

Sme Mining Engineering H 2nd Edition

A practical field reference for mining and mineral engineers that is small enough to carry into the field. With its comprehensive store of charts, graphs, tables, equations, and rules of thumb, this handbook is the essential technical reference for mobile mining professionals.

An introductory text and reference on mining engineering highlighting the latest in mining technology Introductory Mining Engineering outlines the role of the mining engineer throughout the life of a mine, including prospecting for the deposit, determining the site's value, developing the mine, extracting the mineral values, and reclaiming the land afterward. This Second Edition is written with a focus on sustainability-managing land to meet the economic and environmental needs of the present while enhancing its ability to also meet the needs of future generations. Coverage includes aboveground and underground methods of mining for a wide range of substances, including metals, nonmetals, and fuels. Completely up to date, this book presents the latest information on such technologies as remote sensing, GPS, geophysical surveying, and mineral deposit evaluation, as well as continuous integrated mining operations and autonomous trucks. Also included is new information on landscape restoration, regional planning, wetlands protection, subsidence mitigation, and much more. New chapters include coverage of: * Environmental responsibilities * Regulations * Health and safety issues Generously supplemented with more than 200 photographs, drawings, and tables, Introductory Mining Engineering, Second Edition is an indispensable book for mining engineering students and a comprehensive reference for professionals.

Mineral resource estimation has changed considerably in the past 25 years: geostatistical techniques have become commonplace and continue to evolve; computational horsepower has revolutionized all facets of numerical modeling; mining and processing operations are often larger; and uncertainty quantification is becoming standard practice. Recent books focus on historical methods or details of geostatistical theory. So there is a growing need to collect and synthesize the practice of modern mineral resource estimation into a book for undergraduate students, beginning graduate students, and young geologists and engineers. It is especially fruitful that this book is written by authors with years of relevant experience performing mineral resource estimation and with years of relevant teaching experience. This comprehensive textbook and reference fills this need.

This book provides a comprehensive analysis of the exploitation process of shovel-truck systems using modelling, analysis and calculations following specific procedures:- analyzing the reliability and accessibility of shovels- discussing the functioning of a truck-repair shop system- reliability of trucks- existence of haulers reserve- repair shop

American Book Publishing Record

Open Pit Mine Planning and Design, Two Volume Set & CD-ROM Pack

Decommissioning Forecasting and Operating Cost Estimation

SME Mineral Processing and Extractive Metallurgy Handbook

SME Mining Reference Handbook

A Geological Compendium

The unique and practical Materials Handbook (third edition) provides quick and easy access to the physical and chemical properties of very many classes of materials. Its coverage has been expanded to include whole new families of materials such as minor metals, ferroalloys, nuclear materials, food, natural oils, fats, resins, and waxes. Many of the existing families—notably the metals, gases, liquids, minerals, rocks, soils, polymers, and fuels—are broadened and refined with new material and up-to-date information. Several of the larger tables of data are expanded and new ones added. Particular emphasis is placed on the properties of common industrial materials in each class. After a chapter introducing some general properties of materials, each of twenty-four classes of materials receives attention in its own chapter. The health and safety issues connected with the use and handling of industrial materials are included. Detailed appendices provide additional information on subjects as diverse as crystallography, spectroscopy, thermochemical data, analytical chemistry, corrosion resistance, and economic data for industrial and hazardous materials. Specific further reading sections and a general bibliography round out this comprehensive guide. The index and tabular format of the book makes light work of extracting what the reader needs to know from the wealth of factual information within these covers. Dr. François Cardarelli has spent many years compiling and editing materials data. His professional expertise and experience combine to make this handbook an indispensable reference tool for scientists and engineers working in numerous fields ranging from chemical to nuclear engineering. Particular emphasis is placed on the properties of common industrial materials in each class. After a chapter introducing some general properties of materials, materials are classified as follows. ferrous metals and their alloys; ferroalloys; common nonferrous metals; less common metals; minor metals; semiconductors and superconductors; magnetic materials; insulators and dielectrics; miscellaneous electrical materials; ceramics, refractories and glasses; polymers and elastomers; minerals, ores and gemstones; rocks and meteorites; soils and fertilizers; construction materials; timbers and woods; fuels, propellants and explosives; composite materials; gases; liquids; food, oils, resin and waxes; nuclear materials. food materials

