

International Conference on

**CULTURE AND  
COMPUTER SCIENCE  
2016**



at Namibia University of Science  
and Technology (NUST), Windhoek  
October 25<sup>th</sup> – 28<sup>th</sup>, 2016

## PROGRAMME & INSTALLATIONS



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**



**Hochschule für Technik  
und Wirtschaft Berlin**  
*University of Applied Sciences*

# Programme

## DAY 1 – OCT. 25<sup>TH</sup> 2016

### WORKSHOP SESSION 1

**Chair:** Shawulu Nggada, Namibia

13:30 **WORKSHOP 1**  
Organisational Information Security Culture  
*Fungai Bhunu Shava, Namibia*

14:30 **WORKSHOP 2**  
Emerging Technology & Indigenous Knowledge  
*Helvi Wheeler, Namibia*

18:00 End of Day 1

## DAY 2 – OCT. 26<sup>TH</sup> 2016

08:30 Registration (Safari Court Hotel)

### SESSION 1: OPENING

**Chair:** Anicia Peters, Namibia

09:30 **Opening**  
*Vice Chancellor & Chair Anicia Peters, Namibia*

10:30 **KEYNOTE 1**  
Keystones to Foster Inclusive Knowledge Societies  
*Verena Metze-Mangold, German UNESCO*

10:45 **KEYNOTE 2**  
Culture, Education and Development  
*Jean-Pierre Ilboudo, Namibia UNESCO*

11:15 Coffee break and Installations (30')

### SESSION 2: AUGMENTED REALITY

**Chair:** Nomusa Dlodlo, Namibia

11:45 Technologies to Promote the Inclusion of Indigenous Knowledge Holders in Digital Cultural Heritage Preservation  
*Gereon Koch Kapuire\*, Heike Winschiers-Theophilus, Colin Stanley, Donovan Maasz,*

*Michael Chamunorwa, Daniel G. Cabrero, Rune Heide Møller & Kasper Rodil, Namibia & Denmark*

12:10 **The Dissolution of the Human Subject and Ethical Problems In Art and Virtual Reality**  
*Youngjin Lee, Korea*

12:35 **Past-Present-Sound. On Auralization as Augmented Reality**  
*Christian Kassung, Germany*

13:00 Lunch break (60')

### WORKSHOP SESSION 2

**Chair:** Shawulu Nggada, Namibia

14:00 **WORKSHOP 3, Part A**  
Wikipedia Indigenous Language Editathon  
*Peter Gallert, Namibia*

### SESSION 3: AUGMENTED REALITY

**Chair:** Gereon Koch Kapuire, Namibia

14:00 **Effective Visual Hints in a 3D Virtual Environment for an Indigenous Community**  
*Michael Chamunorwa\* & Gereon Koch Kapuire, Namibia*

14:25 **Computer-Assisted Analysis of Reading Skills and Disorders based on Eye Tracking**  
*Oliver Weede\*, Nils Schartel, Uwe Wolsiffer & Kerstin Schartel, Germany*

14:50 **Visual Hand Tracking and Gesture Recognition for Human-Computer Interaction**  
*Mykyta Kovalenko\*, Jürgen Sieck & Svetlana Antoshchuk, Ukraine/Germany*

15:15 Coffee break & Installations (Open to the public)

\* Speaker

## INSTALLATIONS

**Chairs:** Heike Winschiers-Theophilus & Jens Reinhardt, Germany/Namibia

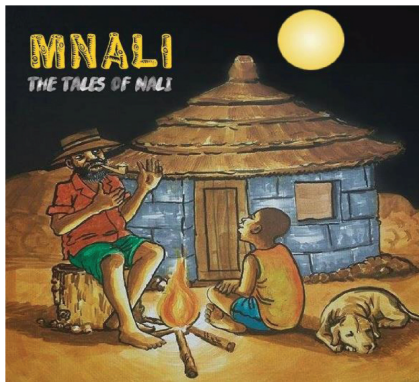
### 11 An Audio-Visual Multi-User Interactive Installation Tracking Namibian Cultural Diversity

*Richard Norbert Plaatjes, Steve Basimike, Malan Gerhardus de Wet, Baptista João, Trevor Kabajani, Adilson Clemente, Anton Ndelitunga Tutumbalekeni Lungameni, Auryl Greyeno Rusberg\*, Conrad Nampolo, Isak Amunkete, Josua Jonas & Rodney Santambwa*



