## Decline Curve Analysis Excel

Completely updated guide for students, scientists and engineers who want to use Microsoft Excel 2013 to its full potential. Electronic spreadsheet analysis has become part of the everyday work of researchers in all areas of engineering and science. Microsoft Excel, as the industry standard spreadsheet, has a range of scientific functions that can be utilized for the modeling, analysis and presentation of quantitative data. This text provides a straightforward guide to using these functions of Microsoft Excel, guiding the reader from basic principles through to more complicated areas such as formulae, charts, curve-fitting, equation solving, integration, macros, statistical functions, and presenting quantitative data. Content written specifically for the requirements of science and engineering students and professionals working with Microsoft Excel, brought fully up to date with the new Microsoft Office release of Excel 2013. Features of Excel 2013 are illustrated through a wide variety of examples based in technical contexts, demonstrating the use of the program for analysis and presentation of experimental results. New to this edition: The Backstage is introduced (a new Office 2013 feature); all the 'external' operations like Save, Print etc. are now in one place The chapter on charting is totally revised and updated – Excel 2013 differs greatly from earlier versions Includes many new end-of-chapter problems Most chapters have been edited to improve readability

Reservoir Engineering Handbook, Fifth Edition, equips engineers and students with the knowledge they require to continue maximizing reservoir assets, especially as more reservoirs become complex, more multilayered, and unconventional in their extraction method. Building on the solid reputation of the previous edition, this new volume presents critical concepts, such as fluid flow, rock properties, water and gas coning, and relative permeability in a straightforward manner. Water influx calculations, lab tests of reservoir fluids, oil and gas performance calculations, and other essential tools of the trade are also introduced, reflecting on today's operations. New for this edition is an entire new chapter devoted to enhanced oil recovery techniques, including WAG. Critical new advances in areas such as well performance, waterflooding and an analysis of decline and type curves are also addressed, along with more information on the growing extraction from unconventional reservoirs. Practical and critical for new practicing reservoir engineers and petroleum engineering students, this book remains the authoritative handbook on modern reservoir engineering and its theory and practice. Highlights new content on unconventional reservoir activity, hydraulic fracturing, and a new chapter devoted to modern enhanced oil recovery methods and technologies Provides an everyday reference with 'real world' examples to help engineers grasp derivations and equations Presents the key fundamentals needed, including new information on rock properties, fluid behavior, and relative permeability concepts

A substantially updated new edition of the essential text on financial modeling, with revised material, new data, and implementations shown in Excel, R, and Python. Financial Modeling has become the gold-standard text in its field, an essential guide for students, researchers, and practitioners that provides the computational tools needed for modeling finance fundamentals. This fifth edition has been substantially updated but maintains the straightforward, hands-on approach, with an optimal mix of explanation and implementation, that made the previous editions so popular. Using detailed Excel spreadsheets, it explains basic and advanced models in the areas of corporate finance, portfolio management, options, and bonds. This new edition offers revised material on valuation, second-order and third-order Greeks for options, value at risk (VaR), Monte Carlo methods, and implementation in R. The examples and implementation use up-to-date and relevant data. Parts I to V cover corporate finance topics, bond and yield curve models, portfolio theory, options and derivatives, and Monte Carlo methods and their implementation in finance. Parts VI and VII treat technical topics, with part VI covering Excel and R issues and part VII (now on the book's auxiliary website) covering Excel's programming language, Visual Basic for Applications (VBA), and Python implementations. Knowledge of technical chapters on VBA and R is not necessary for understanding the material in the first five parts. The book is suitable for use in advanced finance classes that emphasize the need to combine modeling skills with a deeper knowledge of the underlying financial models.

With examples from the world of science and engineering, this reference teaches scientists how to create graphs, analyze statistics and regressions, and plot and organize scientific data. Physicists and engineers can learn the tips and techniques of Excel--and tailor them specifically to their experiments, designs, and research. They will learn when to use NORMDIST vs NORMSDist and CONFIDENCE vs Z, how to keep data-validation lists on a hidden worksheet, use pivot tables to chart frequency distribution, generate random samples with various characteristics, and much more. Ideal for students and professionals alike, this handbook will enable greater productivity and efficiency.