Soft Clay Engineering and Ground Improvement covers the design and implementation of ground improvement techniques as applicable to soft clays. This particular subject poses major geotechnical challenges in civil engineering. Not only civil engineers, but planners, architects, consultants and contractors are now aware what soft soils are and the risks associated with development of such areas. The book is designed as a reference and useful tool for those in the industry, both to consultants and contractors. It also benefits researchers and academics working on ground improvement of soft soils, and serves as an excellent overview for postgraduates. University lecturers are beginning to incorporate more ground improvement topics into their curricula, and this text would be ideal for short courses for practicing engineers. It includes several examples to assist a newcomer to carry out preliminary designs. The three authors, each with dozens of years of experience, have witnessed and participated in the rapid evolution of ground improvement in soft soils. In addition, top-tier professionals who deal with soft clays and ground improvement on a daily basis have contributed, providing their expertise in dealing with real-world problems and practical solutions.

The mining industry has experienced important improvements with regard to its safety record and work environment. But there is still room for further improvement and the mining industry now faces the challenge of securing a future workforce: The current workforce is aging, and mining work increasingly requires a more qualified workforce. Designing Ergonomic, Safe, and Attractive Mining Workplaces seeks to give an understanding of what must be considered in the design of mining workplaces. By reviewing and discussing the historic and current development of the mining industry as well as problems related to the safety, ergonomics, and attractiveness of mining workplaces, it demonstrates that the challenges facing the mining industry often need to be solved on a case-to-case basis. The processes through which these issues are managed are of significant importance. To facilitate a proactive approach, the book covers the principles of systematic work environment management, together with examples of methods for risk management and work environment monitoring. It introduces a systematic and iterative design and planning method for the mining industry. This method acknowledges that all relevant stakeholders must be able to influence the design of ergonomic, safe, and attractive mining workplaces. Features Takes a holistic and sociotechnical approach to current and future problems of the mining industry, which normally are dealt with in isolation or through technology Reviews historic, current, and future issues in the mining industry with regards to workplace attractiveness, health, safety, mechanization, automation, and work organization Provides several examples of these issues and attempts to address them (successfully and unsuccessfully) Covers the principles of systematic work environment management together with examples of methods for risk management and work environment monitoring for pro-actively dealing with work environment issues Introduces a systematic and iterative design and planning method for the mining industry that aims to avoid problems of traditional planning approaches and increase stakeholder and employee participation

The US Gulf of Mexico is one of the largest and most prolific offshore hydrocarbon basins in the world with thousands of structures installed in the region and tens of thousands of wells drilled. Over the past decade, a significant number of structures in shallow water have been decommissioned, as operators can no longer "kick the decommissioning can" down the road. This has opened up new markets and additional regulatory oversight with far-reaching implications. This book describes future decommissioning trends and issues and provides guidance for operator budgeting, regulatory oversight, and service sector companies interested in participating in the field. Decommissioning Forecasting and Operating Cost Estimation is the first of its kind textbook to develop models to forecast platform decommissioning in the Gulf of Mexico and to better understand the dynamics of offshore production cost. The book bridges the gap between modeling and technical knowledge to provide insight into the sector. Topics are presented in five parts covering fundamentals, structure inventories and well trends, decommissioning modeling, critical infrastructure issues, and operating cost estimation. Factor models and activity-based cost models in operating cost estimation conclude the discussion. Decommissioning Forecasting and Operating Cost Estimation helps oil and gas professionals navigate through this complex and challenging field providing an invaluable resource for academics, researchers, and professionals. The book will also serve government regulators, energy and environmental engineers, offshore managers, financial analyst, and others interested in this fascinating and dynamic industry. In-depth economic, statistical, and systems analysis on Gulf of Mexico decommissioning activity Balanced coverage of fundamental knowledge and advanced methods Delivers data and results to understand infrastructure and activity trends Numerous examples, worked-out problems, and real-world applications Engineering, science, and market perspectives

Surface and Underground Excavations

Gulf of Mexico Well Trends, Structure Inventory and Forecast Models

SME Mining Reference Handbook, 2nd Edition

From Exploration to Sustainability Assessment

Special Report of the Intergovernmental Panel on Climate Change

Coal Production and Processing Technology

This proceedings volume showcases all aspects of the science and engineering of mine ventilation and health and safety, with special focus on the applied aspects of mine ventilation practice. Papers span the spectrum of mine ventilation and air conditioning.