### 12 Beyond Awareness of Gender-based Violence in Namibia. A Culture Change Through a Mediated Technology Intervention

*Ruben Ndjibu*



### 13 Persuasive Souvenir for Museums Visitors

*Ndinelago Tupopila Nashandi\* & Hippolyte N. Muyingi*

### 14 iMuseum: Interactive Museum Guide

*Herman Kandjimi\* & Hippolyte N. Muyingi*

### 15 Virtual Concert Hall – An Immersive Experience at the Konzerthaus Berlin

*Jens Reinhardt\*, Jürgen Sieck & Michael Thiele-Maas*



### 16 Follow my Shadow, See me to Suffer; Track my Spirit, Empathise with Me: Uncovering Khoisan Marginalisation via a Live Healing Installation

*Daniel G. Cabrero\* & Tertu Fernandu*

### 17 Culturally Relevant Representations of Sensor Data to Solicit Citizen Participation

*Mark Mushiba & Lameck Amugongo*

### 18 A Visual Ethnography of Cape Town's Townships Through Collective Digital Storytelling

*Maria Rosa Lorini*

### 19 Making the State of Citizenshi.ph.t: What is an Afro-Tech Home?

*Nashilongweshipwe Mushaandja\* & Oupa Sibeko*

### 110 Emerging Technology & Indigenous Knowledge

*Helvi Wheeler*

### 18:00 Conference Dinner & Performance (Safari Hotel)

*MoC Jere*

### 21:00 End of Day 2

## DAY 3 – OCT. 27<sup>TH</sup> 2016

- 08:30 **Registration (Safari Court Hotel)**
- 09:00 **Opening**  
*Jürgen Sieck, Germany/Namibia*
- SESSION 4: STORY TELLING**  
**Chair:** Jürgen Sieck, Germany/Namibia
- 09:05 **KEYNOTE 3**  
**Future Trends in Virtual and Augmented Reality**  
*James Gain, South Africa*
- 09:45 **Magic Equipment: Integrating Digital Narrative and Interaction Design in an Augmented Reality Quest**  
*Ulrike Spierling\*, Antonia Kampa & Kathrin Stöbener, Germany*
- 10:10 **Exploiting Ndebele Designs to Control the Internet of Things for Digital Storytelling**  
*Nomusa Dlodlo, Namibia*
- 10:35 **Coffee break (25')**
- SESSION 5: LOCATION BASED**  
**Chair:** Heike Winschiers-Theophilus, Namibia
- 11:00 **KEYNOTE 4**  
**Interaction Design in a Cultural Context**  
*Erkki Sutinen, Finland*
- 11:40 **Natural Learning – Using Applied Interactive Technologies for a Cultural Change**  
*Carsten Busch, Sabine Claßnitz\*, André Selmanagić, Germany*
- 12:05 **Development of Location-based and Context-sensitive Services for Mobile Devices**  
*Tobias Krüger\* & Jürgen Sieck, Germany*
- 12:30 **A Mobile Multimodal Indoor Localization with iBeacon Trilateration and Dead Reckoning**  
*Alexander Kremer\* & Jürgen Sieck, Germany*

12:55 **Lunch break (65')**

### WORKSHOP SESSION 3

**Chair:** Shawulu Nggada, Namibia

- 14:00 **Workshop 3, Part B**  
**Wikipedia Indigenous Language Editathon**  
*Peter Gallert, NUST Namibia*

### SESSION 6: 3D

**Chair:** Christian Kassung, Germany

- 14:00 **An Hexacopter-based Panoramic Virtual Reality of the NUST**  
*Hippolyte N. Muyingi, Jesse Johnson\* & Joseph Lewis, Namibia & USA*
- 14:25 **Designing 3D Representations of Namibian Flora for Recognition by Indigenous Communities**  
*Donovan Maasz\* & Heike Winschiers-Theophilus, Namibia*
- 14:50 **Strategies for Processing and Storing Digital Free-hand Sketches**  
*Laura Wölbeling, Dawid Lokiec & Johann Habakuk Israel\*, Germany*
- 15:15 **Coffee break (30')**
- STUDENT COLLOQUIUM**  
**Chair:** Hippolyte N. Muyingi, Namibia
- 15:45 **A Crowd-sourced Animal Tracking Service**  
*Alexander Kremer\*, Michael Chamunorwa & Jürgen Sieck, Germany/Namibia*
- 16:00 **Android Client for an Animal Tracking System**  
*Elisabeth Thielen\*, Jürgen Sieck, Luciano Frans Haingura & Hekereko Kavimaka, Germany & Namibia*
- 16:15 **antrack: An Animal Tracking iOS App for Tourists**  
*Samuel Kapembe, Tobias Krüger\*, Uriel Munjanga & Jürgen Sieck, Germany & Namibia*

