

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

Scholarpedia of TouchMultisensory Perception and Action: psychophysics, neural mechanisms, and applicationsSensory Neuroscience: Four Laws of PsychophysicsThe Sounding ObjectHandbook of Color PsychologyNature Play & Learning PlacesHaptics: Science, Technology, ApplicationsMultisensory Object Perception in the Primate BrainSensory LinguisticsLearning and Expanding with Activity TheoryThe Handbook of Multisensory ProcessesEmbodied Artificial IntelligenceThe Sense of Touch and Its RenderingHaptic Interfaces for Accessibility, Health, and Enhanced Quality of LifePersuasive Technology: Development and Implementation of Personalized Technologies to Change Attitudes and BehaviorsSensory MarketingSensory MarketingRobotic Grasping and Fine ManipulationVirtual RealityWalking with the SensesInformation Needs of CommunitiesAztec Religion and Art of WritingHaptic InteractionTeaching at Its BestVisualizing ResearchSomesthesis and the Neurobiology of the Somatosensory CortexDevelopmental Dyslexia across Languages and Writing SystemsArt and the SensesHuman Hand FunctionHuman Haptic PerceptionPsychophysicsTouch and BlindnessMapping Human Sensory-Motor Skills for Manipulation onto the Design and Control of RobotsMultisensory PackagingHaptics: Perception, Devices, Control,

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

and Applications Multi-point Interaction with Real and Virtual Objects Haptics: Science, Technology, and Applications Robot Intelligence Technology and Applications 5 Haptic Rendering Multisensory Softness

Scholarpedia of Touch

Visualizing Research guides postgraduate students in art and design through the development and implementation of a research project, using the metaphor of a 'journey of exploration'. For use with a formal programme of study, from masters to doctoral level, the book derives from the creative relationship between research, practice and teaching in art and design. It extends generic research processes into practice-based approaches more relevant to artists and designers, introducing wherever possible visual, interactive and collaborative methods. The Introduction and Chapter 1 'Planning the Journey' define the concept and value of 'practice-based' formal research, tracking the debate around its development and explaining key concepts and terminology. 'Mapping the Terrain' then describes methods of contextualizing research in art and design (the contextual review, using reference material); 'Locating Your Position' and 'Crossing the Terrain' guide the reader through the stages of identifying an appropriate research question and methodological approach, writing the proposal and managing research information. Methods of evaluation and analysis are explored, and of strategies for

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

reporting and communicating research findings are suggested. Appendices and a glossary are also included. Visualizing Research draws on the experience of researchers in different contexts and includes case studies of real projects. Although written primarily for postgraduate students, research supervisors, managers and academic staff in art and design and related areas, such as architecture and media studies, will find this a valuable research reference. An accompanying website www.visualizingresearch.info includes multimedia and other resources that complement the book.

Multisensory Perception and Action: psychophysics, neural mechanisms, and applications

Laack's study presents an innovative interpretation of Aztec religion and art of writing. She explores the Nahuatl sense of reality from the perspective of the aesthetics of religion and analyzes Indigenous semiotics and embodied meaning in Mesoamerican pictorial writing.

Sensory Neuroscience: Four Laws of Psychophysics

Originating from a Dagstuhl seminar, the collection of papers presented in this book constitutes on the one hand a representative state-of-the-art survey of

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

embodied artificial intelligence, and on the other hand the papers identify the important research trends and directions in the field. Following an introductory overview, the 23 papers are organized into topical sections on - philosophical and conceptual issues - information, dynamics, and morphology - principles of embodiment for real-world applications - developmental approaches - artificial evolution and self-reconfiguration

