

Guest Editorial

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

This special issue of the JIS (SBC Journal on 3D Interactive Systems) is for the third year acknowledging the best papers of the Symposium on Virtual and Augmented Reality (SVR). The SVR is the most important Brazilian conference about Virtual, Augmented and Mixed Reality, which is being conducted by academic professionals' members of the Brazilian Computer Society (SBC) that is supporting the conference for many years.

The four papers in this issue were selected and accepted among the best papers presented at the SVR 2012. Those papers were expanded and went through a complete new reviewing cycle. The reviewers were among the best-known professionals from the virtual reality community to ensure a high quality result. The four papers cover different subjects of VR/AR in the large spectrum of problems in these areas.

The first two papers deal with capture problems. The paper "A model-based tracking framework for textureless 3D rigid curved objects" authored by Oikawa et al. presents an approach for tracking 3D rigid curved objects. Based on quadrics, their method reduces the level of detail without lost of accuracy in textureless objects. The second paper "A Formal Language to Describe and Animate Signs in Brazilian Sign Language" authored by Silva et al. addresses the problem of describing signs in the Brazilian Sign Language (LIBRAS) used to communication to deaf people. By their implementation it is possible to capture and recognize the signs to interpret and generate animation in virtual environments.

The third paper "Extending an Existing VR Software Framework to support AR Applications - With an Example from Physics Classes" authored by Mannuß et al. presents a process to adapt a VR framework for augmented AR applications, extending the support of devices and redefining modules. The authors highlight the importance of modulated software with well defined classes. By the results, an interesting application for classes of magnetic fields is presented to show how the framework can be used to setup both VR and AR.

The forth paper "A video-tracking based serious game for motor rehabilitation of post-stroke hand impairment" authored by Souza et al. brings a new approach based on

serious game to support rehabilitation for patients that had suffer a stroke. By the use of a creative non-conventional low cost input device as the game controller the authors developed and tested the game with real patients. The results suggested potential use as a final product.

We would like to thank all the reviewers that collaborate in the process, the editors and staff that supported the edition of this issue and the authors that extended and adapt their papers in order to have extra quality content on the papers. We hope that the readers enjoy this issue.



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