Automatic Washing Machine Based On Plc

Logic Synthesis for Finite State Machines Based on Linear Chains of States **Granular Computing Based Machine Learning Machine Learning** *Machine Learning-Based Fault Diagnosis for Industrial Engineering Systems* **Database Machines and Knowledge Base Machines** The Soul of A New Machine Machine Learning for Vision-Based Motion Analysis **X-Machines for Agent-Based Modeling** *Testable Architecture and Test Generation for Finite State Machines Based Embedded Controllers* Logic Synthesis for VLSI-Based Combined Finite State Machines **An Introduction to Support Vector Machines and Other Kernel-based Learning Methods Base Prices of Machine Tools** *Model-Based Machine Learning* **Artificial-Intelligence-based Electrical Machines and Drives Cognitive Behavior and Human Computer Interaction Based on Machine Learning Algorithms** *Webservices* **Connected Movie Novelization** Programmed for Laughs *Machine Learning and Its Applications* **The Operators** *Algorithms in Machine Learning Paradigms* The Age of Spiritual Machines **Machine Learning for Kids** A Multi-class Support Vector Machine Based on Scatter Criteria **Neural Information Processing Automata Studies Machine Learning Approach for Cloud Data Analytics in IoT Machine-based Intelligent Face Recognition The Routledge Companion to Knowledge Management Machine Learning Using R Factory The Living Machine Electromagnetic Analysis and Condition Monitoring of Synchronous Generators Refrigerating Engineering** Modeling and Analysis with Induction Generators, Third Edition *Network and Parallel Computing* **Advances in Ergonomics in Design** *Kokomo Opalescent Glass Company, Inc. V. Arthur W. Schmid International, Inc Machine-based Material Processing - Part: Turning* **Productivity Theory for Industrial Engineering**

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are now.

Database Machines and Knowledge Base Machines Jun 28 2022 This volume contains the papers presented at the Fifth International Workshop on Database Machines. The papers cover a wide spectrum of topics on Database Machines and Knowledge Base Machines. Reports of major projects, ECRC, MCC, and ICOT are included. Topics on DBM cover new database machine architectures based on vector processing and hypercube parallel processing, VLSI oriented architecture, filter processor, sorting machine, concurrency control mechanism for DBM, main memory database, interconnection network for DBM, and performance evaluation. In this workshop much more attention was given to knowledge base management as compared to the previous four workshops. Many papers discuss deductive database processing. Architectures for semantic network, prolog, and production system were also proposed. We would like to express our deep thanks to all those who contributed to the success of the workshop. We would also like to express our apprecia tion for the valuable suggestions given to us by Prof. D. K. Hsiao, Prof. D.

Advances in Ergonomics in Design Sep 27 2019 This book provides readers with a timely snapshot of ergonomics research and methods applied to the design, development and evaluation, of products, systems and services. It gathers theoretical contributions, case studies and reports on technical interventions focusing on a better understanding of human machine interaction, and user experience for improving product design. The book covers a wide range of established and emerging topics in user-centered design, relating to design for special populations, design education, workplace assessment and design, anthropometry, ergonomics of buildings and urban design, sustainable design, as well as visual ergonomics and interdisciplinary research and practices, among others. Based on the AHFE 2021 International Conference on Ergonomics in Design, held virtually on 25–29 July, 2021, from USA, the book offers a thought-provoking guide for both researchers and practitioners in human-centered design and related fields.

Machine Learning Using R May 04 2020 Examine the latest technological advancements in building a scalable machine-learning model with big data using R. This second edition shows you how to work with a machine-learning algorithm and use it to build a ML model from raw data. You will see how to use R programming with TensorFlow, thus avoiding the effort of learning Python if you are only comfortable with R. As in the first edition, the authors have kept the fine balance of theory and application of machine learning through various real-world use-cases which gives you a comprehensive collection of topics in machine learning. New chapters in this edition cover time series models and deep learning. What You'll Learn Understand machine learning algorithms using R Master the process of building machine-learning models Cover the theoretical foundations of machine-learning algorithms See industry focused real-world use cases Tackle time series modeling in R Apply deep learning using Keras and TensorFlow in R Who This Book is For

Data scientists, data science professionals, and researchers in academia who want to understand the nuances of machine-learning approaches/algorithms in practice using R.

