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Collaboration in virtual teams Jul 01 2020 Research Paper (undergraduate) from the year 2014 in the subject Leadership and Human Resource Management - Miscellaneous, grade: 1,3, University of Applied Sciences Paderborn (International Business), language: English, abstract: The change from traditional teamwork, with team members facing each other face to face in a room, to virtual collaborations, with members working over distance and time, is a phenomenon often mentioned and extensively addressed in specialist literature. More than 10 years ago, Deborah L. Duarte and Nancy Tennant Snyder noted that newly developed communication technologies at the time and increasing globalization, which radicalized networking among companies, created the basis for virtual teamwork. More current works show that virtual teams have now become indispensable in almost every company. In 2013, for example, Sonja App even speaks of a revolution in the world of work, which, brought about by the newly emerged media, has created new forms of collaboration. The structure of this paper entitled "Collaboration in virtual teams - a practical analysis" can be divided into three parts. It begins with two theoretical sections that form the basis for the practical analysis found in the third part.

Times of Convergence. Technologies Across Learning Contexts Sep 22 2019 The European Conference on Technology-Enhanced Learning (EC-TEL 2008) was the third event of a series that started in 2006. The two first editions were organized by Pro- Learn (http://www.prolearn-project.org/), a European Network of Excellence. In 2008, several members of Kaleidoscope, the other European Network of Excellence (http://www.noe-kaleidoscope.org/pub/), joined as co-chair, committee members, reviewers and authors. These two networks are no longer funded, but our aim was to turn EC-TEL into a sustainable series of high-quality events and thereby to contribute to the scientific landscape of technology-enhanced learning. A new network, named STELLAR, will be launched in 2009, with members from both existing networks as well as new members and will support the future editions of this conference. The scope of EC-TEL 2008 covered the different fields of learning technologies: e- cation, psychology, computer science. The contributions in this volume address the - sign of innovative environments, computational models and architectures, results of empirical studies on socio-cognitive processes, field studies regarding the use of te- nologies in context, collaborative processes, pedagogical scenarios, reusable learning objects and emerging objects, groups and communities, learning networks, interaction analysis, metadata, personalization, collaboration scripts, learning adaptation, collabo- tive environments, resources, tangible tools, as well as learning management systems.

Wave Field Analysis Using Virtual Circular Microphone Arrays Jul 13 2021

Data Mining Techniques Oct 24 2019 Packed with more than forty percent new and updated material,this edition shows business managers, marketing analysts, and datamining specialists how to harness fundamental data mining methodsand techniques to solve common types of business problems Each chapter covers a new data mining technique, and then showsreaders how to apply the technique for improved marketing, sales,and customer support The authors build on their reputation for concise, clear, andpractical explanations of complex concepts, making this book theperfect introduction to data mining More advanced chapters cover such topics as how to prepare datafor analysis and how to create the necessary infrastructure fordata mining Covers core data mining techniques, including decision trees,neural networks, collaborative filtering, association rules, linkanalysis, clustering, and survival analysis

Virtual Chemlab Apr 29 2020 "Virtual ChemLab: Organic Chemistry Laboratories" is a collection of realistic simulations of organic synthesis and organic qualitative analysis. In these laboratories, students are put into a virtual environment where they are free to make the choices and decisions that they would confront in an actual instructional laboratory setting and, in turn, experience the resulting consequences. The general features of the organic simulation include the ability to synthesize products; workup reaction mixtures and perform extractions; use nuclear magnetic resonance (NMR), infrared spectroscopy (IRS, and thin-layer chromatography (TLC) as analytical tools; purify products by distillation or recrystallization; and perform qualitative analysis experiments on unknowns using functional group tests with actual video depicting the results of the tests. The simulation allows for over 1,000,000 outcomes for synthesis experiments and can assign over 300 different qualitative analysis unknowns.

