Foreword and Editorial

International Journal of Multimedia and Ubiquitous Engineering

We are very happy to publish this issue of the International Journal of Multimedia and Ubiquitous Engineering by Global Vision School Publication.

This issue contains 2 articles. Achieving such a high quality of papers would have been impossible without the huge work that was undertaken by the Editorial Board members and External Reviewers. We take this opportunity to thank them for their great support and cooperation.

In the research paper "Motion synthesis for controlling a virtual ball in real-time", manually creating and editing the motion of a character handling a ball is a very cumbersome task because the character's motion must be synchronized with the movement of the ball in time and space according to the laws of physics. Thus, we propose a convenient way to automatically synthesize character animation for the control of a ball by using motion capture data. Because it is difficult for a beginner to control a ball skillfully, we do not use an actual ball. Instead, we capture motions that mimic the control of a ball. We analyze the motion capture data to find the frames and locations where the character interacts with the ball and create ball movement that follows the laws of physics. We can then synthesize character animation for the depiction of ball control in real time.

In the paper "A Study on a Drawing Tool of a Spatial Drawing Application in Virtual Reality", a system for spatial drawing must have a display device that shows stereoscopic images to the user, a controller serving as a brush for drawing, and a function that creates a line and a curved surface and visualizes the virtual space. Herein, a software framework was designed for spatial drawing by analyzing the functions for spatial drawing applications in a virtual environment based on existing studies and produced a virtual reality spatial drawing application with virtual drawing tools. The application employed a traditional painting metaphor. Furthermore, a brush module and a palette module were designed for the spatial drawing interface and linked to the line and surface generator modules to change drawing attributes, e.g., color and texture.

October 2018

Debnath Bhattacharyya
Vignan's Institute of Information Technology, Visakhapatnam, India

Editor(s)-in-Chief of the October Issue on
Journal of Statistical Computing and Algorithm