Linear Motors Etel

Aimed at engineers in product development as well as advanced students of electrical engineering, control and mechatronics, this is the first English-language edition of the bestselling German book in which the authors address the issue of fractional horsepower drives. They are crucial for all kinds of products, from simple domestic utensils to the most complex and advanced technological applications. This handbook gives a practical overview on all of the available drives.

The book is intended for the diploma, undergraduate (B.E, B.Tech), Postgraduate (M.Tech), and Ph.D. students/Research scholars of Mechanical, Automobile, Manufacturing, Production, and Industrial Engineering disciplines. Researchers and practicing engineers will also find this book quite useful. We have tried to make the book as student-friendly as possible. The book can be used in industries, technical training institutes. This book covers the main area of interest in computer integrated manufacturing (CIM) and Computer-aided Manufacturing (CAM) namely Automation, Computer numerical machine (CNC), Industrial Robotics, Flexible manufacturing system (FMS), Group Technology (GT), Artificial Intelligence (AI) manufacturing & Expert systems, Mechatronics, Lean Manufacturing, Just-In-Time (JIT) Manufacturing, Enterprise Resource Planning (ERP) through good sketches and most simple explanations.

Handbook of Fractional-Horsepower Drives

Eureka

An International Symposium Jointly Organized by Aerospatiale, Centre National D'Etudes Spatiales, and the European Space Agency and Held at Cannes, France on 20-22 September 1989

Wear of Materials

Trademarks

The Shock and Vibration Digest

Discover the history, underpinnings, and applications of one of the most important theories in electrical engineering In Reference Frame Theory, author Paul Krause delivers a comprehensive and thorough examination of his sixty years of work in reference frame theory. From the arbitrary reference frame, to the coining of the title "reference frame theory," to the recent establishment of the basis of the theory, the author leaves no stone unturned in his examination of the foundations and niceties of this area. The book begins with an integration of Tesla's rotating magnetic field with reference frame theory before moving on to describe the link between reference frame theory and symmetrical induction machines and synchronous machines. Additional chapters explore the field orientation of brushless DC drives and induction machine drives. The author concludes with a description of many of the applications that make use of reference frame theory. The comprehensive and authoritative Reference Frame Theory also covers topics like: A brief introduction to the history of reference frame theory Discussions of Tesla's rotating magnetic field and its basis of reference frame theory Examinations of symmetrical induction and synchronous machines, including flux-linkage equations and equivalent circuits Applications of reference frame theory to neglecting stator transients, multiple reference frames, and symmetrical components Perfect for power engineers, professors, and graduate students in the area of electrical engineering, Reference Frame Theory also belongs on the bookshelves of automotive engineers and manufacturing engineers who frequently work with electric drives and power systems. This book serves as a powerful reference for anyone seeking assistance with the fundamentals or intricacies of reference frame theory.

The topics addressed in this book cover the whole range of kinematic analysis, synthesis and design and consider robotic systems possessing serial, parallel and cable driven mechanisms. The robotic systems range from being less than fully mobile to kinematically redundant to over constrained. The fifty-six contributions report the latest results in robot kinematics with emphasis on emerging areas such as design and control of humanoids or humanoid subsystems. The book is of interest to researchers wanting to bring their knowledge up to date regarding modern topics in one of the basic disciplines in robotics, which relates to the essential property of robots, the motion of mechanisms.

Design News

Control of Non-conventional Synchronous Motors

Spanende Fertigung

The Photonics Directory

Patents

Meccatronica: Azionamenti elettrici ed oleodinamici

Symposium proceedings contains information on some of the latest work involving the development, assessment, and application of wear-resistant materials. Nearly 60 papers by authors from more than 10 countries discuss fundamental and applied research in the areas of wear, erosion, and wear-corrosion of materials.

The collection includes selected, peer reviewed papers from the 2012 International Conference on Mechatronics and Computational Mechanics (ICMCM 2012), 20-21st December,2012, Dubai, UAE. Volume is indexed by Thomson Reuters CPCI-S (WoS). The papers are grouped as follows: Chapter 1: Mechatronics and Control; Chapter 2: Applied Mechanics and Mechanical Engineering; Chapter 3: Applied Materials Engineering; Chapter 4: Organization of Manufacture, Engineering Management and Information Technologies.

Electronic Design

Genetics and Intelligence – Keys to Industry 4.0

Semiconductor International

Prozesse, Innovationen, Werkstoffe

World Review of Aviation, Astronautics, Avionics

Interavia Space Directory

Lists citations with abstracts for aerospace related reports obtained from world wide sources and announces documents that have recently been entered into the NASA Scientific and Technical Information Database.