Virtual Principles in Aircraft Structures: Design, plates, finite elements Sep 27 2022

Studies in Virtual Communities, Blogs, and Modern Social Networking: Measurements, Analysis, and Investigations Aug 26 2022 Social networks are a nearly universal element of modern, information-driven societies, one that presents many opportunities and advantages☐and challenges and hazards☐for organizations as well as individuals. Studies in Virtual Communities, Blogs, and Modern Social Networking: Measurements, Analysis, and Investigations provides a cross-cultural perspective of social networking, including ethical considerations and business implications. Readers will find a detailed treatment of technical, social, and legal issues inherent in online virtual communities, exploring methods of effectively implementing the latest social tools in their everyday practices, both professional and personal, in the interest of improved security and sustainability in digital collaborative environments.

A Variational Approach to Structural Analysis Jan 07 2021 An insightful examination of the numerical methods used to develop finite element methods A Variational Approach to Structural Analysis provides readers with the underpinnings of the finite element method (FEM) while highlighting the power and pitfalls of virtual methods. In an easy-to-follow, logical format, this book gives complete coverage of the principle of virtual

work, complementary virtual work and energy methods, and static and dynamic stability concepts. The first two chapters prepare the reader with preliminary material, introducing in detail the variational approach used in the book as well as reviewing the equilibrium and compatibility equations of mechanics. The next chapter, on virtual work, teaches how to use kinematical formulations for the determination of the required strain relationships for straight, curved, and thin walled beams. The chapters on complementary virtual work and energy methods are problem-solving chapters that incorporate Castigliano's first theorem, the Engesser-Crotti theorem, and the Galerkin method. In the final chapter, the reader is introduced to various geometric measures of strain and revisits straight, curved, and thin walled beams by examining them in a deformed geometry. Based on nearly two decades of work on the development of the world's most used FEM code, A Variational Approach to Structural Analysis has been designed as a self-contained, single-source reference for mechanical, aerospace, and civil engineering professionals. The book's straightforward style also provides accessible instruction for graduate students in aeronautical, civil, mechanical, and engineering mechanics courses.

Interactive Feature Analysis in Virtual Environments Feb 20 2022

Virtual Learning Environments in Higher Education Jan 27 2020

Virtual Reality Designs Apr 10 2021 Virtual Reality is not real life. Instead it is life-like creations using computer-generated scenarios. Human behavior is replicated in virtual scenarios, where every detail is controlled by computers, and in situations that can be repeated under the same conditions. Based on technology and design, the user can experience presence. In the virtual world, users are embodied in avatars that represent them and are the means to interact with the virtual environment. Avatars are graphical models that behave on behalf of the human behind them. The user avatar is a proxy that also backs interaction with others, allowing computer-mediated interactions. Analyses directed to understand people's perceptions, personal and social behavior in computer mediated interactions, comprise a multidisciplinary area of study that involves, among others, computer science, psychology and sociology. In the last two decades a number of studies supported by Virtual Reality have been conducted to understand human behavior, in some cases the implications of the technology, or to reproduce artificial human behavior. This book presents a collection of studies from recognized researchers in the area.

Structural Analysis Using Virtual Work Jul 25 2022

Virtual, Augmented and Mixed Reality: Interaction, Navigation, Visualization, Embodiment, and Simulation Oct 04 2020 This two-volume set LNCS 10909 and 10910 constitutes the refereed proceedings of the 10th International Conference on Virtual, Augmented and Mixed Reality, VAMR 2018, held as part of HCI International 2018 in Las Vegas, NV, USA. HCII 2018 received a total of 4346 submissions, of which 1171 papers and 160 posters were accepted for publication after a careful reviewing process. The 65 papers presented in this volume were organized in topical sections named: interaction, navigation, and visualization in VAMR; embodiment, communication, and collaboration in VAMR; education, training, and simulation; VAMR in psychotherapy, exercising, and health; virtual reality for cultural heritage, entertainment, and games; industrial and military applications.

