2014 IEEE International Symposium on Mixed and Augmented Reality

(ISMAR 2014)

Munich, Germany
10-12 September 2014
Message from the General Chairs

Message from the Science & Technology Paper Chairs

Message from the Poster Chairs

Message from the Demo Chairs

Message from the Doctoral Consortium Chairs

IEEE Visualization and Graphics Technical Committee (VGTC)

Symposium Committee

International Program Committee

Steering Committee

Reviewers

Keynote Speaker: Smart Headlight: A new active augmented reality that improves how the reality appears to a human
Takeo Kanade, Carnegie Mellon University

Keynote Speaker: The Role of Augmented Reality Displays for Guiding Intra-cardiac Interventions
Terry Peters, Western University Canada

Keynote Speaker: Seeing Anew: Paradigm Shifting across the Virtuality Continuum
Tom Furness, University of Washington

Supporting Organizations

Science & Technology Papers

Session: Applications
Chair: Dieter Schmalstieg

AR-IVI – Implementation of In-Vehicle Augmented Reality
Qing Rao, Tobias Tropper, Christian Grünler, Markus Hammori, Samarjit Chakraborty

Thermal Touch: Thermography-Enabled Everywhere Touch Interfaces for Mobile Augmented Reality Applications
Daniel Kurz

AR-Mentor: Augmented Reality Based Mentoring System
Zhiwei Zhu, Vlad Branzoi, Michael Wolverton, Louise Yarnall, Girish Acharya, Supun Samarasekera, Rakesh Kumar, Glen Murray, Nicholas Vitovitch

Towards Augmented Reality User Interfaces in 3D Media Production
Max Krichenbauer, Goshiro Yamamoto, Takafumi Taketomi, Christian Sandor, Hirokazu Kato

Session: Rendering
Chair: Wolfgang Broll

Interactive Near-Field Illumination for Photorealistic Augmented Reality on Mobile Devices
Kai Rohmer, Wolfgang Büschel, Raimund Dachselt, Thorsten Grosch

Delta Voxel Cone Tracing
Tobias Alexander Franke

Importance Weighted Image Enhancement for Prosthetic Vision: An Augmentation Framework
Chris McCarthy, Nick Barnes

P-HRTF: Efficient Personalized HRTF Computation for High-Fidelity Spatial Sound
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Visibility-Based Blending for Real-Time Applications
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Collaboration in Mediated and Augmented Reality
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Advanced Manufacturing with Augmented Reality
Organizers: Christine Perey, AR Community and AR for Enterprise Alliance, Fridolin Wild, Open University, Kaj Helin, VTT Technical Research Centre of Finland, Miroslav Janak, Technical University of Košice, Paul Davies, Boeing, Patrick Ryan, Newport News Shipbuilding

Workshop on Tracking Methods & Applications
Organizers: Jonathan Ventura, University of Colorado, Daniel Wagner, Qualcomm, Daniel Kurz, metaio, Harald Wuest, Fraunhofer IGD, Selim Benhimane, Intel

Hands Free - Exploring AR Glasses and their Peculiarities
Organizers: Markus Eder, Head of Computer Vision, Wikitude Gmb, Martin Lechner, CTO, Wikitude GmbH, Thomas Stütz, Senior Lecturer, FH Salzburg, Julian Stadon, Senior Lecturer, FH Salzburg

Tutorials

AR Development with the Metaio Product Suite: Demonstration of Use Cases in Industry
Organizers: Frank Angermann, Metaio GmbH, Maximilian Krushwitz, Metaio GmbH

Fusing Web Technologies and Augmented Reality
Contributor: Ulrich Bockholt, Fraunhofer IGD, Germany

A ‘Look Into’ Medical Augmented Reality
Organizers: Yuji Oyamada, Waseda University, Japan, Pascal Fallavollita, Technische Universität München, Germany

Designing Location-Based Experiences
Contributor: Mark Melnykowycz, idezo, Zurich

Diminished Reality as Challenging Extension of Mixed and Augmented Reality
Organizers: Hideyuki Tamura, Ritsumeikan University, Japan, Hideo Saito, Keio University, Japan

Google Glass, The META and Co. How to calibrate Optical See-Through Head Mounted Displays
Organizers: Jens Grubert, Graz University of Technology, Austria, Yuta Itoh, TU Munich, Germany

Open and Interoperable Augmented Reality
Organizers: Christine Perey, PEREY REsearch & Consultion and AR Community founder, Rob Manson, BuildAR and MobAR, Marius Preda, Institut MINES-Telecom, Neil Trevett, NVIDIA and Khronos Group, Martin Lechner, Wikitude GmbH, George Percivall, PGC, Timo Engelke, Fraunhofer IGD, Peter Lefkin, MIPI Alliance, Bruce Mahone, SAE International, Mary Lynne Nielsen, IEEE Standards Association

The Glass Class: Designing Wearable Interfaces
Contributor: Mark Billinghurst, The HIT Lab NZ

Training Detectors and Recognizers in Python and OpenCV
Contributor: Joseph Howse, Nummist Media