Construction Equipment Management

Management of Construction introduces all aspects of management practice to students and professionals based in the construction industry. It is also important for those involved in allied fields such as design, project development, and site monitoring and inspection. The book addresses each stage of the construction project from conception to completion, giving a perspective on the whole life cycle often missing from textbooks. The author also balances engineering concerns with the human resource and personal aspects of construction management that are so important to the successful outcome of a project.
Management of Off-highway Plant and Equipment provides a working knowledge of plant management for today's engineers, managers and students, and explains concisely and clearly the factors to be considered during investment in, and management of, construction equipment. It compares the cost of leasing with those of purchase, discusses ways of achieving optimum economic usage of plant, and covers issues of health and safety, licensing and the logistics of maintenance.
A desk book for practicing professionals in the management of mobile equipment in construction, mining and forrestry.
A thoroughly updated edition of the classic guide to project management of construction projects For more than thirty years, Construction Project Management has been considered the preeminent guide to all aspects of the construction project management process, including the Critical Path Method (CPM) of project scheduling, and much more. Now in its Sixth Edition, it continues to provide a solid foundation of the principles and fundamentals of project management, with a particular emphasis on project planning, demonstrated through an example project, along with new pedagogical elements such as end-of-chapter problems and questions and a full suite of instructor's resources. Also new to this edition is information on the Earned Value Analysis (EVA) system and introductory coverage of Building Information Modeling (BIM) and Lean Construction in the context of project scheduling. Readers will also benefit from building construction examples, which illustrate each of the principles of project management. This information, combined with the case studies provided in the appendix, gives readers access to hands-on project management experience in the context of real-world project management problems. Features two integrated example projects—one civil and one commercial—fully developed through the text Includes end-of-chapter questions and problems Details BIM in scheduling procedures, Lean Construction, and Earned Value Analysis, EVA Provides teaching resources, including PowerPoint slides, interactive diagrams, and an Instructor's Manual with solutions for the end-of-chapter questions Construction Management and Civil Engineering students and professionals alike will find everything they need, to understand and to master construction project management in this classic guide.

"This revised and updated edition of Construction Equipment Management fills a gap on this subject by integrating both conceptual and hands-on quantitative knowledge on construction equipment into a process that facilitates student learning. The book is divided into three sections: Introductory Concepts Equipment Types Advanced Concepts The introductory section summarizes interdisciplinary concepts that are necessary to ground student's learning on construction equipment management, including both engineering and economics. The second section consist of 16 chapters each covering a different type of construction equipment and associated methods of use. The third section introduces more advanced concepts including operational analysis, economic management and safety and environmental management. This allows the book to be used on numerous courses at different levels to prepare graduates to apply skills on construction equipment when planning for a new project, estimating its costs, and monitoring field operations. Organized around the major categories of construction equipment, including both commercial and heavy civil examples, case studies, and exercises, this textbook will help students develop independence in applying concepts to hands-on scenarios. A companion website provides an instructor manual, solutions, additional examples, lecture slides, figures and diagrams"--

A complete update of the definitive guide to the planning and scheduling of construction projects Now with a dedicated Web site containing a downloadable version of the premier CPM scheduling software program-Micro Planner Manager(r) from MicroPlanning International for both Windows(r) and Macintosh platforms This Fourth Edition of Construction Project Management reaffirms the book's status as the industry-leading, definitive guide to the Critical Path Method (CPM) of project scheduling. It combines a solid foundation in the principles and fundamentals of CPM with particular emphasis on project planning. A highway bridge with a complete cost estimate is used to illustrate each of the principles of project management. Using this basic information and the case studies in the appendix, students are given project management problems and hands-on project management experience. Important features of Construction Project Management, Fourth Edition include: * Complete coverage of planning and scheduling principles that apply to every type of construction project * Special emphasis on the most difficult and important part of CPM-the planning process * A new chapter on production planning, the process of turning the project plan into efficient workplace operations * New methods for handling construction contingency planning and weather delays * In-depth coverage of the legal aspects of CPM scheduling * Large illustrations conveniently tucked into a back cover pocket An excellent text for both building construction and construction engineering students, this book is also an indispensable on-the-job reference for builders, architects, civil engineers, and other construction professionals.