Fuzzy Systems and Knowledge Discovery Dec 06 2020 This book constitutes the refereed proceedings of the Third International Conference on Fuzzy Systems and Knowledge Discovery, FSKD 2006, held in federation with the Second International Conference on Natural Computation ICNC 2006. The book presents 115 revised full papers and 50 revised short papers. Coverage includes neural computation, quantum computation, evolutionary computation, DNA computation, fuzzy computation, granular computation, artificial life, innovative applications to knowledge discovery, finance, operations research, and more.

An Introduction to Nonlinear Finite Element Analysis Aug 02 2020 This book presents the theory and computer implementation of the finite element method as applied to nonlinear problems of heat transfer and similar field problems, fluid mechanics (flows of incompressible fluids), and solid mechanics (elasticity, beams and plates). Both geometric as well as material nonlinearities are considered, and static and transient (i.e. time-dependent) responses are studied. Although there exist a number of books on nonlinear finite elements that serve asgood references for engineers who are familiar with the subject and wish to learn advanced topics or the latest deve

Structural Analysis, Design and Control by the Virtual Distortion Method Apr 22 2022 This book presents the general concept of the Virtual Distortion Method with the necessary theoretical background and a number of its applications to problems of structural analysis and design. The approach presented allows for the development of efficient computational methods for the numerical analysis of problems where, e.g., local failures, the temperature field or permanent plastic deformations are described by virtual distortions. On the other hand, properly modelled (fictitious) virtual distortions can be used to simulate structural modifications such as material redistribution applicable in the optimal redesign process. Finally, virtual distortions can be used to mimic the behaviour of actuators in active structural control problems: shape, stress or vibration control. A number of numerical algorithms are developed, enabling one to solve various problems of structural analysis, design and control.

Collecting Qualitative Data Mar 21 2022 Is there more to qualitative data collection than face-to-face interviews? Answering with a resounding 'yes', this book introduces the reader to a wide array of exciting and novel techniques for collecting qualitative data in the social and health sciences. Collecting Qualitative Data offers a practical and accessible guide to textual, media and virtual methods currently under-utilised within qualitative research. Contributors from a range of disciplines share their experiences of implementing a particular technique, provide step-by-step guidance to using that approach, and highlight both the potential and pitfalls. From gathering blog data to the story completion method to conducting focus groups online, the methods and data types featured in this book are ideally suited to student projects and other time- and resource-limited research. In presenting several innovative ways that data can be collected, new modes of scholarship and new research orientations are opened up to student researchers and established scholars alike.

Gesture-Based Human-Computer Interaction and Simulation Jun 19 2019 This book constitutes the thoroughly refereed post-proceedings of the 7th International Workshop on Gesture-Based Human-Computer Interaction and Simulation, GW 2007, held in Lisbon, Portugal, in May 2007. The 31 revised papers presented were carefully selected from 53 submissions. The papers are organized in topical sections on analysis and synthesis of gesture; theoretical aspects of gestural communication and interaction; vision-based gesture recognition; sign language processing; gesturing with tangible interfaces and in virtual and augmented reality; gesture for music and performing arts; gesture for therapy and rehabilitation; and gesture in Mobile computing and usability studies.

Virtual Reality in Medicine Sep 03 2020 Virtual Reality has the potential to provide descriptive and practical information for medical training and therapy while relieving the patient or the physician. Multimodal interactions between the user and the virtual environment facilitate the generation of high-fidelity sensory impressions, by using not only visual and auditory, but also kinesthetic, tactile, and even olfactory feedback modalities. On the basis of the existing physiological constraints, Virtual Reality in Medicine derives the technical requirements and design principles of multimodal input devices, displays, and rendering techniques. Resulting from a course taught by the authors, Virtual Reality in Medicine presents examples for surgical training, intra-operative augmentation, and rehabilitation that are already in use as well as those currently in development. It is well suited as introductory material for engineering and computer science students, as well as researchers who want to learn more about basic technologies in the area of virtual reality applied to medicine. It also provides a broad overview to non-engineering students as well as clinical users, who desire to learn more about the current state of the art and future applications of this technology.

