BYTE QUEST

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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.

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STRAINED THUMB FROM TEXTING??

Computer scientists in Saarbrucken have developed a procedure that simulates in a lifelike manner which muscles and joints are put under particular strain when using IT devices. To help designers and developers of new IT devices take into account those movements that create unnecessary bodily strain, graduate researcher Myroslav Bachynskyi and his colleagues have developed a tool that enables realistic simulation of user movements. In optical motion capture a test subject wearing a special suit equipped with small optical markers performs a particular sequence of movements, such as waving his or her arms in order to control a computer game. The markers on the suit emit light that is recorded by special cameras. To shed light on the actual biochemical loads acting on specific body parts, the simulation program calculates a number of key parameters: the joint angles, the forces acting on the joints at any time during the movement, muscle activation and fatigue. The methodology is also of interest in occupational medicine and industry.

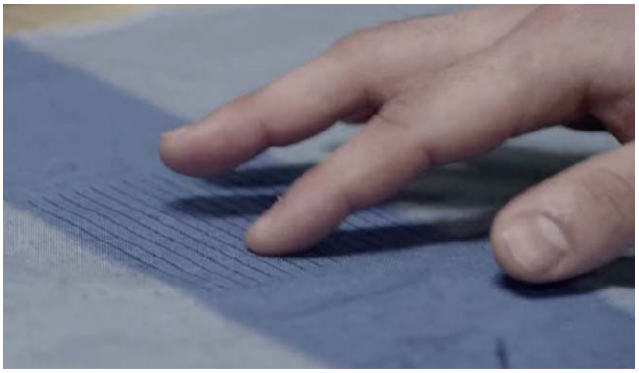
- Y.Bhavani (CSE-B 2/4)

RADIO WAVES TO BOOST PHONE BATTERY

The feeling of anxiety over how long your smartphone battery is going to last is one that's familiar. A team from Ohio State of University came up with an unusual source of power. The radio waves are captured at source - almost as soon as the smartphone emits them - they produce a more powerful charging effect that can make a substantial difference to battery life. When a smartphone looks for a cell tower or Wi-Fi network, it emits signals in all directions at once, so a lot of power is wasted. This new system uses the redundant radio waves - essentially a high-frequency form of AC - by converting them to DC power that can then recharge the battery. Around 97 percent of cell phone signals never reach a destination and are lost. Not all of the lost signals can be recovered and converted back into energy, but some of them can, and that could make a significant difference to smartphone battery life in the near future.

- P. Amulya (CSE-A 2/4)

CLOTHES INTO TOUCHSCREENS



Google unveiled a wealth of new innovations and initiatives at its annual I/O developer conference, and one of the big reveals was Project Jacquard which part of the Google ATAP (Advanced Technology And Projects) division and it's the company's plan for the future of clothing: touch-sensitive materials that you can interacted with in the same way as the smartphone display.

It uses touch-sensitive, metallic yarns that are weaved in with normal material - cotton, silk or polyester. The yarn is connected to a small receiver and controller the size of a button, with the idea that one day we might be able to tap the lapel to switch on the washing machine, or flick the cuff to change the volume on smart television set.

Jacquard is a type of loom used in the 19th century. Google says that the new touch-enabled clothing can be made at scale using equipment that already exists, so when it's ready for the mass market it can be cheaply and easily produced.

Monitoring capabilities can be included too, so that pillow can track person's breathing or t-shirt could monitor people's heart rate without the need for any other equipment.

What makes this technology so exciting is its invisibility. There's no need to wear a clunky headset or a smart wristwatch to get connected - it's essentially the ultimate in wearables. Project Jacquard is still at the early stages, but a lot of progress has been made in a short space of time, and Google thinks the interactive yarn will have an important role to play in our sartorial future.

Ultimately, all kinds of smart clothing, furnishings and textiles that look identical to the 'dumb' versions could be seen. Google doesn't have a timescale for launching Project Jacquard out into the world just yet, but for updates sign up at the project page.

- A. Srihith (CSE-A 2/4)