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The Second International Conference on *Immersive Telecommunications*

IMMERSCOM 2009

In technical co-sponsorship with IEEE SPS
and co-operation with ACM SIGMM

May 27-29, 2009
University of California,
Berkeley, California, USA

The aim of IMMERSCOM is to promote multi- and cross-disciplinary research on capturing, processing, analyzing, coding, communication and rendering of rich audio-visual content in order to enable remote immersive experiences of people, objects and environments. The body of technologies that enable such immersive experiences is collectively referred to as *Immersive Telecommunications Technologies*. Applications of immersive technologies can be varied, and include tele-presence, industrial automation, health care, education, and entertainment. Many of these are beginning to be viewed as green technologies.

Topics under the scope of the conference include but are not limited to:

Scene Capture for Immersive Communication:

3D scanning, multi-camera and depth sensor based capture systems, *ad hoc* multimedia sensor networks, multimodal scene capture, 3D reconstructions and other representations from capture data, view synthesis and interpolation, pervasive sensing

Interfaces for Immersive Experiences:

Stereoscopic, auto-stereoscopic and multi-view displays and interfaces; multi-projector and projector-camera systems; mixed/augmented reality interfaces, interactive environment interfaces, affective user interfaces, haptics; handheld and wearable device interfaces, multimodal interfaces, tele-presence interfaces; perceptual interfaces, human factors

Computer Vision and Scene Understanding supporting Immersive Communication:

3D reconstruction and modeling, activity detection, face and pose detection and recognition, gesture recognition, body tracking, mobility issues, tele-reality, data fusion

Audio for Immersive Communication:

Multi-channel echo cancellation, de-reverberation, spatial audio capture and synthesis, microphone and speaker arrays, source localization and diarization, multimodal processing

Multimedia Coding for Immersive Communication:

Coding of audio, video, multi-view video, multi-view video with depth; coding of various 3D representations; distributed single- and multi-view video and audio coding, coding for distributed multimedia sensor (camera & microphone) networks, compressed sensing, real-time coding

Networking/Communication for Immersive Applications:

Communication for rich 3D visualization, tele-presence, and mixed/augmented reality; QoS for immersive applications; robustness to loss over networks, low latency communication, real-time protocols, synchronization

Applications, Systems, and Architectures:

Tele-presence; gaming; medical and bio-medical applications; educational systems; virtual museums, meetings and classrooms; social networking

PAPERS:

We invite original technical papers . not previously published or under review for publication elsewhere. See submission instructions at www.immerscom.org/submission.shtml (max 6 page, 2-col format, 9 pt font).

Full papers due: **November 28, 2008 (Final)**

Notification of acceptance: **February 1, 2009**

Camera-ready manuscripts due: **March 1, 2009**

DEMOS/EXHIBITS:

We plan to make demos and exhibits a significant part of this conference, and invite both academia and industry to demonstrate their prototypes or products before a technical audience. Bus tours to locations in the SF Bay area will be organized to facilitate this process. Please send your proposal with a brief description of the system, setup requirements, as well as the intended venue (if local), to the Demo/Exhibits Chair Harlyn Baker (Harlyn.Baker@hp.com) by **Feb 1, 2009**.

PANELS:

We are seeking panel proposals on cutting edge topics on immersive technologies. Please send panel proposals to the Panels Chair, Ruigang Yang (ryang@cvve.uky.edu) by **Feb 1, 2009**.

TECHNICAL PROGRAM COMMITTEE:

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