Iso 11012012 Geometrical Product Specifications Gps Geometrical Tolerancing Tolerances Of Form Orientation Location And Run Out

The field of additive manufacturing has seen explosive growth in recent years due largely in part to renewed interest from the manufacturing sector. Conceptually, additive manufacturing, or industrial 3D printing, is a way to build parts without using any part-specific tooling or dies from the computer-aided design (CAD) file of the part. Today, most engineered devices are 3D printed first to check their shape, size, and functionality before large-scale production. In addition, as the cost of 3D printers has come down significantly, and the printers' reliability and part quality have improved, schools and universities have been investing in 3D printers to experience, explore, and innovate with these fascinating additive manufacturing technologies. Additive Manufacturing highlights the latest advancements in 3D printing and additive manufacturing technologies. Focusing on additive manufacturing applications rather than on core 3D printing technologies, this book: Introduces various additive manufacturing technologies based on their utilization in different classes of materials Discusses important application areas of additive manufacturing, including medicine, education, and the space industry Explores regulatory challenges associated with the emergence of additive manufacturing as a mature technological platform By showing how 3D printing and additive manufacturing technologies are currently used, Additive Manufacturing not only provides a valuable reference for veteran researchers and those entering this exciting field, but also encourages innovation in future additive manufacturing applications.

Industrial users of ISO 10303 (STEP) protocols need the ability to exchange design product data that is in conformance with recently updated ISO Geometric Product Specifications (GPS) ISO 1101:2012; with AWS A2.4:2012 Standard Symbols for Welding, Brazing, and Nondestructive Examination; with ISO 2553: 2013 Welding and allied processes -- Symbolic representation on drawings -- Welded joints; with SAE AS8879D and ISO 3161:1999 Aerospace -- UNJ threads -- General requirements and limit dimensions; with and ISO 5855-1:1999 -- Aerospace -- MJ threads -- Part 1: General requirements. The LOTAR consortium created a project to extend ISO 10303-242 for these new capabilities. Changes to relevant STEP information models have been proposed to support the additions to ISO 1101, and new information models proposed to support the welding and thread standards.

This book gives a comprehensive view of the most recent majorinternational research in the field of tolerancing, and is anexcellent resource for anyone interested in Computer AidedTolerating. It is organized into 4 parts. Part 1 focuses on the more generalproblems of tolerance analysis and synthesis, for tolerancing inmechanical design and manufacturing processes. Part 2 specificallyhighlights the simulation of assembly with defects, and theinfluence of tolerances on the quality of the assembly. Part 3deals with measurement aspects, and quality control throughout thelife cycle. Different measurement technologies and methods forestimating uncertainty are considered. In Part 4, different aspectsof tolerancing and their interactions are explored, from thedefinition of functional requirement to measurement processes in aPLM approach.

Anesthesia Equipment: Principles and Applications, 2nd Edition, by Dr. Jan Ehrenwerth and Dr. James B. Eisenkraft, offersexpert, highly visual, practical guidance on the full range of delivery systems and technology used in practice today. It equips you with theobjective, informed answers you need to ensure optimal patient safety. Make informed decisions by expanding your understanding of the physical principles of equipment, the rationale for its use, delivery systems for inhalational anesthesia, systems monitoring, hazards and safety features, maintenance and quality assurance, special situations/equipment for non-routine adult anesthesia, and future directions for the field. Ensure patient safety with detailed advice on risk management and medicolegal implications of equipment use. Apply the most complete and up-to-date information available on machines, vaporizers, ventilators, breathing systems, vigilance, ergonomics, and simulation. Visualize the safe and effective use of equipment thanks to hundreds of full-color line drawings and photographs. Access the complete text and images online, fully searchable, at www.expertconsult.com.

This work gives an overview of significant research from recent years concerning performance-based design and quality control for concrete durability and its implementation. In engineering practice, performance approaches are often still used in combination with prescriptive requirements. This is largely because, for most durability test methods, sufficient practical experience still has to be gained before engineers and owners are prepared to fully rely on them. This book, compiled by RILEM TC 230-PSC, is intended to assist efforts to successfully build the foundation for the full implementation of performance-based approaches through the exchange of relevant knowledge and experience between researchers and practitioners worldwide.