Cognitive Computing in Technology-Enhanced Learning Nov 24 2019 Various technologies and applications such as cognitive computing, artificial intelligence, and learning analytics have received increased attention in recent years. The growing demand behind their adoption and exploitation in different application contexts has captured the attention of learning technology specialists, computer engineers, and business researchers who are attempting to decipher the phenomenon of personalized e-learning, its relation to already conducted research, and its implications for new research opportunities that effect innovations in teaching. Cognitive Computing in Technology-Enhanced Learning is a critical resource publication that aims to demonstrate state-of-the-art approaches of advanced data mining systems in e-learning, such as MOOCs and other innovative

technologies, to improve learning analytics, as well as to show how new and advanced user interaction designs, educational models, and adoptive strategies can expand sustainability in applied learning technologies. Highlighting a range of topics such as augmented reality, ethics, and online learning environments, this book is ideal for educators, instructional designers, higher education faculty, school administrators, academicians, researchers, and students.

Unified Discourse Analysis Nov 05 2020 Discourse Analysis is becoming increasingly "multimodal", concerned primarily with the interplay of language, image and sound. Video Games allow humans to create, live in and have conversations with new multimodal worlds. In this ground-breaking new textbook, best-selling author and experienced gamer, James Paul Gee, sets out a new theory and method of discourse analysis which applies to language, the real world, science and video games. Rather than analysing the language of video games, this book uses discourse analysis to study games as communicational forms. Gee argues that language, science, games and everyday life are deeply related and each is a series of conversations. Discourse analysis should not be just about language, but about human interactions with the world, with games, and with each other, interactions that make meaning and sustain lives amid risk and complexity. Written in a highly accessible style and drawing on a wide range of video games from World of Warcraft and Chibi-Robo to Tetris, this engaging textbook is essential reading for students in discourse analysis, new media and digital culture.

Team Situational Awareness Training in Virtual Environments Feb 26 2020

Understanding Learning in Virtual Worlds Oct 16 2021 Since the publication of the companion volume Researching Learning in Virtual Worlds in 2010, there has been a growth not only in the range and number of educational initiatives taking place in virtual worlds, but also in the depth of analysis of the nature of that education. Understanding Learning in Virtual Worlds reflects those changes through a collection of chapters that are extended versions of research presented at the second Researching Learning in Virtual Environments conference (ReLIVE 11), an international conference hosted by the Open University UK. Included in this book are chapters that explore the philosophical and methodological underpinnings of understanding learning in virtual worlds, identify and analyse the factors that support learning in these environments, and present case studies that demonstrate some of the various ways in which virtual worlds can be applied to facilitate learning and teaching. The links between learning in a virtual world and learning in the physical world are made apparent throughout, and the authors reveal how understanding learning in one informs the other. Understanding Learning in Virtual Worlds is an important book not only to those who teach in virtual worlds, but to anyone for whom understanding learning, in all its forms, is of interest.

Virtual Work in Structural Analysis Oct 28 2022

Where are you? Self- and body part localization using virtual reality setups May 11 2021 This volume presents a line of original experimental studies on the bodily self, investigating where people locate themselves in their bodies and how accurate they are at localizing their body parts. So far, it was not well known whether people locate themselves in one or more specific regions of their bodies. On the other hand, some systematic distortions in indicating bodily locations were already documented. In the present studies, participants were therefore asked to indicate their self-locations, as well as the locations of several of their body parts, using a self-directed, first-person perspective pointing paradigm in various virtual reality (VR) setups (different head-mounted displays and a large-screen immersive display). Overall, participants were found to locate themselves mainly in the (upper) face and the (upper) torso. However, striking differences in self-localization were found when testing in different VR setups. Upon further investigation, these differences were found to be foremost due to inaccuracies in body part localization. When taking these inaccuracies into account, differences between setups—and also with self-localization outside of VR—largely disappear. Another striking finding was that providing participants—in between pointing phases—with information about their bodies in the form of a real-time animated self-avatar, did not make them more accurate at locating their own body parts. While manipulating their viewpoint to chest-height of their self-avatar did shift the afterwards indicated locations of their own body parts upwards, towards where they were seen on the avatar. Potential explanations for the various new findings, also from tasks outside of VR, are discussed. Taken together, this volume suggests a differential involvement of multi-sensory information processing in experienced self-location within the body and the ability to locate body parts. Self-localization seems to be less flexible, possibly because it is strongly grounded in the 'bodily senses', while body part localization appears more adaptable to the manipulation of sensory stimuli, at least in the visual modality.

