An Introduction To Efficiency And Productivity Analysis

This text is designed as a primer for anyone seeking an introduction to efficiency and productivity analysis by offering a unified text presentation of four different methods. It also provides detailed advice on computer programs which can be used to calculate the various measures.

This book analyses the theory of efficient breach in English sales law, European Union contract law and Chinese contract law. It analyses the framework of the efficient breach theory and reconsiders the implications of this theory. According to the traditional efficient breach theory, the remedy of expectation damages is able to motivate efficient breach, which brings the breaching party economic surplus without making the non-breaching party worse off. The essential problems are how to motivate contract parties to make rational decisions and how to solve cases where performance of a contract turns out to be less efficient after its conclusion. The second part of the book further extends the efficient breach theory to the study of contract law systems by analysing how exactly those laws react to breach and what solutions are adopted by them. The comparison of these three systems is more than a mere description of the differences and similarities in the content. More importantly, this comparative research also analyses whether or not the differences between these systems will influence the level of efficiency produced by each legal system by taking account of the different traditions and the concepts of contracts involved in each legal system. Researchers in contract law will also be interested in this approach, particularly for re-thinking the question of whether one legal system is definitely better or worse than the other two. (Series: Ius Commune Europaeum - Vol. 142) [Subject: Contract Law, Sales Law, European Law, Chinese Law, International Law]

Written by the leading expert in the field, this text reviews the major new developments in envelope models and methods An Introduction to Envelopes provides an overview of the theory and methods of envelopes, a class of procedures for increasing efficiency in multivariate analyses without altering traditional objectives. The author offers a balance between foundations and methodology by integrating illustrative examples that show how envelopes can be used in practice. He discusses how to use envelopes to target selected coefficients and explores predictor envelopes and their connection with partial least squares regression. The book reveals the potential for envelope methodology to improve estimation of a multivariate mean. The text also includes information on how envelopes can be used in generalized linear models, regressions with a matrix-valued response, and reviews work on sparse and Bayesian response envelopes. In addition, the text explores relationships between envelopes and other dimension reduction methods, including canonical correlations, reduced-rank regression, supervised singular value decomposition, sufficient dimension reduction, principal components, and principal fitted components. This important resource: • Offers a text written by the leading expert in this field • Describes groundbreaking work that puts the focus on this burgeoning area of study • Covers the important new developments in the field and highlights the most important directions • Discusses the underlying mathematics and linear algebra • Includes an online companion site with both R and Matlab support Written for researchers and graduate students in multivariate analysis and dimension reduction, as well as practitioners interested in statistical methodology, An Introduction to Envelopes offers the first book on the theory and methods of envelopes.

Because of the important national defense contribution of large, non-fighter aircraft, rapidly increasing fuel costs and increasing dependence on imported oil have triggered significant interest in increased aircraft engine efficiency by the U.S. Air Force. To help address this need, the Air Force asked the National Research Council (NRC) to examine and assess technical options for improving engine efficiency of all large non-fighter aircraft under Air Force command. This report presents a review of current Air Force fuel consumption patterns; an analysis of previous programs designed to replace aircraft engines; an examination of proposed engine modifications; an assessment of the potential impact of alternative fuels and engine science and technology programs, and an analysis of costs and funding requirements.

What every web developer should know about networking and web performance

Optimal Design and Retrofit of Energy Efficient Buildings, Communities, and Urban Centers

Introduction to Industrial Energy Efficiency

High Efficiency, Low Emission, Fuel Flexible Power Generation

An Introduction to Performance Mentalism

Energy Auditing, Energy Management, and Policy Issues

Exploring the Sixth Sense

There are many excellent R resources for visualization, data science, and package development. Hundreds of scattered vignettes, web pages, and forums explain how to use R in particular domains. But little has been written on how to simply make R work effectively—until now. This hands-on book teaches novices and experienced R users how to write efficient R code. Drawing on years of experience teaching R courses, authors Colin Gillespie and Robin Lovelace provide practical advice on a range of topics—from optimizing the set-up of RStudio to leveraging C++—that make this book a useful addition to any R user ' s bookshelf. Academics, business users, and programmers from a wide range of backgrounds stand to benefit from the guidance in Efficient R Programming. Get advice for setting up an R programming environment Explore general programming concepts and R coding techniques Understand the ingredients of an efficient R workflow Learn how to efficiently read and write data in R Dive into data carpentry—the vital skill for cleaning raw data Optimize your code with profiling, standard tricks, and other methods Determine your hardware capabilities for handling R computation Maximize the benefits of collaborative R programming Accelerate your transition from R hacker to R programmer