Presents a theory of dimensioning synthesized from several areas of geometry, starting from the works of Euclid and culminating in some recent results in classification of continuous symmetry groups. Features numerous examples and illustrations for better understanding of concepts.

Creo Parametric 6.0 for Designers book is written to help the readers effectively use the modeling and assembly tools by utilizing the parametric approach of Creo Parametric 6.0 effectively. This book provides detailed description of the tools that are commonly used in modeling, assembly, sheetmetal as well as in mold. This book also covers the latest surfacing techniques like Freestyle and Style with the help of relevant examples and illustrations. The Creo Parametric 6.0 for Designers book further elaborates on the procedure of generating the drawings of a model or assembly, which are used for documentation of a model or assembly. It also includes the concept of Geometric Dimensioning and tolerancing. The examples and tutorials given in this book relate to actual mechanical industry designs. Salient Features: Comprehensive coverage of Creo Parametric 6.0 concepts and techniques. Tutorial approach to explain the concepts of Creo Parametric 6.0. Detailed explanation of all commands and tools. Summarized content on the first page of the topics that are covered in the chapter. Hundreds of illustrations for easy understanding of concepts. Step-by-step instructions, notes and tips, hundreds of illustrations for easy understanding of concepts. Real-world mechanical engineering designs as tutorials and exercises. Additional information throughout the book in the form of notes and tips. Self-Evaluation Tests and Review Questions at the end of the chapters to help the users assess their knowledge. Additional learning resources at 'allaboutcadcam.blogspot.com'. Table of Contents Chapter 1: Introduction to Creo Parametric 6.0 Chapter 2: Creating Sketches in the Sketch Mode-I Chapter 3: Creating Sketches in the Sketch Mode-II Chapter 4: Creating Base Features Chapter 5: Datums Chapter 6: Options Aiding Construction of Parts-I Chapter 7: Options Aiding Construction of Parts-II Chapter 8: Options Aiding Construction of Parts-III Chapter 9: Advanced Modeling Tools Chapter 10: Assembly Modeling Chapter 11: Generating, Editing, and Modifying the Drawing Views Chapter 12: Dimensioning the Drawing Views Chapter 13: Other Drawing Options Chapter 14: Working with Sheetmetal Components * Chapter 15: Surface Modeling * Chapter 16: Introduction to Mold Design * Chapter 17: Concepts of Geometric Dimensioning and Tolerancing * Index

Technical drawing, Engineering drawings, Drawings, Geometry, Form tolerances, Dimensional tolerances, Tolerances of position, Tolerances (measurement), Orientation, Symbols, Graphic symbols, Graphic representation

This book constitutes the refereed proceedings of the 15th IFIP WG 12.5 International Conference on Artificial Intelligence Applications and Innovations, AIAI 2019, held in Hersonissos, Crete, Greece, in May 2019. The 49 full papers and 6 short papers presented were carefully reviewed and selected from 101 submissions. They cover a broad range of topics such as deep learning ANN; genetic algorithms - optimization; constraints modeling; ANN training algorithms; social media intelligent modeling; text mining/machine translation; fuzzy modeling; biomedical and bioinformatics algorithms and systems; feature selection; emotion

recognition; hybrid Intelligent models; classification - pattern recognition; intelligent security modeling; complex stochastic games; unsupervised machine learning; ANN in industry; intelligent clustering; convolutional and recurrent ANN; recommender systems; intelligent telecommunications modeling; and intelligent hybrid systems using Internet of Things. The papers are organized in the following topical sections:AI anomaly detection - active learning; autonomous vehicles - aerial vehicles; biomedical AI; classification - clustering; constraint programming - brain inspired modeling; deep learning - convolutional ANN; fuzzy modeling; learning automata - logic based reasoning; machine learning - natural language; multi agent - IoT; nature inspired flight and robot; control - machine vision; and recommendation systems.

