

Tecnologia Meccanica

This timely volume presents a range of critical topics on the use of composite materials in civil engineering; industrial, commercial, and residential structures; and historic buildings. Structural strengthening techniques based on composite materials, including, but not limited to, fiber-reinforced polymers, fiber-reinforced glasses, steel-reinforced polymers, and steel-reinforced glasses represent a practice employed internationally and have become an important component in the restoration of buildings impacted by natural hazards and other destructive forces. New Composite Materials: Selection, Design, and Application stands as a highly relevant and diverse effort, distinct from other technical publications dealing with building issues. The book focuses extensively on characterization of techniques employed for structural restoration and examines in detail an assortment of materials such as concrete, wood, masonry, and steel.

This dictionary contains around 60,000 Italian terms with their English translations, making it one of the most comprehensive books of its kind. It offers a wide vocabulary from all areas as well as numerous idioms. The terms are translated from Italian to English. If you need translations from English to Italian, then the companion volume The Great Dictionary English - Italian is recommended.

Advances in Machine Tool Design and Research 1967

Methodologies and Tools

Il libro del tornitore moderno

Design of Flexible Production Systems

Economic, Social, Political, Religious, and Cultural Aspects : Proceedings of the Sixth Workshop of the International Network Impact of Empire (Roman Empire, 200 B.C.-A.D. 476), Capri, March 29-April 2, 2005

60.000 Entries

In the last decade, the production of mechanical components to be assembled in final products produced in high volumes (e.g. cars, mopeds, industrial vehicles, etc.) has undergone deep changes due to the overall modifications in the way companies compete. Companies must consider competitive factors such as short lead times, tight product tolerances, frequent market changes and cost reduction. Anyway, companies often have to define production objectives as trade-offs among these critical factors since it can be difficult to improve all of them. Even if system flexibility is often considered a fundamental requirement for firms, it is not always a desirable characteristic of a system because it requires relevant investment cost which can jeopardize the profitability of the firm. Dedicated systems are not able to adapt to changes of the product characteristics while flexible systems offer more flexibility than what is needed, thus increasing investment and operative costs. Production contexts characterized by mid to high demand volume of well identified families of products in continuous evolution do not require the highest level of flexibility; therefore, manufacturing system flexibility must be rationalized and it is necessary to find out the best trade-off between productivity and flexibility by designing manufacturing systems endowed with the right level of flexibility required by the production problem. This new class of production systems can be named Focused Flexibility Manufacturing Systems-FFMSs. The flexibility degree in FFMSs is related to their ability to cope with volume, mix and technological changes, and it must take into account both present and future changes. The required level of system flexibility impacts on the architecture of the system and the explicit design of flexibility often leads to hybrid systems, i.e. automated integrated systems in which parts can be processed by both general purpose and dedicated machines. This is a key issue of FFMSs and results from the matching of flexibility and productivity that respectively characterize FMSs and Dedicated Manufacturing Systems (DMSs). The market share of the EU in the machine tool sector is 44%; the introduction of focused flexibility would be particularly important for machine tool builders whose competitive advantage is based on the ability of customizing their systems on the basis of needs of their customers. In fact, even if current production contexts frequently present situations which would fit well with the FFMS approach, tradition and know-how of machine tool builders play a crucial role. Firms often agree with the focused flexibility vision, nevertheless they decide not to pay the risk and efforts related to the design of this new system architecture. This is due also to the lack of well-structured design approaches which can help machine tool builders to configure innovative systems. Therefore, the FFMS topic is studied through the book chapters following a shared mission: "To define methodologies and tools to design production systems with a minimum level of flexibility needed to face, during their lifecycle, the product and process evolution both in the technological and demand aspects. The goal is to find out the optimal trade-off between flexibility and productivity". The book framework follows the architecture which has been developed to address the FFMS Design problem. This architecture is both broad and detailed, since it pays attention to all the relevant levels in a firm hierarchy which are involved in the system design. Moreover, the architecture is innovative because it models both the point of view of the machine tool builder and the point of view of the system user. The architecture starts analyzing Manufacturing Strategy issues and generating the possible demand scenario to be faced. Technological aspects play a key role while solving process plan problems for the products in the part family. Strategic and technological data becomes input when a machine tool builder performs system configuration. The resulting system configurations are possible solutions that a system user considers when planning its system capacity. All the steps of the architecture are deeply studied, developing methods and tools to address each subproblem. Particular attention is paid to the methodologies adopted to face the different subproblems: mathematical programming, stochastic programming, simulation techniques and inverse kinematics have been used. The whole architecture provides a general approach to implement the right degree of flexibility and it allows to study how different aspects and decisions taken in a firm impact on each other. The work presented in the book is innovative because it gives links among different research fields, such as Manufacturing Strategy, Process Plan, System Design, Capacity Planning and Performance Evaluation; moreover, it helps to formalize and rationalize a critical area such as manufacturing system flexibility. The addressed problem is relevant at an academic level but, also, at an industrial level. A great deal of industrial sectors need to address the problem of designing systems with the right degree of flexibility; for instance, automotive, white goods, electrical and electronic goods industries, etc. Attention to industrial issues is confirmed by empirical studies and real case analyses which are presented within the book chapters.

