TANTRA

Technology Awareness & Knowledge to Rising Associates

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About Department

Information Technology Department has been started in 2008, with intake of 60. Our department has 06 well-equipped laboratories. We have established the association "COMPIT" with the department of Computer Engineering in which we conduct various activities like Quiz competition, Power point presentation, Blind C, Poster presentation, LAN gaming etc. The departments have organized various expert lectures and workshops for the overall development of students. This type of activities used to get better result in academic and overall development of students. In last semester we have arranged various workshop for students through which students will be able to develop there own projects.

SNOWFOX'S PHONE

A new, screen less phone for young kids could help parents stay in touch with their children, without the adult having to worry that their kids are glued to smart phones.

The device, called Snowfox, also comes equipped with a GPS tracker, letting parents know where their kids are, while helping children learn independence by letting them roam to places where they are allowed.

The new "tracker phone" is a waterproof ,2 x 2 –inch (5 x 5 cm) square that comes with a lanyard that allows it to be connected to a key ring or carabiner hook. Snowfox's battery and low power electronics for a week on single charge, according to the company. The device can be recharged via a micro USB port. A speaker and microphone allow two way phone calls, and now fox's flexi-ble antenna, which is hidden within a durable nylon tag, helps provide 3G and 2G service. The phone connects to a free iphone or Android app. The app can find a single .child, displaying his or her current location and timeline of movements, as well as the battery level on the snowfox. Up to five guardians, such as parents, grandparents and caretakers, can view a child's profile , the company said. The app also has a map view to show the location of all tracker-phones linked with the app. It can send alerts when kids have wandered where they they are not permitted, and it can deliver notification if they arrive or leave various locations.

Dnyaneshwar Bidkar (SYIF)

WISHING YOU A VERY HAPPY 70TH INDEPENDENCE DAY

Message of HOD

It is our pleasure to present fifth News Letter **"TANTRA"** of our department to all students. This News Letter is the one of the ways in which we can disseminate the information about department. It covers various technological articles, departmental activities, achievements of students and staff members.

Mr. Bhise A. S.

5G Technology...

5G is a term used to describe the forthcoming fifth generation of mobile network technology.

Right now, it doesn't signify any particular type of technology. While 4G has become synonymous with LTE, there's been no publicly agreed upon standard for 5G networks. However, a couple of likely technologies are emerging.

The main quality of 5G networks compared to 4G will be speed. It's going to be many times quicker than what we have now, and by quite a way.

Estimates have varied over recent years, but some of the industry's established players can give us an idea of where 5G's at.

It was actually seen claimed speeds of 7.5Gbps from Samsung and 10Gbps from Nokia (these days quite the network infrastructure specialist), while this time last year the University of Surrey managed to obtain a staggering 1Tbps - the same capacity as fibre optics. However, all of these tests were conducted under laboratory conditions. Now it needs in estimating the final speed of a 5G network is a practical field test.

Back in October the report on such tests was conducted by China's Huawei and Japan's NTT Docomo network. They had managed to hit peak data speeds of 3.6Gbps using a sub-6GHz band.
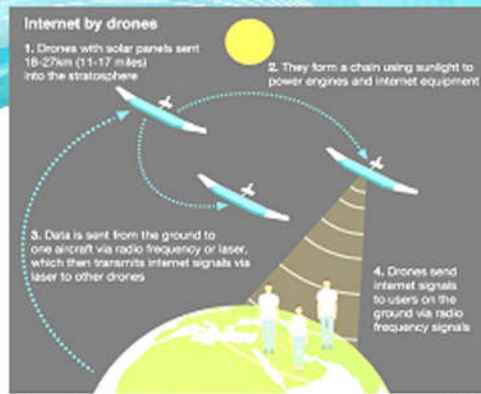
Compare that to the 300Mbit/s currently offered by EE's LTE-A network, and it was seen that about a 12-fold speed increase over 4G here.

A realistic, nicely rounded final figure for 5G speeds, then, could be in the region of 10Gbps.

