Abstract

Recent times, Augmented Reality has become prominent technology in digital and virtual world due to rapid advancements in Internet and Information Technology, omnipresence of Wireless broad band connections and adaption to mobile technology and smart phones. Augmented Reality in short AR, a technology for augmenting digital information such as text, graphics, audio and animation, live video stream too. Using AR, virtual objects are generated into real world or real-time environment. Applications and ongoing research of Augmented Reality include various sectors like medical, military training, education, games and ecommerce. For example, in military, AR is used to display the augmented annotated information about hidden enemy units to the pilot. This paper tries to address how the Marker-based Augmented Reality with help of android application can enhance the current education system. In existing education system, for example, teaching primary school children, teacher uses blackboard teaching method or by showing 2D images in books to explain about any element in the real world. The above practice may or may not enhance the knowledge about the particular element by all the students in class. But by introducing augmented reality into education system, teacher
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can show 3D object to student instead of drawing 2D image on blackboard. The objects can be viewed from different angles – left, right, top, and bottom. And the object can be scaled even play animation on it with audio. The 3-D augmented model objects can easily understand by the students. This idea of learning enables them to quickly grasp more and more as compare to conventional teaching approach. In this paper, to enhance the education system, proposed an idea to use augmented reality with android platform. Here, for experimental purpose taken sample size of 35 tracker images to generate their 3D objects in our android augmented reality application. In this paper, described 10 samples with their augmented 3D objects.

References


Index Terms

Computer Science Information Sciences
Android-based Augmented Reality to Enhance Education System

Keywords

Augmented Reality, Android, 2D image, 3D object.