This book, based on the Fourth International Conference on Advanced Manufacturing Systems and Technology - AMST '96 aims at presenting trend and up-to-date information on the latest developments - research results and industrial experience in the field of machining processes, optimization and process planning, forming, flexible machining systems, non conventional machining, robotics and control, measuring and quality, thus providing an international forum for a beneficial exchange of ideas, and furthering a favourable cooperation between research and industry.

A Cumulative Author List Representing Library of Congress Printed Cards and Titles Reported by Other American Libraries

Volume 1: Geometric and Kinematic Design

Machining

La vita una sfida!

Corso di tecnologia meccanica. Ediz. openschool. Controlli, produzione dei materiali, processi di trasformazione, collegamenti. Per le Scuole superiori

Scientific and Technical Aerospace Reports

Measuring and managing the performance of a business is one of the most genuine desires of management. Balanced scorecard, the performance prism and activity-based management are the most popular frameworks in this setting. Based on the findings of R.G. Eccles' acclaimed "Performance Measurement Manifesto (1991)" this book introduces new contexts and themes of application and presents emerging research areas related to business performance measurement and management, e.g. SMEs and sustainability. As a result of the 1st International Summer School Piero Lunghi on "Perspectives of Business Performance Management" this book is written both for students and academics, as well as for practitioners looking for new, yet proven ways to measure and manage business performance.

Machining is one of the most important manufacturing processes. Parts manufactured by other processes often require further operations before the product is ready for application. “Machining: Fundamentals and Recent Advances” is divided into two parts. Part I explains the fundamentals of machining, with special emphasis on three important aspects: mechanics of machining, tools, and work-piece integrity. Part II is dedicated to recent advances in machining, including: machining of hard materials, machining of metal matrix composites, drilling polymeric matrix composites, ecological machining (minimal quantity of lubrication), high-speed machining (sculptured surfaces), grinding technology and new grinding wheels, micro- and nano-machining, non-traditional machining processes, and intelligent machining (computational methods and optimization). Advanced students, researchers and professionals interested or involved in modern manufacturing engineering will find the book a useful reference.

The National Union Catalog, Pre-1956 Imprints

Zukunft Ingenieurwissenschaften - Zukunft Deutschland

Handbook of international documentation and information

Beiträge einer 4ING-Fachkonferenz und der ersten Gemeinsamen Plenarversammlung der 4ING-Fakultätentage am 14. und 15.07.2008 an der RWTH Aachen

