# BYTE QUEST

## Vasavi College Of Engineering

## Department Of Computer Science and Engineering

# 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) | KRISHNA CHAITANYA(4/4 CSE-B) |
| M.ADARSH (3/4 CSE-A) | RAHUL (3/4 CSE-B) |
| NIKITHA (2/4 CSE-A) | ABHINAV (2/4 CSE-B) |

# GOOGLE PIXEL

Google Pixel smartphone was launched in October 2016. The phone comes with a 5.00-inch touchscreen display with a resolution of 1080 pixels by 1920 pixels at a PPI of 441 pixels per inch.

The Google Pixel is powered by 1.6GHz quad-core Qualcomm Snapdragon 821 processor and it comes with 4GB of RAM. The phone packs 32GB of internal storage cannot be expanded. As far as the cameras are concerned, the Google Pixel packs a 12.3-megapixel primary camera on the rear and a 8-megapixel front shooter for selfies.

The Google Pixel runs Android 7.1 and is powered by a 2770mAh non removable battery. It measures 143.80 x 69.50 x 8.60 (height x width x thickness) and weighs 143.00 grams.



The Google Pixel is a single SIM (GSM) smartphone that accepts a Nano-SIM. Connectivity options include Wi-Fi, GPS, Bluetooth, NFC, 4G (with support for Band 40 used by some LTE networks in India). Sensors on the phone include Proximity sensor, Ambient light sensor, Accelerometer, and Gyroscope.

G.A. SAIESH (CSE-B 3/4)

# MACHINES CAN READ EMOTIONS TOO !!

A new system can predict people's feelings with 87 percent accuracy by bouncing wireless signals off them. The setup, dubbed EQ-Radio, analyses the signal reflected off a subject's body to monitor both breathing and heartbeat.

Researchers at MIT monitored a persons breathing and heartbeat wirelessly. These measurements were then fed into a machine-learning algorithm that classified the subject's emotion.



The accuracy was similar to state-of-the-art wired approaches. To test EQ-Radio, 12 subjects were monitored for 2 minutes at a time while experiencing no emotion.

After training on each subject individually, the system could accurately classify their emotional states 87 percent of the time. A separate system trained on data from 11 participants was able to classify the emotions of the unseen 12th subject 72.3 percent of the time.

The system intelligently combines the two and then maps the results onto a graph where one axis represents arousal and the other represents "valence".

HEMANTH (CSE-B 2/4)

# WHAT SCIENTISTS THINK THE WORLD WILL BE LIKE 2045



The world will be a very different place in 2045. The future is fraught with challenges. Launched in 1958, the Defense Advanced Research Projects Agency is behind some of the biggest innovations in the military - many of which have crossed over to the civilian technology market.

Robots and artificial technology will transform a bunch of industries, drone aircraft will continue their leap from the military to the civilian market, and self-driving cars will make your commute a lot more bearable.

But Darpa scientists have even bigger ideas. In a video series shot last year called 'Forward to the Future', three researchers predicted what they imagined would be a reality in 30 years. Dr. Justin Sanchez, a neuroscientist and director of Darpa's Biological Technologies Office, believes we'll be at a point where we can control things simply by using our mind.

According to Sanchez, Darpa is working on neurotechnologies that can enable this to happen. There are already some examples of these kinds of futuristic breakthroughs in action, like brain implants controlling prosthetic arms.

The future has more than just brain implants. Many other exciting things could change the buildings and other objects around us, says Stefanie Tompkins, a geologist and director of Darpa's Defense Sciences Office.

She thinks we'll be able to build things that are incredibly strong but also very lightweight. Think of a skyscraper using materials that are strong as steel but light as carbon fibre.

That's a simple explanation for what Tompkins envisions, which gets a little bit more complicated down at the molecular level.

In 2045, a pilot may just say those three words and the computer knows the series of complex steps it needs to do to make that happen. Or perhaps, with artificial intelligence, a pilot won't even be necessary.

CHANDANA (CSE-A 3/4)