The Sounding Object

Teaching at Its Best This third edition of the best-selling handbook offers faculty at all levels an essential toolbox of hundreds of practical teaching techniques, formats, classroom activities, and exercises, all of which can be implemented immediately. This thoroughly revised edition includes the newest portrait of the Millennial student; current research from cognitive psychology; a focus on outcomes maps; the latest legal options on copyright issues; and how to best use new technology including wikis, blogs, podcasts, vodcasts, and clickers. Entirely new chapters include subjects such as matching teaching methods with learning outcomes, inquiry-guided learning, and using visuals to teach, and new sections address Felder and Silverman's Index of Learning Styles, SCALE-UP classrooms, multiple true-false test items, and much more. Praise for the Third Edition of Teaching at Its Best Everyone—veterans as well as novices—will profit from reading Teaching at Its Best, for it provides both theory and practical suggestions for

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

handling all of the problems one encounters in teaching classes varying in size, ability, and motivation."—Wilbert McKeachie, Department of Psychology, University of Michigan, and coauthor, *McKeachie's Teaching Tips* This new edition of Dr. Nilson's book, with its completely updated material and several new topics, is an even more powerful collection of ideas and tools than the last. What a great resource, especially for beginning teachers but also for us veterans!"—L. Dee Fink, author, *Creating Significant Learning Experiences* This third edition of *Teaching at Its Best* is successful at weaving the latest research on teaching and learning into what was already a thorough exploration of each topic. New information on how we learn, how students develop, and innovations in instructional strategies complement the solid foundation established in the first two editions."—Marilla D. Svinicki, Department of Psychology, The University of Texas, Austin, and coauthor, *McKeachie's Teaching Tips*

Handbook of Color Psychology

For a long time, human beings have dreamed of a virtual world where it is possible to interact with synthetic entities as if they were real. It has been shown that the ability to touch virtual objects increases the sense of presence in virtual environments. This book provides an authoritative overview of state-of-the-art haptic rendering algorithms

Nature Play & Learning Places

The two-volume set LNCS 10893 and 10894 constitutes the refereed proceedings of the 11th International Conference EuroHaptics 2018, held in Pisa, Italy, in June 2018. The 95 papers (40 oral presentations and 554 poster presentations) presented were carefully reviewed and selected from 138 submissions. These proceedings reflect the multidisciplinary nature of EuroHaptics and cover all aspects of haptics, including neuroscience, psychophysics, perception, engineering, computing, interaction, virtual reality and arts.

Haptics: Science, Technology, Applications

There is a growing interest in activity theory across behavioral and social sciences. Activity theory has a very rich and solid heritage in the works of Vygotsky, Luria, and Leont'ev. The development of activity theory depends on the understanding of this heritage. However, this literature is very demanding and often proves inaccessible to new generations of scholars who want to pursue empirical studies. How can students and young researchers be helped to engage with this heritage as they carry out their inquiries in various social practices? This book provides researchers with an accessible text that also supports the use of the classic tradition of activity theory.

Multisensory Object Perception in the Primate Brain

The first truly systematic, multi-disciplinary, and cross-linguistic study of the language and writing system factors affecting the emergence of dyslexia.

Sensory Linguistics

Despite widespread interest in virtual reality, research and development efforts in synthetic environments (SE)--the field encompassing virtual environments, teleoperation, and hybrids--have remained fragmented. Virtual Reality is the first integrated treatment of the topic, presenting current knowledge along with thought-provoking vignettes about a future where SE is commonplace. This volume discusses all aspects of creating a system that will allow human operators to see, hear, smell, taste, move about, give commands, respond to conditions, and manipulate objects effectively in a real or virtual environment. The committee of computer scientists, engineers, and psychologists on the leading edge of SE development explores the potential applications of SE in the areas of manufacturing, medicine, education, training, scientific visualization, and teleoperation in hazardous environments. The committee also offers recommendations for development of improved SE technology, needed studies of human behavior and evaluation of SE systems, and government policy and

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

infrastructure.