This volume systematically details both the basic principles and new developments in Data Envelopment Analysis (DEA), offering a solid understanding of the methodology, its uses, and its potential. New material in this edition includes coverage of recent developments that have greatly extended the power and scope of DEA and have lead to new directions for research and DEA uses. Each chapter accompanies its developments with simple numerical examples and discussions of actual applications. The first nine chapters cover the basic principles of DEA, while the final seven chapters provide a more advanced treatment.

Climate change is one of the most important environmental problems faced by Planet Earth. The majority of CO2 emissions come from burning fossil fuels for energy production and improvements in energy efficiency shows the greatest potential for any single strategy to abate global greenhouse gas (GHG) emissions from the energy sector. Energy related emissions account for almost 80% of the EU's total greenhouse gas emissions. The building sector is the largest energy user responsible for about 40% of the EU ' s total final energy consumption. In Europe the number of installed air conditioning systems has increased 500% over the last 20 years, but in that same period energy cooling needs have increased more than 20 times. The increase in energy cooling needs relates to the current higher living and working standards. In urban environments with low outdoor air quality (the general case) this means that in summer-time one cannot count on natural ventilation to reduce cooling needs. Do not forget the synergistic effect between heat waves and air pollution which means that outdoor air quality is worse in the summer aggravating cooling needs. Over the next few years this phenomenon will become much worse because more people will live in cities, more than 2 billion by 2050 and global warming will aggravate cooling needs. An overview of materials to lessen the impact of urban heat islands Excellent coverage of building materials to reduce air condtioning needs Innovative products discussed such as Thermo and Electrochromic materials

In this book the authors explore the state of the art on efficiency measurement in health systems and international experts offer insights into the pitfalls and potential associated with various measurement techniques. The authors show that: - The core idea of efficiency is easy to understand in principle - maximizing valued outputs relative to inputs, but is often difficult to make operational in real-life situations - There have been numerous advances in data collection and availability, as well as innovative methodological approaches that give valuable insights into how efficiently health care is delivered - Our simple analytical framework can facilitate the development and interpretation of efficiency indicators.

Improving the Efficiency of Engines for Large Nonfighter Aircraft

The Performance of Photovoltaic (PV) Systems

How Efficiency Replaced Equality in U.S. Public Policy

Aerosol Filtration

How Google Runs Production Systems

Dimension Reduction for Efficient Estimation in Multivariate Statistics

Inefficient Markets:An Introduction to Behavioral Finance

Praxiology: An introduction to the Sciences of Efficient Action deals with the general theory of achieving efficient actions. The concept of a praxiology and the technique of a praxiologist toward finding the most efficient way of achieving things are the concerns in this book. Praxiology is discussed as being the codification for practical behavior. The notions of praxiology is clarified and the tasks of registering and ordering what are already known and existing concepts of efficient work are gathered and presented. This book also shows the concepts of the simple act of the agent, the free impulse, material, tool, and product involved in any kind of external work that is undertaken. An analysis following instruments as the source of power in themselves is considered, because these instruments can exert pressure on the external work being done. This text then discusses action as a compound act or a collective act. Then, th author expounds that among other possibilities, there is only a fine possibility that an action can be done. Taken into consideration are the praxiological values, the economization, preparation, and instrumentalization of actions. The principles of co-operation are discussed, compared to struggling or negative cooperation, as leading to improved accomplishment and efficiency of work. The author adds that praxiology can be applied mentally as well, but he considers this as a special case. Psychologists, psychiatrists, work process engineers, and behavioral scientists will find this book illuminating and educational.

