Special Track/Session on:

Advanced Human Machine Interfaces in Virtual and Augmented Reality

Proposed by:

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Presentation of the session :
Virtual Reality is an immersive interactive computer simulation, visual, auditive and / or haptic, of real or imaginary environments. The session will address both human-machine interfaces and virtual and augmented reality environments (V&AR). These two areas are interrelated and interdependent, they enrich each other in researcc problematic, issues and applications. If human-machine interfaces have remained a long time confined to the use of the keyboard and mouse, we saw in the last two decades a major development for new ways / communication devices. Furthermore, there is a rapid democratization of platforms or systems called immersive, virtual reality or augmented reality. The theme of the session will sail between these two areas to lay the issues and browse the solutions, both hardware and software. This is primarily to show that immersion of users in such virtual environments requires a suitable reflection and study of new human-environment interaction paradigms. Papers are expected on the new developpment of models, software and devices of V&AR, pointing the limitations of conventional interfaces in order to highlight the so-called intuitive and natural interaction models.
The three fundamental issues of V&AR are the analysis and modeling of human activity in a real environment and virtual environment; The study and modeling of new interfaces and advanced users for their immersion and interaction in the virtual environment; and the modeling and design of the virtual environment. Another problem related to Augmented Reality, which covers the treatment of real images and mixing with virtual images. All application fiealds of V&AR are welcome.

Topics of the session :
Human Machine Interfaces
Virtual Reality
Augmented Reality
Immersive Environments

Keywords: Human machine interfaces and interaction, Virtual and augmented reality, Man machine, communication, Platforms and applications of virtual and augmentad reality.

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Submission: Papers should be submitted online to:
https://cmt.research.microsoft.com/CEIT2015/

by February 15th, 2015. Papers should be written according to IEEE standard and not exceed 6 pages.

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