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Titolo	Augmented Environments for Computer-Assisted Interventions : 9th International Workshop, AE-CAI 2014, Held in Conjunction with MICCAI 2014, Boston, MA, USA, September 14, 2014, Proceedings / / edited by Cristian A Linte, Ziv Yaniv, Pascal Fallavollita, Purang Abolmaesumi, David Holmes III
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Descrizione fisica	1 online resource (XII, 149 p. 89 illus.)
Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics, , 3004-9954 ; ; 8678
Disciplina	617.00785
Soggetti	Computer vision Computer simulation Pattern recognition systems Computer graphics Algorithms Radiology Computer Vision Computer Modelling Automated Pattern Recognition Computer Graphics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Foreword -- Graphics Processor Unit (GPU) Accelerated Shallow Transparent Layer Detection in Optical Coherence Tomographic (OCT) images for real-time Corneal Surgical Guidance -- Ultrasound Image Overlay onto Endoscopic Image by Fusing 2D-3D Tracking of Laparoscopic Ultrasound Probe -- Simulation of Ultrasound Images for Validation of MR to Ultrasound Registration in Neurosurgery.-Visual Odometry in Stereo Endoscopy by using PEaRL to handle Partial Scene Deformation -- Instrument Tracking and Visualization for Ultrasound Catheter Guided Procedures -- Towards video guidance for ultrasound,

using a prior high-resolution 3D surface map of the external anatomy -- Fusion of Inertial Sensing to Compensate for Partial Occlusions in Optical Tracking Systems.-Improvement of a Virtual Pivot for Minimally Invasive Surgery Simulators using Haptic Augmentation.-Augmented Reality in Neurovascular Surgery: First Experiences.-A New Cost-Effective Approach to Pedicular Screw Placement -- A Simple and Accurate Camera-sensor Calibration for Surgical Endoscopes and Microscopes.-Augmented-reality environment for locomotor training in children with neurological injuries -- Linear Object Registration of Interventional Tools -- Augmented Reality-Enhanced Endoscopic Images for Annuloplasty Ring Sizing.-A Framework for Semi-Automatic Fiducial Localization in Volumetric Images.

Sommario/riassunto

This book constitutes the refereed proceedings of the 9th International Workshop on Augmented Environments for Computer-Assisted Interventions, held in conjunction with MICCAI 2014, in Boston, MA, USA in September 2014. The 15 revised full papers presented were carefully reviewed and selected from 23 submissions. The scope of the workshop spans the theoretical and practical aspects of augmented reality and visualization computer assisted intervention, interventional imaging, image-guided robotics, image-guided intervention, surgical planning and simulation, systematic extra- and intra-corporeal imaging modalities, general biological and neuroscience image computing, patient specific modeling, and medical image understanding.