Performance of Bio-based Building Materials provides guidance on the use of bio-based building materials (BBBM) with respect to their performance. The book focuses on BBBM currently present on the European market. The state-of-the-art is presented regarding material properties, recommended uses, performance expectancies, testing methodology, and related standards. Chapters cover both 'old and traditional' BBBM since quite a few of them are experiencing a comeback on the market. Promising developments that could become commercial in the near future are presented as well. The book will be a valuable reference resource for those working in the bio-based materials research community, architects and agencies dealing with sustainable construction, and graduate students in civil engineering. Takes a unique approach to bio-based materials and presents a broad overview of the topics on relevant area necessary for application and promotion in construction Contains a general description, notable properties related to performance, and applications Presents standards that are structured according to performance types

Eco-efficient Construction and Building Materials reviews ways of assessing the environmental impact of construction and building materials. Part one discusses the application of life cycle assessment (LCA) methodology to building materials as well as eco-labeling. Part two includes case studies showing the application of LCA methodology to different types of building material, from cement and concrete to wood and adhesives used in building. Part three includes case studies applying LCA methodology to particular structures and components. Reviews ways of assessing the environmental impact of construction and building materials Provides a thorough overview, including strengths and shortcomings, of the life cycle assessment (LCA) and eco-labeling of eco-efficient construction and building materials Includes case studies showing the application of LCA methodology to different types of building material, from cement and concrete to wood and adhesives used in building

What are the most fundamental differences among the political economies of the developed world? How do national institutional differences condition economic performance, public policy, and social well-being? Will they survive the pressures for convergence generated by globalization and technological change? These have long been central questions in comparative political economy. This book provides a new and coherent set of answers to them. Building on the new economics of organization, the authors develop an important new theory about which differences among national political economies are mo significant for economic policy and performance. Drawing on a distinction between 'liberal' and 'coordinated' market economies, they argue that there is more than one path to economic success. Nations need not converge to a single Anglo-American model. They develop a new theory of 'comparative institutionaladvantage' that transforms our understanding of international trade, offersnew explanations for the response of firms and nations to the challenges of globalization, and provides a new theory of national interest to explain the conduct of nations in international relations. The analysis brings the firm back into the centre of comparative political economy. It provides new perspectives on economic and social policy-making that illuminate the role of business in the development of the welfare state and the dilemmas facing those who make economic policy in the contemporary world. Emphasizing the 'institutional complementarities' that link labour relations, corporate finance, and national legal systems, the authors bring interdisciplinary perspectives to bear on issues of strategic management, economic performance, and institutional change. This pathbreaking work sets new agendas in the study of comparative political economy. As such, it will be of value to academics and graduate students in economics, business, and political science, as well as tomany others with interests in international relations, social policy-making, and the law.

Handbook of Energy Efficiency in Buildings

Efficiency in Learning

Praxiology

Modern Gas Turbine Systems

An Introduction to Performance Analysis of Sport

Life Cycle Assessment (LCA), Eco-Labelling and Case Studies

This book provides fundamental theoretical concepts for the understanding, the modelling, and the optimisation of energy conversion and storage devices. The discussion is based on the general footing of efficiency-power relations and energy-power relations (Ragone plots). Efficiency and Power in Energy Conversion and Storage: Basic Physical Concepts, is written for engineers and scientists with a bachelor-degree level of knowledge in physics. It contains: An introductory motivation of the topic A review on equilibrium thermodynamics A primer to linear non-equilibrium thermodynamics and irreversible processes An introduction to endo-reversible thermodynamics The basics on the theory of Ragone plots Derivations of efficiency-power relations or Ragone plots for illustrative examples like heat engines, batteries, capacitors, kinetic energy storage devices, solar power, photodiodes, electro-motors, transformers, and flow turbines An excursion to impedance matching and the optimization of technical devices with respect to economic and related objectives

Learning Engineering for Online Education is a comprehensive overview of the emerging field of learning engineering, a form of educational optimization driven by analytics, design-based research, and fast-paced, large-scale experimentation. Chapters written by instructional design and distance learning innovators explore the theoretical context of learning engineering and provide design-based examples from top educational institutions. Concluding with an agenda for future research, this volume is essential for those interested in using data and high-quality outcome evidence to improve student engagement, instructional efficacy, and results in online and blended settings.

