fill, with many case studies from both underground and open-pit mines. Minefill attendees and the Proceedings book audience include mining practitioners, engineering students, operating and regulatory professionals, consultants, academics, researchers, and interested individuals and groups. The papers presented at Minefill symposia regularly offer the novelties and most modern technical solutions in technology, equipment, and research. In that way, the papers submitted for the Minefill Symposia represent the highest quality and level in the conference domain. For the 2020-2021 edition organizers hope that the papers presented in this publication will also be received with interest by readers around the world, providing inspiration and valuable examples for industry and R&D research.

## Linear Programming

## Foundations and Extensions

**Springer Science & Business Media** This Fourth Edition introduces the latest theory and applications in optimization. It emphasizes constrained optimization, beginning with a substantial treatment of linear programming and then proceeding to convex analysis, network flows, integer programming, quadratic programming, and convex optimization. Readers will discover a host of practical business applications as well as non-business applications. Topics are clearly developed with many numerical examples worked out in detail. Specific examples and concrete algorithms precede more abstract topics. With its focus on solving practical problems, the book features free C programs to implement the major algorithms covered, including the two-phase simplex method, primal-dual simplex method, path-following interior-point method, and homogeneous self-dual methods. In addition, the author provides online JAVA applets that illustrate various pivot rules and variants of the simplex method, both for linear programming and for network flows. These C programs and JAVA tools can be found on the book's website. The website also includes new online instructional tools and exercises.

## Perspectives on Ontology Learning

**IOS Press** Perspectives on Ontology Learning brings together researchers and practitioners from different communities – natural language processing, machine learning, and the semantic web – in order to give an interdisciplinary overview of recent advances in ontology learning. Starting with a comprehensive introduction to the theoretical foundations of ontology learning methods, the edited volume presents the state-of-the-start in automated knowledge acquisition and maintenance. It outlines future challenges in this area with a special focus on technologies suitable for pushing the boundaries beyond the creation of simple taxonomical structures, as well as on problems specifically related to knowledge modeling and representation using the Web Ontology Language. Perspectives on Ontology Learning is designed for researchers in the field of semantic technologies and developers of knowledge-based applications. It covers various aspects of ontology learning including ontology quality, user interaction, scalability, knowledge acquisition from heterogeneous sources, as well as the integration with ontology engineering methodologies.

## Disciplinary Convergence in Systems Engineering Research

**Springer** The theme of this volume on systems engineering research is disciplinary convergence: bringing together concepts, thinking, approaches, and technologies from diverse disciplines to solve complex problems. Papers presented at the Conference on Systems Engineering Research (CSER), March 23-25, 2017 at Redondo Beach, CA, are included in this volume. This collection provides researchers in academia, industry, and government forward-looking research from across the globe, written by renowned academic, industry and government researchers.

## Advances in Tourism, Technology and Systems

### Selected Papers from ICOTTS20, Volume 2

**Springer Nature** This book features a collection of high-quality research papers presented at the International Conference on Tourism, Technology & Systems (ICOTTS 2020), held at the University of Cartagena, in Cartagena de Indias, Colombia, from 29th to 31st October 2020. The book is divided into two volumes, and it covers the areas of technology in tourism and the tourist experience, generations and technology in tourism, digital marketing applied to tourism and travel, mobile technologies applied to sustainable tourism, information technologies in tourism, digital transformation of tourism business, e-tourism and tourism 2.0, big data and management for travel and tourism, geotagging and tourist mobility, smart destinations, robotics in tourism, and information systems and technologies.

## Safe Use of Wastewater in Agriculture

### From Concept to Implementation

**Springer** This book offers a broad and global level description of the current status of wastewater use in agriculture and then brings the readers to various places in the MENA Region and Europe to explain how some countries and regions have addressed the challenges during implementation. On a global scale, over 20 million hectares of agricultural land are irrigated using wastewater. This is one good, and perhaps the most prominent, example of the safe use potential of wastewater. Water scarcity and the cost of energy and fertilisers are among the main factors driving millions of farmers and other entrepreneurs to make use of wastewater. In order to address the technical, institutional, and policy challenges of safe water reuse, developing countries and countries in transition need clear institutional arrangements and more skilled human resources, with a sound understanding of the opportunities and potential risks of wastewater use. Stakeholders in wastewater irrigation who need to implement from scratch or improve current conditions, find it difficult to gather the necessary information on practical implementation aspects. The main objective of this book is to bridge that gap.