Optimal Solutions Group Llc

State, Foreign Operations, and Related Programs Appropriations for 2014Fuzzy Multiple Objective Decision MakingDirectory of MembersD and B Million Dollar DirectoryWards Business DirectorySimilarity Methods for Differential EquationsDeveloping Intelligent Agents for Distributed SystemsLeadership of Networks and PerformanceInvisible SolutionsMeasuring progress toward empowerment:Brands and Their CompaniesBIA's Radio YearbookGeneralized Convexity, Nonsmooth Variational Inequalities, and Nonsmooth OptimizationGenetic Algorithms in Engineering and Computer ScienceRetooling for GrowthOptimal Control with Aerospace ApplicationsMinding the GapSubgame Consistent Economic OptimizationOptimal Control for Chemical EngineersFortnightly's Energy Customer ManagementReal-Time RenderingBrands and Their CompaniesUnderstanding Information Retrieval SystemsThe Complete Guide to the Illinois Software IndustryGuidance of Unmanned Aerial VehiclesThe Directory of Executive Recruiters, 2005-2006The Gulf DirectoryOptimal Control SystemsAutomatic Defense Against Zero-day Polymorphic Worms in Communication NetworksAmerican Educational Research Association Annual Meeting ProgramAging WellOfficial Gazette of the United States Patent and Trademark OfficeWashington RepresentativesRegional Industrial Buying GuideAnn Arbor Business Directory & Business Buyer's GuideIndustry, University and Government Partnerships for the Sustainable Development of Knowledge-Based SocietyLexisNexis Corporate AffiliationsThe Opportunity CompactD & B Consultants DirectoryO'Dwyer's Directory of Public Relations Firms

State, Foreign Operations, and Related Programs Appropriations for 2014

Solve Any Problem Faster, with Less Risk and Lower CostUnprecedented access to infinite solutions has led us to realize that having all of the answers is not the answer. From innovation teams to creativity experts to crowdsourcing, we've turned from one source to another, spending endless cycles pursuing piecemeal solutions to each challenge we face.What if your organization had an effective and systematic approach to deal with any problem? To find better solutions, you need to first ask better questions. The questions you ask determine which solutions you'll see and which will remain hidden.This compact yet powerful book contains the formulas to reframe any problem multiple ways, using 25 lenses to help you gain different perspectives. With visual examples and guidance, it contains everything you need to master any challenge.This book will help you:? Discover why we are hardwired to ask ineffective questions and learn to work through those barriers.? Understand the power and importance of well-defined questions.? Reframe any problem multiple ways to help you find the optimal solution.? Move from idea-based innovation to question-based innovation that drives higher ROI.Apply just one of the lenses and you will quickly discover better solutions. Apply all of them and you will be able to solve any problem-in business and in life.

Fuzzy Multiple Objective Decision Making

Directory of Members

D and B Million Dollar Directory

Able to propagate quickly and change their payload with each infection, polymorphic worms have been able to evade even the most advanced intrusion detection systems (IDS). And, because zero-day worms require only seconds to launch flooding attacks on your servers, using traditional methods such as manually creating and storing signatures to defend against these threats is just too slow. Bringing together critical knowledge and research on the subject, Automatic Defense Against Zero-day Polymorphic Worms in Communication Networks details a new approach for generating automated signatures for unknown polymorphic worms. It presents experimental results on a new method for polymorphic worm detection and examines experimental implementation of signature-generation algorithms and double-honeynet systems. If you need some background, the book includes an overview of the fundamental terms and concepts in network security, including the various security models. Clearing up the misconceptions about the value of honeypots, it explains how they can be useful in securing your networks, and identifies open-source tools you can use to create your own honeypot. There's also a chapter with references to helpful reading resources on automated signature generation systems. The authors describe cutting-edge attack detection approaches and detail new algorithms to help you generate your own automated signatures for polymorphic worms. Explaining how to test the quality of your generated signatures, the text will help you develop the understanding required to effectively protect your communication networks. Coverage includes intrusion detection and prevention systems (IDPS), zero-day polymorphic worm collection methods, double-honeynet system configurations, and the implementation of double-honeynet architectures.