7.5 Gbps according to Samsung's latest tests – 5G is the real-time promise of the future. Enabling everything from interactive automobiles and super gaming to the industrial Internet of Things, 5G will take wireless to the future and beyond, preparing for the rapidly approaching day when everything, including the kitchen sink, might be connected to a network, both local and the Internet.

At 2AM, in the dark morning hours of June 28th, Mark Zuckerberg woke up and got on a plane. He was traveling to an aviation testing facility in Yuma, AZ, where a small Facebook team had been working on a secret project. Their mission: to design, build, and launch a high-altitude solar-powered plane, in the hopes that one day a fleet of the aircraft would deliver internet access around the world. Zuckerberg arrived at the Yuma Proving Ground before dawn. "A lot of the team was really nervous about me coming," Zuckerberg said in an interview with *The Verge*. A core group of roughly two dozen people work on the drone, named Aquila (uh-KEY-luh), in locations from Southern California to the United Kingdom. For months, they had been working in rotations in Yuma, a small desert city in southwestern Arizona known primarily for its brutal summer temperatures. On this day, Aquila would have its first functional test flight: the goal consisted of taking off safely, stabilizing in the air, and flying for at least 30 minutes before landing. "I just felt this is such an important milestone for the company, and for connecting the world, that I have to be there," Zuckerberg says.

For Facebook, Aquila is more than a proof of concept. It's a linchpin of the company's plan to bring the internet to all 7 billion people on Earth, regardless of their income or where they live. Doing so will lift millions of people out of poverty, Zuckerberg says, improving education and health globally along the way. But it will also enable the next generation of Facebook's services in artificial intelligence, virtual reality, and more. This next era of tech will require higher bandwidth and more reliable connections than we have

Internet by drones

today, and drones can help deliver both. The road to a VR version of Facebook begins where Aquila leaves the runway.

The path forward for Aquila isn't totally clear, and it's bound to encounter more bumps along the way. But Zuckerberg is resolute: billions of people who can't access the internet deserve it. And for Facebook to achieve his long-term vision, everyone is going to need access to more bandwidth than they have today. A single test flight represents a tiny step toward getting there. But it also gives Facebook a dramatic success to rally around.

"I think the future is going to be thousands of solar-powered planes on the outskirts of cities and places where people live, and that's going to make connectivity both available and cheaper," Zuckerberg says. "And, I think, can help play an important role in closing this gap of getting more than a billion people online. This is an early milestone, but it's a big one."

Zuckerberg smiled. "It's not something you necessarily expect Facebook to do because we're not an aerospace company," he said. "But I guess we're becoming one."

Departmental Result for A.Y. 2015-16

Sr. No.	Name of Student	Marks %	Class
1	MS. TAUR SAYALI SHUKRACHARYA	93.50 %	1st Year
2	MS. DESHMUKH SAMRUDHI SANJAYRAO	91.13 %	1st Year
3	MS. JANGID MAMATA MOHANLAL	83.00 %	1st Year
1	MS. VIBHUTE POOJA HIMMAT	87.00 %	2nd Year
2	MS. GAIKWAD POOJA HIMMAT	86.44 %	2nd Year
3	MS. MISAL SHWETA LAXMAN	85.56 %	2nd Year
1	MS. ASABE PRIYANKA GANPAT	86.38 %	3rd Year
2	MS. TELANGI DIPALI SHANAYYA	84.63 %	3rd Year
3	MS. BHAIS PRATIKSHA BALKRISHNA	84.50 %	3rd Year

