

SESSION 6: AUGMENTED REALITY TOOLS AND USER INTERFACES

Chair: Prof. Dr. Hippolyte Muyingi, NUST Namibia

11:50 Ubiquitous Computing for knowledge transfer, exhibition design and museum operations – An interdisciplinary design research project.

Jan Torpus, Andreas Simon & Julia Büchel, University of Applied Sciences and Arts Northwestern Switzerland (FHNW)

12:10 Virtual Reality as Design Space

Prof. Dr.-Ing. Johann Habakuk Israel, HTW Berlin

12:30 H3D digital reassembling of archaeological ceramic pottery fragments based on their thickness profile

*Michail I. Stamatopoulos, Hellenic Open University
Christos-Nikolaos Anagnostopoulos, University of the Aegean*

12:50 Lunch break (70')

SESSION 7: AUDIO AND PERFORMANCE

Chair: Prof. Dr.-Ing. Christian Kassung, Humboldt-University of Berlin

14:00 A proposal for the automatic generation of music due to automatically analyzed emotional contents in texts and images

Hyesu Shin, Seoul National University (Korea)

14:20 Polymetric Rhythmic "Feel" for a Cognitive Drum Computer

Oliver Weede, Hochschule für Kunst, Design und Populäre Musik Freiburg (hKDM)

14:40 The Augmented Performer and the Performative Augmentation: From Actualising Immersive Gameplay in the Concert Performance to Articulating Navigation in the User Interface

Hans-Peter Gasselseder & Maria Kallionpää, Department of Communication and Psychology Aalborg University (Denmark)

15:00 Experience in Development and Use of Applications of Virtual and Augmented Reality in Culture

*Nikolay Borisov & Dr. Artem Smolin, ITMO University,
Saint-Petersburg State University (Russia)*

15:20 Conclusion

Prof. Dr. Dr. h.c. Jürgen Sieck, HTW Berlin & NUST (Namibia)

About the Conference

The 14th edition of the "Culture and Computer Science" conference series brings into focus best practice examples, challenges and future trends in the fields of augmented reality, 3D technology, media integration, modelling, visualisation and interaction. The conference targets cultural policy makers, employees of cultural and creative industries, communication scientists, cultural and artistic actors as well as computer scientists and engineers, who conduct research and development on cultural topics.

The presentations will discuss the following key topics:

- Augmented Reality
- Best practice Augmented Reality applications
- Virtual Reality
- Best practice Virtual Reality applications
- Interdependence between culture and computer science
- Influence of art and culture on future developments
- The media-compatible treatment and enhancement of information
- Intuitive usage of media systems
- Ethics in culture and computer science

Contact

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Conference Venue

Schloss Köpenick
Schloßinsel 1
12557 Berlin, Germany
Aurora Room

XIV. Culture and Computer Science
AUGMENTED REALITY
May 26th – 27th, 2016



Programme

DAY 1 – MAY 26TH 2016

09:00 Registration (Schlosscafé Köpenick)

10:00 Opening

*Prof. Dr. Erich Zielinski, Director Alcatel-Lucent-Stiftung
Prof. Dr. Dr. h.c. Jürgen Sieck, HTW Berlin & NUST (Namibia)*

SESSION 1: AUGMENTED REALITY & 360°

Chair: Prof. Dr. Dr. h.c. Jürgen Sieck, HTW Berlin & NUST

10:15 **KEYNOTE**

Exploring Social Augmentation Techniques for Training and Assistive Applications

Prof. Dr. Elisabeth André, University Augsburg

10:55 The Potential of Panorama Technologies for Cultural Applications

Dr. Ralf Schäfer, Fraunhofer Heinrich Hertz Institute

11:15 Combining Virtual and Augmented Reality Approaches for a Project with the Konzerthaus Berlin

*Jens Reinhardt, Stefan Schöbinger, Michael Thiele-Maas,
Kerstin Remes & Florian Pfeiffer, HTW Berlin
Prof. Dr. Dr. h.c. Jürgen Sieck, HTW Berlin & NUST (Namibia)*

11:35 Coffee break (25')