Fundamentals of Applied Reservoir Engineering
Technological Learning in the Energy Sector
Lessons for Policy, Industry and Science
Appraisal, Economics and Optimization
Modern Public Information Technology Systems: Issues and Challenges
Elements of Numerical Mathematical Economics with Excel

Geothermal Reservoir Engineering offers a comprehensive account of geothermal reservoir engineering and a guide to the state-of-the-art technology, with emphasis on practicality. Topics covered include well completion and warm-up, flow testing, and field monitoring and management. A case study of a geothermal well in New Zealand is also presented. Comprised of 10 chapters, this book opens with an overview of geothermal reservoirs and the development of geothermal reservoir engineering as a discipline. The following chapters focus on conceptual models of geothermal fields; simple models that illustrate some of the processes taking place in geothermal reservoirs under exploitation; measurements in a well from spudding-in up to first discharge; and flow measurement. The next chapter provides a case history of one well in the Broadlands Geothermal Field in New Zealand, with particular reference to its drilling, measurement, discharge, and data analysis/interpretation. The changes that have occurred in exploited geothermal fields are also reviewed. The final chapter considers three major problems of geothermal reservoir engineering: rapid entry of external cooler water, or return of reinjected water, in fractured reservoirs; the effects of exploitation on natural discharges; and subsidence. This monograph serves as both a text for students and a manual for working professionals in the field of geothermal reservoir engineering. It will also be of interest to engineers and scientists of other disciplines.

A comprehensive and practical guide to methods for solving complex petroleum engineering problems Petroleum engineering is guided by overarching scientific and mathematical principles, but there is sometimes a gap between theoretical knowledge and practical application. Petroleum Engineering: Principles, Calculations, and Workflows presents methods for solving a wide range of real-world petroleum engineering problems. Each chapter deals with a specific issue, and includes formulae that help explain primary principles of the problem before providing an easy to follow, practical application. Volume highlights include: A robust, integrated approach to solving inverse problems In-depth exploration of workflows with model and parameter validation Simple approaches to solving complex mathematical problems Complex calculations that can be easily implemented with simple methods Overview of key approaches required for software and application development Formulae and model guidance for diagnosis, initial modeling of parameters, and simulation and regression Petroleum Engineering: Principles, Calculations, and Workflows is a valuable and practical resource to a wide community of geoscientists, earth scientists, exploration geologists, and engineers. This accessible guide is also well-suited for graduate and postgraduate students, consultants, software developers, and professionals as an authoritative reference for day-to-day petroleum engineering problem solving.

This book introduces the fundamentals of research methods and how they apply to the discipline of urban and regional planning. Written at a level appropriate for upper-level undergraduate and beginning master's level students, the text fills a gap in the literature for textbooks on urban planning. Additionally, the book can be used as a reference for planning practitioners and researchers when analyzing quantitative and qualitative data in urban and regional planning and related fields. The volume does not assume advanced knowledge of mathematical formulas. Rather, it begins with the essentials of research methods, such as the identification of the research problems in planning, the literature review, data collection and presentation, descriptive data analysis, and report of findings. Its discipline-specific topics include field research methods, qualitative data analysis, economic and demographic analysis, evaluation research, and methods in sub-disciplines such as land use planning, transportation planning, environmental planning, and housing analysis. Designed with instruction in mind, this book features downloadable materials, including learning outcomes, chapter highlights, chapter review questions, datasets, and certain Excel models. Students will be able to download review questions to enhance the learning process and datasets to practice methods.

Fundamentals of Applied Reservoir Engineering introduces early career reservoir engineers and those in other oil and gas disciplines to the fundamentals of reservoir engineering. Given that modern reservoir engineering is largely centered on numerical computer simulation and that reservoir engineers in the industry will likely spend much of their professional career building and running such simulators, the book aims to encourage the use of simulated models in an appropriate way and exercising good engineering judgment to start the process for any field by using all available methods, both modern simulators and simple numerical models, to gain an understanding of the basic 'dynamics' of the reservoir –namely what are the major factors that will determine its performance. With the valuable addition of questions and exercises, including online spreadsheets to utilize day-to-day application and bring together the basics of reservoir engineering, coupled with petroleum economics and appraisal and development optimization, Fundamentals of Applied Reservoir Engineering will be an invaluable reference to the industry professional who wishes to understand how reservoirs fundamentally work and to how a reservoir engineer starts the performance process. Covers reservoir appraisal, economics, development planning, and optimization to assist reservoir engineers in their decision-making. Provides appendices on enhanced oil recovery, gas well testing, basic fluid thermodynamics, and mathematical operators to enhance comprehension of the book's main topics. Offers online spreadsheets covering well test analysis, material balance, field aggregation and economic indicators to help today's engineer apply reservoir concepts to practical field data applications. Includes coverage on unconventional resources and heavy oil making it relevant for today's worldwide reservoir activity.