An Introduction to Efficiency and Productivity Analysis is designed as a primer for anyone seeking an authoritative introduction to efficiency and productivity analysis. It is a systematic treatment of four relatively new methodologies in Efficiency/Production Analysis: (a) Least-Squares Econometric Production Models, (b) Total Factor Productivity (TFP) Indices, (c) Data Envelopment Analysis (DEA), and (d) Stochastic Frontiers. Each method is discussed thoroughly. First, the basic elements of each method are discussed using models to illustrate the method's fundamentals, and, second, the discussion is expanded to treat the extensions and varieties of each method's uses. Finally, one or more case studies are provided as a full illustration of how each methodology can be used. In addition, all four methodologies will be linked in the book's presentation by examining the advantages and disadvantages of each method and the problems to which each method can be most suitably applied. The book offers the first unified text presentation of methods that will be of use to students, researchers and practitioners who work in the growing area of Efficiency/Productivity Analysis. The book also provides detailed advice on computer programs which can be used to calculate the various measures. This involves a number of presentations of computer instructions and output listings for the SHAZAM, TFPIP, DEAP and FRONTIER computer programs.

Filtration of aerosols is omnipresent in our daily lives, in areas as diverse as health, the protection of people and the environment, and air treatment inside buildings. However, the collection of particles within a filter media is not, contrary to popular belief, linked to a simple screen effect. The phenomena involved are much more complex and require the consideration of aerosol interactions, filter media and process conditions to select the best fiber filter for a given application. Aerosol Filtration, book for students, hygiene or process engineers, fibrous media manufacturers, designers, and filtration system suppliers or users addresses the filtration of aerosols in six chapters. These chapters cover physics and aerosol characterization, the fibrous media, and efficiency and filter clogging by solid or liquid aerosols, with special attention to the filtration of the nanoparticles. Analyses the behavior of fibrous media against solid and liquid aerosols Presents models of efficiency and pressure drop Introduces computing elements for estimating the lifetime of filters Provides guidance for designing filters and predicting their behavior over time

The Institutional Foundations of Comparative Advantage

Data Envelopment Analysis

Eco-efficient Materials for Mitigating Building Cooling Needs

Introduction to Information Retrieval

A Comprehensive Text with Models, Applications, References and DEA-Solver Software

The Application of the Theory of Efficient Breach in Contract Law

Efficient Joint Analysis of Surface Waves and Introduction to Vibration Analysis: Beyond the Clichés

This book bridges the gap between theory and practice, showing how a detailed definition of the shear-wave velocity (VS) profile can be efficiently obtained using limited field equipment and following simple acquisition procedures. It demonstrates how surface waves (used to define the VS profile) and vibration data (used to describe the dynamic behaviour of a building) can be recorded using the same equipment, and also highlights common problems, ambiguities and pitfalls that can occur when adopting popular methodologies, which are often based on a series of simplistic assumptions. Today, most national and international building codes take into account a series of parameters aimed at defining the local seismic hazard. Sites are characterised based on the local VS profile, and the dynamic behaviour of existing buildings is defined through the analysis of their eigenmodes. The book includes a series of case studies to help readers gain a deeper understanding of seismic and vibration data and the meaning (pros and cons) of a series of techniques often referred to as MASW, ESAC, SPAC, ReMi, HVSR, MAAM and HS. It also provides access to some of the datasets so that readers can gain a deeper and more concrete understanding of both the theoretical and practical aspects.

Class-tested and coherent, this textbook teaches classical and web information retrieval, including web search and the related areas of text classification and text clustering from basic concepts. It gives an up-to-date treatment of all aspects of the design and implementation of systems for gathering, indexing, and searching documents; methods for evaluating systems; and an introduction to the use of machine learning methods on text collections. All the important ideas are explained using examples and figures, making it perfect for introductory courses in information retrieval for advanced undergraduates and graduate students in computer science. Based on feedback from extensive classroom experience, the book has been carefully structured in order to make teaching more natural and effective. Slides and additional exercises (with solutions for lecturers) are also available through the book's supporting website to help course instructors prepare their lectures.

Quality is a form of management that is composed of the double approach of driving an organization towards excellence, while conforming to established standards and laws. The objective of quality confers advantages to companies: it makes them more resilient to change that can be unexpected or even chaotic; it makes them more competitive by identifying those steps in processes that do not offer added value. No longer the concern of a small community of experts, even scientists and engineers working in the private sector will find that they will have to con- front questions related to quality management in their day-to-day professional lives. This volume offers such people an unique entry into the universe of quality management, providing not only a cartography of quality standards and their modes of application – with particular attention to the ISO standards – but also a broader cultural context, with chapters on the history, prizes, deontology and moral implications of systems of quality management. This book thus opens the door to all those eager to take the first steps to learning how the principles of quality are organized today, and how they can be applied to his or her own activity.