Machine Learning for Kids Dec 11 2020 A hands-on, application-based introduction to machine learning and artificial intelligence (AI). Create compelling AI-powered games and applications using the Scratch programming language. AI Made Easy with 13 Projects Machine learning (also known as ML) is one of the building blocks of AI, or artificial intelligence. AI is based on the idea that computers can learn on their own, with your help. Machine Learning for Kids will introduce you to machine learning, painlessly. With this book and its free, Scratch-based companion website, you'll see how easy it is to add machine learning to your own projects. You don't even need to know how to code! Step by easy step, you'll discover how machine learning systems can be taught to recognize text, images, numbers, and sounds, and how to train your models to improve them. You'll turn your models into 13 fun computer games and apps, including: A Rock, Paper, Scissors game that recognizes your hand shapes A computer character that reacts to insults and compliments An interactive virtual assistant (like Siri or Alexa) A movie recommendation app An AI version of Pac-Man There's no experience required and step-by-step instructions make sure that anyone can follow along! No Experience Necessary! Ages 12+

The Age of Spiritual Machines Jan 12 2021 Ray Kurzweil is the inventor of the most innovative and compelling technology of our era, an international authority on artificial intelligence, and one of our greatest living visionaries. Now he offers a framework for envisioning the twenty-first century--an age in which the marriage of human sensitivity and artificial intelligence fundamentally alters and improves the way we live. Kurzweil's prophetic blueprint for the future takes us through the advances that inexorably result in computers exceeding the memory capacity and computational ability of the human brain by the year 2020 (with human-level capabilities not far behind); in relationships with automated personalities who will be our teachers, companions, and lovers; and in information fed straight into our brains along direct neural pathways. Optimistic and challenging, thought-provoking and engaging, The Age of Spiritual Machines is the ultimate guide on our road into the next century.

Logic Synthesis for Finite State Machines Based on Linear Chains of States Nov 02 2022 This book discusses Moore finite state machines (FSMs) implemented with field programmable gate arrays (FPGAs) including look-up table (LUT) elements and embedded memory blocks (EMBs). To minimize the number of LUTs in FSM logic circuits, the authors propose replacing a state register with a state counter. They also put forward an approach allowing linear chains of states to be created, which simplifies the system of input memory functions and, therefore, decreases the number of LUTs in the resulting FSM circuit. The authors combine this approach with using EMBs to implement the system of output functions (microoperations). This allows a significant decrease in the number of LUTs, as well as eliminating a lot of interconnections in the FSM logic circuit. As a rule, it also reduces the area occupied by the circuit and diminishes the resulting power dissipation. This book is an interesting and valuable resource for students and postgraduates in the area of computer science, as well as for designers of digital systems that included complex control units