Financial Modeling, fifth edition
Modeling and Simulation
Proceedings ... SPE Annual Technical Conference and Exhibition
Fundamental Principles of Reservoir Engineering
Selected Readings on Information Technology Management: Contemporary Issues
--préludes-études-poèmes--

In this work, our purpose is to create a "performance-based reservoir characterization" using production data (measured rates and pressures) from a selected gas condensate region within the Eagle Ford Shale (S. Texas). We use modern time-rate ("decline curve") analysis and time-rate-pressure ("model-based") analysis methods to analyze/interpret/diagnose gas condensate well production data. We estimate reservoir and completion properties - specifically: formation permeability, fracture-face skin effect, fracture half-length, and fracture conductivity. We correlate these results with known completion variables - specifically: completed lateral length, total proppant, total water used, and type of hydraulic fracturing fluid. We use the time-rate and time-rate-pressure analyses to forecast future production and to estimate ultimate recovery. Finally, we apply pressure transient analysis methods to those cases where the production history contains shut-in periods of sufficient duration to provide resolution in the pressure build-up data to identify reservoir features and qualitatively validate completion effectiveness. It is noted that ONLY surface pressures are available for the wells considered in this study. We utilize industry-standard software to perform single well rate-time "decline curve" analyses. The traditional "modified-hyperbolic" time-rate model was used as the "basis" relation and the "power-law exponential" time-rate model was used as a check/validation (the power-law exponential model tends to be a more conservative relation for generating forecasts and estimating ultimate recovery). We also utilize industry-standard software to perform single well time-rate-pressure "model-based" analyses --- this methodology is also known as Rate Transient Analysis (RTA). In this work we used the full analytical model for the performance of a Multi-Fracture Horizontal Well (as opposed to a proxy or numerical model). We use Microsoft Excel and a commercial statistical software package to correlate the production analysis results with the measured completion parameters to create "design" relations for well completions - specifically correlations of estimated ultimate recovery with completion variables (completed lateral length, total proppant, total water used, and type of hydraulic fracturing fluid). Finally, we utilize industry-standard software to perform pressure transient analysis on the cases where the quality and relevance of the shut-in pressure data warranted such analyses. In this work, we "cross-validate" the estimated ultimate recovery results by comparison of the time-rate and time-rate-pressure analysis results. The correlation of EUR with completion variables, we propose, is shown to be statistically relevant for almost all combinations of variables, and the correlation relation should be applicable for creating completion designs. The analysis of surface-derived pressure transient data is successfully demonstrated for several cases taken from the gas condensate region of the Eagle Ford Shale (S. Texas). The work we perform in this thesis clearly demonstrates the validity of using empirical (time-rate) and analytical (time-rate-pressure) analysis methods for the purpose of characterizing well performance for wells in the gas condensate region of the Eagle Ford Shale (S. Texas). The electronic version of this dissertation is accessible from http://hdl.handle.net/1969.1/155432

In recent years, production decline-curve analysis has become the most widely used tool in the industry for oil and gas reservoir production analysis. However, most curve analysis is done by computer today, promoting a "black-box" approach to engineering and leaving engineers with little background in the fundamentals of decline analysis. Advanced Production Decline Analysis and Application starts from the basic concept of advanced production decline analysis, and thoroughly discusses several decline methods, such as Arps, Fetkovich, Blasingame, Agarwal-Gardner, NPI, transient, long linear flow, and FMB. A practical systematic introduction to each method helps the reservoir engineer understand the physical and mathematical models, solve the type curves and match up analysis, analyze the processes and examples, and reconstruct all the examples by hand, giving way to master the fundamentals behind the software. An appendix explains the nomenclature and major equations, and as an added bonus, online computer programs are available for download. Understand the most comprehensive and current list of decline methods, including Arps, Fetkovich, Blasingame, and Agarwal-Gardner Gain expert knowledge with principles, processes, real-world cases and field examples Includes online downloadable computer programs on Blasingame decline type curves and normalized pseudo-pressure of gas wells