Collected Reprints Feb 08 2021

Handbook of Research on Teaching With Virtual Environments and AI Nov 17 2021 The increasingly pervasive use of digital technology has catapulted society into an interconnected world where the natural boundaries between humankind and machine, virtual and real, individual and community have become less perceptible. As individuals interact with different digital technologies, they must build a digital intelligence, which must be further cultivated as it is a key competency for the future of school and work. Digital intelligence includes understanding the mutual strengths between people and technology, as well as developing an awareness in the use of digital tools in order to avoid common threats such as cyberbullying, addiction to video games, techno-stress, and more. As adolescents continue to engage with virtual reality and 3D virtual worlds where the online and offline overlap and coincide, it is important to build this intelligence as well as utilize these technologies to promote successful learning. The Handbook of Research on Teaching With Virtual Environments and AI explores the new personalized educational opportunities that are available with digital technology and virtual environments that can be used within education. This book focuses on the use of these tools and how to navigate the use of new technologies such as AI and virtual environments for educational practices. While highlighting topics such as virtual worlds, game-based learning, intelligent tutoring, augmented reality, and more, this book is ideal for teachers, administrators, technologists, educational software developers, IT specialists, practitioners, researchers, academicians, and students interested in how virtual environments and AI are being implemented in teaching practices.

Cases on Virtual Reality Modeling in Healthcare Jul 21 2019 Virtual reality (VR) provides immersive stereoscopic visualization of virtual environments, and the visualization effect and computer graphics are critical to enhancing the engagement of participants and achieving optimal education and training effectiveness. Constructing realistic 3D models and scenarios for a specific application of VR simulation is no easy task. There are many different tools for 3D modeling. However, many of the modeling tools are used for manufacturing and product design applications and have advanced features and functions which may not be applicable to different levels of users and various specializations. Cases on Virtual Reality Modeling in Healthcare introduces the use of Blender for VR 3D modeling, demonstrates healthcare applications, and examines potential uses in modeling, dressing, and animation in healthcare. Covering a range of topics such as cross reality, rehabilitation games, and augmented reality, this book is ideal for engineers, industry professionals, practitioners, researchers, academicians, instructors, and students.

Virtual Equivalent System Approach for Stability Analysis of Model-based Control Systems Jan 19 2022 This book puts forward the concept of a virtual equivalent system (VES) based on theoretical analysis and simulation results. The new concept will facilitate the development of a unified framework for analyzing the stability and convergence of self-tuning control (STC) systems, and potentially, of all adaptive control systems. The book then shows that a time-varying STC system can be converted into a time-invariant system using a certain nonlinear compensation signal, which reduces the complexity and difficulty of stability and convergence analysis. In closing, the VES concept and methodology are used to assess the stability of multiple model adaptive control (MMAC) systems and T-S model-based fuzzy control systems.

Processes and Foundations for Virtual Organizations May 31 2020 Processes and Foundations for Virtual Organizations contains selected articles from PRO-VE'03, the Fourth Working Conference on Virtual Enterprises, which was sponsored by the International Federation for Information Processing (IFIP) and held in Lugano, Switzerland in October 2003. This fourth edition includes a rich set of papers revealing the progress and

achievements in the main current focus areas: -VO breeding environments; -Formation of collaborative networked organizations; -Ontologies and knowledge management; -Process models and interoperability; -Infrastructures; -Multi-agent approaches. In spite of many valid contributions in these areas, many research challenges remain. This is clearly stated in a number of papers suggesting a new research agenda and strategic research roadmaps for advanced virtual organizations. With the selected papers included in this book, PRO-VE pursues its double mission as a forum for presentation and discussion of achievements as well as a place to discuss and suggest new directions and research strategies.