Wards Business Directory

Similarity Methods for Differential Equations

Until now, no book addressed convexity, monotonicity, and variational inequalities together. Generalized Convexity, Nonsmooth Variational Inequalities, and Nonsmooth Optimization covers all three topics, including new variational inequality problems defined by a bifunction. The first part of the book focuses on generalized convexity and generalized monotonicity. The authors investigate convexity and generalized convexity for both the differentiable and nondifferentiable case. For the nondifferentiable case, they introduce the concepts in terms of a bifunction and the Clarke subdifferential. The second part offers insight into variational inequalities and optimization problems in smooth as well as nonsmooth settings. The book discusses existence and uniqueness criteria for a variational inequality, the gap function associated with it, and numerical methods to solve it. It also examines characterizations of a solution set of an optimization problem and explores variational inequalities defined by a bifunction and set-valued version given in terms of the Clarke subdifferential. Integrating results on

convexity, monotonicity, and variational inequalities into one unified source, this book deepens your understanding of various classes of problems, such as systems of nonlinear equations, optimization problems, complementarity problems, and fixed-point problems. The book shows how variational inequality theory not only serves as a tool for formulating a variety of equilibrium problems, but also provides algorithms for computational purposes.

Developing Intelligent Agents for Distributed Systems

In contrast to hierarchical leadership within intra-organizational contexts, leaders of inter-organizational networks have to lead across organizational boundaries without hierarchical fiat or directive authority. The central research question of Susanne Ruckdäschel is how leadership behavior of network managers can influence network performance. Hereby, relational leadership in the form of empowering leadership is regarded as decisive criterion. Her study focuses on the interplay between network leaders and network companies. The perspectives of both the network managers and the network members are illuminated. Therefore, first, a mixed methods study is conducted from the perspective of the network managers and second, a quantitative analysis based on a structural equation model focuses on the perspective of the network members.

Leadership of Networks and Performance

This book discusses the rapidly growing interest in economic diversification through partnerships between industry, university and government (IUGP), with a focus on the economic diversification of the state of Qatar. It provides a comparative account of the knowledge ecosystem in the USA, Norway, Singapore and Qatar, and offers an evolutionary, national economic-transformational perspective on legislation, institutional and cultural settings, intermediary structures, and support programs. Providing a broad overview of the knowledge ecosystems in these countries, it is suitable for readers at various learning levels. It also includes case studies and a concise comparison of the Global Innovation Index (GII) of the four countries, and explores in detail the under-par comparative performance of Qatar, revealing that the country is still at the engagement level of IUGP. Further, it proposes evidence-based recommendations and strategies, making it a valuable resource for researchers, graduate students and policymakers.

Invisible Solutions

"Offers achievable strategies for revitalizing industrial areas and building upon the potential of overlooked resources of economic, physical, and cultural significance. Addresses such challenges as fostering entrepreneurship, reducing poverty and inequality, and augmenting the number of skilled professionals. Provides analysis of healthy economic development practices for public and private sectors"--Provided by publisher.

Measuring progress toward empowerment:

Brands and Their Companies

In order to be effective for their users, information retrieval (IR) systems should be adapted to the specific needs of particular environments. The huge and growing array of types of information retrieval systems in use today is on display in Understanding Information Retrieval Systems: Management, Types, and Standards, which addresses over 20 typ