The purpose of this work is to show some advanced concepts related to Excel based financial modelling. Microsoft ExcelTM is a very powerful tool and most of the time we do not utilize its full potential. Of course, any advanced concepts require the basic knowledge which most of us have and then build on it. It is only by hands-on experimentation that one learns the art of constructing an efficient worksheet. The two volumes of this book cover dynamic charting, macros, goal seek, solver, the routine Excel functions commonly used, the lesser known Excel functions, the Excel's financial functions and so on. The introduction of macros in these books is not exhaustive but the purpose of what is presented is to show you the power of Excel and how it can be utilized to automate most repetitive calculations at a click of a button. For those who use Excel on a daily basis in financial modeling and project/investment evaluations, this book is a must.

The Definitive Guide to Petroleum Reservoir Engineering-Now Fully Updated to Reflect New Technologies and Easier Calculation Methods Craft and Hawkins' classic introduction to petroleum reservoir engineering is now fully updated for new technologies and methods, preparing students and practitioners to succeed in the modern industry. In Applied Petroleum Reservoir Engineering, Third Edition, renowned expert Ronald E. Terry and project engineer J. Brandon Rogers review the history of reservoir engineering, define key terms, carefully introduce the material balance approach, and show how to apply it with many types of reservoirs. Next, they introduce key principles of fluid flow, water influx, and advanced recovery (including hydrofracturing). Throughout, they present field examples demonstrating the use of material balance and history matching to predict reservoir performance. For the first time, this edition relies on Microsoft Excel with VBA to make calculations easier and more intuitive. This edition features Extensive updates to reflect modern practices and technologies, including gas condensate reservoirs, water flooding, and enhanced oil recovery Clearer, more complete introductions to vocabulary and concepts- including a more extensive glossary Several complete application examples, including single-phase gas, gas-condensate, undersaturated oil, and saturated oil reservoirs Calculation examples using Microsoft Excel with VBA throughout Many new example and practice problems using actual well data A revamped history-matching case study project that integrates key topics and asks readers to predict future well production

Automated Data Analysis Using Excel
A Well Performance Study of Eagle Ford Shale Gas Wells Integrating Empirical Time-Rate and Analytical Time-Rate-Pressure Analysis
op. 32b (1974) : piano
Intermediate Microeconomics with Microsoft Excel

### OIL & GAS JOURNAL INTERNATIONAL PETROLEUM NEWS AND TECHNOLOGYT WEEK OF MARCH 2 1992

Geological Society Memoir 52 records the extraordinary 50+ year journey that has led to the development of some 458 oil and gas fields on the UKCS. It contains papers on almost 150 onshore and offshore fields in all of the UK's main petroliferous basins. These papers range from look-backs on some of the first-developed gas fields in the Southern North Sea, to papers on fields that have only just been brought into production or may still remain undeveloped, and includes two candidate CO2 sequestration projects. These papers are intended to provide a consistent summary of the exploration, appraisal, development and production history of each field, leading to the current subsurface understanding which is described in greater detail. As such the Memoir will be an enduring reference source for those exploring for, developing, producing hydrocarbons and sequestering CO2 on the UKCS in the coming decades. It encapsulates the petroleum industry's deep subsurface knowledge accrued over more than 50 years of exploration and production.

"This book presents quality articles focused on key issues concerning the management and utilization of information technology"--Provided by publisher.

This unique text uses Microsoft Excel® workbooks to instruct students. In addition to explaining fundamental concepts in microeconomic theory, readers acquire a great deal of sophisticated Excel skills and gain the practical mathematics needed to succeed in advanced courses. In addition to the innovative pedagogical approach, the book features explicitly repeated use of a single central methodology, the economic approach. Students learn how economists think and how to think like an economist. With concrete, numerical examples and novel, engaging applications, interest for readers remains high as live graphs and data respond to manipulation by the user. Finally, clear writing and active learning are features sure to appeal to modern practitioners and their students. The website accompanying the text is found at www.depauw.edu/learn/microexcel.

This report introduces a revealed preference methodology to estimate the value to the United States Air Force of expediting F-15 fighter jet programmed depot maintenance (PDM). The Air Force has chosen to pay for intermittent PDM on F-15s, so F-15s must have enough value after PDM visits to justify PDM costs. Computations suggest expediting F-15 PDM by a month would be worth at least $75,000, but likely considerably more for younger aircraft.