Virtual and real test based analysis and design of non-conventional thin-walled metal structures Dec 18 2021

Virtual and Augmented Reality in Mental Health Treatment Mar 29 2020 Medical and technological organizations have recently developed therapy and assistance solutions that venture beyond what is considered conventional for individuals with various mental health conditions and behavioral disorders such as autism, Down syndrome, Alzheimer's disease, anxiety disorders, phobias, and learning difficulties. Through the use of virtual and augmented reality, researchers are working to provide alternative therapy methods to treat these conditions, while studying the long-term effects the treatment has on patients. Virtual and Augmented Reality in Mental Health Treatment provides innovative insights into the use and durability of virtual reality as a treatment for various behavioral and emotional disorders and health problems. The content within this publication represents the work of e-learning, digital psychology, and quality of care. It is designed for psychologists, psychiatrists, professionals, medical staff, educators, and researchers, and covers topics centered on medical and therapeutic applications of artificial intelligence and simulated environment.

Virtual Economies May 23 2022 How the basic concepts of economics—including markets, institutions, and money—can be used to create and analyze economies based on virtual goods. In the twenty-first-century digital world, virtual goods are sold for real money. Digital game players happily pay for avatars, power-ups, and other game items. But behind every virtual sale, there is a virtual economy, simple or complex. In this book, Vili Lehdonvirta and Edward Castronova introduce the basic concepts of economics into the game developer's and game designer's toolkits. Lehdonvirta and Castronova explain how the fundamentals of economics—markets, institutions, and money—can be used to create or analyze economies based on artificially scarce virtual goods. They focus on virtual economies in digital games, but also touch on serious digital currencies such as Bitcoin as well as virtual economies that emerge in social media around points, likes, and followers. The theoretical emphasis is on elementary microeconomic theory, with some discussion of behavioral economics, macroeconomics, sociology of consumption, and other social science theories relevant to economic behavior. Topics include the rational choice model of economic decision making; information goods versus virtual goods; supply, demand, and market equilibrium; monopoly power; setting prices; and externalities. The book will enable developers and designers to create and maintain successful virtual economies, introduce social scientists and policy makers to the power of virtual economies, and provide a useful guide to economic fundamentals for students in other disciplines.

Techniques for Virtual Palaeontology Mar 09 2021 Virtual palaeontology, the use of interactive three-dimensionaldigital models as a supplement or alternative to physical specimensfor scientific study and communication, is rapidly becomingimportant to advanced students and researchers. Using non-invasivetechniques, the method allows the capture of large quantities ofuseful data without damaging the fossils being studied Techniques for Virtual Palaeontology guidespalaeontologists through the decisions involved in designing avirtual palaeontology workflow and gives a comprehensive overview,providing discussions of underlying theory, applications,historical development, details of practical methodologies, andcase studies. Techniques covered include physical-opticaltomography (serial sectioning), focused ion beam tomography, allforms of X-ray CT, neutron tomography, magnetic resonance imaging,optical tomography, laser scanning, and photogrammetry.Visualization techniques and data/file formats are also discussedin detail. Readership: All palaeontologists and studentsinterested in three-dimensional visualization and analysis. New Analytical Methods in Earth and EnvironmentalScience Because of the plethora of analytical techniques now available,and the acceleration of technological advance, many earthscientists find it difficult to know where to turn for reliableinformation on the latest tools at their disposal, and may lack theexpertise to assess the relative strengths or limitations of aparticular technique. This new series will address thesedifficulties by providing accessible introductions to important newtechniques, lab and field protocols, suggestions for data handlingand interpretation, and useful case studies. The series representsan invaluable and trusted source of information for researchers,advanced students and applied earth scientists wishing tofamiliarise themselves with emerging techniques in their field. All titles in this series are available in a variety offull-colour, searchable eBook formats. Titles are alsoavailable in an enhanced eBook edition which may include additionalfeatures such as DOI linking, high resolution graphics andvideo.