Automata Studies Sep 07 2020
Algorithms in Machine Learning Paradigms Feb 10 2021 This book presents studies involving algorithms in the machine learning paradigms. It discusses a variety of learning problems with diverse applications, including prediction, concept learning, explanation-based learning, case-based (exemplar-based) learning, statistical rule-based learning, feature extraction-based learning, optimization-based learning, quantum-inspired learning, multi-criteria-based learning and hybrid intelligence-based learning.
Machine Learning Aug 31 2022 Machine Learning: A Constraint-Based Approach provides readers with a refreshing look at the basic models and algorithms of machine learning, with an emphasis on current topics of interest that includes neural networks and kernel machines. The book presents the information in a truly unified manner that is based on the notion of learning from environmental constraints. While regarding symbolic knowledge bases as a collection of constraints, the book draws a path towards a deep integration with machine learning that relies on the idea of adopting multivalued logic formalisms, like in fuzzy systems. A special attention is reserved to deep learning, which nicely fits the constrained- based approach followed in this book. This book presents a simpler unified notion of regularization, which is strictly connected with the parsimony principle, and includes many solved exercises that are classified according to the Donald Knuth ranking of difficulty, which essentially consists of a mix of warm-up exercises that lead to deeper research problems. A software simulator is also included. Presents fundamental machine learning concepts, such as neural networks and kernel machines in a unified manner Provides in-depth coverage of unsupervised and semi-supervised learning Includes a software simulator for kernel machines and learning from constraints that also includes exercises to facilitate learning Contains 250 solved examples and exercises chosen particularly for their progression of difficulty from simple to complex
Programmed for Laughs May 16 2021 In this joke book companion to the hilarious and offbeat motion picture The Mitchells vs. the Machines from Sony Pictures Animation, robots Eric and Deborahbot 5000 team up to write robot jokes with side-splitting results! When the delightfully dysfunctional Mitchell family's road trip is interrupted by a worldwide tech uprising, they join forces with two hilarious malfunctioning robots to save humanity before it's too late. In this book, robots Eric and Deborahbot 5000 form a team of their own as they crack jokes about the Mitchell family's accidental heroism and what the robot apocalypse is really like. This laugh-out-loud joke book will leave readers of all ages snorting, spitting out their drinks, and otherwise malfunctioning!
Logic Synthesis for VLSI-Based Combined Finite State Machines Jan 24 2022 The book is devoted to design and optimization of control units represented by combined finite state machines (CFSMs). The CFSMs combine features of both Mealy and Moore FSMs. Having states of Moore FSM, they produce output signals of both Mealy and Moore types. To optimize the circuits of CFSMs, we propose to use optimization methods targeting both Mealy and Moore FSMs. The book contains some original synthesis and optimization methods targeting hardware reduction in VLSI-based CFSM circuits. These methods take into account the peculiarities of

both a CFSM model and a VLSI chip in use. The optimization is achieved due to combining classical optimization methods with new methods proposed in this book. These new methods are a mixed encoding of collections of microoperations and a twofold state assignment in CFSMs. All proposed methods target reducing the numbers of arguments in systems of Boolean functions representing CFSM circuits. Also, we propose to use classes of pseudoequivalent states of Moore FSMs to reduce the number of product terms in these systems.The book includes a lot of examples which contributes to a better understanding of the features of the synthesis methods under consideration. This is the first book entirely devoted to the problems associated with synthesis and optimization of VLSI-based CFSMs. We hope that the book will be interesting and useful for students and PhD students in the area of Computer Science, as well as for designers of various digital systems. We think that proposed CFSM models enlarge the class of models applied for implementation of control units with modern VLSI chips.

The Living Machine Mar 02 2020 In this daring book, Bradie S. Crandall challenges the pervasive assertion that you need to eat meat to grow big and strong with the highest quality and most up-to-date science available. Viewing the human body as a machine, he uses his training as an engineer to dissect common misconceptions surrounding the controversial nutritional landscape with ease. Within this text is a bold new dietary approach for strength athletes. Bradie asserts that a diet featuring plants could potentially be more conducive to building strength and mass than a diet featuring animal products. He breaks down the science and helps explain why across professional athletics, more and more elite athletes are adopting plant-based diets.

Webservices Jul 18 2021 This book focuses on web service specification, search, composition, validation, resiliency, security and engineering, and discusses various service specification standards like WSDL, SAWSDL, WSMO and OWLS. The theory and associated algorithms for service specification verification are detailed using formal models like Petrinet, FSM and UML. The book also explores various approaches proposed for web service search and composition, highlighting input/output, parameter-based search, and selection of services based on both functional and non-functional parameters. In turn, it examines various types of composite web services and presents an overview of popular fault handling strategies for each of these types. Lastly, it discusses the standards used for implementing web service security on the basis of a case study, and introduces the Web Service Development Life Cycle (WSDLC), which defines co-operation between several industry partners to develop web services in a more structured way.