*Issues and Challenges*
*Data Analysis with Microsoft Excel*
*Advanced Production Decline Analysis and Application*
*Geostatistics Valencia 2016*
*A Guide to Microsoft Excel 2013 for Scientists and Engineers*
*Static and Dynamic Optimization*
*Fundamental Principles of Reservoir Engineering outlines the techniques required for the basic analysis of reservoirs prior to simulation. It reviews rock and fluid properties, reservoir statics, determination of original oil and gas in place*
*Provides a step-by-step approach to statistical procedures to analyze data and conduct research, with detailed sections in each chapter explaining SPSS® and Excel® applications This book identifies connections between statistical applications and research design using cases, examples, and discussion of specific topics from the social and health sciences. Researched and class-tested to ensure an accessible presentation, the book combines clear, step-by-step explanations for both the novice and professional alike to understand the fundamental statistical practices for organizing, analyzing, and drawing conclusions from research data in their field. The book begins with an introduction to descriptive and inferential statistics and then acquaints readers with important features of statistical applications (SPSS and Excel) that support statistical analysis and decision making. Subsequent chapters treat the procedures commonly employed when working with data across various fields of social science research. Individual chapters are devoted to specific statistical procedures, each ending with lab application exercises that pose research questions, examine the questions through their application in SPSS and Excel, and conclude with a brief research report that outlines key findings drawn from the results. Real-world examples and data from social and health sciences research are used throughout the book, allowing readers to reinforce their comprehension of the material. Using Statistics in the Social and Health Sciences with SPSS® and Excel® includes: Use of straightforward procedures and examples that help students focus on understanding of analysis and interpretation of findings Inclusion of a data lab section in each chapter that provides relevant, clear examples Introduction to advanced statistical procedures in chapter sections (e.g., regression diagnostics) and separate chapters (e.g., multiple linear regression) for greater relevance to real-world research needs Emphasizing applied statistical analyses, this book can serve as the primary text in undergraduate and graduate university courses within departments of sociology, psychology, urban studies, health sciences, and public health, as well as other related departments. It will also be useful to statistics practitioners through extended sections using SPSS® and Excel® for analyzing data.*
*Useful business analysis requires you to effectively transform data into actionable information. This book helps you use SQL and Excel to extract business information from relational databases and use that data to define business dimensions, store transactions about customers, produce results, and more. Each chapter explains when and why to perform a particular type of business analysis in order to obtain useful results, how to design and perform the analysis using SQL and Excel, and what the results should look like.*
*Elements of Numerical Mathematical Economics with Excel: Static and Dynamic Optimization shows readers how to apply static and dynamic optimization theory in an easy and practical manner, without requiring the mastery of specific programming languages that are often difficult and expensive to learn. Featuring user-friendly numerical discrete calculations developed within the Excel worksheets, the book includes key examples and economic applications solved step-by-step and then replicated in Excel. After introducing the fundamental tools of mathematical economics, the book explores the classical static optimization theory of linear and nonlinear programming, applying the core concepts of microeconomics and some portfolio theory. This provides a background for the more challenging worksheet applications of the dynamic optimization theory. The book also covers special complementary topics such as inventory modelling, data analysis for business and economics, and the essential elements of Monte Carlo analysis. Practical and accessible, Elements of Numerical Mathematical Economics with Excel: Static and Dynamic Optimization increases the computing power of economists worldwide. This book is accompanied by a companion website that includes Excel examples presented in the book, exercises, and other supplementary materials that will further assist in understanding this useful framework. Explains how Excel provides a practical numerical approach to optimization theory and analytics Increases access to the economic applications of this universally-available, relatively simple software program Encourages readers to go to the core of theoretical continuous calculations and learn more about optimization processes*
*Excel Data Analysis*
*Dynamic Description Technology of Fractured Vuggy Carbonate Gas Reservoirs*
*The Tourism Area Life Cycle: Conceptual and theoretical issues*
*Understanding Educational Statistics Using Microsoft Excel and SPSS*
*Comparison of Emperical Decline Curve Analysis for Shale Wells*
*The Business of Petroleum Exploration*