FACULTY

ME Completed:
Mr. V. V. Bandgar
Ms. G. A. Fattepurkar
Mrs. S. S. Bhosale

ME Appeared:
Mr. A. S. Bhise
Mr. S. D. Telkar

Student with more than 90 marks for A.Y. 2015-16

Sr. No.	Name of Student	Marks	Subject	Class
1	MS. DESHMUKH SAMRUDHI SANJAYRAO	97	BASIC ELECTRONICS	1st Year
2	MS. TAUR SAYALI SHUKRACHARYA	96	BASIC ELECTRONICS	1st Year
3	MS. JANGID MAMATA MOHANLAL	93	COMMUNICATION SKILL	1st Year
4	MS. DESHMUKH SAMRUDHI SANJAYRAO	92	COMMUNICATION SKILL	1st Year
5	MS. TAUR SAYALI SHUKRACHARYA	93	ENGINEERING MATHEMATICS	1st Year
6	MS. DESHMUKH SAMRUDHI SANJAYRAO	95	APPLIED SCIENCE	1st Year
7	MS. TAUR SAYALI SHUKRACHARYA	92	APPLIED SCIENCE	1st Year
8	MS. VIBHUTE POOJA HIMMAT	93	DATA COMM. & NETWORKING	2nd Year
9	MS. GAIKWAD POOJA HIMMAT	93	DATA COMM. & NETWORKING	2nd Year
10	MR. DESHPANDE SANKET SANJAY	93	OBJECT ORIENTED PROG.	2nd Year

IoT (Internet of Thing)

Featured, Hardware IoT (Internet of Things) is a hot topic in the industry now days. IoT can be described as a system where items in the physical world, and sensors that are within or attached to these items, are connected to the Internet via wireless and wired Internet connections. These sensors can use various local area connections such as RFID, NFC, Wi-Fi, Bluetooth, and Zigbee. Sensors can also use wide area connectivity such as GSM, GPRS,3G, and LTE for connection.

IoT has vast applications. IoT can be used to connect both inanimate and living things which include people, places, objects and things. IoT can connect everything from industrial equipment to everyday objects. The types of items range from gas turbines to automobiles to utility meters. It can also include living organisms such as plants, farm animals and people. IoT can use sensors for data collection. The sensors that are attached to the devices will monitor a specific condition such as location, vibration, motion and temperature and these sensors will connect to each other and to systems that can understand or present information from the sensor's data feeds. IoT enables the objects conntected to IoT to share information about their condition and the surrounding environment with people, software systems and other machines. IoT impacts every business.

The Internet of Things will help business gain efficiencies, harness intelligence from a wide range of equipment, improve operations and increase customer satisfaction. It will also have a great impact on people's lives. It will improve public safety, transportation and healthcare with better information and faster communications of this information.

TANTRA Dept. Of Information Technology

final *thoughts*...

PUBLICATIONS

- → "Object & bridge detection of GIS I ages using pattern recognition and knowledge base", Mrs. Bhosale S.S., International Journal of Latest Trends in Engineering and Technology (IJLTET), Vol. 6 Issue 4 March 2016 570 ISSN: 2278-621X.

CONFERENCE ATTENDED

- → Bhise A. S. attended Conference on "Developing A Secure Cloud Storage System for Storing Data by Applying Role Based Encryption" at MET's Bhujbal Knowledge City, Institute of Engineering, Nashik organizing Forth Post Graduate Conference for Computer Engineering cPGCON.

UPCOMING EVENTS

In this semester we are planning our annual student event COMPIT

In COMPIT students are going to organize various events like Programming Contest, Blind C, Quiz contest, Poster Presentation, Video Presentation and LAN Gaming. Winner will be awarded with Prize and certificates. Last year 250 students were participated in this events. Through this we got success in front of motivating our student to participate in competitive events, not only for our institute but also national as well as international competitions.

Industrial visit for 2nd and 3rd year students

We are planning industrial visits for our students to Diniti Pvt. Ltd. Satara, Ideaz Multimedia Pvt. Ltd. Kolhapur and Dalvik apps at Mumbai.

Expert Lecture

We plan expert lecture over the syllabus which are conducted by industry experts.

Student Development

Department conducted short term professional courses in that we take 10 to 15 days workshop for student. Last vacation we have conducted workshop for VB.Net and C programming . Upcoming vacation we plan for Android project development.

Department of Information Technology

EDITORIAL

It gives us great pleasure to present the Fifth issue of our departmental newsletter "**TANTRA**", which gives us the opportunity to focus the achievements in our department and new trends in Information and Technology field.

I am thankful to all the students and faculties who have contributed during the preparation of this newsletter. We have tried our best and given positive efforts, expecting creative responses from everyone to continue the flow of knowledge through this newsletter.

Mrs. S. S. Bhosale

TANTRA Dept. Of Information Technology