Control of Non-conventional Synchronous MotorsJohn Wiley & Sons

The Messenger

Jane's Space Directory, 1999-2000

Fourth European Space Mechanisms and Tribology Symposium

Tribology Research, from Model Experiment to Industrial Problem

Official Gazette of the United States Patent and Trademark Office

日本応用磁気学会誌

Questo testo raccoglie parte del materiale didattico utilizzato nei corsi di Meccanica Applicata e Meccatronica svolti presso la Facoltà di Ingegneria di Firenze. Esigenza comune di questi corsi era la necessità di fornire allo studente nozioni minime relative al funzionamento ed alla modellazione di alcuni dei più comuni sistemi di azionamento utilizzati in robotica, automazione e trazione di veicoli. Gli argomenti trattati sono un sotto-insieme di quella disciplina che dagli anni '70 in poi viene definita meccatronica. In particolare sono inserite nozioni utili alla comprensione del funzionamento ed alla modellazione di alcune tipologie di attuatori elettrici, oleodinamici e pneumatici comunemente utilizzati in automazione. Alcune nozioni introduttive relative a meccanica delle trasmissioni, sensoristica, ed elettronica industriale sono inserite a complemento. In questa seconda edizione del 2015 alcune parti sono state emendate ed ampliate con particolare riferimento alla necessità di aggiornare il testo rispetto ai contenuti del corso. Trattandosi delle prime edizioni di un testo prodotto a partire da materiale didattico eterogeneo gli autori desiderano ringraziare tutti coloro che vorranno segnalare sviste ed inesattezze sicuramente presenti anche in questa seconda edizione che risulta ampliata rispetto alla precedente di oltre 100 pagine.

The 14th International Conference on Wear of Materials took place in Washington, DC, USA, 30 March - 3 April 2003. These proceedings contain over two-hundred peer reviewed papers containing the best research, technical developments and engineering case studies from around the world. Biomaterials and nano-tribology receive special attention in this collection reflecting the general trends in the field. Further highlights include a focus on the new generation of instrumentation to probe wear at increasingly small scales. Approximately ninety communications and case studies, a popular format for the academic community have also been included, enabling the inclusion of the most up-to-date research. Over 200 peer-reviewed papers including hot topics such as biomaterials and nano-tribology Keeping you up-to-date with the latest research from leading experts Includes communications and case studies

Jane's Space Directory

A Publication of the Shock and Vibration Information Center, Naval Research Laboratory

El Mensajero

Advances in Robot Kinematics

34th Aerospace Mechanisms Symposium

Scientific and Technical Aerospace Reports

Classical synchronous motors are the most effective device to drive industrial production systems and robots with precision and rapidity. However, numerous applications require efficient controls in non-conventional situations. Firstly, this is the case with synchronous motors supplied by thyristor line-commutated inverters, or with synchronous motors with faults on one or several phases. Secondly, many dri conventional motors such as polyphase (more than three phases) synchronous motors, synchronous motors with double excitation, permanent magnet linear synchronous motors, synchronous and switched reluctance motors, stepping motors and piezoelectric motors. This book presents efficient controls to improve the use of these non-conventional motors. Contents 1. Self-controlled Synchronous Motor: Function and Simplified Control Model, Francis Labrique and François Baudart. 2. Self-controlled Synchronous Motor: Dynamic Model Including the Behavior of Damper Windings and Commutation Overlap, Ernest Matagne. 3. Synchronous Machines in Degraded Mode, Damien Flieller, Ngac Ky Nguyen, Hervé Schwab and Guy Sturtzer. 4. Control of the Double-star Synchronous Machine Supplied by PWI Mohamed Fouad Benkhoris. 5. Vectorial Modeling and Control of Multiphase Machines with Non-salient Poles Supplied by an Inverter, Xavier Kestelyn and Éric Semail. 6. Hybrid Excitation Synchronous Machines, Nicolas Patin and Lionel Vido. 7. Advanced Control of the Linear Synchronous Motor, Ghislain Remy and Pierre-Jean Barre. 8. Variable Reluctance Machines: Modeling and Control, Mickael Hila Lubin and Abdelmounaïm Tounzi. 9. Control of the Stepping Motor, Bruno Robert and Moez Feki . 10. Control of Piezoelectric Actuators, Frédéric Giraud and Betty Lemaire-Semail.