Machine Learning for Vision-Based Motion Analysis Apr 26 2022 Techniques of vision-based motion analysis aim to detect, track, identify, and generally understand the behavior of objects in image sequences. With the growth of video data in a wide range of applications from visual surveillance to human-machine interfaces, the ability to automatically analyze and understand object motions from video footage is of increasing importance. Among the latest developments in this field is the application of statistical machine learning algorithms for object tracking, activity modeling, and recognition. Developed from expert contributions to the first and second International Workshop on Machine Learning for Vision-Based Motion Analysis, this important text/reference highlights the

latest algorithms and systems for robust and effective vision-based motion understanding from a machine learning perspective. Highlighting the benefits of collaboration between the communities of object motion understanding and machine learning, the book discusses the most active forefronts of research, including current challenges and potential future directions. Topics and features: provides a comprehensive review of the latest developments in vision-based motion analysis, presenting numerous case studies on state-of-the-art learning algorithms; examines algorithms for clustering and segmentation, and manifold learning for dynamical models; describes the theory behind mixed-state statistical models, with a focus on mixed-state Markov models that take into account spatial and temporal interaction; discusses object tracking in surveillance image streams, discriminative multiple target tracking, and guidewire tracking in fluoroscopy; explores issues of modeling for saliency detection, human gait modeling, modeling of extremely crowded scenes, and behavior modeling from video surveillance data; investigates methods for automatic recognition of gestures in Sign Language, and human action recognition from small training sets. Researchers, professional engineers, and graduate students in computer vision, pattern recognition and machine learning, will all find this text an accessible survey of machine learning techniques for vision-based motion analysis. The book will also be of interest to all who work with specific vision applications, such as surveillance, sport event analysis, healthcare, video conferencing, and motion video indexing and retrieval.

Kokomo Opalescent Glass Company, Inc. V. Arthur W. Schmid International, Inc Aug 26 2019

Artificial-Intelligence-based Electrical Machines and Drives Sep 19 2021 Recently, AI techniques have received increased attention world-wide and at present 2 industrial drives incorporate some form of AI. This is the first comprehensive book which discusses numerous AI applications to electrical machines and drives.

Machine Learning and Its Applications Apr 14 2021 In recent years machine learning has made its way from artificial intelligence into areas of administration, commerce, and industry. Data mining is perhaps the most widely known demonstration of this migration, complemented by less publicized applications of machine learning like adaptive systems in industry, financial prediction, medical diagnosis and the construction of user profiles for Web browsers. This book presents the capabilities of machine learning methods and ideas on how these methods could be used to solve real-world problems. The first ten chapters assess the current state of the art of machine learning, from symbolic concept learning and conceptual clustering to case-based reasoning, neural networks, and genetic algorithms. The second part introduces the reader to innovative applications of ML techniques in fields such as data mining, knowledge discovery, human language technology, user modeling, data analysis, discovery science, agent technology, finance, etc.

The Routledge Companion to Knowledge Management Jun 04 2020 Knowledge when properly leveraged and harnessed contributes to effective organizational performance. How much an organization benefits from knowledge would depend on how well knowledge has been managed. There have been challenges to implementing knowledge management in today’s dramatically different world from before. This comprehensive reference work is a timely guide to understanding knowledge management. The book covers

key themes of knowledge management which includes the basic framework of knowledge management and helps readers to understand the state of art of knowledge management both from the aspects of theory and practice, from the perspectives of strategy, organization, resources, as well as institution and organizational culture. This reference work reflects the increasingly important role of both philosophy and digital technologies in knowledge management research and practice. This handbook will be an essential resource for knowledge management scholars, researchers and graduate students.