In today's financial market, portfolio and risk management are facing an array of challenges. This is due to increasing levels of knowledge and data that are being made available that have caused a multitude of different investment models to be explored and implemented. Professionals and researchers in this field are in need of up-to-date research that analyzes these contemporary models of practice and keeps pace with the advancements being made within financial risk modelling and portfolio control. Recent Applications of Financial Risk Modelling and Portfolio Management is a pivotal reference source that provides vital research on the use of modern data analysis as well as quantitative methods for developing successful portfolio and risk management techniques. While highlighting topics such as credit scoring, investment strategies, and budgeting, this publication explores diverse models for achieving investment goals as well as improving upon traditional financial modelling methods. This book is ideally designed for researchers, financial analysts, executives, practitioners, policymakers, academicians, and students seeking current research on contemporary risk management strategies in the financial sector.

"This expert analysis provides an important contribution to understanding the technicalities of energy technology cost dynamics. Given the urgent need for delivery of low-cost renewable energy technologies in particular, it is vital to understand how to accelerate this process of technological learning.' - Miguel Mendonca, World Future Council, Germany

Thanks to technology, fractured carbonate gas reservoirs are becoming more discoverable, but because these assets are more complex and diverse, there is a high level of difficulty in understanding how to plan design and performance analysis. Dynamic Description Technology of Fractured Vuggy Gas Reservoirs delivers a critical reference to reservoir and production engineers on all the basic characteristics of fractured vuggy gas reservoirs and combines both static and dynamic data to improve the reservoir characterization accuracy and development. Based on the full life cycle of well testing and advanced production decline analysis, this reference also details how to apply reservoir dynamic evaluation, reserve estimation, and performance forecasting. Offering one collective location for the latest research on fractured gas reservoirs, the reference also covers: Physical models, analysis examples, and processes 3D numerical well test analysis technology Deconvolution technology of production decline analysis Packed with many calculation examples and more than 100 case studies, Dynamic Description Technology of Fractured Vuggy Gas Reservoirs gives engineers a strong tool to further exploit these complex assets. Gain advanced knowledge in well test and production decline analysis as well as performance forecasting specific to fractured vuggy carbonate gas reservoirs Understand the characteristics, advantages, disadvantages, and current limitations in technology of fractured vuggy carbonate gas reservoirs Bridge from theory to practice by combining static and dynamic data to form more accurate real-world analysis and modelling

A practical guide to building fully operational financial cash flow models for structured finance transactions Structured finance and securitization deals are becoming more commonplace on Wall Street. Up until now, however, market participants have had to create their own models to analyze these deals, and new entrants have had to learn as they go. Modeling Structured Finance Cash Flows with Microsoft Excel provides readers with the information they need to build a cash flow model for structured finance and securitization deals. Financial professional Keith Allman explains individual functions and formulas, while also explaining the theory behind the spreadsheets. Each chapter begins with a discussion of theory, followed by a section called "Model Builder," in which Allman translates the theory into functions and formulas. In addition, the companion website features all of the modeling exercises, as well as a final version of the model that is created in the text. Note: Companion website and other supplementary materials are not included as part of eBook file.

Recent Applications of Financial Risk Modelling and Portfolio Management
product guide SUMMER 2008
Valuing Programmed Depot Maintenance Speed
Contemporary Issues
The Journal of Canadian Petroleum Technology
Excel 2007 for Scientists and Engineers