The challenges associated with the environmental impact of renewable energies are formidable and multiple. The exploitation of diffuse forms of energy will require us to reshape our lifestyles and infrastructures. Reducing their environmental impact is imperative and requires the mobilization of all available levers of action. Beyond the analysis, an overview of the levers of action that should allow us to meet them, by crossing the fields of the human sciences, geosciences and engineering. The levers of action examined are both technical (through the substitution or use of low technology) and economic and social (through the development of recycling or decoupling). The book also examines their overall impact.

Surface and Underground Excavations – Methods, Techniques and Equipment (2nd edition) covers the latest technologies and developments in the excavation arena at any locale: surface or underground. In the first few chapters, unit operations are discussed and subsequently, excavation techniques are described for various operations: tunneling, quarrying, surface mining, liquidation and mass blasting as well as construction of large subsurface excavations such as caverns and underground chambers. The design, planning and development of excavations are treated in a separate chapter. Especially featured are methodologies to select stoping methods through incremental analysis. Comprehensive sections on mining at ‘ultra depths’, mining difficult deposits using non-conventional technologies, mineral inventory evaluation (ore – reserves estimation) and mine closure. Concerns over Occupational Health and Safety (OHS), environment and loss prevention, and sustainable development are also addressed in advocating a global competition and recession. This expanded second edition has been wholly revised, brought fully up-to-date and includes (wherever feasible) the latest trends and best practices, case studies, global surveys and toolkits as well as questions at the end of each chapter. This volume will now be even more appealing to students in earth and environmental engineering, to practicing engineers and professionals in these disciplines as well as to all with a general or professional interest in surface and underground excavations.

SME Mining Reference Handbook, 2nd EditionSociety for Mining, Metallurgy & Exploration

List of Bureau of Mines Publications and Articles ... with Subject and Author Index

Mineral Resource Estimation

Rock Mechanics

Materials Handbook

Issues and Action Levers

This comprehensive textbook covers all major topics related to the utilization of mineral resources for human activities. It begins with general concepts like definitions of mineral resources, mineral resources and humans, recycling mineral resources, distribution of minerals resources across Earth, and international standards in mining, among others. Then it turns to a classification of mineral resources, covering the main types from a geological standpoint. The exploration of mineral resources is also treated, including geophysical methods of exploration, borehole geophysical logging, geochemical methods, drilling methods, and mineral deposit models in exploration. Further, the book addresses the evaluation of mineral resources, from sampling techniques to the economic evaluation of mining projects (i.e. types and density of sampling, mean grade definition and calculation, Sichel’s estimator, evaluation methods – classical and geostatistical, economic evaluation – NPV, IRR, and PP, estimation of risk, and software for evaluating mineral resources). It subsequently describes key mineral resource exploitation methods (open pit and underground mining) and the mineral processing required to obtain saleable products (crushing, grinding, sizing, ore separation, and concentrate dewatering, also with some text devoted to tailings dams). Lastly, the book discusses the environmental impact of mining, covering all the aspects of this very important topic, from the description of diverse impacts to the environmental impact assessment (EIA), which is essential in modern mining projects.