An Introduction to Support Vector Machines and Other Kernel-based Learning Methods Dec 23 2021 A comprehensive introduction to this recent method for machine learning and data mining.

Cognitive Behavior and Human Computer Interaction Based on Machine Learning Algorithms Aug 19 2021 COGNITIVE BEHAVIOR AND HUMAN COMPUTER INTERACTION BASED ON MACHINE LEARNING ALGORITHMS The objective of this book is to provide the most relevant information on Human-Computer Interaction to academics, researchers, and students and for those from industry who wish to know more about the real-time application of user interface design. Human-computer interaction (HCI) is the academic discipline, which most of us think of as UI design, that focuses on how human beings and computers interact at ever-increasing levels of both complexity and simplicity. Because of the importance of the subject, this book aims to provide more relevant information that will be useful to students, academics, and researchers in the industry who wish to know more about its real-time application. In addition to providing content on theory, cognition, design, evaluation, and user diversity, this book also explains the underlying causes of the cognitive, social and organizational problems typically devoted to descriptions of rehabilitation methods for specific cognitive processes. Also described are the new modeling algorithms accessible to cognitive scientists from a variety of different areas. This book is inherently interdisciplinary and contains original research in computing, engineering, artificial intelligence, psychology, linguistics, and social and system organization as applied to the design, implementation, application, analysis, and evaluation of interactive systems. Since machine learning research has already been carried out for a decade in various applications, the new learning approach is mainly used in machine learning-based cognitive applications. Since this will direct the future research of scientists and researchers working in neuroscience, neuroimaging, machine learning-based brain mapping, and modeling, etc., this book highlights the framework of a novel robust method for advanced cross-industry HCI technologies. These implementation strategies and future research directions will meet the design and application requirements of several modern and real-time applications for a long time to come. Audience: A wide range of researchers, industry practitioners, and students will be interested in this book including those in artificial intelligence, machine learning, cognition, computer programming and engineering, as well as social sciences such as psychology and linguistics.

Refrigerating Engineering Dec 31 2019 Vols. 1-17 include Proceedings of the 10th-24th (1914-28) annual meeting of the society.

The Operators Mar 14 2021 The inspiration for the Netflix original movie War Machine, starring Brad Pitt, Tilda Swinton, and Ben

Kingsley From the author of The Last Magazine, a shocking behind-the-scenes portrait of our military commanders, their high-stake maneuvers, and the politcal firestorm that shook the United States. In the shadow of the hunt for Bin Laden and the United States' involvement in the Middle East, General Stanley McChrystal, the commanding general of international and U.S. forces in Afghanistan, was living large. His loyal staff liked to call him a "rock star." During a spring 2010 trip, journalist Michael Hastings looked on as McChrystal and his staff let off steam, partying and openly bashing the Obama administration. When Hastings's article appeared in Rolling Stone, it set off a political firestorm: McChrystal was unceremoniously fired. In The Operators, Hastings picks up where his Rolling Stone coup ended. From patrol missions in the Afghan hinterlands to senior military advisors' late-night bull sessions to hotel bars where spies and expensive hookers participate in nation-building, Hastings presents a shocking behind-the-scenes portrait of what he fears is an unwinnable war. Written in prose that is at once eye-opening and other times uncannily conversational, readers of No Easy Day will take to Hastings' unyielding first-hand account of the Afghan War and its cast of players.
X-Machines for Agent-Based Modeling Mar 26 2022 From the Foreword: "This book exemplifies one of the most successful approaches to modeling and simulating [the] new generation of complex systems. FLAME was designed to make the building of large scale complex systems models straightforward and the simulation code that it generates is highly efficient and can be run on any modern technology. FLAME was the first such platform that ran efficiently on high performance parallel computers and a version for GPU technology is also available. At its heart, and the reason why it is so efficient and robust, is the use of a powerful computational model 'Communicating X-machines' which is general enough to cope with most types of modelling problems. As well as being increasingly important in academic research, FLAME is now being applied in industry in many different application areas. This book describes the basics of FLAME and is illustrated with numerous examples." —Professor Mike Holcombe, University of Sheffield, UK Agent-based models have shown applications in various fields such as biology, economics, and social science. Over the years, multiple agent-based modeling frameworks have been produced, allowing experts with non-computing background to easily write and simulate their models. However, most of these models are limited by the capability of the framework, the time it takes for a simulation to finish, or how to handle the massive amounts of data produced. FLAME (Flexible Large-scale Agent-based Modeling Environment) was produced and developed through the years to address these issues. This book contains a comprehensive summary of the field, covers the basics of FLAME, and shows how concepts of X-machines, can be stretched across multiple fields to produce agent models. It has been written with several audiences in mind. First, it is organized as a collection of models, with detailed descriptions of how models can be designed, especially for beginners. A number of theoretical aspects of software engineering and how they relate to agent-based models are discussed for students interested in software engineering and parallel computing. Finally, it is intended as a guide to developers from biology, economics, and social science, who want to explore how to write agent-based models for their research area. By working through the model examples provided, anyone should be able to design and build agent-based models and

