

Research Paper

Build IoT through Virtual Reality

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Abstract: Virtual Reality is a new form as integration of technologies that overlays computer-generated information on real world. Virtual reality can be used to enhance student learning and engagement. VR education can transform the way educational content is delivered; it works on the premise of creating a virtual world, real or imagined and allows users not only see it but also interact with it. Hence, educator has begun to seek technologies that have potential to be integrated in education in order to help students learn effectively and enhance their understanding. The focus of this research is on development of mobile application on Raspberry Pi topic by using Virtual Reality technology from Computer Architecture and Organization subject in Universiti Pendidikan Sultan Idris (UPSI). Student have difficulty to understand and even not know what is Raspberry Pi besides less usage of mobile application on Virtual Reality, the application could help them understand the functionality of Raspberry Pi better and effectively. By using PROTOTYPING model, evaluation phase consisted of post tested have been carried out on target user as to see the learning effectiveness from student achieved. The result of finding shows that the students think that VR-Pi application is easy to use and the note provided is appropriate and easy to understand. Thus, this mobile application of VR technology could enhance the traditional form of teaching and learning in order to improve student's knowledge and interest about Raspberry Pi which improves their understanding and experience using technology while learning.

Keyword: Education Technology, Computational Thinking, Virtual Reality, Industrial Revolution 4.0, Internet of Things.

