

IEEE Consumer Electronics Magazine

Call for Articles for a Special Issue/Section

Advanced Interaction and Virtual/Augmented Reality Guest Editors: Fabrizio Lamberti and Fernando Pescador

The level of complexity that has been reached by modern Consumer Electronics devices is urging both industry and academy to improve existing interface technology by developing innovative solutions capable to make interaction with machines ever more natural and effective. Indeed, many approaches have been pursued already, e.g., relying upon tangible, visual, aural and physiologic interfaces. For instance, considering input technology, a number of products have been released for the home automation and automotive sectors supporting touch and voice commands, whereas hand and body gestures are increasingly being exploited in entertainment, e.g., to control smart TVs and gaming consoles. Similarly, output methods are trying to make user experience ever more engaging combining, for instance, solutions currently developed by most of the big IT players for Virtual and Augmented reality based on mobile, wearable and projection technologies. Nevertheless, on the one hand, due to the heterogeneity of application contexts, there is not a technology or method that has emerged yet as the one “fits all” interaction solution. On the other hand, it is not easy to foresee a further expansion of application possibilities for considered technologies, which will make current issues even more taxing. This Special Issue, which is tentatively scheduled to appear in the second or third issue of 2017, solicits articles discussing human-machine interaction approaches tailored to Consumer Electronics with a special emphasis on those pertaining Virtual and Augmented Reality, with the aim to provide a platform for engineers, researchers, industrial experts and other stakeholders to address several related challenges. Suitable topics include:

User Experience, Usability and Interaction Design	Sensing and Actuation Technologies	Adaptive, Personalized and Intelligent Interfaces
Interactive TV and Personal Multimedia	Natural, Multi-Modal and Three Dimension Interfaces	Interaction Paradigms for the Internet of Things
Wearable and Mobile Devices and Applications	Immersive and Mixed Virtual Environments	Gaming, Social Technologies and Entertainment

Articles pertaining ongoing technical developments, practical applications and use cases, user studies and evaluations, standardization efforts, current and future trend analysis, as well as next-generation technologies are particularly welcome. While emphasis on the Consumer Electronics-related aspects is required, articles dealing with interdisciplinary aspects will also be considered. Articles focusing on the societal and economic impacts of approaches and technologies considered are particularly welcome. Tutorials and reviews on all Consumer Electronics-related technologies or systems that are relevant to the above topics are also encouraged. More information about CE magazine is available at: <http://cesoc.ieee.org/publications/ce-magazine.html>

Submission instructions – The manuscript submission deadline is December 15th, 2016 and is handled through <https://mc.manuscriptcentral.com/cemag>

Authors submitting to the 34th International Conference on Consumer Electronics – ICCE 2017 (<http://www.icce.org/>) who feel their work can be expanded into an IEEE Consumer Electronics article are invited to contact the editors including a copy of their accepted ICCE digest paper.

For any query, feel free to write to the Guest Editors of this Special Section at lamberti@polito.it and pescador@sec.upm.es.