Motion and vibration control is a fundamental technology for the development of advanced mechanical systems such as mechatronics, vehicle systems, robots, spacecraft, and rotating machinery. Often the implementation of high performance, low power consumption designs is only possible with the use of this technology. It is also vital to the mitigation of natural hazards for large structures such as high-ris bridges, and to the application of flexible structures such as space stations and satellites. Recent innovations in relevant hardware, sensors, actuators, and software have facilitated new research in this area. This book deals with the interdisciplinary aspects of motion and vibration control for mechanical, civil and aerospace systems. It covers a broad range of applications (e.g. vehi actuators, rotor dynamics, biologically inspired mechanics, humanoid robot dynamics and control, etc.) and also provides advances in the field of fundamental research e.g. control of fluid/structure integration, nonlinear control theory, etc. Each of the contributors is a recognised specialist in his field, and this gives the book relevance and authority in a wide range of areas.

Development and Applications

Selected Papers from MOVIC 2008

European Electronics Directory 1994

Motion and Vibration Control

Azionamenti Elettrici ed Oleodinamici

"control of the Future of Youth" : a Proceedings Volume from the IFAC Conference, Belfort, France, 20-22 May 1997

The 27th Leeds-Lyon Symposium on Tribology was held at the Institut National des Sciences Appliquées de Lyon, 5-8 September 2000. The central theme was: 'Tribology Research: From Model Experiment to Industrial Problem: A century of efforts in mechanics, materials science and physico-chemistry'. To celebrate the Year 2000, the organisers tried to achieve two different goals. First, to bring together contributions from the three major scientific fields that make up the Tribological community: mechanics, physico-chemistry and materials science. The second goal was to attract contributions ranging from complex industrial problems to model experiments. The conference began with two keynote lectures, the first being a detailed technical lecture on the dynamic behaviour of an elastic shaft supported by hydrodynamic bearings. The second was an overview of first principles multi-scale modelling of physicochemical aspects of tribology. Both of these interesting lectures are included in the proceedings volume.

Companion volume to Components and Sub-Assemblies Directory, providing access to 8000 manufacturers, agents and representatives of electronics systems and equipment. Entries include names of key managers, addresses, fax/telephone numbers, and pocket descriptions of manufacturing and sales programmes. There is also a product index to track the companies involved in any given business lines.

Reference Frame Theory

Meccatronica

Elektrodynamisches Antriebssystem zur Unrundbearbeitung

McGraw-Hill Encyclopedia of Energy

Proceedings of the 1st Euspen Topical Conference on Fabrication and Metrology in Nanotechnology, Copenhagen, May 28-30, 2000

UKACC International Conference on Control '98, 1-4 September 1998, Venue, University of Wales, Swansea, UK

Cyber-Physical and Gentelligent Systems in Manufacturing and Life Cycle explores the latest technologies resulting from the integration of sensing components throughout the production supply chain, and the resulting possibilities to improve efficiency, flexibility, and product quality. The authors present cutting edge research into data storage in components, communication devices, data acquisition, as well as new industrial applications. Detailed technical descriptions of the tools are presented in addition to discussions of how these systems have been used, the benefits they provide, and what industry problems they could tackle in the future. This is essential reading for researchers and production engineers interested in the potential of cyber physical systems to optimize all parts of the supply chain. Addresses applications of cyber physical systems throughout the product lifecycle, including design, manufacture, and maintenance Features five industry case studies examining tools in different stages of the production chain Provides an invaluable recap of 12 years of advances in digitization of production processes and the implementation of intelligent systems Explores how these technologies could be used to solve problems in the future

Questo testo raccoglie parte del materiale didattico utilizzato nei corsi di Meccanica Applicata e Meccatronica svolti presso la Facolta? di Ingegneria di Firenze. Esigenza comune di questi corsi era la necessita? di fornire allo studente nozioni minime relative al funzionamento ed alla modellazione di alcuni dei piu? comuni sistemi di azionamento utilizzati in robotica, automazione e trazione di veicoli. Gli argomenti trattati sono un sotto-insieme di quella disciplina che dagli anni '70 in poi viene definita meccatronica. In particolare sono inserite nozioni utili alla comprensione del funzionamento ed alla modellazione di alcune tipologie di attuatori elettrici, oleodinamici e pneumatici comunemente utilizzati in automazione. Alcune nozioni introduttive relative a meccanica delle trasmissioni, sensoristica, ed elettronica industriale sono inserite a complemento. In questa seconda edizione del 2015 alcune parti sono state emendate ed ampliate con particolare riferimento alla necessita? di aggiornare il testo rispetto ai contenuti del corso.

Control of Industrial Systems

Cyber-Physical and Gentelligent Systems in Manufacturing and Life Cycle

Systems and Applications

Wear of Engineering Materials

A Century of Efforts in Mechanics, Materials Science, and Physico-chemistry : Proceedings of the 27th Leeds-Lyon Symposium on Tribology Held in the Institut National Des Sciences Appliquées de Lyon, Lyon, France, 5th-8th September 2000