16:30 Digital Storytelling as a Means to Preserve Culture, Language and Promote Literacy in Namibia

*Helvi Wheeler, Namibia*

16:45 Using Cultural Knowledge to Create Secure and Usable Passphrases

*Pardon Maoneke\*, Stephen Flowerday & Naomi Isabirye, Namibia*

17:00 Security Policy Adoption Framework for Security Standards Implementation in Namibia

*Diana Tjirare\* & Fungai Bhunu Shava, Namibia*

17:15 Interaction in Augmented Reality for Cultural Institutions

*Jens Reinhardt, Germany/Namibia*

17:30 Collaborative Exploration of Cultural Exhibitions Using Mixed Reality Applications

*Julien Letellier\* & Jürgen Sieck, Germany/Namibia*

18:00 End of Day 3

## DAY 4 – OCT. 28<sup>TH</sup> 2016

08:30 Registration (Safari Court Hotel)

09:00 Opening

*Hippolyte N. Muyingi, Namibia*

### SESSION 7: VISUALISATION & COLLABORATION

**Chair:** Hippolyte N. Muyingi, Namibia

09:05 **KEYNOTE 4**

Digitalisation of a Secret Sign Language of the Penan on Borneo Island

*Tarik Zaman, Malaysia*

09:50 Wildlife Animal Recognition Service: A Cross-validating Pattern and Color Based Approach

*Bastian Hermann\* & Jürgen Sieck, Germany/Namibia*

10:15 Collaborative Open-Content Online Dictionary for Namibian Indigenous Languages (NIL)

*Heinrich Naatwilwe Aluvilu\* & Heike Winschiers-Theophilus, Namibia*

10:40 Visualising an Interactive Simulation of a Micro Smart Grid Using Web Technologies

*Florian Pfeiffer, Jens Reinhardt\*, Jürgen Sieck & Michael Thiele-Maas, Germany/Namibia*

11:05 Coffee break & Installations (30')

### SESSION 8:

**Chair:** Jesse Johnson, USA

11:35 Leapfrogging India's Antiquated Antiquities Laws: A Digital Strategy

*Arkalgud Ramaprasad\*, Chetan Dixit, Priyansha Rawat, Swati Singh & Vijeth Acharya, India*

12:00 Envisioning the Semiotics of Cultural Heritage Artifacts

*Sonia Yaco, Arkalgud Ramaprasad\* & Saleha Rizvi, India & USA*

12:25 Workshopreport: Wikipedia Indigenous Language Editathon

*Peter Gallert, Namibia*

12:35 Workshopreport: Organisational Information Security Culture Workshop

*Fungai Bhunu Shava, Namibia*

12:45 Closing Ceremony

*Hippolyte N. Muyingi, Anicia Peters & Jürgen Sieck, Namibia/Germany*

13:00 Lunch break ('60)

### CULTURAL EVENTS

14:00 Museum Tour

*NN*

14:00 Village Tour

*NN*

16:00 End of Day 4

## About the Conference

The International Conference on Culture & Computer Science (ICCCS) is a conference series that brings into focus best practice examples, challenges and future trends in the field of virtual and augmented reality, audio and video technology, art, multimedia and digital media integration, cross-media technologies, modeling, visualisation and interaction.

The conference targets cultural policy makers, cultural and creative cultural industries, communication scientists, artists as well as computer scientists and engineers conducting research on cultural topics.

The presentations will discuss the following key topics:

- Augmented Reality
- Virtual Reality
- Audio and Video
- Infrastructure
- Media
- Visualisation
- Interaction
- Services
- General Topics

## Conference Venue

### **Safari Court Hotel**

Corner of Auas and Aviation Streets

P O Box 3900

Windhoek, Namibia

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