The overwhelming majority of a software system's lifespan is spent in use, not in design or implementation. So, why does conventional wisdom insist that software engineers focus primarily on the design and development of large-scale computing systems? In this collection of essays and articles, key members of Google's Site Reliability Team explain how and why their commitment to the entire lifecycle has enabled the company to successfully build, deploy, monitor, and maintain some of the largest software systems in the world. You'll learn the principles and practices that enable Google engineers to make systems more scalable, reliable, and efficient—lessons directly applicable to your organization. This book is divided into four sections: Introduction—Learn what site reliability engineering is and why it differs from conventional IT industry practices Principles—Examine the patterns, behaviors, and areas of concern that influence the work of a site reliability engineer (SRE) Practices—Understand the theory and practice of an SRE's day-to-day work: building and operating large distributed computing systems Management—Explore Google's best practices for training, communication, and meetings that your organization can use

Efficiency and Productivity Growth

The Objective is Quality

Efficiency and Power in Energy Conversion and Storage

Modelling in the Financial Services Industry

Basic Physical Concepts

An Introduction to Envelopes

Revival: Efficiency Methods (1917)

What does 'performance theory' really mean and why has it become so important across such a large number of disciplines, from art history to religious studies and architecture to geography? In this introduction Simon Shepherd explains the origins of performance theory, defines the terms and practices within the field and

provides new insights into performance's wide range of definitions and uses. Offering an overview of the key figures, their theories and their impact, Shepherd provides a fresh approach to figures including Erving Goffman and Richard Schechner and ideas such as radical art practice, performance studies, radical scenarism and performativity. Essential reading for students, scholars and enthusiasts, this engaging account travels from universities into the streets and back again to examine performance in the context of political activists and teachers, countercultural experiments and feminist challenges, and ceremonies and demonstrations.

The Performance of Photovoltaic (PV) Systems: Modelling, Measurement and Assessment explores the system lifetime of a PV system and the energy output of the system over that lifetime. The book concentrates on the prediction, measurement, and assessment of the performance of PV systems, allowing the reader to obtain a thorough understanding of the performance issues and progress that has been made in optimizing system performance. Provides unique insights into the performance of photovoltaic systems Includes comprehensive and systematic coverage of a fascinating area in energy Written by an expert team of authors and a respected editor

Performance analysis has become an essential tool for coaches, athletes, sports organisations and academic researchers. Collecting and interpreting performance data enables coaches to improve their training programmes, athletes to make better tactical decisions, sports organisations to manage teams more effectively, and researchers to develop a better understanding of sports performance. This book is an essential introduction to the fundamental principles of performance analysis of sport and how to develop and operate performance analysis systems. Containing worked examples from real sporting events throughout, the book introduces the basics of quantitative and qualitative performance analysis, reviews the different types of data and information that performance analysis can generate, and explains how to test for reliability. It presents a step-by-step guide to developing both manual and computerised analysis systems, and writing up and presenting findings from performance analysis programmes. Representing the most up-to-date, concise and engaging introduction to sports performance analysis, this book is an ideal course text for all introductory performance analysis courses, as well as an invaluable primer for coaches and practitioners in sport.

How prepared are you to build fast and efficient web applications? This eloquent book provides what every web developer should know about the network, from fundamental limitations that affect performance to major innovations for building even more powerful browser applications—including HTTP 2.0 and XHR improvements, Server-Sent Events (SSE), WebSocket, and WebRTC. Author Ilya Grigorik, a web performance engineer at Google, demonstrates performance optimization best practices for TCP, UDP, and TLS protocols, and explains unique wireless and mobile network optimization requirements. You'll then dive into performance characteristics of technologies such as HTTP 2.0, client-side network scripting with XHR, real-time streaming with SSE and WebSocket, and P2P communication with WebRTC. Deliver superlative TCP, UDP, and TLS performance Speed up network performance over 3G/4G mobile networks Develop fast and energy-efficient mobile applications Address bottlenecks in HTTP 1.x and other browser protocols Plan for and deliver the best HTTP 2.0 performance Enable efficient real-time streaming in the browser Create efficient peer-to-peer videoconferencing and low-latency applications with real-time WebRTC transports

A Life Cycle Approach
Varieties of Capitalism
Modelling, Measurement and Assessment
Eco-efficient Construction and Building Materials
Performance of Bio-based Building Materials
An Introduction to Behavioral Finance
An Introduction to the Sciences of Efficient Action

Softcover version of the second edition Hardcover. Incorporates a new author, Dr. Chris O'Donnell, who brings considerable expertise to the project in the area of performance measurement. Numerous topics are being added and more applications using real data, as well as exercises at the end of the chapters. Data sets, computer codes and software will be available for download from the web to accompany the volume.