FUNDAMENTALS OF GEOMETRIC DIMENSIONING AND TOLERANCING 3E is a unique book that meets the needs of your students in industrial technology, CAD, engineering technology, and manufacturing technology. This book clearly organizes geometric dimensioning and tolerancing fundamentals into small, logical units for step-by-step understanding. Measurable performance objectives help you and your students assess their progress. Discussion questions promote interaction and higher-order thinking, and practice problems ensure thorough understanding of the concepts presented. FUNDAMENTALS OF GEOMETRIC DIMENSIONING AND TOLERANCING 3E defines and fully encompasses the revised ANSI/ASME Y14.5M-2009 to keep your students current on these important industry standards. This book is cited by top industry professionals as meeting the highest standards for a GD&T book! Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

This book contains all refereed papers accepted during the fourth asia-pacific edition & twelve edition-which were merged this year-of the CSD&M conference that took place in Beijing, People's Republic of China by 2021. Mastering complex systems requires an integrated understanding of industrial practices as well as sophisticated theoretical techniques and tools. This explains the creation of an annual go-between European and Asian forum dedicated to academic researchers & industrial actors working on complex industrial systems architecting, modeling & engineering. These proceedings cover the most recent trends in the emerging field of complex systems, both from an academic and professional perspective. A special focus was put this year on Digital Transformation in Complex Systems Engineering CESAM Community The CSD&M series of conferences are organized under the guidance of CESAM Community, managed by CESAMES. CESAM Community aims in organizing the sharing of good practices in systems architecting and model-based systems engineering (MBSE) and certifying the level of knowledge and proficiency in this field through the CESAM certification. The CESAM systems architecting & model-based systems engineering (MBSE) certification is especially currently the most disseminated professional certification in the world in this domain through more than 1,000 real complex system development projects on which it was operationally deployed and around 10,000 engineers who were trained on the CESAM framework at international level.

This book has been created on the basis of contributions to the 54th International Conference of Machine Design Departments that was held for the 60th anniversary of Technical University of Liberec. This international conference which follows a tradition going back more than 50 years is one of the longest-running series of conferences held in central Europe, dealing with methods and applications in machine design. The main aim of the conference was to provide an international forum where experts, researchers, engineers and industrial practitioners, managers and Ph.D. students could meet, share their experiences and present the results of their efforts in the broad field of machine design and related fields. The book has seven chapters which focus on new knowledge of machine design, optimization, tribology, experimental methods and measuring, engineering analyses and product innovation. Authors presented new design methods of machine parts and more complex assemblies with the help of numerical methods such as FEM. Research, measurements and studies of new materials, including composites for energy-efficient constructions are also described. The book also includes solutions and results useful for optimization and innovation of complex design problems in various industries.

This book highlights recent findings in industrial, manufacturing and mechanical engineering, and provides an overview of the state of the art in these fields, mainly in Russia and Eastern Europe. A broad range of topics and issues in modern engineering are discussed, including the dynamics of machines and working processes, friction, wear and lubrication in machines, surface transport and technological machines, manufacturing engineering of industrial facilities, materials engineering, metallurgy, control systems and their industrial applications, industrial mechatronics, automation and robotics. The book gathers selected papers presented at the 4th International Conference on Industrial Engineering (ICIE), held in Moscow, Russia in May 2018. The authors are experts in various fields of engineering, and all papers have been carefully reviewed. Given its scope, the book will be of interest to a wide readership, including mechanical and production engineers, lecturers in engineering disciplines, and engineering graduates.

This book presents new findings on cyber-physical systems design and modelling approaches based on AI and data-driven techniques, identifying the key industrial challenges and the main features of design and modelling processes. To enhance the efficiency of the design process, it proposes new approaches based on the concept of digital twins. Further, it substantiates the scientific, practical, and methodological approaches to modelling and simulating of cyber-physical systems. Exploring digital twins of cyber-physical systems as well as of production systems, it proposes combining both mathematical models and data processing techniques as advanced methods for cyber-physical system design and modelling. Moreover, it presents the implementation of the developed prototypes, including testing in real industries, which have collected and analyzed big data and proved their effectiveness. The book is intended for practitioners, enterprise representatives, scientists, and Ph.D. and master's students interested in the research and applications of cyber-physical systems in different domains.