This landmark publication distills the body of knowledge that characterizes mineral processing and extractive metallurgy as disciplinary fields. It will inspire and inform current and future generations of minerals and metallurgy professionals. Mineral processing and extractive metallurgy are atypical disciplines, requiring a combination of knowledge, experience, and art. Investing in this trove of valuable information is a must for all those involved in the industry—students, engineers, mill managers, and operators. More than 192 internationally recognized experts have contributed to the handbook’s 128 thought-provoking chapters that examine nearly every aspect of mineral processing and extractive metallurgy. This inclusive reference addresses the magnitude of traditional industry topics and also addresses the new technologies and important cultural and social issues that are important today. Contents Mineral Characterization and AnalysisManagement and ReportingComminutionClassification and WashingTransport and StoragePhysical SeparationsFlotationSolid and Liquid SeparationDisposalHydrometallurgyPyrometallurgyProcessing of Selected Metals, Minerals, and Materials

“Everything” sums up what must be considered for a properly documented property evaluation. Less than 30% of the projects that are developed in the minerals industry yield the return on investment that was projected from the project feasibility studies. The tools described in this handbook will greatly improve the probability of meeting your projections and minimizing project execution capital cost blowout that has become so prevalent in this industry in recent years. Mineral Property Evaluation provides guidelines to follow in performing mineral property feasibility and evaluation studies and due diligence, and in preparing proper documents for bankable presentations. It highlights the need for a consistent, systematic methodology in performing evaluation and feasibility work. The objective of a feasibility and evaluation study should be to assess the value of the undeveloped or developed mineral property and to convey these findings to the company that is considering applying technical and physical changes to bring the property into production of a mineral product. The analysis needs to determine the net present worth returned to the company for investing in these changes and to reach that decision point as early as possible and with the least amount of money spent on the evaluation study. All resources are not reserves, nor are all minerals an ore. The successful conclusion of any property evaluation depends on the development, work, and conclusions of the project team. The handbook has a diverse audience:

- Professionals in the minerals industry that perform mineral property evaluations.
- Companies that have mineral properties and perform mineral property feasibility studies and evaluations or are buying properties based on property evaluation.
- Financial institutions, both domestic and overseas, that finance or raise capital for the minerals industry.
- Consulting firms and architectural and engineering contractors that utilize mineral property feasibility studies and need standards to follow.
- And probably the most important, the mining and geological engineering students and geology and economic geology students that need to learn the standards that they should follow throughout their careers.

Accounting for more than 90 percent of the world’s energy supply, fossil fuels—coal, petroleum, and natural gas—are not an infinite resource. Formed by the lengthy decomposition of organic matter, fossil fuels are actually limited in availability. Still, nations across the globe are dependent upon the processing and utilization of these dwindling resources. Complete with maps and detailed diagrams, this volume examines the production and distribution of fossil fuels and their viability as a future energy source.

Mineral Property Evaluation

Information Sources in Engineering

Advances in Spatio-Temporal Analysis

International Coal Technology Summary Document

Guidelines for Slope Performance Monitoring

Surface Mining, Second Edition

A global exploration of coal geology, from production and use to chemical properties and coal petrology Coal Geology, 3rd Edition, offers a revised and updated edition of this popular book which provides a comprehensive overview of the field of coal geology including coal geophysics, hydrogeology and mining. Also covered in this volume are fully revised coverage of resource and reserve definitions, equipment and recording techniques together with the use of coal as an alternative energy source as well as environmental implications. This third edition provides a textbook ideally suited to anyone studying, researching or working in the field of coal geology, geotechnical engineering and environmental science. Fills the gap between academic aspects of coal geology and the practical role of geology in the coal industry Examines sedimentological and stratigraphical geology, together with mining, geophysics, hydrogeology, environmental issues and coal marketing Defines global coal resource classifications and methods of calculation Addresses the alternative uses of coal as a source of energy Covers a global approach to coal producers and consumers