SESSION 2: AURALISATION & ANNOTATION

Chair: Prof. Dr. Carsten Busch, HTW Berlin

12:00 Auralization as Augmented Reality

*Prof. Dr. Christian Kassung & Sebastian Schwesinger,
Humboldt-University of Berlin*

12:20 Annotating the world

John Hillman, Falmouth University (United Kingdom)

12:40 Staging the holodeck – Photographic Imagery for Immersive Experiences in Virtual Environments

*Dr. Elke Reinhuber, School of Arts, Design and Media,
Nanyang Technological University (Singapore)*

13:00 Lunch break (75')

SESSION 3: AR TOOLS

Chair: Prof. Dr.-Ing Johann Habakuk Israel, HTW Berlin

14:15 Three-Dimensional Modeling Interface for Augmented Realities

Prof. Dr. Thomas Jung, HTW Berlin

14:35 A special eyesight to a lost past: Oculus Rift, Google Cardboard and SketchFab to support the digital reconstruction of the St. Donato cathedral in Arezzo, Italy.

Mirco Pucci, Carlo Gira & Giorgio Verdiani, Università degli Studi di Firenze (Italy)

14:55 Requirements and Solutions for Location-based Augmented Reality Storytelling in an Outdoor Museum

*Antonia Kampa & Prof. Dr. Ulrike Spierling, Hochschule RheinMain
University of Applied Sciences Wiesbaden Rüsselsheim*

15:15 Coffee break (30')

SESSION 4: PECHA KUCHA

Chair: Prof. Dr. Uwe Großmann, FH Dortmund

15:45 Interactive Multimedia Solutions for the Learning Center of the May 18 Memorial in Gwangju, South Korea

Youngjin Lee, Asian Culture Center, Gwangju (Korea)

15:55 Designing a crowdsourcing platform for rock-art graffiti images

*Lameck M. Amugongo, NUST (Namibia)
Prof. Dr. Dr. h.c. Jürgen Sieck, HTW Berlin & NUST (Namibia)*

16:05 Motion- and speech-based interactions for virtual reality applications realised with head-mounted displays

Tim Wienrich & Jens Reinhardt, HTW Berlin

16:15 A Usability Study of Indoor Micro Location-aware Interactive Guide Application in Museum: Case of Namibian Independence Museum

*Herman Kandjimi & Prof. Dr. Hippolyte Muyingi, NUST (Namibia)
Prof. Dr. Dr. h.c. Jürgen Sieck, HTW Berlin & NUST (Namibia)*

16:25 Markerless Augmented Reality Approach Based on Hand Posture and Gesture Recognition

*Mykyta Kovalenko & Prof. Dr. Svitlana Antoshchuk,
Odessa National Polytechnic University (Ukraine)
Prof. Dr. Dr. h.c. Jürgen Sieck, HTW Berlin & NUST (Namibia)*

16:35 Augmenting the future: The vision of industry 4.0 as a hands-on exhibit

*Daniel Strauss & Felix Brennecke, TRIAD Berlin
Projektgesellschaft mbH*

17:00 Guided Museum or City Tour

Kunstgewerbemuseum or Altstadt Köpenick

18:30 Evening Reception

Schlosscafé Köpenick

DAY 2 – MAY 27TH 2016

09:00 Registration (Schlosscafé Köpenick)

10:00 Opening

Prof. Dr. Carsten Busch, HTW Berlin

SESSION 5: AUGMENTED REALITY – BEST PRACTICE EXAMPLES

Chair: Dr. Artem Smolin, Saint-Petersburg State University

10:05 **KEYNOTE**

Augmented Reality in Cultural Context

Prof. Reinhold Behringer, Leeds Beckett University

10:45 Collaborating Robots in a Museum Environment: Modular Systems for 3D Documentation

*Prof. Dr.-Ing. Stephan Schäfer, Dirk Schöttke & Thomas Kämpfe,
HTW Berlin, Prof. Dr.-Ing. Ulrich Berger, Brandenburg University of
Technology Cottbus-Senftenberg (BTU)*

11:05 "Jurassic World" meets "Night in the Museum" – Augmented Reality for museums of natural history

*Prof. Dr. Carsten Busch, Roland Cristea, Stefan Rulewitz, André
Selmanagić & Martin Steinicke, HTW Berlin*

11:25 Coffee break (25')