Efficiency in Learning offers a road map of the most effective ways to use the three fundamental communication of training: visuals, written text, and audio. Regardless of how you are delivering your training materials—in the classroom, in print, by synchronous or asynchronous media—the book's methods are easily applied to your lesson presentations, handouts, reference guides, or e-learning screens. Designed to be a down-to-earth resource for all instructional professionals, Efficiency in Learning's guidelines are clearly illustrated with real-world examples.

An Introduction to Efficiency and Productivity AnalysisSpringer Science & Business Media

This book serves as a guide for discovering pathways to more efficient energy use. The first part of the book illustrates basic laws of energy conversion and principles of thermodynamics. Laws of energy conservation and direction of energy conversion are formulated in detail, and the types of thermodynamic processes are explained. Also included is the characterization of various types of real energy conversion. The second part of the book discusses types of energy conversion referred to as thermal-energy technologies. The advantages of the co-generation processes and devices operating within the Brayton direct cycle and their adaptively to household energetics are underlined.

Theoretical Contexts and Design-Based Examples
How to Make Measurement Matter for Policy and Management
Efficient R Programming
Efficiency Methods
Thinking Like an Economist
An Introduction to Efficiency and Productivity Analysis
Design, Properties and Applications

An authoritative introduction to efficiency and productivity analysis with applications in both the banking and finance industry In light of the recent global financial crisis, several studies have examined the efficiency of financial institutions. A number of open questions remain and this book reviews recent issues and state-of-the-art techniques in the assessment of the efficiency and productivity of financial institutions. Written by an international team of experts, the first part of the book links efficiency with a variety of topics like Latin American banking, market discipline and governance, economics of scale, off-balance-sheet activities, productivity of foreign banks, mergers and acquisitions, and mutual fund ratings. The second part of the book compares existing techniques and state-of-the-art techniques in the bank efficiency literature, including among others, network data envelopment analysis and quantile regression. The book is suitable for academics and professionals as well as postgraduate research students working in banking and finance. Efficiency and Productivity Growth: Provides an authoritative introduction to efficiency and productivity analysis with applications in both the banking and mutual funds industry such as efficiency of Asian banks, cooperatives and not-for-profit credit associations. Explores contemporary research issues in the area of efficiency and productivity measurement in the financial sector. Evaluates the most suitable approaches to selecting inputs and outputs as well as selecting the most efficient techniques, such as parametric and non-parametric, to estimate the models.

The efficient markets hypothesis has been the central proposition in finance for nearly thirty years. It states that securities prices in financial markets must equal fundamental values, either because all investors are rational or because arbitrage eliminates pricing anomalies.This book describes an alternative approach to the study of financial markets: behavioral finance. This approach starts with an observation that the assumptions of investor rationality and perfect arbitrage are overwhelmingly contradicted by both psychological and institutional evidence. In actual financial markets, less than fully rational investors trade against arbitrageurs whose resources are limited by risk aversion, short horizons, and agency problems. The book presents and empiricallyevaluates models of such inefficient markets.Behavioral finance models both explain the available financial data better than does the efficient markets hypothesis and generate new empirical predictions. These models can account for such anomalies as the superior performance of value stocks, the closed end fund puzzle, the high returns on stocks included in market indices, the persistence of stock price bubbles, and even the collapse of several well-known hedge funds in 1998. By summarizing and expanding the research in behavioral finance,the book builds a new theoretical and empirical foundation for the economic analysis of real-world markets.