This third edition of the SME Mining Engineering Handbook reaffirms its international reputation as "the handbook of choice" for today's practicing mining engineer. It distills the body of knowledge that characterizes mining engineering as a disciplinary field and has subsequently helped to inspire and inform generations of mining professionals.Virtually all of the information is original content,

representing the latest information from more than 250 internationally recognized mining industry experts. Within the handbook's 115 thought-provoking chapters are current topics relevant to today's mining professional: Analyzing how the mining and minerals industry will develop over the medium and long term--why such changes are inevitable, what this will mean in terms of challenges, and how they could be managed Explaining the mechanics associated with the multifaceted world of mine and mineral economics, from the decisions associated with how best to finance a single piece of high-value equipment to the long-term cash-flow issues associated with mine planning at a mature operation Describing the recent and ongoing technical initiatives and engineering developments in relation to robotics, automation, acid rock drainage, block caving optimization, or process dewatering methods Examining in detail the methods and equipment available to achieve efficient, predictable, and safe rock breaking, whether employing a tunnel boring machine for development work, mineral extraction using a mobile miner, or cast blasting at a surface coal operation Identifying the salient points that dictate which is the safest, most efficient, and most versatile extraction method to employ, as well as describing in detail how each alternative is engineered Discussing the impacts that social and environmental issues have on mining from the pre-exploration phase to end-of-mine issues and beyond, and how to manage these two increasingly important factors to the benefit of both the mining companies and other stakeholders

The secret to streamlined scheduling of mining and civil engineering projects is a solid understanding of the basic concepts of rock cutting mechanics. Comparing theoretical values with experimental and real-world results, Mechanical Excavation in Mining and Civil Industries thoroughly explains various rock cutting theories developed for chisel, co Coal Production and Processing Technology provides uniquely comprehensive coverage of the latest coal technologies used in everything from mining to greenhouse gas mitigation. Featuring contributions from experts in industry and academia, this book:Discusses coal geology, characterization, beneficiation, combustion, coking, gasification, and liquef Soft Clay Engineering and Ground Improvement

Evaporites
SME Mining Engineering Handbook
Methods, Techniques and Equipment
Mine Openings: Stability and Support

Proceedings of the North American/Ninth US Mine Ventilation Symposium, Kingston, Canada, 8-12 June 2002

The go-to resource for professionals in the mining industry. The SME Mining Reference Handbook was the first concise reference published in the mining field and it quickly became the industry standard. It sits on almost every mining engineer's desk or bookshelf with worn pages, tabs to find most used equations, and personal notes. It has been the unequaled single reference and the first source of information for countless engineers. This second edition of the SME Mining Reference Handbook builds on that success. With an enhanced presentation, new and updated information is represented in a concise, well-organized guide of important data for everyday use by engineers and other professionals engaged in mining, exploration, mineral processing, and environmental compliance and reclamation. With its exhaustive trove of charts, graphs, tables, equations, and guidelines, the handbook is the essential technical reference for mobile mining professionals. With its exhaustive trove of charts, graphs, tables, equations, and guidelines, the handbook is the essential technical reference for mobile mining professionals. This new edition has been completely revised to reflect the notable innovations in mining engineering and the remarkable developments in the science of rock mechanics and the practice of rock engineering taht have taken place over the last two decades. Although "Rock Mechanics for Underground Mining" addresses many of the rock mechanics issues that arise in underground mining engineering, it is not a text exclusively for mining applications. Based on extensive professional research and teaching experience, this book will provide an authorative and comprehensive text for final year undergraduates and commencing postgraduate stydents. For professional practitioners, not only will it be of interests to mining and geological engineers, but also to civil engineers, structural mining geologists and geophysicists as a standard work for professional reference purposes. This textbook sets the standard for university-level instruction of mining engineering principles. With a thoughtful balance of theory and application, it gives students a practical working knowledge of the various concepts presented. Its utility extends beyond the classroom as a valuable field reference for practicing engineers and those preparing for the Professional Engineers Exam in Mining Engineering. This practical guidebook covers virtually all aspects of successful mine design and operations. It is an excellent reference for engineering students who are studying mine design or who require guidance in assembling a mine-design project, and industry professionals who require a comprehensive mine-design reference book. Topics include everything from mine preplanning to ventilation to pumping, power, and hauling systems. The text presents widely accepted principles that promote safe, efficient, and profitable mining operations. The book is an excellent text and self-study guide. Each chapter is organized to demonstrate how to apply various equations to solve day-to-day operational challenges. In addition, each chapter offers a series of practice problems with solutions.