Gears

Manufacturing Systems Engineering

Since manufacturing has acquired industrial relevance, the problem of adequately sizing manufacturing plants has always been discussed and has represented a di?cult problem for the enterprises, which prepare strategic plans to competitively operate in the market. Manufact- ing capacity is quite expensive and its exploitation and planning must be carefully designed in order to avoid large wastes, or to preserve the survival of enterprises in the market. Indeed a good choice of ma- facturing capacity can result in improved performance in terms of cost, innovativeness, ?exibility, quality and service delivery. Unfortunately the capacity planning problem is not easy to solve because of the lack of clarity in the decisional process, the large number of variables involved, the high correlation among variables and the high level of uncertainty that inevitably a?ects decisions. The aim of this book is to provide a framework and speci?c methods and tools for the selection and con?guration of capacity of Advanced Manufacturing Systems (AMS). In particular this book de?nes an - chitecture where the multidisciplinary aspects of the designofAMSare properly organized and addressed. The tool will support the decisi- maker in the de?nition of the con?guration of the system which is best suited for the particular competitive context where the ?rm operates or wants tooperate. Thisbookisofinterest for academic researchers in the ?eldofind- trial engineering and particularly indicated in the areas of operations and manufacturing strategy.

Trotz der überragenden Bedeutung der Ingenieurwissenschaften für den Wirtschafts- und Wissenschaftsstandort Deutschland herrscht Mangel an Ingenieuren. Auf einer gemeinsam von Politik, Wirtschaft und Wissenschaft veranstalteten Fachkonferenz (14./15.07.2008) wurde eine Verpflichtungserklärung zur Zukunft der Ingenieurwissenschaften beschlossen. Diese dokumentiert das Buch zusammen mit allen Vorträgen und bietet damit Argumentationshilfen, Fakten, Fallstudien und nicht zuletzt Anregungen für die Zukunft der ingenieurwissenschaftlichen Ausbildung.

The Great Dictionary Italian - English

A Unified Approach to Manufacturing Technology, Production Management and Industrial Economics

Models for Medium and Short-term Planning

Models for Capacity Planning in Advanced Manufacturing Systems

Prototipazione rapida. La tecnologia per la competizione globale

Patents

Il presente volume è frutto di un ampliamento degli argomenti trattati nella prima edizione. In questa sede sono stati aggiunti tre nuovi temi: la stozzatura, il taglio delle ruote dentate ed il controllo numerico. L'introduzione della stozzatura permette di ampliare le operazioni di taglio con moto alternato rettilineo intermittente, consentendo di mettere in luce le modalità di asportazione di truciolo necessarie alla realizzazione di scanalature, cave, e forme poligonali già viste nella brocciatura, ma estese al caso di fori ciechi o di presenza di spallamenti. La fabbricazione di ruote dentate è descritto dapprima riportando le diverse tecnologie, i relativi utensili e le macchine oggi a disposizione per la fabbricazione di ingranaggi. Successivamente le differenti soluzioni vengono confrontate in maniera critica, analizzandone i pro ed i contro, sia sotto il punto di vista della sgrassatura che della finitura. Infine le differenti combinazioni vengono analizzate anche in funzione delle tipologie di acciai utilizzati per la fabbricazione degli ingranaggi e dei trattamenti termici finali che gli ingranaggi prodotti devono subire. L'ultimo argomento aggiunto affronta il tema del controllo numerico, che è di estrema importanza nella formazione dei giovani ingegneri meccanici che entreranno nel mondo di lavoro. Quest'ultimo viene affrontato dapprima analizzando le soluzioni meccaniche che tale tecnologia introduce nelle architetture delle macchine utensili a controllo numerico; successivamente ne vengono spiegate la logica di funzionamento e le possibilità di controllo e correzione delle traiettorie ottenibili dai sistemi ad assi controllati. Infine viene affrontato il passaggio fondamentale tra il comando di una traiettoria e le prestazioni ottenibili dall'asse in relazione alla sua massa e rigidezza. Non da ultimo gli autori sono lieti di ringraziare Samputensili, un'azienda leader nella fabbricazione di centri di lavoro per la rettificazione di ruote dentate, e l'Ing. Giacomo Guerrini per il prezioso contributo nella stesura della parte del taglio degli ingranaggi.

No other book has been published giving a single-volume introduction and survey to production planning in distributed manufacturing networks. The published literature so far includes conference proceedings only.