*Utilizing the latest software, this book presents the essential statistical procedures for drawing valuable results from data in the social sciences. Mobilizing interesting real-world examples from the field of education, Understanding Educational Statistics Using Microsoft Excel and SPSS supplies a seamless presentation that identifies valuable connections between statistical applications and research design. Class-tested to ensure an accessible presentation, the book combines clear, step-by-step explanations and the use of software packages that are accessible to both the novice and professional alike to present the fundamental statistical practices for organizing, understanding, and drawing conclusions from educational research data. The book begines with an introduction to descriptive and inferential statistics and then proceeds to acquaint readers with the various functions for working with quantitative data in the Microsoft Excel environment, such as spreadsheet navigation; sorting and filtering; and creating pivot tables. Subsequent chapters treat the procedures that are commonly-employed when working with data across various fields of social science research, including: Single-sample tests Repeated measure tests Independent t-tests One way ANOVA and factorial ANOVA Correlation Bivariate regression Chi square Multiple regression Individual chapters are devoted to specific procedures, each ending with a lab exercise that highlights the importance of that procedure by posing a research question, examining the question through its application in Excel and SPSS, and concluding with a brief research report that outlines key findings drawn from the results. Real-world examples and data from modern educational research are used throughout the book, and a related Web site features additional data sets, examples, and labs, allowing readers to reinforce their comprehension of the material. Bridging traditional statistical topics with the latest software and applications in the field of education, Understanding Educational Statistics Using Microsoft Excel and SPSS is an excellent book for courses on educational research methods and introductory statistics in the social sciences at the upper-undergraduate and graduate levels. It also serves as a valuable resource for researchers and practitioners in the fields of education, psychology, and the social sciences who require a statistical background to work with data in their everyday work.*
*This new edition covers some of the key topics relating to the latest version of MS Office through Excel 2019, including the creation of custom ribbons by injecting XML code into Excel Workbooks and how to link Excel VBA macros to customize ribbon objects. It now also provides examples in using ADO, DAO, and SQL queries to retrieve data from databases for analysis. Operations such as fully automated linear and non-linear curve fitting, linear and non-linear mapping, charting, plotting, sorting, and filtering of data have been updated to leverage the newest Excel VBA object models. The text provides examples on automated data analysis and the preparation of custom reports suitable for legal archiving and dissemination. Functionality Demonstrated in This Edition Includes: Find and extract information raw data files Format data in color (conditional formatting) Perform non-linear and linear regressions on data Create custom functions for specific applications Generate datasets for regressions and functions Create custom reports for regulatory agencies Leverage email to send generated reports Return data to Excel using ADO, DAO, and SQL queries Create database files for processed data Create tables, records, and fields in databases Add data to databases in fields or records Leverage external computational engines Call functions in MATLAB® and Origin® from Excel*
*This book offers a comprehensive and readable introduction to modern business and data analytics. It is based on the use of Excel, a tool that virtually all students and professionals have access to. The explanations are focused on understanding the techniques and their proper application, and are supplemented by a wealth of in-chapter and end-of-chapter exercises. In addition to the general statistical methods, the book also includes Monte Carlo simulation and optimization. The second edition has been thoroughly revised: new topics, exercises and examples have been added, and the readability has been further improved. The book is primarily intended for students in business, economics and government, as well as professionals, who need a more rigorous introduction to business and data analytics – yet also need to learn the topic quickly and without overly academic explanations.*
*This book contains selected contributions presented at the 10th International Geostatistics Congress held in Valencia from 5 to 9 September, 2016. This is a quadrennial congress that serves as the meeting point for any engineer, professional, practitioner or scientist working in geostatistics. The book contains carefully reviewed papers on geostatistical theory and applications in fields such as mining engineering, petroleum engineering, environmental science, hydrology, ecology, and other fields.*
*Petroleum Engineering: Principles, Calculations, and Workflows*
*Study Guide to accompany Fundamental Analysis*
*Reservoir Engineering Handbook*
*50th Anniversary Commemorative Volume*
*Modeling Structured Finance Cash Flows with Microsoft Excel*
*Hart's E&P.*