deploy them. With FLAME, they can easily increase the agent number and run models on parallel computers, in order to save on simulation complexity and waiting time for results. Because the field is so large and active, the book does not aim to cover all aspects of agent-based modeling and its research challenges. The models are presented to show researchers how they can build complex agent functions for their models. The book demonstrates the advantage of using agent-based models in simulation experiments, providing a case to move away from differential equations and build more reliable, close to real, models. The Open Access version of this book, available at https://doi.org/10.1201/9781315370729, has been made available under a Creative Commons Attribution-Non Commercial-No Derivatives 4.0 license.

Granular Computing Based Machine Learning Oct 01 2022 This book explores the significant role of granular computing in advancing machine learning towards in-depth processing of big data. It begins by introducing the main characteristics of big data, i.e., the five Vs—Volume, Velocity, Variety, Veracity and Variability. The book explores granular computing as a response to the fact that learning tasks have become increasingly more complex due to the vast and rapid increase in the size of data, and that traditional machine learning has proven too shallow to adequately deal with big data. Some popular types of traditional machine learning are presented in terms of their key features and limitations in the context of big data. Further, the book discusses why granular-computing-based machine learning is called for, and demonstrates how granular computing concepts can be used in different ways to advance machine learning for big data processing. Several case studies involving big data are presented by using biomedical data and sentiment data, in order to show the advances in big data processing through the shift from traditional machine learning to granular-computing-based machine learning. Finally, the book stresses the theoretical significance, practical importance, methodological impact and philosophical aspects of granular-computing-based machine learning, and suggests several further directions for advancing machine learning to fit the needs of modern industries. This book is aimed at PhD students, postdoctoral researchers and academics who are actively involved in fundamental research on machine learning or applied research on data mining and knowledge discovery, sentiment analysis, pattern recognition, image processing, computer vision and big data analytics. It will also benefit a broader audience of researchers and practitioners who are actively engaged in the research and development of intelligent systems.

Machine-based Material Processing - Part: Turning Jul 26 2019

Neural Information Processing Oct 09 2020 The seven-volume set of LNCS 11301-11307, constitutes the proceedings of the 25th International Conference on Neural Information Processing, ICONIP 2018, held in Siem Reap, Cambodia, in December 2018. The 401 full papers presented were carefully reviewed and selected from 575 submissions. The papers address the emerging topics of theoretical research, empirical studies, and applications of neural information processing techniques across different domains. The 4th volume, LNCS 11304, is organized in topical sections on feature selection, clustering, classification, and detection.