This comprehensive handbook covers all major aspects of optomechanical engineering - from conceptual design to fabrication and integration of complex optical systems. The practical information within is ideal for optical and optomechanical engineers and scientists involved in the design, development and integration of modern optical systems for commercial, space, and military applications. Charts, tables, figures, and photos augment this already impressive text. Fully revised, the new edition includes 4 new chapters: Plastic optics, Optomechanical tolerancing and error budgets, Analysis and design of flexures, and Optomechanical constraint equations.

This book is the result of lessons, tutorials and other laboratories dealing with applied mechanical design in the universities and colleges. In the classical literature of the mechanical design, there are quite a few books that deal directly and theory and case studies, with their solutions. All schools, engineering colleges (technical) industrial and research laboratories and design offices serve design works. However, the books on the market remain tight in the sense that they are often works of mechanical constructions. This is certainly beneficial to the ordinary user, but the organizational part of the functional specification items is also indispensable.

This book is intended for students, academics, designers, process engineers and CMM operators, and presents the ISO GPS and the ASME GD&T rules and concepts. The Geometric Product Specification (GPS) and Geometrical Dimensioning and Tolerancing (GD&T) languages are in fact the most powerful tools available to link the perfect geometrical world of models and drawings to the imperfect world of manufactured parts and assemblies. The topics include a complete description of all the ISO GPS terminology, datum systems, MMR and LMR requirements, inspection, and gauging principles. Moreover, the differences between ISO GPS and the American ASME Y14.5 standards are shown as a guide and reference to help in the interpretation of drawings of the most common dimensioning and tolerancing specifications.The book may be used for engineering courses and for professional grade programmes, and it has been designed to cover the fundamental geometric tolerancing applications as well as the more advanced ones. Academics and professionals alike will find it to be an excellent teaching and research tool, as well as an easy-to-use guide.

This book includes the best papers from two conferences on machining and abrasive machining, organized in Poland on September 11-12, 2019. The chapters discuss classical topics and emerging methods and models in machining, measurement, and quality control. They cover new technologies, such as water jet machining, discuss important topics such as energy efficiency in machining, and analyze different cutting methods, materials and mechanisms.

This book reports on innovative concepts and practical solutions at the intersection between engineering design, engineering production and industrial management. It covers cutting-edge design, modeling and control of dynamic and multiphysics systems, knowledge management systems in industry 4.0, cyber-physical production systems, additive and sustainable manufacturing and many other related topics. The original, carefully selected, peer-reviewed chapters highlight collaborative works between different countries and between industry and universities, thus offering a timely snapshot for the research and industrial communities alike, as well as a bridge to facilitate communication and collaboration.

Creo Parametric 4.0 for Designers book is written to help the readers effectively use the modeling and assembly tools by utilizing the parametric approach of Creo Parametric 4.0 effectively. This book provides detailed description of the tools that are commonly used in modeling, assembly, sheetmetal as well as in mold. This book also covers the latest surfacing techniques like Freestyle and Style with the help of relevant examples and illustrations. The Creo Parametric 4.0 for Designers book further elaborates on the procedure of generating the drawings of a model or assembly, which are used for documentation of a model or assembly. The examples and tutorials used in this book will ensure that the users can relate the knowledge of this book with the actual mechanical industry designs. Every chapter begins with a tools section that provides a brief information of the Creo Parametric tools. This approach allows the user to use this book initially as a learning tool and then as a reference material. Salient Features: Consists of 16 chapters that are organized in a pedagogical sequence. Comprehensive coverage of concepts and techniques. Tutorial approach to explain the concepts. Detailed explanation of all commands and tools. Summarized content on the first page of the topics that are covered in the chapter. Hundreds of illustrations for easy understanding of concepts. Step-by-step instructions that guide the users through the learning process. More than 40 real-world mechanical engineering designs as tutorials, 40 as exercises, and projects with step-by-step explanation. Additional information throughout the book in the form of notes and tips. Self-Evaluation Tests and Review Questions at the end of each chapter so that the users can assess their knowledge. Technical support by contacting 'techsupport@cadcim.com'. Additional learning resources at 'http://allaboutcadcam.blogspot.com'. Table of Contents Chapter 1: Introduction to Creo Parametric 4.0 Chapter 2: Creating Sketches in the Sketch Mode-I Chapter 3: Creating Sketches in the Sketch Mode-II Chapter 4: Creating Base Features Chapter 5: Datums Chapter 6: Options Aiding Construction of Parts-I Chapter 7: Options Aiding Construction of Parts-II Chapter 8: Options Aiding Construction of Parts-III Chapter 9: Advanced Modeling Tools Chapter 10: Assembly Modeling Chapter 11: Generating, Editing, and Modifying the Drawing Views Chapter 12: Dimensioning the Drawing Views Chapter 13: Other Drawing Options Chapter 14: Working with Sheetmetal Components Chapter 15: Surface Modeling (For free download) Chapter 16: Introduction to Mold Design (For free download) Student Projects (For free download) Index