BIA's Radio Yearbook

Consumers today expect extremely realistic imagery generated in real time for interactive applications such as computer games, virtual prototyping, and scientific visualisation. However, the increasing demands for fidelity coupled with rapid advances in hardware architecture pose a challenge: how do you find optimal, sustainable solutions to accommodate both speed of rendering and quality? Real-Time Rendering: Computer Graphics with Control Engineering presents a novel framework for solving the perennial challenge of resource allocation and the trade-off between quality and speed in interactive computer graphics rendering. Conventional approaches are mainly based on heuristics and algorithms, are largely application specific, and offer fluctuating performance, particularly as applications become more complex. The solution proposed by the authors draws on powerful concepts from control engineering to address these shortcomings. Expanding the horizon of real-time rendering techniques, this book: Explains how control systems work with real-time computer graphics Proposes a data-driven modelling approach that more accurately represents the system behaviour of the rendering process Develops a control system strategy for linear and non-linear models using proportional, integral, derivative (PID) and fuzzy control techniques Uses real-world data from rendering applications in proof-of-concept experiments Compares the proposed solution to existing techniques Provides practical details on implementation, including references to tools and source code This pioneering work takes a major step forward by applying control theory in the context of a computer graphics system. Promoting cross-disciplinary research, it offers guidance for anyone who wants to develop more advanced solutions for real-time computer graphics rendering.

Generalized Convexity, Nonsmooth Variational Inequalities, and Nonsmooth Optimization

Genetic Algorithms in Engineering and Computer Science

Retooling for Growth

Optimal Control with Aerospace Applications

Minding the Gap

The theory of optimal control systems has grown and flourished since the 1960's. Many texts, written on varying levels of sophistication, have been published on the subject. Yet even those purportedly designed for beginners in the field are often riddled with complex theorems, and many treatments fail to include topics that are essential to a thorough grounding in the various aspects of and approaches to optimal control. Optimal Control Systems provides a comprehensive but accessible treatment of the subject with just the right degree of mathematical rigor to be complete but practical. It provides a solid bridge between "traditional" optimization using the calculus of variations and what is called "modern" optimal control. It also treats both continuous-time and discrete-time optimal control systems, giving students a firm grasp on both methods. Among this book's most outstanding features is a summary table that accompanies each topic or problem and includes a statement of the problem with a step-by-step solution. Students will also gain valuable experience in using industry-standard MATLAB and SIMULINK software, including the Control System and Symbolic Math Toolboxes. Diverse applications across fields from power engineering to medicine make a foundation in optimal control systems an essential part of an engineer's background. This clear, streamlined presentation is ideal for a graduate level course on control systems and as a quick reference for working engineers.

Subgame Consistent Economic Optimization

Multi-objective programming (MOP) can simultaneously optimize multi-objectives in mathematical programming models, but the optimization of multi-objectives triggers the issue of Pareto solutions and complicates the derived answers. To address these problems, researchers often incorporate the concepts of fuzzy sets and evolutionary algorithms into MOP models. Focusing on the methodologies and applications of this field, Fuzzy Multiple Objective Decision Making presents mathematical tools for complex decision making. The first part of the book introduces the most popular methods used to calculate the solution of MOP in the field of multiple objective decision making (MODM). The authors describe multi-objective evolutionary algorithms; expand de novo programming to changeable spaces, such as decision and objective spaces; and cover network data envelopment analysis. The second part focuses on various applications, giving readers a practical, in-depth understanding of MODM. A follow-up to the authors' Multiple Attribute Decision Making: Methods and Applications, this book guides practitioners in using MODM methods to make effective decisions. It also extends students' knowledge of the methods and provides researchers with the foundation to publish papers in operations research and management science journals.

Optimal Control for Chemical Engineers

At its core, Minding the Gap develops a system that allows every student to earn a college degree. It also investigates the widening gap between economically-privileged and underprivileged students and if degrees bridge that gap.

Fortnightly's Energy Customer Management

Real-Time Rendering

This report provides a comprehensive analysis of the Women□s Empowerment in Agriculture Index (WEAI) baseline survey results, summarizing both findings from the WEAI survey and the relationships between the WEAI and various outcomes of interest to the US Government□s Feed the Future initiative. These poverty, health, and nutrition outcomes include both factors that might affect empowerment and outcomes that might result from empowerment. The analysis includes thirteen countries from five regions and compares their baseline survey scores. WEAI scores range from a high of 0.98 in Cambodia to a low of 0.66 in Bangladesh.