Base Prices of Machine Tools Nov 21 2021

Testable Architecture and Test Generation for Finite State Machines Based Embedded Controllers Feb 22 2022
Model-Based Machine Learning Oct 21 2021
Electromagnetic Analysis and Condition Monitoring of Synchronous Generators Jan 30 2020 Electromagnetic Analysis and Condition Monitoring of Synchronous Generators Discover an insightful and complete overview of electromagnetic analysis and fault diagnosis in large synchronous generators In Electromagnetic Analysis and Condition Monitoring of Synchronous Generators, a team of distinguished engineers delivers a comprehensive review of the electromagnetic analysis and fault diagnosis of synchronous generators. Beginning with an introduction to several types of synchronous machine structures, the authors move on to the most common faults found in synchronous generators and their impacts on performance. The book includes coverage of different modeling tools, including the finite element method, winding function, and magnetic equivalent circuit, as well as various types of health monitoring systems focusing on the magnetic field, voltage, current, shaft flux, and vibration. Finally, Electromagnetic Analysis and Condition Monitoring of Synchronous Generators covers signal processing tools that can help identify hidden patterns caused by faults and machine learning tools enabling automated condition monitoring. The book also includes: A thorough introduction to condition monitoring in electric machines and its importance to synchronous generators Comprehensive explorations of the classification of synchronous generators, including armature arrangement, machine construction, and applications Practical discussions of different types of electrical and mechanical faults in synchronous generators, including short circuit faults, eccentricity faults, misalignment, core-related faults, and broken damper bar faults In-depth examinations of the modeling of healthy and faulty synchronous generators, including analytical and numerical methods Perfect for engineers working in electrical machine analysis, maintenance, and fault detection, Electromagnetic Analysis and Condition Monitoring of Synchronous Generators is also an indispensable resource for professors and students in electrical power engineering.
Machine Learning-Based Fault Diagnosis for Industrial Engineering Systems Jul 30 2022 This book provides advanced techniques for precision compensation and fault diagnosis of precision motion systems and rotating machinery. Techniques and applications through experiments and case studies for intelligent precision compensation and fault diagnosis are offered along with the introduction of machine learning and deep learning methods. Machine Learning-Based Fault Diagnosis for Industrial Engineering Systems discusses how to formulate and solve precision compensation and fault diagnosis problems. The book includes experimental results on hardware equipment used as practical examples throughout the book. Machine learning and deep learning methods used in intelligent precision compensation and intelligent fault diagnosis are introduced. Applications to deal with relevant problems concerning CNC machining and rotating machinery in industrial engineering systems are provided in detail along with applications used in precision motion systems. Methods, applications, and concepts offered in this book can help all professional engineers and students across many areas of engineering and operations management that are involved in any part of Industry 4.0 transformation.