Handbook of Optomechanical EngineeringCRC Press

This book reports the best practices that companies established in Latin America are implementing in their manufacturing processes in order to generate high quality products and stay in the market. It lists the technologies, production and administrative philosophies that are being implemented, presenting a collection of successful cases of studies from Latin America. The book describes how the tools and techniques are being integrated, modified and combined to create new technical resources for assisting the decision making process for better economic performance in manufacturing companies. The efforts deployed for assisting the transformation of raw materials into products and services are described. The authors explain the main key success factors or drivers for success of each tool, technique or hybrid combination approach applied to solve manufacturing problems.

The CIRP Encyclopedia covers the state-of-art of advanced technologies, methods and models for production, production engineering and logistics. While the technological and operational aspects are in the focus, economical aspects are addressed too. The entries for a wide variety of terms were reviewed by the CIRP-Community, representing the highest standards in research. Thus, the content is not only evaluated internationally on a high scientific level but also reflects very recent developments.

This book is the translated English version of a text on industrial surveys, originally published in Slovak by SPEKTRUM STU Publishing. This updated version is not only a translation of the original, but also a reviewed, extended version, which reflects up-to-date international standards and regulations. The book covers topics in engineering surveying not available in other publications in this complex form, and addresses the design methodology, data processing and implementation of geodetic measurements under specific conditions to make industrial work environments safer and more efficient. The book begins by introducing readers to these conditions, and then discusses design of maps, geodetic networks and information systems of industrial plants, the usage of cartesian and polar coordinate measuring systems, terrestrial laser scanning technology, as well as measurement of cranes, rotary kilns and special objects of nuclear power plants. The book will be of use to teachers, students, practitioners (e.g. surveyors), quality production managers, equipment designers and mechanical engineers.

Creo Parametric 5.0 for Designers book is written to help the readers effectively use the modeling and assembly tools by utilizing the parametric approach of Creo Parametric 5.0 effectively. This book provides a detailed description of the tools that are commonly used in modeling, assembly, sheetmetal as well as in mold design. This book also covers the latest surfacing techniques like Freestyle and Style with the help of relevant examples and illustrations. The Creo Parametric 5.0 for Designers book further elaborates on the procedure of generating the drawings of a model or assembly, which are

used for documentation of a model or assembly. Also, it includes the concepts of geometric dimensioning and tolerancing. The examples and tutorials used in this book ensure that the users can relate the knowledge gained through this book with the actual mechanical industry designs. Every chapter begins with a tool section that provides a brief information of the Creo Parametric tools. This approach allows the user to use this book initially as a learning tool and then as a reference material. Salient Features Consists of 17 chapters that are organized in a pedagogical sequence. Comprehensive coverage of Creo Parametric 5.0 concepts and techniques. Tutorial approach to explain the concepts of Creo Parametric 5.0. Detailed explanation of all commands and tools. Summarized content on the first page of the topics that are covered in the chapter. Hundreds of illustrations for easy understanding of concepts. Step-by-step instructions to guide the users through the learning process. More than 40 real-world mechanical engineering designs as tutorials, 40 as exercises, and projects with step-by-step explanation. Additional information throughout the book in the form of notes and tips. Self-Evaluation Tests and Review Questions at the end of the chapters to help the users assess their knowledge. Additional learning resources at 'http://allaboutcadcam.blogspot.com' Table of Contents Chapter 1: Introduction to Creo Parametric 5.0 Chapter 2: Creating Sketches in the Sketch Mode-I Chapter 3: Creating Sketches in the Sketch Mode-II Chapter 4: Creating Base Features Chapter 5: Datums Chapter 6: Options Aiding Construction of Parts-I Chapter 7: Options Aiding Construction of Parts-II Chapter 8: Options Aiding Construction of Parts-III Chapter 9: Advanced Modeling Tools Chapter 10: Assembly Modeling Chapter 11: Generating, Editing, and Modifying the Drawing Views Chapter 12: Dimensioning the Drawing Views Chapter 13: Other Drawing Options Chapter 14: Working with Sheetmetal Components Chapter 15: Surface Modeling (For free download) Chapter 16: Introduction to Mold Design (For free download) Chapter 17: Concepts of Geometric Dimensioning and Tolerancing (For free download) Index