Soft Error Reliability Using Virtual Platforms Sep 15 2021 This book describes the benefits and drawbacks inherent in the use of virtual platforms (VPs) to perform fast and early soft error assessment of multicore systems. The authors show that VPs provide engineers with appropriate means to investigate new and more efficient fault injection and mitigation techniques. Coverage also includes the use of machine learning techniques (e.g., linear regression) to speed-up the soft error evaluation process by pinpointing parameters (e.g., architectural) with the most substantial impact on the software stack dependability. This book provides valuable information and insight through more than 3 million individual scenarios and 2 million simulation-hours. Further, this book explores machine learning techniques usage to navigate large fault injection datasets.

Medicine Meets Virtual Reality 20 Aug 22 2019 Since 1992, when it began as the "Medicine Meets Virtual Reality" conference, NextMed/MMVR has been a forum for researchers utilizing IT advances to improve diagnosis and therapy, medical education, and procedural training. Scientists and engineers, physicians and other care providers, educators and students, military medicine specialists, futurists, and industry: all come together with the shared goal of making healthcare more precise and effective. This book presents the proceedings of the 20th NextMed/MMVR conference, held in San Diego, California, USA, in February 2013. It covers a wide range of topics: simulation, modeling, imaging, data visualization, haptics, robotics, sensors, interfaces, plasma medicine, and more. Key applications include simulator design, information-guided therapies, learning tools, mental and physical rehabilitation, and intelligence networking. During the past two decades, healthcare has been transformed by progress in computer-enabled technology, and NextMed/MMVR has played a prominent role in this transformation.

Design and Analysis of Virtual Human Arm Driven by Emg Signal Dec 26 2019 The real human arm is a complex kinematics system. It works according to instructions calculated by a highly accurate method, and has a moving system working by deity manner. The design and simulation analysis of arm moving system model with 7-Degree of Freedom (DOF) are presented. The electromyography (EMG) signal is the activation signal for muscles in human arm and accordingly the arm will have a certain movement. The arm dynamic system in real environment simulation was implemented using the inverse kinematics problem (IKP) analytical solution. The computation time of this simulation is very fast and has the ability to include any real constrain. The finite recurrent back propagation neural network (FRBP-NN) is used with the simulated system for identification, classification, and human arm movements recognition with respect to a specific EMG signal. Virtual Reality Toolbox, which is interfaced with the Simulink MATLAB. Satisfactory results are obtained, which give the solution of the forward and inverse kinematic human arm and the usefulness of using FRBP-NN to recognize the movements of human arm.

Virtual Community Practices and Social Interactive Media: Technology Lifecycle and Workflow Analysis Aug 14 2021 Provides an analysis of virtual communities, explaining their lifecycle in terms of maturity-based models and workflows.

Automated Analysis of Virtual Prototypes at the Electronic System Level Jun 12 2021 This book describes a set of SystemC-based virtual prototype analysis methodologies, including design understanding, verification, security validation, and design space exploration. Readers will gain an overview of the latest research results in the field of Electronic Design Automation (EDA) at the Electronic System Level (ESL). The methodologies discussed enable readers to tackle easily key tasks and applications in the design process.

ANALYSIS AND APPROACH FOR SCHEMATIC DESIGN OF VIRTUAL WIRELESS SENSOR NETWORK Jun 24 2022 A wireless sensor network is a promising communication technique in many fields of applications, but the energy-constrained characteristic of sensor nodes is one of the critical issues we must consider in designing a network. In each network, a node is typically powered by a battery with a limited energy supply, in such case cooperative broadcasting using virtualization of resources plays a significant role in saving transmission power consumption. Sensor networks have limited resources and often support large-scale applications that need scalable propagation of sensor data. This proposed work is meant to provide the architecture, for scalable and adaptive communication in large-scale sensor networks, also for enhancing the utility of the wireless communication Sensor Network using virtual concepts and virtual Network platforms.