Construction Engineering Management & Equipment The book covers the syllabi’s of Construction engineering for Degree as well as Diploma students and is also useful for practicing engineers. The book is recommended in AICTE model curriculum. Construction covers various forms of activities ranging from houses to high rise buildings, industrial structures, road construction, expressways, bridges, dams, barrages, runways, ports, canals, railways etc. These high-value projects involve the management of materials, equipment, human and financial resources, information system, control management etc. In major projects with modern technology, there is a need for detailed planning and management techniques, with the growing use of machinery, it has become necessary for construction engineers to be thoroughly familiar with the working application and upkeep of the wide range of the modern equipment. The book has been divided into two parts, namely “Construction engineering and management” and “Construction Equipment”

The Construction Industry of India * Feasibility Report * Construction Planning * Construction Management * Scheduling * Network Techniques in Construction Management * Program Evaluation and Review Technique (PERT) * Critical Path Method Netork Analysis *

Precedence Networks * Cost Control * Resources Allocation * Network and Control (Updating) * Cost Control in Construction * Job Layout * Progress Report * Motivation * Inspection and Quality Control * Safety Measures in Construction Works * Construction Equipment * Earth Excavating Machinery * Earth Compacting Equipment * Hoisting Equipment * Piles and Driving Equipment * Water Pumping Equipment * Asphalt Concrete Plants * Organisation of Public Works Department * General Outlines of P.W.D. System of Accounts * Work and Their Execution * Methods of Execution of Works * Works Accounts * Payments * Stores * Organisation * Construction Labour and Relevant Labour and Iindustrial Laws * Construction Disputes and Their Settlement * Total Quality Management (T.Q.M.) * Appendix.

With the construction boom reaching over $300 billion by the early 1990s in the United States alone, this comprehensive and accessible guide is more important than ever for the budget-minded contractor. Presenting quick engineering know-how for the performance and satisfactory completion of construction using commonly recognized equipment, it deals with the physical concepts of the work, the surrounding conditions and equipment requirements, with an emphasis on controls governing the equipment's performance.

A construction engineer must be able to understand and solve problems, communicate solutions, and manage their implementation. The book will help build these skills through: a holistic view of construction technology, its safe use to maximize productivity and how the principles of science are being applied; linking the material in this course to their previous courses (such as statics, geotechnical engineering); and pedagogy designed to promote knowledge, and skill acquisition, such as case studies, open-ended problems.

"Construction equipment management for engineers, estimators, and construction managers, second edition has been extensively rewritten to not only bring it up to date with the state of current practice, but also to serve as a textbook for university courses in construction engineering and management. The authors advanced the previous edition's practical, hands-on approach and added material on the future of construction equipment fleet management, which they believe will require a new technology-based skillset to maximize the cost-effectiveness of construction equipment operations. As such, the book covers the latest construction equipment technologies. Features: examines emergent technologies in the field, including automated machine guidance systems, intelligent compaction operations, and equipment-related civil integrated management tools. Provides information on how to reduce an equipment fleet's environmental impact, decreasing greenhouse gas emissions through enhanced equipment management and optimization practices. Discusses estimating equipment ownership, operating costs, economic life and optimal replacement timing. Demonstrates how to maximize profit by determining the optimum equipment mix and estimating productivity. Illustrates the use of production-based linear scheduling and stochastic simulations to maximize project cost and schedule certainty. This new edition will serve as an essential textbook for students as well as a valuable reference for a wide range of professionals within the construction, architecture, and engineering industries"--

Construction Project Management deals with different facets of construction management emphasizing the basic concepts that any engineering student is supposed to know. The major principles of project management have been derived through real life case studies from the field. Simplified examples have been used to facilitate better understanding of the concepts before going into the large and complex problems. The book features computer applications (Primavera and MS Project) used to explain planning, scheduling, resource leveling, monitoring and reporting; it is highly illustrated with line dia.

???PMBOK??(?5?)?????,???PMBOK??(?5?)????,???47?????????????????????????,?????.???
??????????,??????,??????,???????.