This book summarizes the recent progress in the physics and astrophysics of neutron stars and, most importantly, it identifies and develops effective strategies to explore, both theoretically and observationally, the many remaining open questions in the field. Because of its significance in the solution of many fundamental questions in nuclear physics, astrophysics and gravitational physics, the study of neutron stars has seen enormous progress over the last years and has been very successful in improving our understanding in these fascinating compact objects. The book addresses a wide spectrum of readers, from students to senior researchers. Thirteen chapters written by internationally renowned experts offer a thorough overview of the various facets of this interdisciplinary science, from neutron star formation in supernovae, pulsars, equations of state super dense matter, gravitational wave emission, to alternative theories of gravity. The book was initiated by the European Cooperation in Science and Technology (COST) Action MP1304 "Exploring fundamental physics with compact stars" (NewCompStar).

"Based on ISO 1101:2004 and companion standards."

This book constitutes the refereed proceedings of the SecondInternational Conference on Internet of Vehicles, IOV 2015, held inChengdu, China, in December 2015. The 40 full papers presented were carefully reviewed and selected from128 submissions. They focus on the following topics: IOV architectures andapplications; intelligent mobility; V2V and M2M communications; and modeling and simulations.

These proceedings gather a selection of peer-reviewed papers presented at the 7th International Conference on Fracture Fatigue and Wear (FFW 2018), held at Ghent University, Belgium on 9–10 July 2018. The contributions, prepared by international scientists and engineers, cover the latest advances in and innovative applications of fracture mechanics, fatigue of materials, tribology and wear of materials. The book is intended for academics, including graduate students and researchers, as well as industrial practitioners working in the areas of fracture fatigue and wear.

En conception, la modélisation demeure une étape clé incontournable. Dans l'avant-projet d'une conception, il est impératif de faire des esquisses (croquis cotés) accompagnées d'une grossière modélisation grapho-analytique. Rédigé dans les systèmes impérial et métrique, Conception mécanique appliquée présente des études de cas relevant des secteurs industriels et universitaires. Succinctement solutionnées et commentées, ces études se basent sur de réels projets et des travaux dirigés traités en classe et en industrie. Cet ouvrage examine une vaste gamme de pièces singulières et de mécanismes en mettant l'accent sur la dualité matériauxgéométrie qui est au centre des calculs de résistance. Les outils d'analyse employés intègrent les exigences des CdCF à la faisabilité des projets, ce qui est indispensable pour l'optimisation de la conception appliquée. Cet ouvrage pédagogique est illustré de cas pratiques. C'est aussi un outil d'aide à la conception mécanique pour les étudiants et les formateurs, ainsi que pour les bureaux d'études.

Advanced Metrology: Freeform Surfaces provides the perfect guide for engineering designers and manufacturers interested in exploring the benefits of this technology. The inclusion of industrial case studies and examples will help readers to implement these techniques which are being developed across different industries as they offer improvements to the functional performance of products and reduce weight and cost. Includes case studies in every chapter to help readers implement the techniques discussed Provides unique advice from industry on hot subjects, including surface description and data processing Features links to online content, including video, code and software

