

## Guest Editorial

### Foreword to the Special Issue of the XVI Symposium on Virtual and Augmented Reality

In this special issue of the JIS (SBC Journal on 3D Interactive Systems), we present a collection of seven papers selected among the best ones of the XVI Symposium on Virtual and Augmented Reality (SVR 2014). These papers were expanded and went through a completely new review cycle. SVR is the premier conference on Virtual Reality and Augmented Reality in Brazil, promoted by SBC (Brazilian Computer Society).

In the paper "*Kinect Projection Mapping*", the authors deal with a very relevant subject, which is Camera-Projector calibration process in order to produce precise 3D information to match the real object. They present a framework for this purpose.

The paper "*Emergent Navigation Behavior of Autonomous Virtual Agents Endowed with an Evolved Visual Cortex*" brings some light to the discussion of agents that are able to guide themselves, using their own vision, in the task of finding the exit from a room, using only the visual data processed by a neural network.

The authors of "*A comparative study between automated and human evaluation of sensory-motor skills in Interactive 3D Virtual Environments involving application of intramuscular injection*" compare results of a semi-automated method for the evaluation of sensory-motor skills acquisition with the evaluation of human experts, indicating

that it is feasible in interactive 3-D virtual environments.

In "*High-Quality On-Patient Medical Data Visualization in a Markerless Augmented Reality Environment*", the authors deal with a very promising topic: markerless augmented reality environment that runs in real-time for on-patient medical data visualization. The medical data consists of a volume reconstructed from 3D computed tomography image data.

The "*Design and Evaluation of a Gesture-Controlled System for Interactive Manipulation of Medical Images and 3D Models*" presents the design and evaluation of a gesture-controlled system for interactive manipulation of radiological images and 3D models using the Kinect device. Then users are able to perform the tasks of search, selection and manipulation of 2D images and 3D models, demonstrating the system as a possible alternative solution to the traditional use of the negatoscope.

The authors of "*Teleoperation Using Google Glass and AR.Drone*" propose the use of an AR.Drone controlled by an operator wearing a Google Glass for structural inspection of buildings. The main advantage of this approach is the natural interaction between human and device and user mobility.

The paper "*A Brief History of Virtual Reality in Brazil*" presents a survey of the last 10 years of the Symposium on Virtual

and Augmented Reality. It brings glimpses of the historical evolution of the area and related research in Brazil and enables to identify preferences and tendencies for the near future.

I would like thank all reviewers for offering wonderful feedback and advice. I would like to express my deepest gratitude to Alberto Raposo (editor-in-chief), for inviting me to be guest editor of this special issue and his support for making this experience so enjoyable.



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