Learning and Expanding with Activity Theory

What is sensory marketing and why is it interesting and also important? Krishna defines it as "marketing that engages the consumers' senses and affects their behaviors." In this edited book, the authors discuss how sensory aspects of products, i.e., the touch, taste, smell, sound, and look of the products, affect our emotions, memories, perceptions, preferences, choices, and consumption of these products. We see how creating new sensations or merely emphasizing or bringing attention to existing sensations can increase a product's or service's appeal. The book provides an overview of sensory marketing research that has taken place thus far. It should facilitate sensory marketing by practitioners and also can be used for research or in academic classrooms.

The Handbook of Multisensory Processes

We perceive color everywhere and on everything that we encounter in daily life. Color science has progressed to the point where a great deal is known about the mechanics, evolution, and development of color vision, but less is known about the relation between color vision and psychology. However, color psychology is now a

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

burgeoning, exciting area and this Handbook provides comprehensive coverage of emerging theory and research. Top scholars in the field provide rigorous overviews of work on color categorization, color symbolism and association, color preference, reciprocal relations between color perception and psychological functioning, and variations and deficiencies in color perception. The Handbook of Color Psychology seeks to facilitate cross-fertilization among researchers, both within and across disciplines and areas of research, and is an essential resource for anyone interested in color psychology in both theoretical and applied areas of study.

Embodied Artificial Intelligence

Haptic perception – human beings' active sense of touch – is the most complex of human sensory systems, and has taken on growing importance within varied scientific disciplines as well as in practical industrial fields. This book's international team of authors presents the most comprehensive collection of writings on the subject published to date and cover the results of research as well as practical applications. After an introduction to the theory and history of the field, subsequent chapters are dedicated to the neuro-physiological basics as well as the psychological and clinical neuro-psychological aspects of haptic perception.

The Sense of Touch and Its Rendering

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

"Sense of Touch and its Rendering" presents a unique and interdisciplinary approach highlighting the field of haptic research from a neuropsychological as well as a technological point of view. This edited book is the outcome of the TOUCH-HapSys European research project and provides an important contribution towards a new generation of high-fidelity haptic display technologies. The book is structured in two parts: A. Fundamental Psychophysical and Neuropsychological Research and B. Technology and Applications. The two parts are not however separated, and the many connections and synergies between the two complementary domains of research are highlighted in the text. The eleven chapters discuss the recent advances in the study of human haptic (kinaesthetic, tactile, temperature) and multimodal (visual, auditory, haptic) perception mechanisms. Besides the theoretical advancement, the contributions survey the state of the art in the field, report a number of practical applications to real systems, and discuss possible future developments.

Haptic Interfaces for Accessibility, Health, and Enhanced Quality of Life

Research is suggesting that rather than our senses being independent, perception is fundamentally a multisensory experience. This handbook reviews the evidence and explores the theory of broad underlying principles that govern sensory

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

interactions, regardless of the specific senses involved.

Persuasive Technology: Development and Implementation of Personalized Technologies to Change Attitudes and Behaviors

Offers a unique multidisciplinary overview of how humans interact with soft objects and how multiple sensory signals are used to perceive material properties, with an emphasis on object deformability. The authors describe a range of setups that have been employed to study and exploit sensory signals involved in interactions with compliant objects as well as techniques to simulate and modulate softness - including a psychophysical perspective of the field. Multisensory Softness focuses on the cognitive mechanisms underlying the use of multiple sources of information in softness perception. Divided into three sections, the first Perceptual Softness deals with the sensory components and computational requirements of softness perception, the second Sensorimotor Softness looks at the motor components of the interaction with soft objects and the final part Artificial Softness focuses on the identification of exploitable guidelines to help replicate softness in artificial environments.

Sensory Marketing

Sensory Marketing

This edited collection presents state-of-the-art reviews of the latest developments in multisensory packaging design. Bringing together leading researchers and practitioners working in the field, the contributions consider how our growing understanding of the human senses, as well as new technologies, will transform the way in which we design, interact with, and experience food and beverage, home and personal care, and fast-moving consumer products packaging. Spanning all of the senses from colour meaning, imagery and font, touch and sonic packaging, a new framework for multisensory packaging analysis is outlined. Including a number of case studies and examples, this book provides both practical application and theoretical discussion to appeal to students, researchers, and practitioners alike.