This SME classic is both a reference book for the working engineer and a textbook for the mining student. This hardcover edition gives a brief history of surface mining and a general overview of the state of surface mining today--topics range from production and productivity to technological developments and trends in equipment. This extremely useful text takes the approach that exploration and mining geologists must be expert in a number of fields, including basic finance and economics, logistics, and pragmatic prospecting. Readers will find material on all these topics and more. The book's nine chapters include: Introduction, Exploration and Geology Techniques, Ore Reserve Estimation, Feasibility Studies and Project Financing, Planning and Design of Surface Mines, Mine Operations, Mine Capital and Operating Costs, Management and Organization, and Case Studies. The book is fully indexed.

Introductory Mining Engineering

For underground mining

Leverage Advanced Analytics in Mining Industry to Make Better Business Decisions

Carbon Dioxide Capture and Storage

Advanced Analytics in Mining Engineering

BPR annual cumulative

The monograph offers a comprehensive discussion of the role of evaporites in hydrocarbon generation and trapping, and new information on low temperature and high temperature ores. It also provides a wealth of information on exploitable salts, in a comprehensive volume has been assembled and organized to provide quick access to relevant information on all matters related to evaporites and associated brines. In addition, there are summaries of evaporite karst hazards, exploitative methods and problems that can arise in dealing with evaporites in conventional and solution mining. This second edition has been revised and extended, with three new chapters focusing on ore minerals in different temperature settings and a chapter on meta-evaporites. Written by a field specialist in research and exploration, the book presents a comprehensive overview of the realms of low- and high-temperature evaporite evolution. It is aimed at earth science professionals, sedimentologists, oil and gas explorers, mining geologists as well as environmental geologists.

Although most mining companies utilise systems for slope monitoring, experience indicates that mining operations continue to be surprised by the occurrence of adverse geotechnical events. A comprehensive and robust performance monitoring system is an essential component of slope management in an open pit mining operation. The development of such a system requires considerable expertise to ensure the monitoring system is effective and reliable. Written by instrumentation experts and geotechnical practitioners, Guidelines for Slope Performance Monitoring is an initiative of the Large Open Pit (LOP) Project and the fifth book in the Guidelines for Open Pit Slope Design series. Its 10 chapters present the process of establishing and operating a slope monitoring system; the fundamentals of pit slope monitoring instrumentation and methods; monitoring system operation; data acquisition, management and analysis; and utilising and communicating monitoring results. The implications of increased automation of mining operations are also discussed, including the future requirements of performance monitoring. Guidelines for Slope Performance Monitoring summarises leading mine industry practice in monitoring system design, implementation, system management, data management and reporting, and provides guidance for engineers, geologists, technicians and others responsible for geotechnical risk management.

Read what industry thought leaders are saying about research and advancements in ground control science. The International Conference on Ground Control in Mining has a rich history of advancing ground control techniques and knowledge. It provides a unique platform for researchers, regulators, consultants, manufacturers, and mine operators to present and exchange challenging industry topics as well as to expedite solutions to ground control problems that require immediate attention. This proceedings from the 38th International Conference is no exception. It includes 43 peer-reviewed research papers from industry experts covering topics of importance for today and the future.

IPCC Report on sources, capture, transport, and storage of CO2, for researchers, policy-makers and engineers.

