BYTE QUEST

Vasavi College Of Engineering

Department Of Computer Science and Engineering

January 15, 2017

Volume 31

Contents:

Byte Quest is the article published by the CSE dept of Vasavi College of Engineering regarding the latest innovative Technologies and Software that have been emerged in the competitive world. The motto of this article is to update the people regarding the improvement in technology. The article is designed by the active participation of students under the guidance of faculty coordinators.

- Good ,bad or indifferent if you are not investing in new technology , you are going to be left behind.

  -Philip Green

- Once a new technology rolls over you, if you're not part of the steamroller, you're part of the road.

  -Stewart Brand.

FACULTY COORDINATORS

T. NISHITHA (ASST. PROFESSOR)

M. SUNDARI (ASST. PROFESSOR)

STUDENT COORDINATORS

AMREEN KOUSAR(4/4 CSE-A)

D. SWAPNA (3/4 CSE-A)

NIKITHA (2/4 CSE-A)

KRISHNA CHAITANYA(4/4 CSE-B)

RAHUL (3/4 CSE-B)

ABHINAV (2/4 CSE-B)

HOLOPORTATION

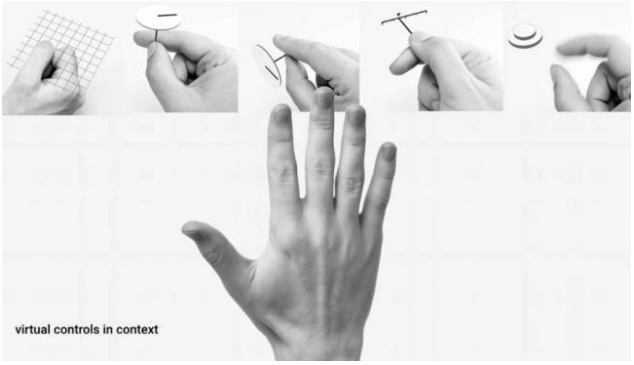
Holoportation is a portmanteau of hologram and teleportation. It is a new type of 3D capture technology that allows high-quality 3D models of people to be reconstructed, compressed and transmitted anywhere in the world in real time. When combined with mixed reality displays such as HoloLens, this technology allows users to see, hear, and interact with remote participants in 3D as if they are actually present in the same physical space. Communicating and interacting with remote users becomes as natural as face-to-face communication.

The set-up is simple and requires 3D cameras that are set up to capture the action from different angles and the HoloLens headset. With the person you're interacting with using the same set up, the two of you can interact with each other, almost as if you're in the same room.

ABHINAV (CSE-B 2/4)

PROJECT SOLI - RADAR BASED GESTURE INTERACTION

Google's Project Soli is a new technology that uses radar to enable new types of touchless interactions– one where the human hand becomes a natural, intuitive interface for our devices. This technology considers the design of a human gesture recognition system based on pattern recognition of signatures from a portable smart radar sensor. The movements of gestures from a human can be captured using a radar sensor, and by detection of theses gestures,some special task on a device can be done.



The Soli sensor can track sub-millimeter motion at high speed and accuracy. This chip can be embedded in wearables, phones, computers, cars and IoT devices in our environment. This technology uses the concept of Virtual Tools,which is key to Soli interactions: Virtual Tools are gestures that mimic familiar interactions with physical tools. This metaphor makes it easier to communicate, learn, and remember Soli interactions. Imagine an invisible button between your thumb and index fingers – you can press it by tapping your fingers together. The different functions in these devices like Call, Volume control, Zoom etc. can be done using specific gesture without having to touch or use another interaction methods.

NIKITHA (CSE-A 2/4)

GOOGLE'S AI SOFTWARE LEARNS TO MAKE MORE AI SOFTWARE

Google's AI research lab, Google Brain is reportedly developing AI (artificial intelligence) software that can build more machine learning software. The ultimate aim to design such software is to reduce the costs of hiring experts for making machine learning software and make it more accessible and efficient in the future by spreading the benefits of the technology far and wide.

If using AIs techniques become more practical, they could increase the speed at which new AIs can be made and implemented across the economy. Currently, companies are paying a premium to hire machine-learning experts, who are in short in supply.

In recent months, several other groups have also reported progress on getting learning software to make learning software. They include researchers at the non-profit research institute OpenAI (which was cofounded by Elon Musk), MIT, the University of California, Berkeley, and Google's other artificial intelligence research group, DeepMind. However, on the downside, AI building more AIs sure seems like it's inviting a runaway cascade and, eventually, Skynet. In order to prevent a Skynet type catastrophe, Google plans to gently discourage AIs from disabling their own killswitches as they are being trained.

Currently, Google says its AI maker is not advanced enough yet to compete with human engineers. However, this may be no longer true in the coming years given the speed at which AI is developing rapidly.

SAI NATH (CSE-A 3/4)