Robotic Grasping and Fine Manipulation

Authored by Bertil Hultén, one of the world's leading professors of sensory marketing, this text brilliantly explains the techniques through which a sensory experience can be created to surround a consumer. Sensory experiences combine not only to increase the chance of an immediate sale, but to influence perception of a product which then plays into a customer's chance of return, and brand loyalty

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

for the future. • Hulten provides definitions, insight boxes, questions and case studies to provide an engaging learning experience. • The author is one of the most published professors in the field, sharing exclusive expertise and experience. • The book is thorough yet accessible, dedicating a chapter to each of the 5 senses.

Virtual Reality

The problem of robotic and virtual interaction with physical objects has been the subject of research for many years in both the robotic manipulation and haptics communities. Both communities have focused much attention on human touch-based perception and manipulation, modelling contact between real or virtual hands and objects, or mechanism design. However, as a whole, these problems have not yet been addressed from a unified perspective. This edited book is the outcome of a well-attended workshop which brought together leading scholars from various branches of the robotics, virtual-reality, and human studies communities during the 2004 IEEE International Conference on Robotics and Automation. It covers some of the most challenging problems on the forefront of today's research on physical interaction with real and virtual objects, with special emphasis on modelling contacts between objects, grasp planning algorithms, haptic perception, and advanced design of hands, devices and interfaces.

Walking with the Senses

This volume is a compilation of current research on somatosensation and its underlying mechanisms written by international experts from a broad range of disciplines. It is divided into six sections: · structural basis of information processing and neocortical neurotransmitters · psychophysics of somatosensation · cortical representation of somatosensation · sensory-motor interface · neuronal population behavior · cortical neurocomputation and modelling. It highlights not only important new findings but also novel methods and technologies applied to major unresolved issues in the field of neuroscience. The number of methods for investigating the neural mechanisms of soma-tosensory perception has grown substantially in the last decade. The book encompasses levels of inquiry from ionic channels, single unit recordings of neural activity, and functional brain imaging of the coordinated activity of large neuronal ensembles to human psychophysics of controlled somatic stimulation. This work is of great value for researchers and students interested in the dynamic neuronal mechanisms involved in the complex processes of sensory perception and provides a picture of our present understanding of the neural representation of the external world relayed through the somatosensory system.

Information Needs of Communities

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

This book is the first resource to provide in-depth coverage on topical areas of assistive, rehabilitative, and health-related applications for haptic (touch-based) technologies. Application topics are grouped into thematic areas spanning haptic devices for sensory impairments, health and well-being, and physical impairments which are illustrated in this book. A diverse group of experts in the field were invited to contribute different chapters to provide complementary and multidisciplinary perspectives. Unlike other books on haptics, which focus on human haptic perception, specific modalities of haptics (e.g., realistic haptic rendering), or broadly cover the subfields of haptics, this book takes an application-oriented approach to present a tour of how the field of haptics has been advanced with respect to important, impactful thematic focuses. Under Theme 1 “Sensory Impairments”, haptics technologies to support individuals with sensory impairments is presented which includes: Spatial awareness in sensory impairments through touch; Haptically-assisted interfaces for persons with visual impairments; and Enabling learning experiences for visually impaired children by interaction design. Under Theme 2 “Haptics for Health and Well-Being”, haptics technologies aimed at supporting exercise and healthy aging will be covered including: Haptics in rehabilitation, exergames and health; Therapeutic haptics for mental health and well-being; and Applications of haptics in medicine. Under Theme 3 “Haptics for Physical Impairments”, haptics technologies for enhancing the quality of life for individuals with weakened/impaired limbs or neurological diseases impacting movement is targeted including: Assistive soft exoskeletons

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

with pneumatic artificial muscles; Haptics for accessibility in rehabilitative hardware; and intelligent robotics and immersive displays for enhancing haptic interaction in physical rehabilitation environments. Engineers, scientists, and researchers working in the areas of haptics, multimedia, virtual/augmented/mixed-reality, human-computer interaction, assistive technologies, rehabilitative technologies, healthcare technologies, and/or actuator design will want to purchase this book. Advanced level students and hobbyists interested in haptics will also be interested in this book.