Optimal Design and Retrofit of Energy Efficient Buildings, Communities, and Urban Centers presents current techniques and technologies for energy efficiency in buildings. Cases introduce and demonstrate applications in both the design of new buildings and retrofit of existing structures. The book begins with an introduction that includes energy consumption statistics, building energy efficiency codes, and standards and labels from around the world. It then highlights the need for integrated and comprehensive energy analysis approaches. Subsequent sections present an overview of advanced energy efficiency technologies for buildings, including dynamic insulation materials, phase change materials, LED lighting and daylight controls, Life Cycle Analysis, and more. This book provides researchers and professionals with a coherent set of tools and techniques for enhancing energy efficiency in new and existing buildings. The case studies presented help practitioners implement the techniques and technologies in their own projects. Introduces a holistic analysis approach to energy efficiency for buildings using the concept of energy productivity Provides coverage of individual buildings, communities and urban centers Includes both the design of new buildings and retrofitting of existing structures to improve energy efficiency Describes state-of-the-art energy efficiency technologies Presents several cases studies and examples that illustrate the analysis techniques and impact of energy efficiency technologies and controls

Introduction to Industrial Energy Efficiency: Energy Auditing, Energy Management, and Policy Issues offers a systemic overview of all key-aspects involved in improving industrial energy efficiency in various industry sectors. It is organized in three parts, each dealing with a particular perspective needed to form a complete view of related issues. Sections focus on energy auditing and improved energy efficiency of companies from a predominantly technical perspective, shed light on energy management and factors that hinder or drive the adoption of energy efficiency practices in the manufacturing industry, and explore energy efficiency policy instruments and how they are designed, implemented and evaluated. Practicing engineers in the field of energy efficiency, engineering and energy researchers coming into the field, and graduate students will find this book to be an invaluable reference on the fundamental knowledge they need to get started in this area. Provides, in one volume, a comprehensive overview of energy systems efficiency and management that is applied to various industrial processes Explores operational measures for improvement, including case studies from varying countries and sectors Discusses the barriers to, and driving forces for, improving energy efficiency in industrial settings, including technical, behavioral, organizational and policy aspects

A Comparative Law and Economics Perspective
Evidence-Based Guidelines to Manage Cognitive Load
Learning Engineering for Online Education
High Performance Browser Networking
An Introduction to Performance and Sustainability Management Systems
Health System Efficiency
Site Reliability Engineering

"Economics is the queen of the social sciences, and economists are among the most prominent of experts in Washington. No other discipline has its own office in the White House, is as visible in the New York Times, or as frequently mentioned in the Congressional Record. Yet at the same time, the limits on economists' influence are quite clear. Their advice is often ignored until it is politically convenient, and as the current moment shows, politicians can cut experts out of the loop entirely. The sharp contrast between economists' overwhelming support for pricing carbon emissions and the complete lack of federal climate action provides a particularly keen demonstration of these limits. So how does economics matter to the policy process? In Thinking Like an Economist: How Economics Became the Language of U.S. Public Policy, Popp Berman argues that while economists' policy advice may sometimes have an impact, the spread of an economic style of reasoning - basic microeconomic ideas about efficiency, tradeoffs, incentives, choice and competition, spread through professional schools and institutionalized through organizational and legal change - has had more fundamental effects. Although economists had influence in a handful of policy domains by mid-century, between the 1960s and the 1980s the economic style circulated and was stabilized in a range of new locations. Much of this change was driven by two intellectual communities: a group of systems analysts who came from RAND with new answers to the question "How should government make decisions?", and a network of industrial organization economists, centered first at Harvard and later Chicago, who asked "How should government regulate markets?" These two communities helped spread economics to law and public policy schools, established economic reasoning in a range of organizations in and around government, and in some cases institutionalized legal requirements for use of the economic style. Built upon five years of research, the book makes comparisons across a number of policy domains, including primary case studies of antipoverty, antitrust, and environmental policy, as well as episodes from education, housing, labor, transportation, health, and communications policy. Drawing on historical evidence from nine archives, more than a hundred previously collected oral histories, and thousands of primary and secondary sources, it provides a new answer to the question of why U.S. politics took a lasting rightward turn during the 1970s, and new ideas about what it might take to reverse that change - not the rejection of economics, but an honest grappling with its political effects"--

This book addresses the rising productivity gap between the global frontier and other firms, and identifies a number of structural impediments constraining business start-ups, knowledge diffusion and resource allocation (such as barriers to up-scaling and relatively high rates of skill mismatch).

