1. Record Nr. UNINA9910413445103321

Titolo	Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management. Posture, Motion and Health : 11th International Conference, DHM 2020, Held as Part of the 22nd HCI International Conference, HCII 2020, Copenhagen, Denmark, July 19–24, 2020, Proceedings, Part I / / edited by Vincent G. Duffy
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-49904-9
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XXVI, 641 p. 352 illus., 288 illus. in color.)
Collana	Information Systems and Applications, incl. Internet/Web, and HCI ; ; 12198
Disciplina	612.76 620.820113
Soggetti	User interfaces (Computer systems) E-commerce Optical data processing Artificial intelligence Computer communication systems Special purpose computers User Interfaces and Human Computer Interaction e-Commerce/e-business Computer Imaging, Vision, Pattern Recognition and Graphics Artificial Intelligence Computer Communication Networks Special Purpose and Application-Based Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Posture and Motion Modelling in Design -- Statistical Posture Prediction of Vehicle Occupants in Digital Human Modelling Tools -- Digital Human-in-the-loop Framework -- How Do We Sit when Our Car Drives for Us -- A Design Framework to Automate Task Simulation and Ergonomic Analysis in Digital Human Modeling -- CASRM: Cricket

Automation and Stroke Recognition Model using OpenPose -- Development and Evaluation of a Platform-independent Surgical Workstation for an Open Networked Operating Theatre Using the IEEE 11073 SDC Communication Standard -- Ergonomics and Occupational Health -- Investigation on Heavy Truck Cab Ergonomics -- Design Methods for Human-Robot-Interaction -- Research Project beyondSPAI - The Safe and Reliable Monitoring of Adaptive Safety Zones in the Proximity of Collaborating Industrial Robots using an Intelligent InGaAs Camera System -- Investigation of Clamping and Crushing Injuries with Electrically Height-Adjustable Therapy Beds -- Fitness Evaluation of Military Helmet Pad -- Ergonomic-based Clothing Design for The Elderly -- Comfort Evaluation of the Range of Motion of Human Upper Limb Joints -- A Reliable and Inexpensive Integration of Virtual Reality and Digital Human Modelling to Estimate Cervical Spine Function -- Development of a Wearable IMU System for Automatically Assessing Lifting Risk Factors -- Study on Chinese Elderly Women's Clothing Design based on Ergonomics -- Depth and Colour Perception in Real and Virtual Robot Cells in the Context of Occupational Safety and Health -- A 3-Step Approach for Introducing Computer-Aided Ergonomics Analysis Methodologies -- Individual Differences in Office Comfort: What Affects Comfort Varies by Person -- Contributions of Training Programs Supported by VR Techniques to the Prevention of STF Accidents -- Analysis of Effects on Postural Stability by Wearable Tactile Expression Mechanism -- Applications for Exercising, Physical Therapy and Rehabilitation -- Computer-Interfacing with Noninvasive Muscle Activity Diagnostic -- Wireless Aerobic Exercise Monitoring System based on Multimodal Sensors -- An Ergonomic Solution for Hand Rehabilitation Product Design for Stroke Patients -- End-User Programming Architecture for Physical Movement Assessment: An Interactive Machine Learning Approach -- Deep Learning based Gesture Classification for Hand Physical Therapy Interactive Program -- Study on the Effect of Cervical Spine Somatosensory Games of Virtual Reality and Augmented Reality on Relieving Neck Muscle Fatigue -- Research and Design of Relieving Neck Muscle Fatigue Based on Serious Game -- Health Services -- Excessive Smartphone Use and Associated Physiological Disorders – A Survey on Research Status in India -- Semi-Autonomous Collaborative Mobile Platform with Pre-Diagnostics for Hospitals -- A Personal Health-tracking System Focused on Social Communication for Motivation -- A Technology-Driven Approach for Child-Friendly Diabetes Management -- TrackSugAR -- EVIDENT: Extraction and Visualization Interface of Drawing Execution in Neuropsychological Test -- Developing Parameters for a Technology to Predict Patient Satisfaction in Naturalistic Clinical Encounters -- Heart Sound Recognition Technology Based on Deep Learning -- DHM for Aging Support -- Advancing a ‘Human Factors & Ethics Canvas’ for New Driver Assistance Technologies Targeted at Older Adults -- Investigations on Monitoring Sensor Usage and Decision-Making: A Case Study in an Elderly Care Facility -- Verifying the Usefulness of Monitoring Sensors Used by Caregivers in Nursing Homes -- A Study of Quantifying Skills of Caregivers Touch to People with Dementia -- Use of Technologies for Supporting Dementia Care -- Towards Practical Use of Bedside Sensing/Voice-Calling System for Preventing Falls -- Usability Assessment of Augmented Reality-based Pedestrian Navigation Aid -- Extracting and Evaluating Personal Interests with Dialogue Agent -- Basic Study of Wall-projected Humanitude Agent for Pre-care Multimodal Interaction -- Partner Agent Showing Continuous and Preceding Daily Activities for Users' Behavior Modification.

Sommario/riassunto

This two-volume set LNCS 12198 and 12199 constitutes the

thoroughly refereed proceedings of the 11th International Conference on Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management, DHM 2020, which was supposed to be held as part of the 22st HCI International Conference, HCII 2020, in Copenhagen, Denmark, in July 2020. The conference was held virtually due to the COVID-19 pandemic. A total of 1439 papers and 238 posters have been carefully reviewed and accepted for publication in HCII 2020. DHM 2020 includes a total of 77 papers; they were organized in topical sections named: Part I, Posture, Motion and Health: Posture and motion modelling in design; ergonomics and occupational health; applications for exercising, physical therapy and rehabilitation; health services; DHM for aging support. Part II, Human Communication, Organization and Work: Modelling human communication; modelling work, collaboration and the human environment; addressing ethical and societal challenges; new research issues and approaches in digital human modelling.