Aztec Religion and Art of Writing

This book includes papers from the 5th International Conference on Robot Intelligence Technology and Applications held at KAIST, Daejeon, Korea on December 13–15, 2017. It covers the following areas: artificial intelligence, autonomous robot navigation, intelligent robot system design, intelligent sensing and control, and machine vision. The topics included in this book are deep learning, deep neural networks, image understanding, natural language processing, speech/voice/text recognition, reasoning & inference, sensor integration/fusion/perception, multisensor data fusion, navigation/SLAM/localization, distributed intelligent algorithms and techniques, ubiquitous computing, digital creatures, intelligent agents, computer vision, virtual/augmented reality, surveillance, pattern recognition, gesture recognition,

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

fingerprint recognition, animation and virtual characters, and emerging applications. This book is a valuable resource for robotics scientists, computer scientists, artificial intelligence researchers and professionals in universities, research institutes and laboratories.

Haptic Interaction

Human Hand Function is a multidisciplinary book that reviews the sensory and motor aspects of normal hand function from both neurophysiological and behavioral perspectives. Lynette Jones and Susan Lederman present hand function as a continuum ranging from activities that are essentially sensory in nature to those that have a strong motor component. They delineate four categories of function along this sensorimotor continuum--tactile sensing, active haptic sensing, prehension, and non-prehensile skilled movements--that they use as a framework for analyzing and synthesizing the results from a broad range of studies that have contributed to our understanding of how the normal human hand functions. The book begins with a historical overview of research on the hand and a discussion of the hand's evolutionary development in terms of anatomical structure. The subsequent chapters review the research in each of the four categories along the continuum, covering topics such as the intensive spatial, temporal, and thermal sensitivity of the hand, the role of hand movements in recognizing common objects, the control of reaching and grasping movements, and the organization of

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

keyboard skills. Jones and Lederman also examine how sensory and motor function develops in the hand from birth to old age, and how the nature of the end effector (e.g., a single finger or the whole hand) that is used to interact with the environment influences the types of information obtained and the tasks performed. The book closes with an assessment of how basic research on the hand has contributed to an array of more applied domains, including communication systems for the blind, haptic interfaces used in teleoperation and virtual-environment applications, tests used to assess hand impairments, and haptic exploration in art. *Human Hand Function* will be a valuable resource for student and professional researchers in neuroscience, cognitive psychology, engineering, human-technology interaction, and physiology.

Teaching at Its Best

The senses play a vital role in our health, our social interactions, and in enjoying food, music and the arts. The book provides a unique interdisciplinary overview of the senses, ranging from the neuroscience of sensory processing in the body, to cultural influences on how the senses are used in society, to the role of the senses in the arts.

Visualizing Research

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

This open access book constitutes the proceedings of the 12th International Conference on Human Haptic Sensing and Touch Enabled Computer Applications, EuroHaptics 2020, held in Leiden, The Netherlands, in September 2020. The 60 papers presented in this volume were carefully reviewed and selected from 111 submissions. They were organized in topical sections on haptic science, haptic technology, and haptic applications. This year's focus is on accessibility.