Construction Equipment Management for Engineers, Estimators, and Construction Managers, Second Edition has been extensively rewritten to not only bring it up to date with the state of current practice, but also to serve as a textbook for university courses in construction engineering and management. The authors advanced the previous edition’s practical, hands-on approach and added material on the future of construction equipment fleet management, which they believe will require a new technology-based skillset to maximize the cost-effectiveness of construction equipment operations. As such, the book covers the latest construction equipment technologies. Features: Examines emergent technologies in the field, including automated machine guidance systems, intelligent compaction operations, and equipment-related civil integrated management tools. Provides information on how to reduce an equipment fleet’s environmental impact, decreasing greenhouse gas emissions through enhanced equipment management and optimization practices. Discusses estimating equipment ownership, operating costs, economic life and optimal replacement timing. Demonstrates how to maximize profit by determining the optimum equipment mix and estimating productivity. Illustrates the use of production-based linear scheduling and stochastic simulations to maximize project cost and schedule certainty. This new edition will serve as an essential textbook for students as well as a valuable reference for a wide range of professionals within the construction, architecture, and engineering industries.

This guide to modern construction technology presents the applications and management of construction equipment. It has been structured to reflect the major categories of construction equipment and methods common to general contracting, and deals with excavating and materials handling plant, sand and aggregate production, road pavement construction and bridgework. construction, devising temporary works and the selection of appropriate equipment. The text has been augmented with performance data and worked examples, which should help the reader prepare cost plans and estimates of work. civil engineering, construction and building. In particular it is directed towards working contractors, engineers, builders, quantity surveyors, architects, specification writers, equipment and materials manufacturers, project managers and insurance and legal advisors.

Excerpt from The Midshipman's or British Mariner's Vocabulary: Being an Universal Dictionary of Technical Terms and Sea Phrases Used in the Construction, Equipment, Management and Military Operations of a Ship Aback, the situation of the sails when their surfaces are pressed against the masts by the force Of'the wind. About the Publisher Forgotten Books publishes hundreds of thousands of rare and classic books. Find more at www.forgottenbooks.com This book is a reproduction of an important historical work. Forgotten Books uses state-of-the-art technology to digitally reconstruct the work, preserving the original format whilst repairing imperfections present in the aged copy. In rare cases, an imperfection in the original, such as a blemish or missing page, may be replicated in our edition. We do, however, repair the vast majority of imperfections successfully; any imperfections that remain are intentionally left to preserve the state of such historical works.

Fully updated coverage of construction planning techniques and equipment technology Construction Planning, Equipment and Methods, Ninth Edition, follows in the footsteps of previous editions by laying out the fundamentals of machine utilization and production estimating in a logical, simple, and concise format. The book discusses the latest technologies and capabilities and offers real-world applications. Examples and illustrations showcase the latest equipment models and end-of-chapter summaries and homework problems reinforce salient points. You will explore construction economics, earthwork, and soil and rock properties. Safety procedures and financial considerations are thoroughly explained in this comprehensive guide. Coverage includes: •The history of construction equipment •Safety •Planning equipment utilization •Equipment economics •Operating costs •Rent and lease considerations •Planning for earthwork construction •Soil and rock •Compaction specifications •Seismic and deflection testing •Soil processing •Current models of dozers, excavators, scrapers, and cranes •And much more

Construction Equipment Management

An indispensable how-to guide to the management of heavy transport, cranes, earthmoving equipment and supporting services on a major civil engineering project. The book covers the selection of equipment, purchase, maintenance and final disposal of, subject to inspection or other future requirements and assets worth multi-million pounds.

Based on the authors' combined experience of seventy years working on projects around the globe, Construction Equipment Management for Engineers, Estimators, and Owners contains hands-on, how-to information that you can put to immediate use. Taking an approach that combines analytical and practical results, this is a valuable reference for a wide range of individuals and organizations within the architecture, engineering, and construction industry. The authors delineate the evolution of construction equipment, setting the stage for specific, up-to-date information on the state-of-the-art in the field. They cover estimating equipment ownership, operating cost, and how to determine economic life and replacement policy as well as how to schedule a production-driven, equipment-intensive project that achieves target production rates and meets target equipment-related unit costs and profits. The book includes a matrix for the selection of equipment and identifies common pitfalls of project equipment selection and how to avoid them. It describes how to develop an OSHA job safety analysis for an equipment-intensive project, making this sometimes onerous but always essential task easier. The authors' diverse and broad experience makes this a book that ranges from the rigorous mathematical analysis of equipment operations to the pragmatic discussion of the equipment maintenance programs needed to guarantee that the production predicted in a cost estimate occurs.