



Call for Papers

Virtual 13th International Conference on Developments in eSystems Engineering
(AI, Robotics, Sensors, and Industry 4.0)

Special Session: Immersive and Interactive Technology

13th-17th December 2020 England, UK

<https://dese.org.uk/developments-in-esystems-engineering-2020-session14/>

Institution Name and Contry: Universidad de las Ciencias Informáticas (Cuba), Kazan Federal University (Russia), Universidad del Cauca (Colombia) and Southern Federal University (Russia)

Special Collaboration: HCI Collab Network

Session Chair/s (Title,Name): Prof. Dr. Omar Correa
Madrigal

Session Co-Chair/s (Title,Name):

Prof. Dr.Vyacheslav Utochkin

Assistant Prof.Dr. Vlada Kugurakova

Prof. Dr. Cesar Collazos

Prof. Dr. Alexey Samoylov



**Kazan
Federal
UNIVERSITY**



Synopsis:

Immersive technology refers to technology that attempts to emulate a physical world through the means of a digital or simulated world, thereby creating a sense of immersion. As immersive technology, we understand not only AR/VR/XR but also the complex of technologies/ubiquity technologies and approaches to extend user experience and presence sensation. Immersive technology is applied mostly in all areas, including the art, entertainment, and video games and interactive storytelling, military, education, and medicine. As immersive technology becomes more mainstream, it will likely pervade many other industries. The Session “Immersive Interactive Technologies” could be related with a specifics topic of Immersive Environments and Human-Computer Interaction, could be aiming to “promote the integration and ubiquity technologies for increasing the immersion and interaction in computational systems, with the special attention in the Industry”.

This goal is more oriented to the Technological Research (Hardware and Software) for working on Presence concept. Within the framework of the conference, we are interested in seeing the work not only of natural science approaches using mathematical data processing obtained in immersive environments but new hardwired solutions and programmer approaches for their implementation, approaches of both engineering psychologists and designers for the UI implementation, as well as solutions for fast/best application creation based on quick prototyping tools kits.

Topics:

This special session invites authors to submit high-quality research papers on the topics which include (but are not limited to) the following:

- Multimodal interaction
- Self-adaptive environments
- Hardware solutions for increased immersivity
- Ubiquitous displays: multiple screens, holograms, and immersive headsets
- Interactive furnishings and smart environments
- Brain-Computer Interfaces
- Models for improving the communication in immersive environments
- Users experience in immersive environments including human bioneurosignals interpretation in virtual environments
- Narrative technics as approaches to the design of human personality
- Necessary and sufficient conditions for the homomorphic reduction of technological processes into virtual immersive environments
- UX in immersive spaces
- Edutainment as a basic consumer of immersive interactive technologies
- New approaches to the use of all human senses in virtual environments, Touch and Smell simulations
- New approaches to the modulation of new senses as functions for the recognition of inaccessible (for humans) data of the physical world, such as ultrasound, infrared, other waves phenomena etc
- Preliminary and detailed prototyping of immersive interactive applications

Paper Submission:

Prospective authors are invited to submit full-length papers (not exceeding 6 pages) conform to the IEEE format . All papers will be handled and processed electronically via the EDAS online submission system. Selected papers will be invited to present extend paper for international journals indexed in SCOPUS and WoS. Submission implies the willingness of at least one of the authors to register and present their papers.

Important Dates

Submission of papers - 10th September 2020

Notification of acceptance- 20th September 2020

Submission of camera-ready papers- 1st October 2020

Author online registration - 15th October 2020