Somesthesis and the Neurobiology of the Somatosensory Cortex

It should come as no surprise to those interested in sensory processes that its research history is among the longest and richest of the many systematic efforts to understand how our bodies function. The continuing obsession with sensory systems is as much a reflection of the fundamental need to understand how we experience the physical world as it is to understand how we become who we are based on those very experiences. The senses function as both portal and teacher, and their individual and collective properties have fascinated scientists and philosophers for millennia. In this context, the attention directed toward specifying their properties on a sense-by-sense basis that dominated sensory research in the 20th century seems a prelude to our current preoccupation with how they function in concert. Nevertheless, it was the concentrated effort on the operational

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

principles of individual senses that provided the depth of understanding necessary to inform current efforts to reveal how they act cooperatively. We know that the information provided by any individual sensory modality is not always veridical, but is subject to a myriad of modality-specific distortions. Thus, the brain's ability to compare across the senses and to integrate the information they provide is not only a way to examine the accuracy of any individual sensory channel but also a way to enhance the collective information they make available to the brain.

Developmental Dyslexia across Languages and Writing Systems

As we walk along concrete city sidewalks, over gravel paths, or across tiled building lobbies, we are continuously exposed through our footsteps to highly structured information about the ground, through the feelings we experience and the sounds we hear. The present volume documents recent research that has aimed at reinforcing our understanding of how our feet interact with surfaces on which we walk, and at characterizing those sensations we have when walking that help us to interpret space in intuitive ways and that can be replicated via new technologies toward building realistic virtual environments. The chapters it contains notably review advances that were achieved within the multidisciplinary European project Natural Interactive Walking. Through the development of new

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

technologies for enhancing spaces, floors, and footwear in ways that allow them to provide simulated experiences of attributes of everyday walking surfaces, the research covered here attempts to enable the designers of new technological systems to engender a real sense of "being there," particularly through the use of data coming from the haptic (touch) and auditory (sound) perceptual channels, or in tandem with them. It illustrates how knowledge about the ways that users experience their surroundings during walking can be used to create perceptually rich and plausible experiences of walking in diverse natural and man-made environments. This work may lead to radically new approaches to interaction with digital information, for example in airports, railway stations, public urban spaces, or in virtual environments used for immersive training purposes. It could, for example, be applied to the creation of intuitive navigation aids, such as landmarking, guidance to locations of interest, "eyes-free" signaling, and warning about obstacles and restricted areas. Such research may also open the door to the creation of better assistive tools for visually-impaired and other special-needs users.

Art and the Senses

Psychophysics: A Practical Introduction, Second Edition, is the primary scientific tool for understanding how the physical world of colors, sounds, odors, movements, and shapes translates into the sensory world of sight, hearing, touch,

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

taste, and smell; in other words, how matter translates into mind. This timely revision provides a unique introduction to the techniques for researching and understanding how the brain translates the external physical world to the internal world of sensation. The revision expands and refines coverage of the basic tools of psychophysics research and better integrates the theory with the supporting software. The new edition continues to be the only book to combine, in a single volume, the principles underlying the science of psychophysical measurement and the practical tools necessary to analyze data from psychophysical experiments. The book, written in a tutorial style, will appeal to new researchers as well as to seasoned veterans. This introduction to psychophysics research methods will be of interest to students, scholars and researchers within sensory neuroscience, vision research, behavioral neuroscience, and the cognitive sciences. Presents a large variety of analytical methods explained for the non-expert Provides a novel classification scheme for psychophysics experiments Includes a new software package for collecting and analyzing psychophysical data Disseminates the pros and cons of different psychophysical procedures Contains practical tips for designing psychophysical experiments

Human Hand Function

Research on touch and blindness has undergone rapid transformation in recent years, with dramatic developments in technology designed to provide assistance to

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

those who are blind, and advancements in robotics that demand haptic interfaces. Touch and Blindness approaches the study of the topic from the perspectives of psychological methodology and the most sophisticated, state-of-the-art techniques in neuroscience. This book, edited by well-known leaders in the field, is derived from the discussions presented by speakers at a conference held in 2002, and presents current research in the field. The book is arranged in a logical, disciplinary fashion, first discussing touch and blindness from a psychological perspective, followed by an examination from the perspective of neuroscience. Some specific topics include: *processing spatial information from touch and movement; *form, projection, and pictures for the blind; *neural substrate and visual and tactile object representations; and *the role of visual cortex in tactile processing. Touch and Blindness is ideal for researchers in psychology and neuroscience, medicine, and special education.

