Abstract

Traffic signs as a symbol of road rules, are usually found on every street corner that serves to order and comfort the road users. Traffic signs are made to be obeyed by road users, but not all people understand the meaning of every sign that there is a lack of information and the community's curiosity knows the traffic signs. The application of augmented reality technology on Android-based smartphones as a medium for introducing traffic signs is expected to help road users recognize traffic signs more easily and interactively. Stages of research using a joint method of development Direct observation with the community Augmented reality based applications developed in this study addressed to road users in general. The application developed runs on Android marshmallow operating system. The tools used to create augmented reality applications are Vuforia SDK and Unity3D, while for making marker images using Adobe Photoshop CS6 32 bit. The results of this study are educational applications of traffic signs using Android-based augmented reality that utilizes augmented reality technology for the detection of traffic signs with text output with sound for each marker and there is a detection history in the application. Based on the average score recapitulation table that can be obtained after calculating the manual questionnaire with a value of 84.61%, the amount is on a scale of 20% - 100% which means it is rated "Strong / Agree" by the respondent

Keywords: Traffic signs, Unity 3D, Android, Vuforia SDK, Augmented reality