Tecnologia meccanica. Introduzione alle macchine utensili

Tecnologia meccanica e studi di fabbricazione

Business Performance Measurement and Management

Buttress’s World Guide to Abbreviations of Organizations

Catalog of Copyright Entries

Internationale Universitäts-Handbuch: Albanien-Österreich. 2. Polen-Vatikan. Register

L'idea che risiede alla base di questa nuova pubblicazione è quella di realizzare uno strumento didattico completo, che annoveri tanto le tecnologie di saldatura tradizionali, quali quelle ad arco elettrico, quanto quelle più innovative, quali i processi laser ed a fascio elettronico,

focalizzandosi in particolare su tutti i procedimenti di maggiore interesse industriale e di più frequente applicazione nel settore della produzione meccanica. La connotazione del testo rimane fortemente orientata verso una trattazione tecnico-scientifica rigorosa dei vari argomenti, lasciando

ad altri strumenti, quali ad esempio i manuali tecnici, tutte le considerazioni spiccatamente applicative ed operative. L'intento perseguito dagli autori, infatti, è quello di fornire basi scientifiche e conoscenze utili a comprendere in modo completo e dinamico i processi di saldatura, ponendo particolare attenzione ad una trattazione rigorosa, ma semplice e fruibile, dei fenomeni fisici coinvolti. Il lavoro di revisione del testo relativo ai precedenti volumi ha consentito di migliorare ed integrare la trattazione di numerosi argomenti e di perfezionare ed aggiungere figure, schemi e grafici per una migliore comprensione degli argomenti. In particolare sono state completamente riviste le parti riguardanti le posizioni in saldatura, i processi MIG/MAG e TIG, i procedimenti per punti e la parte relativa a tensioni e deformazioni. Maggiore enfasi e rigore scientifico sono stati dati ai fenomeni che regolano le modalità di trasferimento del materiale d'apporto nella saldatura MIG/MAG ed è stata ampliata la trattazione dei vari tipi di elettrodo di tungsteno e delle miscele di copertura impiegati nei procedimenti TIG. Sono stati anche inseriti nella trattazione numerosi riferimenti a normative specifiche, al fine di sensibilizzare il lettore all'uso di questi strumenti. Così configurato il testo risulta particolarmente adatto agli insegnamenti di tecnologia meccanica e sistemi di lavorazione presenti nei corsi di laurea in ingegneria meccanica, ma trova anche una valida collocazione come strumento didattico in tutti quei contesti, quali master di primo e secondo livello, corsi di istruzione e formazione tecnica superiore e di formazione aziendale, in cui sia necessario un approfondimento completo e rigoroso sulle tematiche di saldatura.

This sixth volume of the network Impact of Empire offers a comprehensive reading on the economic, political, religious and cultural impact of Roman military forces on the regions that were dominated by the Roman Empire.

Design of Advanced Manufacturing Systems

Production Planning in Production Networks

Europa

Pale Eoliche - Materiali

STORIOGRAFIA SCIENTIFICA Volume VI (Italiano/Inglese)

New Composite Materials

This edition of over 60 000 entries, including significantly more than 20% new or revised material, not only updates its predecessor but also continues the policy of extending coverage to areas dealt with only sparsely in previous editions. Special attention has been paid to the Far East, Australasia and Latin America in general, and to the People's Republic of China in particular. The cross-referencing between a defunct organization and its successor (indicated by ex and now) introduced into the last edition, has been extended. Otherwise the policies adopted in previous editions have been retained. All kinds of organizations are included - international, national, governmental, large or small - but strictly local organizations have been omitted. The subject scope includes activities of all kinds, in the fields of commerce and industry, education, law, politics, public administration, religion, recreation, medicine, science and technology. The country of origin of a national organization is given in brackets, unless it is the home country of the title language or can be deduced readily from the title itself. Acronyms of parent bodies of subsidiary organizations are also added in brackets. Equivalences are used to link acronyms in different languages for the same organization. A select bibliography guides the reader to specialist works providing more detailed information.