Handbook of Energy Efficiency in Buildings: A Life Cycle Approach offers a comprehensive and in-depth coverage of the subject with a further focus on the Life Cycle. The editors, renowned academics, invited a diverse group of researchers to develop original chapters for the book and managed to well integrate all contributions in a consistent volume. Sections cover the role of the building sector on energy consumption and greenhouse gas emissions, international technical standards, laws and regulations, building energy efficiency and zero energy consumption buildings, the life cycle assessment of buildings, from construction to decommissioning, and other timely topics. The multidisciplinary approach to the subject makes it valuable for researchers and industry based Civil, Construction, and Architectural Engineers. Researchers in related fields as built environment, energy and sustainability at an urban scale will also benefit from the books integrated perspective. Presents a complete and thorough coverage of energy efficiency in buildings Provides an integrated approach to all the different elements that impact energy efficiency Contains coverage of worldwide regulation

The authors desire to express their very, sincere thanks to Mr. F. B. Gilbreth for permission to use four of his photographs as illustrations, and to Mr. J. F. Butterworth, Mr. Gilbreth's general representative in England, for considerable assistance and helpful criticism. They are also glad to record their gratitude to Mr. H. W. Allingham, M. I. M. E., to whom they owe their introduction to Efficiency Methods, a good deal of information, and the opportunities they have had of seeing the system in operation, and (one of them) of working under it. Practically all the important books of reference on the subject are mentioned in the text. A Bibliography of books and magazine articles, up to 1914, will be found in C. Bertrand Thompson's collection of papers published under the title of "Scientific Management." This collection includes many original documents otherwise difficult to obtain, and forms an excellent historical sketch of the subject, considered as a movement. H. B Drury's "History and Criticism of Scientific Management" appeared in 1915, and was followed in 1916 by R. F. Hoxies "Scientific Management and Labour," for the most part very searching criticism.

The Future of Productivity
Introduction to Energy Technologies for Efficient Power Generation
The Cambridge Introduction to Performance Theory
Efficiency and Competitiveness of International Airlines
A Practical Guide to Smarter Programming
An Introduction to Scientific Management

This book focuses on the factors that support the strengths of international airlines in general and the Asian airline carriers in particular. Defining the quality of human capital as the level of education and the competence of airline employees, it analyzes the efficiency of 39 airlines in various regions, both in terms of production and cost structures. It argues that, despite Asia's well-developed and globally competitive manufacturing sector, aided by open market practices, its overall service sector still lags far behind more advanced economies. As this does not stop Asia-based carriers from generally being more efficient than their counterparts in Europe and North America, the book investigates how competitiveness analysis of the airline industry can help Asian policymakers better prepare for the liberalization of the service sector, given how crucial this aspect is for the future growth of the Asia-Pacific region. Efficiency and Competitiveness of International Airlines offers a valuable resource for policymakers, airline employees, and researchers and students of microeconomics.

LEARN PROVEN ROUTINES SUCCESSFUL FOR A WIDE RANGE OF AUDIENCES AND VENUES This volume will provide the reader interested in performance mentalism a basic foundation for study and performance. Each routine described can be constructed from common materials at a very reasonable cost. If materials are required commercially from magic dealers, information is provided where they can be located from multiple sources. After reading the routines the individual will have an understanding of methodologies and performance criteria to develop a successful mentalism presentation. Information is provided on ways in which to develop and personalize routines that have proven successful in a wide range of audiences and venues.

Modern gas turbine power plants represent one of the most efficient and economic conventional power generation technologies suitable for large-scale and smaller scale applications. Alongside this, gas turbine systems operate with low emissions and are more flexible in their operational characteristics than other large-scale generation units such as steam cycle plants. Gas turbines are unrivalled in their superior power density (power-to-weight) and are thus the prime choice for industrial applications where size and weight matter the most. Developments in the field look to improve on this performance, aiming at higher efficiency generation, lower emission systems and more fuel-flexible operation to utilise lower-grade gases, liquid fuels, and gasified solid fuels/biomass. Modern gas turbine systems provides a comprehensive review of gas turbine science and engineering. The first part of the book provides an overview of gas turbine types, applications and cycles. Part two moves on to explore major components of modern gas turbine systems including compressors, combustors and turbogenerators. Finally, the operation and maintenance of modern gas turbine systems is discussed in part three. The section includes chapters on performance issues and modelling, the maintenance and repair of components and fuel flexibility. Modern gas turbine systems is a technical resource for power plant operators, industrial engineers working with gas turbine power plants and researchers, scientists and students interested in the field. Provides a comprehensive review of gas turbine systems and fundamentals of a cycle Examines the major components of modern systems, including compressors, combustors and turbines Discusses the operation and maintenance of component parts