This study compares four recently developed decline curve methods and the traditional Arps or Fetkovich approach. The four methods which are empirically formulated for shale and tight gas wells are: 1. Power Law Exponential Decline (PLE). 2. Stretched Exponential Decline (SEPD). 3. Duong Method. 4. Logistic Growth Model (LGM). Each method has different tuning parameters and equation forms. The main objective of this work is to determine the best method(s) in terms of Estimated Ultimate Recovery (EUR) accuracy, goodness of fit, and ease of matching. In addition, these methods are compared against each other at different production times in order to understand the effect of production time on forecasts. As a part of validation process, all methods are benchmarked against simulation. This study compares the decline methods to four simulation cases which represent the common shale declines observed in the field. Shale wells, which are completed with horizontal wells and multiple traverse highly-conductive hydraulic fractures, exhibit long transient linear flow. Based on certain models, linear flow is preceded by bilinear flow if natural fractures are present. In addition to this, linear flow is succeeded by Boundary Dominated Flow (BDF) decline when pressure wave reaches boundary. This means four declines are possible, hence four simulation cases are required for comparison. To facilitate automatic data fitting, a non-linear regression program was developed using excel VBA. The program optimizes the Least-Square (LS) objective function to find the best fit. The used optimization algorithm is the Levenberg-Marquardt Algorithm (LMA) and it is used because of its robustness and ease of use. This work shows that all methods forecast different EURs and some fit certain simulation cases better than others. In addition, no method can forecast EUR accurately without reaching BDF. Using this work, engineers can choose the best method to forecast EUR after identifying the simulation case that is most analogous to their field wells. The VBA program and the matching procedure presented here can help engineers automate these methods into their forecasting sheets. The electronic version of this dissertation is accessible from http://hdl.handle.net/1969.1/151124
Examines the most important dimensions of managing IT in the public sector and explores the impact of IT on governmental accountability and distribution of power, the implications of privatization as an IT business model, and the global governance of IT.
This popular best-selling book shows students and professionals how to do data analysis with Microsoft Excel. DATA ANALYSIS WITH MICROSOFT EXCEL teaches students and professionals the fundamental concepts of statistics and how to use Microsoft Excel to solve the kind of data-intensive problems that arise in business and elsewhere. Even students with no previous experience using spreadsheets will find that this text's step-by-step approach, extensive tutorials, and examples make it easy to learn how to use Excel for analyzing data. A CD-ROM is included with every new text that contains the StatPlus add-ins for Microsoft Excel and data sets for exercises.
This book is divided into five sections: the conceptual origins of the TALC, spatial relationships and the TALC, alternative conceptual approaches, renewing or retiring with the TALC, and predicting with the TALC. It concludes with a review of the future potential of the model in the area of the destination development process.
Applied Research Methods in Urban and Regional Planning
Tips & Tricks for Excel-Based Financial Modeling, Volume II
Using Statistics in the Social and Health Sciences with SPSS and Excel
Geothermal Reservoir Engineering
A Must for Engineers & Financial Analysts
Applied Petroleum Reservoir Engineering

The must-have book for all futures traders In Fundamental Analysis, the legendary Jack D. Schwager has produced the most comprehensive, in-depth book ever written on the use of fundamental analysis for futures trading. In what is destined to become the bible of the futures industry, Schwager has poured out insights gathered during his long career as a trader, researcher, bestselling writer, and highly regarded authority in the field. This book is packed with invaluable information you'll use every trading day. "Futures guru Jack Schwager has created the definitive source on using fundamental analysis for price forecasting that no trader can afford to be without." --Tom Baldwin, Chairman, Baldwin Group "This book won't make you a great commodities trader instantly, but it will teach you what you must know to start." --Jim Rogers, Author, Investment Biker "Jack Schwager always provides clear and compelling material on the often opaque subject of futures trading." --Richard Dennis, President, Dennis Trading Group "Jack Schwager's deep knowledge of the markets and his extensive network of personal contacts throughout the industry have set him apart as the definitive market chronicler of our age." --Ed Seykota Fundamental Analysis is the first book in the Schwager on Futures series--the definitive source on the futures market for the next century that no trader will want to be without. Jack Schwager is one of the most important and visible figures in the futures industry today. His Market Wizards and New Market Wizards are two of the bestselling finance titles of all time. Now Schwager has created the most comprehensive guide ever for using fundamental analysis for futures trading. The much-awaited Schwager on Futures series greatly expands and updates material first contained in his A Complete Guide to the Futures Markets, which has been the bible of the industry for the past decade. In this first volume of the series, Fundamental Analysis, Schwager shows traders how to apply analytical techniques to actual price forecasting and trading in virtually all futures contracts currently traded. In chapter after chapter, Schwager draws on what he has learned during his legendary career as a successful trader, researcher, and bestselling investment author to dispense priceless insights. * Explains how to apply the techniques of technical analysis to fundamental data-information not found elsewhere * Shows how regression analysis works and tells how to use it as a tool for price forecasting * Includes step-by-step instruction on how to build a forecast model * Contains a 13-chapter section illustrating the applications of fundamental techniques to individual markets and market groups * Outlines how to analyze seasonal fluctuations, including seasonal price charts of 27 active markets Numerous charts, tables, and examples illustrate all key concepts, and the text itself is written in the clear, nontechnical style that has helped make Jack Schwager one of today's most widely read and highly regarded investment writers.
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United Kingdom Oil and Gas Fields
Data Analysis Using SQL and Excel
An Analysis of F-15 PDM