Mining Engineering Analysis

Surface and Underground Excavations, 2nd Edition

Shovel-Truck Systems

Fossil Fuels

Past, Present and Future

Proceedings of the 38th International Conference on Ground Control in Mining

In this book, Dr. Soofastaei and his colleagues reveal how all mining managers can effectively deploy advanced analytics in their day-to-day operations- one business decision at a time. Most mining companies have a massive amount of data at their disposal. However, they cannot use the stored data in any meaningful way. The powerful new business tool-advanced analytics enables many mining companies to aggressively leverage their data in key business decisions and processes with impressive results. From statistical analysis to machine learning and artificial intelligence, the authors show how many analytical tools can improve decisions about everything in the mine value chain, from exploration to marketing. Combining the science of advanced analytics with the mining industrial business solutions, introduce the "Advanced Analytics in Mining Engineering Book" as a practical road map and tools for unleashing the potential buried in your company's data. The book is aimed at providing mining executives, managers, and research and development teams with an understanding of the business value and applicability of different analytic approaches and helping data analytics leads by giving them a business framework in which to assess the value, cost, and risk of potential analytical solutions. In addition, the book will provide the next generation of miners – undergraduate and graduate IT and mining engineering students – with an understanding of data analytics applied to the mining industry. By providing a book with chapters structured in line with the mining value chain, we will provide a clear, enterprise-level view of where and how advanced data analytics can best be applied. This book highlights the potential to interconnect activities in the mining enterprise better. Furthermore, the book explores the opportunities for optimization and increased productivity offered by better interoperability along the mining value chain – in line with the emerging vision of creating a digital mine with much-enhanced capabilities for modeling, simulation, and the use of digital twins – in line with leading "digital" industries.

The current, thoroughly revised and updated edition of this approved title, evaluates information sources in the field of technology. It provides the reader not only with information of primary and secondary sources, but also analyses the details of information from all the important technical fields, including environmental technology, biotechnology, aviation and defence, nanotechnology, industrial design, material science, security and health care in the workplace, as well as aspects of the fields of chemistry, electro technology and mechanical engineering. The sources of information presented also contain publications available in printed and electronic form, such as books, journals, electronic magazines, technical reports, dissertations, scientific reports, articles from conferences, meetings and symposiums, patents and patent information, technical standards, products, electronic full text services, abstract and indexing services, bibliographies, reviews, internet sources, reference works and publications of professional associations. Information Sources in Engineering is aimed at librarians and information scientists in technical fields as well as non-professional information specialists, who have to provide information about technical issues. Furthermore, this title is of great value to students and people with technical professions.

Mining techniques have evolved over time, culminating in the well-defined field of "mining science," which encompasses aspects such as engineering, chemistry, physics, technology, and management, among others. This book explains how mining techniques can be handled and improved further to make mining practices far more productive, safe, and eco-friendly. It is a useful resource for researchers, students, policy formulators, and decision-makers in different areas of mining and engineering.

Developments in Geographic Information Technology have raised the expectations of users. A static map is no longer enough; there is now demand for a dynamic representation. Time is of great importance when operating on real world geographical phenomena, especially when these are dynamic. Researchers in the field of Temporal Geographical Information Systems (TGIS) have been developing methods of incorporating time into geographical information systems. Spatio-temporal analysis embodies spatial modelling, spatio-temporal modelling and spatial reasoning and data mining. Advances in Spatio-Temporal Analysis contributes to the field of spatio-temporal analysis, presenting innovative ideas and examples that reflect current progress and achievements.

Mineral Resources

Mineral Resource Economy 2

Mining Techniques

Handbook for Feasibility Studies and Due Diligence

Mine Ventilation

Information Circular

In this book, the authors present a review of the methods used for the solution of problems of stability and support of mine workings, based on the study and analysis of the validity conditions of individual theoretical computing procedures. The classification of these methods, based on the analysis of factors determining the behaviour of a system of mine openings, should contribute to the greater objectivity of decisions connected with the management and control of mining operations and, from the educational point of view, enable the intricate problems of stability to be better understood. Chapters dealing with support structures and technologies of support review the present state of the art with special reference to problems prevailing in Europe where mining is carried out under continuously deteriorating and less favourable natural conditions. The authors have assembled the theoretical and practical knowledge necessary for those to whom the book is addressed, namely, practising mining engineers and project managers, and students and graduates in mining colleges and schools.

Building on the success of its 2006 predecessor, this 3rd edition of Open Pit Mine Planning and Design has been both updated and extended, ensuring that it remains the most complete and authoritative account of modern open pit mining available. Five new chapters on unit operations have been added, the revenues and costs chapter has been substantial

Mechanical Excavation in Mining and Civil Industries

Designing Ergonomic, Safe, and Attractive Mining Workplaces

Coal Geology

SME Mining Engineering Handbook, Third Edition

A Concise Desktop Reference

Modelling, Analysis and Calculations