Human Haptic Perception

Psychophysics

Scholarpedia's Encyclopedia of Touch provides a comprehensive collection of peer-reviewed articles written by leading researchers, detailing our current scientific

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

understanding of tactile sensing and its neural substrates in animals including humans. The encyclopedia allows ideas and insights to be shared between researchers working on different aspects of touch and in different species, including research in synthetic touch systems. In addition, this encyclopedia raises awareness of research in tactile sensing and increases scientific and public interest in the field. The articles address subjects including tactile control, whiskered robots, vibrissal coding, the molecular basis of touch, invertebrate mechanoreception, fingertip transducers and tactile sensing. All the articles in this encyclopedia provide in-depth and state-of-the-art scholarly treatment of the academic topics concerned, making it an excellent reference work for academics, professionals and students.

Touch and Blindness

This book comprises the proceedings of the second International Conference, AsiaHaptics 2016, held in Kashiwanoha, Japan. The book treats the state of the art of the diverse haptics (touch)-related research, including scientific research of haptics perception and illusion, development of haptics devices, and applications to a wide variety of fields such as education, medicine, telecommunication, navigation, and entertainment. This work helps not only active haptic researchers, but also general readers to understand what is going on in this interdisciplinary area of science and technology.

Mapping Human Sensory-Motor Skills for Manipulation onto the Design and Control of Robots

This book constitutes the refereed proceedings of the 12th International Conference on Persuasive Technology, PERSUASIVE 2017, held in Amsterdam, The Netherlands, in April 2017. The 23 revised full papers presented were carefully reviewed and selected from 85 submissions. The papers are grouped in topical sections on health(care), monitoring, and coaching; personality, personalization, and persuasion; motivations, facilitators, and barriers; design principles and strategies.

Multisensory Packaging

When a person picks up a metal part and clamps it in the chuck of a lathe, he begins with his arm, proceeds with his wrist and finishes with his fingers. The arm brings the part near the chuck. The wrist positions the part, giving it the proper orientation to slide in. After the part is inserted, the wrist and fingers make tiny corrections to ensure that it is correctly seated. Today's robot attempting the same operations is at a grave disadvantage if it has to make all motions with the arm. The following work investigates the use of robotic wrists and hands to help industrial robots perform the fine motions needed in a metal working cell. Chapters

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

1 and 2 are an introduction to the field and a review of previous investigations on related subjects. Little work has been done on grasping and fine manipulation with a robot hand or wrist, but the related subjects of robot arm dynamics and control have an extensive literature.

Haptics: Perception, Devices, Control, and Applications

Sensory Neuroscience: Four Laws of Psychophysics organizes part of psychophysics -- a science of quantitative relationships between human sensations and the stimuli that evoke them. Although psychophysics belongs to sensory neuroscience, and is coupled to neurophysiology, it has also branched out to various specialized disciplines, including the disciplines of vision and hearing, ophthalmology, optometry, otology, and audiology. Due to this diversification and fragmentation, psychophysics has had an ad-hoc, phenomenological orientation. Besides Weber's law of differential sensitivity, and the still-controversial Stevens' power law, it has lacked a systematic grid of scientific laws. Sensory Neuroscience: Four Laws of Psychophysics provides valid unifying principles and systematic applications for this otherwise fragmented precursor of experimental psychology, and defines four multisensory relationships of substantial generality between sensations and the underlying stimulus variables. This book will be particularly useful to auditory researchers, experimental psychologists, and behavioral neuroscientists.