Brands and Their Companies

Understanding Information Retrieval Systems

Various imperfections in existing market systems prevent the free market from serving as a truly efficient allocation mechanism, but optimization of economic activities provides an effective remedial measure. Cooperative optimization claims that socially optimal and individually rational solutions to decision problems involving strategic action over time exist. To ensure that cooperation will last throughout the agreement period, however, the stringent condition of subgame consistency is required. This textbook presents a study of subgame consistent economic optimization, developing game-theoretic optimization techniques to establish the foundation for an effective policy menu to tackle the suboptimal behavior that the conventional market mechanism fails to resolve.

The Complete Guide to the Illinois Software Industry

Guidance of Unmanned Aerial Vehicles

The Directory of Executive Recruiters, 2005-2006

The Gulf Directory

The aim of this book is to provide a systematic and practical account of methods of integration of ordinary and partial differential equations based on invariance under continuous (Lie) groups of trans formations. The goal of these methods is the expression of a solution in terms of quadrature in the case of ordinary differential equations of first order and a reduction in order for higher order equations. For partial differential equations at least a reduction in the number of independent variables is sought and in favorable cases a reduction to ordinary differential equations with special solutions or quadrature. In the last century, approximately one hundred years ago, Sophus Lie tried to construct a general integration theory, in the above sense, for ordinary differential equations. Following Abel's approach for algebraic equations he studied the invariance of ordinary differential equations

under transformations. In particular, Lie introduced the study of continuous groups of transformations of ordinary differential equations, based on the infinitesimal properties of the group. In a sense the theory was completely successful. It was shown how for a first-order differential equation the knowledge of a group leads immediately to quadrature, and for a higher order equation (or system) to a reduction in order. In another sense this theory is somewhat disappointing in that for a first-order differ ential equation essentially no systematic way can be given for finding the groups or showing that they do not exist for a first-order differential equation.

Optimal Control Systems

Genetic Algorithms in Engineering and Computer Science Edited by G. Winter University of Las Palmas, Canary Islands, Spain J. Périaux Dassault Aviation, Saint Cloud, France M. Galán P. Cuesta University of Las Palmas, Canary Islands, Spain This attractive book alerts us to the existence of evolution based software — Genetic Algorithms and Evolution Strategies—used for the study of complex systems and difficult optimization problems unresolved until now. Evolution algorithms are artificial intelligence techniques which mimic nature according to the "survival of the fittest" (Darwin's principle). They randomly encode physical (quantitative or qualitative) variables via digital DNA inside computers and are known for their robustness to better explore large search spaces and find near-global optima than traditional optimization methods. The objectives of this volume are two-fold: to present a compendium of state-of-the-art lectures delivered by recognized experts in the field on theoretical, numerical and applied aspects of Genetic Algorithms for the computational treatment of continuous, discrete and combinatorial optimization problems. to provide a bridge between Artificial Intelligence and Scientific Computing in order to increase the performance of evolution programs for solving real life problems. Fluid dynamics, structure mechanics, electromagnetics, automation control, resource optimization, image processing and economics are the featured multi-disciplinary areas among others in Engineering and Applied Sciences where evolution works impressively well. This volume is aimed at graduate students, applied mathematicians, computer scientists, researchers and engineers who face challenging design optimization problems in Industry. They will enjoy implementing new programs using these evolution techniques which have been experimented with by Nature for 3.5 billion years.

Automatic Defense Against Zero-day Polymorphic Worms in Communication Networks

Want to know not just what makes rockets go up but how to do it optimally? Optimal control theory has become such an important field in aerospace engineering that no graduate student or practicing engineer can afford to be without a working knowledge of it. This is the first book that begins from scratch to teach the reader the basic principles of the calculus of variations, develop the necessary conditions step-by-step, and introduce the elementary computational techniques of optimal control. This book, with problems and an online solution manual, provides the graduate-level reader with enough introductory knowledge so

that he or she can not only read the literature and study the next level textbook but can also apply the theory to find optimal solutions in practice. No more is needed than the usual background of an undergraduate engineering, science, or mathematics program: namely calculus, differential equations, and numerical integration. Although finding optimal solutions for these problems is a complex process involving the calculus of variations, the authors carefully lay out step-by-step the most important theorems and concepts. Numerous examples are worked to demonstrate how to apply the theories to everything from classical problems (e.g., crossing a river in minimum time) to engineering problems (e.g., minimum-fuel launch of a satellite). Throughout the book use is made of the time-optimal launch of a satellite into orbit as an important case study with detailed analysis of two examples: launch from the Moon and launch from Earth. For launching into the field of optimal solutions, look no further!