Danas se u industriji susre?u razli?iti koncepti koji pomažu osiguranje kvaliteta, kao što je totalno upravljanje kvalitetom (TQM), kompjuterski integrisana proizvodnja (CIM), statisti?ki proces kontrole (SPC) i drugi, bez kojih nema moderne proizvodnje. Upravljanje proizvodnjom ne zasniva se više na vlastitim iskustvima i greškama, nego na organiziranom i planiranom sistemu kvaliteta. Prvi korak u tom cilju je postizanje tehni?kog kvaliteta proizvoda, smanjenje grešaka i odstupanja od zadanih tolerancija. Mjerenje i kontrola dimenzionalnih karakteristika proizvoda predstavlja tehni?ki dio kvaliteta bez kojeg nema zadovoljstva kupca niti uspješne prodaje. Principi toleriranja mjera, oblika i položaja predstavljaju uslov koji se mora ostvariti da bi se proizvod napravio sa najmanjom mogu?om greškom. Proces proizvodnje i mjerna oprema moraju biti sposobni odgovoriti tom zadatku. Proces proizvodnje i kontrola geometrijskih karakteristika proizvoda me?usobno su povezani, a kontrole i mjerenja provode se u svim fazama proizvodnog procesa. Razvoj mjernih i kontrolnih sredstava treba vezati s tehnološkim napretkom i razvojem novih metoda mjerenja karakteristika proizvoda. Nove tehnologije mjerenja geometrijskih karakteristika proizvoda, kao što su koordinatna i laserska mjerna sredstva, koriste se za postizanje ta?nosti mjerenja koju nije mogu?e posti?i klasi?nim mjernim

sredstvima, koja se još uvijek naj?eš?e koriste. Strategije i principi mjerenja, te standardi koji to propisuju, neophodni su uslovi za ostvarenje kvaliteta proizvoda. Korištenje nove proizvodne i mjerne opreme za izradu kvalitetnijeg proizvoda zahtijeva nova znanja, ali i poznavanje temeljnih principa specifikacije, mjerenja i kontrole karakteristika proizvoda. Knjiga u kojoj su opisani principi i postupci ispitivanja geometrijskih karakteristika proizvoda namijenjena je inženjerima koji se u svakodnevnoj praksi bave kontrolom dimenzionalnih karakteristika proizvoda, a posebno studentima koji studiraju na mašinskim i sli?nim fakultetima koji u programu imaju predmete sli?nog sadržaja kao ova knjiga. Autori, svaki u svom dijelu, u?estvuju u nastavnom procesu na predmetima koji obuhvataju materiju opisanu u ovoj knjizi ili dugi niz godina rade u proizvodnji i primjenjuju metode i principe kontrole i mjerenja opisane u ovoj knjizi.

This book offers a collection of 17 scientific papers about the computational modeling of fracture. Some of the manuscripts propose new computational methods and/or how to improve existing cutting edge methods for fracture. These contributions can be classified into two categories: 1. Methods which treat the crack as strong discontinuity such as peridynamics, scaled boundary elements or specific versions of the smoothed finite element methods applied to fracture and 2. Continuous approaches to fracture based on, for instance, phase field models or continuum damage mechanics. On the other hand, the book also offers a wide range of applications where state-of-the-art techniques are employed to solve challenging engineering problems such as fractures in rock, glass, concrete. Also, larger systems such as fracture in subway stations due to fire, arch dams, or concrete decks are studied.

Jess in Action first introduces rule programming concepts and teaches you the Jess language. Armed with this knowledge, you then progress through a series of fully-developed applications chosen to expose you to practical rule-based development. The book shows you how you can add power and intelligence to your Java software.

This book presents the latest research on Ambient Intelligence including software and applications. Ambient Intelligence (AmI) is a paradigm emerging from Artificial Intelligence, in which computers are used as proactive tools for assisting people with their day-to-day activities, making everyone's lives more comfortable. Another main concern of AmI originates from the human–computer interaction domain and focuses on offering ways to interact with systems in a more natural way by means of user-friendly interfaces. This field is evolving rapidly, as can be seen in emerging natural language and gesture-based types of interaction. This symposium was jointly organized by the Universidade do Minho, Technical University of Valencia, Hiroshima University, and University of Salamanca. The latest installment was held in Ávila, Spain, from 26th to 28th June 2019. The authors wish to thank the sponsors: IEEE Systems Man and Cybernetics Society, Spain Section Chapter and the IEEE Spain Section (Technical Co-Sponsor), IBM, Indra, Viewnext, Global Exchange, AEPIA, APPIA and AIR Institute.