Multi-point Interaction with Real and Virtual Objects

The two-volume set LNCS 9774 and 9775 constitutes the refereed proceedings of the 10th International Conference EuroHaptics 2016, held in London, UK, in July 2016. The 100 papers (36 oral presentations and 64 poster presentations) presented were carefully reviewed and selected from 162 submissions. These proceedings reflect the multidisciplinary nature of EuroHaptics and cover topics such as perception of hardness and softness; haptic devices; haptics and motor control; tactile cues; control of haptic interfaces; thermal perception; robotics and sensing; applications.

Haptics: Science, Technology, and Applications

One of the most fundamental capacities of language is the ability to express what speakers see, hear, feel, taste, and smell. Sensory Linguistics is the interdisciplinary study of how language relates to the senses. This book deals with such foundational questions as: Which semiotic strategies do speakers use to express sensory perceptions? Which perceptions are easier to encode and which are “ineffable”? And what are appropriate methods for studying the sensory aspects of linguistics? After a broad overview of the field, a detailed quantitative corpus-based study of English sensory adjectives and their metaphorical uses is

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

presented. This analysis calls age-old ideas into question, such as the idea that the use of perceptual metaphors is governed by a cognitively motivated “hierarchy of the senses”. Besides making theoretical contributions to cognitive linguistics, this research monograph showcases new empirical methods for studying lexical semantics using contemporary statistical methods.

Robot Intelligence Technology and Applications 5

Haptic Rendering

In 2009, a bipartisan Knight Commission found that while the broadband age is enabling an info. and commun. renaissance, local communities in particular are being unevenly served with critical info. about local issues. Soon after the Knight Commission delivered its findings, the FCC initiated a working group to identify crosscurrent and trend, and make recommendations on how the info. needs of communities can be met in a broadband world. This report by the FCC Working Group on the Info. Needs of Communities addresses the rapidly changing media landscape in a broadband age. Contents: Media Landscape; The Policy and Regulatory Landscape; Recommendations. Charts and tables. This is a print on demand report.

Multisensory Softness

Humans are endowed with extraordinary sensory-motor capabilities that enable a successful interaction with and exploration of the environment, as is the case of human manipulation. Understanding and modeling these capabilities represents an important topic not only for neuroscience but also for robotics in a mutual inspiration, both to inform the design and control of artificial systems and, at the same time, to increase knowledge on the biological side. Within this context, synergies -- i.e., goal-directed actions that constrain multi DOFs of the human body and can be defined at the kinematic, muscular, neural level -- have gained increasing attention as a general simplified approach to shape the development of simple and effective artificial devices. The execution of such purposeful sensory-motor primitives on the biological side leverages on the interplay of the sensory-motor control at central and peripheral level, and the interaction of the human body with the external world. This interaction is particularly important considering the new concept of robotic soft manipulation, i.e. soft, adaptable yet robust robotic hands that can deform with the external environment to multiply their grasping and manipulation capabilities. Under this regard, a preeminent role is reserved to touch, being that skin is our primary organ to shape our knowledge of the external world and, hence, to modify it, in interaction with the efferent parts. This Research Topic reports results on the mutual inspiration between neuroscience and robotics, and on how it is possible to translate neuroscientific findings on human

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

manipulation into engineering guidelines for simplified systems able to take full advantage from the interaction and hence exploitation of environmental constraints for task accomplishment and knowledge acquisition.

Download Free Multisensory Softness Perceived Compliance From Multiple Sources Of Information Springer Series On Touch And Haptic Systems

[ROMANCE](#) [ACTION & ADVENTURE](#) [MYSTERY & THRILLER](#) [BIOGRAPHIES & HISTORY](#) [CHILDREN'S](#) [YOUNG ADULT](#) [FANTASY](#) [HISTORICAL FICTION](#) [HORROR](#) [LITERARY FICTION](#) [NON-FICTION](#) [SCIENCE FICTION](#)