Multimedia Augmented Reality Interface for E-learning (MARIE)

Fotis Liarokapis, Panos Petridis, Paul F. Lister & Martin White

University of Sussex
Brighton, England, United Kingdom

ABSTRACT: An interactive Multimedia Augmented Reality Interface for E-Learning (MARIE) is presented in the article. Its application for engineering education is discussed in order to enhance traditional teaching and learning methods; however, it is equally applicable to other areas. The authors have developed and implemented a user-friendly interface to experimentally explore the potential of augmented reality by superimposing Virtual Multimedia Content (VMC) information in an Augmented Reality (AR) tabletop environment, such as a student desk workspace. The user can interact with the VMC, which is composed of three-dimensional objects, images, animations, text (ASCII or three-dimensional) and sound. To prove the feasibility of the system only a small part of the teaching material was digitised and some experimental results are presented in the article.