Machine-based Intelligent Face Recognition Jul 06 2020 Machine-based Intelligent Face Recognition discusses the general engineering method of imitating intelligent human brains for video-based face recognition in a fundamental way, which is completely unsupervised, automatic, self-learning, self-updated and robust. It also overviews state-of-the-art research on cognitive-based biometrics and machine-based biometrics, and especially the advances in face recognition. This book is intended for scientists, researchers, engineers, and students in the field of computer vision, machine intelligence, and particularly of face recognition. Dr. Dengpan Mou, Dr.-Ing. and MSc from University of Ulm, Germany, is with Harman/Becker Automotive Systems GmbH, working on video processing, computer vision and machine learning research and development topics.
A Multi-class Support Vector Machine Based on Scatter Criteria Nov 09 2020
Factory Apr 02 2020 Vols. 24, no. 3-v. 34, no. 3 include: International industrial digest.
Modeling and Analysis with Induction Generators, Third Edition Nov 29 2019 Now in its Third Edition, Alternative Energy Systems: Design and Analysis with Induction Generators has been renamed Modeling and Analysis with Induction Generators to convey the book's primary objective—to present the fundamentals of and latest advances in the modeling and analysis of induction generators. New to the Third Edition Revised equations and mathematical modeling Addition of solved problems as well as suggested problems at the end of each chapter New modeling and simulation cases Mathematical modeling of the Magnus turbine to be used with induction generators Detailed comparison between the induction generators and their competitors Modeling and Analysis with Induction Generators, Third Edition aids in understanding the process of self-excitation, numerical analysis of stand-alone and multiple induction generators, requirements for optimized laboratory experimentation, application of modern vector control, optimization of power transference, use of doubly fed induction generators, computer-based simulations, and social and economic impacts.
The Soul of A New Machine May 28 2022 Pulitzer Prize winner Tracy Kidder memorably records the drama, comedy, and excitement of one company's efforts to bring a new microcomputer to market. Computers have changed since 1981, when The Soul of a New Machine first examined the culture of the computer revolution. What has not changed is the feverish pace of the high-tech industry, the go-for-broke approach to business that has caused so many computer companies to win big (or go belly up), and the cult of pursuing mind-bending technological innovations. The Soul of a New Machine is an essential chapter in the history of the machine that revolutionized the world in the twentieth century.
Productivity Theory for Industrial Engineering Jun 24 2019 The mathematical models of productivity theory allows for the productivity rate of manufacturing machines and systems to be modelled with results that are validated by their actual output. This book presents the analytical approaches and methods to define maximal productivity rate of manufacturing machines and systems, based on the parameters of technological processes, structural design, reliability of mechanisms, and management systems.
Connected Movie Novelization Jun 16 2021 See what happens in this novelization of the hilarious and completely original motion

picture from Sony Pictures Animation, The Mitchells vs. the Machines—featuring 8 full-color pages with images from the movie! The Mitchells are a dysfunctional yet loving family whose road trip is interrupted by a tech uprising: all around the world, the electronic devices people love—from phones to refrigerators to an appealing new line of personal robots—decide it's time to take over. With the help of two friendly malfunctioning robots and the family's delightfully chubby pug, the Mitchells will have to get past their problems and work together to save each other and the world!

Machine Learning Approach for Cloud Data Analytics in IoT Aug 07 2020 Machine Learning Approach for Cloud Data Analytics in IoT The book covers the multidimensional perspective of machine learning through the perspective of cloud computing and Internet of Things ranging from fundamentals to advanced applications Sustainable computing paradigms like cloud and fog are capable of handling issues related to performance, storage and processing, maintenance, security, efficiency, integration, cost, energy and latency in an expeditious manner. In order to expedite decision-making involved in the complex computation and processing of collected data, IoT devices are connected to the cloud or fog environment. Since machine learning as a service provides the best support in business intelligence, organizations have been making significant investments in this technology. Machine Learning Approach for Cloud Data Analytics in IoT elucidates some of the best practices and their respective outcomes in cloud and fog computing environments. It focuses on all the various research issues related to big data storage and analysis, large-scale data processing, knowledge discovery and knowledge management, computational intelligence, data security and privacy, data representation and visualization, and data analytics. The featured technologies presented in the book optimizes various industry processes using business intelligence in engineering and technology. Light is also shed on cloud-based embedded software development practices to integrate complex machines so as to increase productivity and reduce operational costs. The various practices of data science and analytics which are used in all sectors to understand big data and analyze massive data patterns are also detailed in the book.

Network and Parallel Computing Oct 28 2019 This book constitutes the proceedings of the 11th IFIP WG 10.3 International Conference on Network and Parallel Computing, NPC 2014, held in Ilan, Taiwan, in September 2014. The 42 full papers and 24 poster papers presented were carefully reviewed and selected from 196 submissions. They are organized in topical sections on systems, networks, and architectures, parallel and multi-core technologies, virtualization and cloud computing technologies, applications of parallel and distributed computing, and I/O, file systems, and data management.