

Multimedia System Journal
Special Issue on: Collaborative Haptic Audio Visual Environments and Systems

Multimedia and Information technology are reaching limits in terms of what can be done in multimedia applications with only sight and sound. The next critical step is to bring the sense of “touch” over network connections, which is commonly known as *Tele-haptics*. *Haptics*, a term which was derived from the Greek verb “haptesthai” meaning “to touch”, introduces the sense of touch and force into the human-computer interaction. Virtual Environments (VE) are usually referred to as computer generated 3D worlds wherein users can interact through various human-computer interfaces and experience the so called “virtual world”. Collaborative Virtual Environments (CVE) are VEs that, in addition to the virtual experience, provide the ability for users to collaborate, such as co-manipulation of shared objects and tele-mentoring. A special case of a CVE is the collaborative haptic virtual environment (C-HAVE) where, in addition to traditional multimedia such as image, audio, and video, this new haptic media plays an important role. C-HAVEs allow multiple users, each with his/her haptic device, to collaboratively manipulate shared objects in a virtual environment. The potential of such technology is quite significant for many applications such as tele-presence, tele-learning, tele-medicine, tele-operation in hazardous environments, industrial design and testing, gaming, and interactive virtual reality.

This particular special issue will target articles related to the directions and advances made on the scientific, engineering, and commercial fronts for C-HAVEs. Some potential topics relative to this special issue include:

- Perception of Haptic systems
- Architecture of C-HAVE systems
- Haptic-based input/output methods and user-environment interactions
- Cross-disciplinary collaborative Haptic applications
- Medical C-HAVEs, such as tele-surgery training or tele-medicine
- Tele-operation of robots/vehicles in C-HAVEs
- Issues in the design of cross-cultural collaborative virtual environments
- Haptic as a new media for Internet Gaming

Submission Details: (per e-mail to: abed@mclab.uottawa.ca)

Authors should submit original contributions, that have not been published at or submitted to other conferences or journals, in electronic format (PDF) to the editor of the special issue Abdulmotaleb El Saddik (abed@mclab.uottawa.ca). The papers must be written in English and must not exceed 30 pages (single column, double space, 12 pt font, including figures, tables, and references).

About the Journal:

Multimedia System Journal is a well-known international journal, published by the Springer Verlag, and sponsored by the ACM SIGMM organization. This journal publishes new research results in the areas of multimedia systems, multimedia networking, multimedia applications, multimedia security, multimedia education, multimedia coding, and multimedia retrieval systems.

For further details about the Multimedia Systems Journal please see:

<http://www.springeronline.com/sgw/cda/frontpage/0,11855,5-40100-70-1107311-0,00.html>

Important Dates:

- Manuscript due: December 1st, 2006
- Notification of acceptance: February 1st, 2007
- Submission of the final manuscript: April 1st, 2007
- Expected publication date: Summer 2007

Guest Editor:

Prof. Abdulmotaleb El Saddik
Multimedia Communications Research Laboratory
University of Ottawa
Canada
abed@mclab.uottawa.ca