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Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics, , 3004-9954 ; ; 13002
Disciplina	006.6
Soggetti	Application software Artificial intelligence Computer vision Computer engineering Computer networks Computer and Information Systems Applications Artificial Intelligence Computer Vision Computer Engineering and Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Computer Animation -- Temporal Parameter-free Deep Skinning of Animated Meshes -- The impact of animations in the perception of a simulated crowd -- Computer Vision -- Virtual haptic system for shape recognition based on local curvatures -- Stable Depth Estimation within Consecutive Video Frames -- Progressive Multi-Scale Reconstruction for Guided Depth Map Super-Resolution via Deep Residual Gate Fusion Network -- SE_EDNet: A Robust Manipulated Faces Detection Algorithm -- PointCNN-based Individual Tree Detection Using LiDAR Point Clouds -- Variance weight distribution network based Noise Sample Learning for Robust Person Re-identification -- Monocular Dense SLAM with

Consistent Deep Depth Prediction -- Sketch-based 3D Garment Generation with Shape-adapted -- Geometric Computing -- Light-Weight Multi-View Topology Consistent Facial Geometry and Reflectance Capture -- Real-Time Fluid Simulation with Atmospheric Pressure Using Weak Air Particles -- Human Poses and Gestures -- Reinforcement Learning for Quadruped Locomotion -- Partially Occluded Skeleton Action Recognition based on Multi-stream Fusion Graph Convolutional Networks -- Social-Scene-Aware Generative Adversarial Networks for Pedestrian Trajectory Prediction -- Image Processing -- Cecid Fly Defect Detection in Mangoes using Object Detection Frameworks -- Twin-Channel Gan: Repair Shape with Twin - Channel Generative Adversarial Network and Structural Constraints -- CoPaint: Guiding Sketch Painting with Consistent Color and Coherent Generative Adversarial Networks -- Multi-Stream Fusion Network for Multi-Distortion Image Super-Resolution -- Generative Face Parsing Map Guided 3D Face Reconstruction Under Occluded Scenes -- Compact Double Attention Module Embedded CNN for Palmprint Recognition -- M2M: Learning to Enhance Low-light Image from Model to Mobile FPGA -- Character Flow Detection and Rectification for Scene Text Spotting -- A Deep Learning Method for 2D Image Stippling -- Medical Imaging -- In Silico Heart Versatile Graphical Interface with Systole and Diastole Phases Customizable for Diversified Arrhythmias Simulations -- ADD-Net: Attention U-Net with Dilated Skip Connection and Dense Connected Decoder for Retinal Vessel Segmentation -- BDFNet: Boundary-assisted and Discriminative Feature Extraction Network for COVID-19 Lung Infection Segmentation -- A Classification Network for Ocular Diseases Based on Structure Feature and Visual Attention -- Physics-based Simulation -- DSNet: Dynamic skin deformation prediction by Recurrent Neural Network -- Curvature Analysis of Sculpted Hair Meshes for Hair Guides Generation -- Synthesizing Human Faces with Local Weight Autoencoder -- CFMNet: Coarse-to-Fine Cascaded Feature Mapping Network for Hair Attribute Transfer -- Rendering and Textures -- Dynamic Shadow Synthesis Using Silhouette Edge Optimization -- DDISH-GI: Dynamic Distributed Spherical Harmonics Global Illumination -- Simplicity Driven Edge Refinement and Color Reconstruction in Image Vectorization -- Temporal-Consistency-Aware Video Color Transfer -- An improved advancing-front-Delaunay method for triangular mesh generation -- Robotics and Vision -- The use of a social robot in elderly home for recreational activities -- Resilient Navigation among dynamic agents with hierarchical reinforcement learning -- Visual Analytics -- MeshChain: Secure 3D model and intellectual property management powered by blockchain technology -- Image emotion analysis based on the distance relation of emotion categories via deep metric learning -- How much do we perceive geometric features, personalities and emotions in avatars? -- High-Dimensional Dataset Simplification by Laplace-Beltrami Operator -- VR/AR -- Characterizing Visual Acuity in the use of Head Mounted Displays -- Effects of Different Proximity-based Feedback on Virtual Hand Pointing in Virtual Reality -- Virtual Scenes Construction Promotes Traditional Chinese Art Preservation -- A Preliminary Work: Mixed Reality-integrated Computer-aided Surgical Navigation System for Paranasal Sinus Surgery using Microsoft HoloLens 2 -- Engage -- Algorithms for multi-conditioned conic fitting in Geometric algebra for conics -- Special affine Fourier transform for space-time algebra signals -- On Explicit Formulas for Characteristic Polynomial Coefficients in Geometric Algebras -- Unified Expression Framework of Geodetic Stations Based on Conformal Geometric Algebra -- Never 'Drop the Ball' in the Operating Room: An efficient hand-

based VR HMD controller interpolation algorithm, for collaborative, networked virtual environments -- The Rules of 4-dimensional Perspective.

Sommario/riassunto

This book constitutes the refereed proceedings of the 38th Computer Graphics International Conference, CGI 2021, held virtually in September 2021. The 44 full papers presented together with 9 short papers were carefully reviewed and selected from 131 submissions. The papers are organized in the following topics: computer animation; computer vision; geometric computing; human poses and gestures; image processing; medical imaging; physics-based simulation; rendering and textures; robotics and vision; visual analytics; VR/AR; and engage.