American Educational Research Association Annual Meeting Program

Aging Well

Offers advice for candidates and clients, and lists both retainer and contingency recruiting firms

Official Gazette of the United States Patent and Trademark Office

Washington Representatives

Regional Industrial Buying Guide

Optimal Control for Chemical Engineers gives a detailed treatment of optimal control theory that enables readers to formulate and solve optimal control problems. With a strong emphasis on problem solving, the book provides all the necessary mathematical analyses and derivations of important results, including multiplier theorems and Pontryagin’s principle. The text begins by introducing various examples of optimal control, such as batch distillation and chemotherapy, and the basic concepts of optimal control, including functionals and differentials. It then analyzes the notion of optimality, describes the ubiquitous Lagrange multipliers, and presents the celebrated Pontryagin principle of optimal control. Building on this foundation, the author examines different types of optimal control problems as well as the required conditions for optimality. He also describes important numerical methods and computational algorithms for solving a wide range of optimal control problems, including periodic processes. Through its lucid development of optimal control theory and computational algorithms, this self-contained book shows readers how to solve a variety of optimal control problems.

Ann Arbor Business Directory & Business Buyer's Guide

Industry, University and Government Partnerships for the Sustainable Development of Knowledge-Based Society

"This open access book outlines the challenges of supporting the health and wellbeing of older adults around the world and offers examples of solutions designed by stakeholders, healthcare providers, and public, private and nonprofit organizations in the United States. The solutions presented address challenges including: providing person-centered long-term care, making palliative care accessible in all healthcare settings and the home, enabling aging-in-place, financing long-term care, improving care coordination and access to care, delivering hospital-level and emergency care in the home and retirement community settings, merging health and social care, supporting people living with dementia and their caregivers, creating communities and employment opportunities that are accessible and welcoming to those of all ages and abilities, and combating the stigma of aging. The innovative programs of support and care in Aging Well serve as models of excellence that, when put into action, move health spending toward a sustainable path and greatly contribute to the well-being of older adults."--Provided by publisher.

LexisNexis Corporate Affiliations

The Opportunity Compact

D & B Consultants Directory

Written by an expert with more than 30 years of experience, Guidance of Unmanned Aerial Vehicles contains new analytical results, taken from the author’s research, which can be used for analysis and design of unmanned aerial vehicles guidance and control systems. This book progresses from a clear elucidation of guidance laws and unmanned aerial vehicle dynamics to the modeling of their guidance and control systems. Special attention is paid to guidance of autonomous UAVs, which differs from traditional missile guidance. The author explains UAV applications, contrasting them to a missile’s limited ability (or inability) to control axial acceleration. The discussion of guidance laws for UAVs presents a generalization of missile guidance laws developed by the author. The computational algorithms behind these laws are tested in three applications—for the surveillance problem, the refueling problem, and for the motion control of a swarm of UAVs. The procedure of choosing and testing the guidance laws is also considered in an example of future generation of airborne interceptors launched from UAVs. The author provides an innovative presentation of the theoretical aspects of unmanned aerial vehicles’ guidance that cannot be found in any other book. It presents new ideas that, once crystallized, can be implemented in the new generation of unmanned aerial systems.

O'Dwyer's Directory of Public Relations Firms

Now professional software developers working in highly complex distributed environments can learn how to create agents for client/server environments. This book clearly explains the programming of agents for improving user interfaces, for improving performance and usability of LANS and WANS, for managing mail, and even for assisting in the development of other software.

ROMANCE ACTION & ADVENTURE MYSTERY & THRILLER BIOGRAPHIES & HISTORY CHILDREN'S YOUNG ADULT FANTASY HISTORICAL FICTION HORROR LITERARY FICTION NON-FICTION SCIENCE FICTION