Advances in Machine Tool Design and Research 1967, Part 2 provides information pertinent to the development of machine tool design. This book discusses the advances in pneumatic positioning device in the machine tool laboratories. Organized into 41 chapters, this book starts with an overview of the pneumatic digital and analogue elements used in designing the control loop. This text then explains the control system for the cylindrical grinding process developed by fluid logic elements and the diaphragm-type fluid logic element used in the control system. Other chapters consider the causes of inaccuracies on a finished machined workpiece produced by a numerically controlled machine tool. This book discusses as well the machine errors that are corrected by instrumentation, the details of this installation, and the characteristics of the instrumentation required. The final chapter deals with the basic characteristics of material flow during closed die forging. This book is a valuable resource for production and mechanical engineers.

Handbuch der internationalen Dokumentation und Information

Fundamentals and Recent Advances

Tecnologia Meccanica. Introduzione alle macchine utensili

Official Gazette of the United States Patent Office

Advanced Manufacturing Systems and Technology

New Contexts, Themes and Challenges

The book explores the geometric and kinematic design of the various types of gears most commonly used in practical applications, also considering the problems concerning their cutting processes. The cylindrical spur and helical gears are first considered, determining their main geometric quantities in the light of interference and undercut problems, as well as the related kinematic parameters. Particular attention is paid to the profile shift of these types of gears either generated by rack-type cutter or by pinion-rack cutter. Among other things, profile-shifted toothing allows to obtain teeth shapes capable of greater strength and more balanced specific sliding, as well as to reduce the number of teeth below the minimum one to avoid the operating interference or undercut. These very important aspects of geometric-kinematic design of cylindrical spur and helical gears are then generalized and extended to the other examined types of gears most commonly used in practical applications, such as: straight bevel gears; crossed helical gears; worm gears; spiral bevel and hypoid gears. Finally, ordinary gear trains, planetary gear trains and face gear drives are discussed. Includes fully-developed exercises to draw the reader's attention to the problems that are of interest to the designer, as well as to clarify the calculation procedure Topics are addressed from a theoretical standpoint, but in such a way as not to lose sight of the physical phenomena that characterize the various types of gears which are examined The analytical and numerical solutions are formulated so as to be of interest not only to academics, but also to designers who deal with actual engineering problems concerning the gears

This second edition of the classic textbook has been written to provide a completely up-to-date text for students of mechanical, industrial, manufacturing and production engineering, and is an indispensable reference for professional industrial engineers and managers. In his outstanding book, Professor Katsundo Hitomi integrates three key themes into the text: * manufacturing technology * production management * industrial economics Manufacturing technology is concerned with the flow of materials from the acquisition of raw materials, through conversion in the workshop to the shipping of finished goods to the customer. Production management deals with the flow of information, by which the flow of materials is managed efficiently, through planning and control techniques. Industrial economics focuses on the flow of production costs, aiming to minimise these to facilitate competitive pricing. Professor Hitomi argues that the fundamental purpose of manufacturing is to create tangible goods, and it has a tradition dating back to the prehistoric toolmakers. The fundamental importance of manufacturing is that it facilitates basic existence, it creates wealth, and it contributes to human happiness - manufacturing matters. Nowadays we regard manufacturing as operating in these other contexts, beyond the technological. It is in this unique synthesis that Professor Hitomi's study constitutes a new discipline: manufacturing systems engineering - a system that will promote manufacturing excellence. Key Features: * The classic textbook in manufacturing engineering * Fully revised edition providing a modern introduction to manufacturing technology, production managment and industrial economics * Includes review questions and problems for the student reader

The Impact of the Roman Army (200 BC-AD 476)

Tecnologia delle industrie meccaniche: Principii generali. Lavorazione dei metalli. 1895-1896. 2 vol. illus

Tecnologia meccanica

Tecnologia Meccanica. Introduzione ai processi di saldatura

Tecnologia meccanica. Ediz. MyLab

Books. Part 1, group 1