S a n c h a r

Electronics & Telecommunication Department Newsletter

November 2014

Inside

Interesting Terms:

An Internet bot, also known as web robot, WWW robot or simply bot, is a software application that runs automated tasks over the Internet. Typically, bots perform tasks that are both simple and structurally repetitive, at a much higher rate than would be possible for a human alone.

Food for Thought

"The difference between what you were yesterday and what you will be tomorrow
is what you do today."
-Anonymous

Hello Everyone!!! Odd Semester started and ended in a jiffy with lots of events, happenings to report.

News & Views

- Dr. Hasan Ali Virani took over as the Head of the department on 10/7/2014
- New students joined our department as SE with lots of hope and enthusiasm to become successful Electronics & Telecommunication Engineers of the future.
- Faculty members, Prof. Shajahan Kutty and Prof. Samarth Borkar went for pursuing their PhDs in IIT Kharagpur and Shri Guru Gobind Singh Institute of Engineering & Technology, Nanded respectively in the month of July. The Department will miss their invaluable services and wishes them all the best. Waiting eagerly for their return with their respective Doctorate degrees.
- Contract faculty members joined the department in the month of July. The list includes Ms. Sanjana Gaikwad, Ms. Ujwala Sakhare, Mr. Harish S. Velingkar, Mr. Mangish Desai, Ms. Flavia Leitao, Ms. PramilaVolvoikar, Ms. Sneha Kinlekar, Ms. Raksha Singbal, Ms. Sulaksha Volvoikar, Mr. Sudhir Rawat, Ms. Rajlaxmi Nair, Ms. Chaitali Haldankar.
- Assets Council Inauguration took place on 14th of August with Mr. Girish Bharne as the Chief Guest.
- Dr. Nitesh Guinde joined the department as an Associate Professor in August 2014.
- Final year B.E. and M.E. students selected their projects and gave a brief introduction on their projects to the faculty members.
- The ETC department students went on to win the Tandav held in October 2014.
- Our Alumnus of 2003 batch, Mr. Abhijit Tamba visited the department to give a demo on the autoMATE kit developed by his company EME Automation.
- Mr. Milind Kulkarni from Department of Science and Techology visited the college and gave a presentation on the different opportunities for research funding and scholarships available for the faculty members as well as students.
- Continuing with the tradition, Ganesh Chaturthi, Dusshera and other festivals were celebrated during the semester with lot of enthusiasm.

- "Swachh Bharat Abhiyaan" campaign started by the Prime Minister was given a helping hand by students and faculty members who cleaned the department and the vicinities by taking broom in their hands on 2nd of October.
- Placement drive took place in full vigour and was duly led by placement officer, Dr. Manoj Choukuse with companies like IBM, Accenture, Persistent systems and HSBC visiting the campus. A lot of our department students were placed successfully.
- IETE foundation day was celebrated in the Department on 21st of October with a talk given by our alumnus, Mr. Deepak Chodankar, Vice President, R & D, Smartlink Network Systems Ltd., Verna on Smart Cities. IETE,Goa Chapter has now officially been relocated to the deparment.
- Department meetings took place on on 5th of September and 12th of November.
- The month of October and Novemeber also saw joining of new faculty members, Mr. Sangam Borker, Ms. Purti Sawardekar, Ms. Pallavi Kerkar, Ms. Geeta Shet and Mr. Devendra Sutar as Assistant Professor.
- IEEEXTreme 8.0 global programming competition took place on 18th of October. Prof. Chetan Desai, Prof. Milind Fernandes and Mr. Aniket Bhandare(alumnus 2012 batch) proctored the event in the Department with our students taking part in it.

War of Currents
Allison Lantero

Starting in the late 1880s, Thomas Edison and Nikola Tesla were embroiled in a battle now known as the War of the Currents. Edison developed direct current -- current that runs continually in a single direction, like in a battery or a fuel cell. During the early years of electricity, direct current (shorthanded as DC) was the standard in the U.S.But there was one problem. Direct current is not easily converted to higher or lower voltages.Tesla believed that alternating current (or AC) was the solution to this problem. Alternating current reverses direction a certain number of times per second -- 60 in the U.S. -- and can be converted to different voltages relatively easily using a transformer.

> Nikola Tesla was a Serbian American inventor, electrical engineer, mechanical engineer, and futurist best known for his contributions to the design of the modern alternating current (AC) tricity supply system

Edison, not wanting to lose the royalties he was earning from his direct current patents, began a campaign to discredit alternating current. He spread misinformation saying that alternating current was more dangerous, even going so far as to publicly electrocute stray animals using alternating current to prove his point.

The Chicago World's Fair -- also known as the World's Columbian Exposition -- took place in 1893, at the height of the Current War. General Electric bid to electrify the fair using Edison's direct current for $554,000, but lost to George Westinghouse, who said he could power the fair for only $399,000 using Tesla's alternating current. That same year, the Niagara Falls Power Company decided to award Westinghouse -- who had licensed Tesla's polyphase AC induction motor patent -- the contract to generate power from Niagara Falls. Although some doubted that the falls could power all of Buffalo, New York, Tesla was convinced it could power not only Buffalo, but also the entire Eastern United States. On Nov. 16, 1896, Buffalo was lit up by the alternating current from Niagara Falls. By this time General Electric had decided to jump on the alternating current train, too. It would appear that alternating current had all but obliterated direct current, but in recent years direct current has seen a bit of a renaissance.

Today our electricity is still predominantly powered by alternating current, but computers, LEDs, solar cells and electric vehicles all run on DC power. And methods are now available for converting direct current to higher and lower voltages. Since direct current is more stable, companies are finding ways of using high voltage direct current (HVDC) to transport electricity long distances with less electricity loss.

So it appears the War of the Currents may not be over yet. But instead of continuing in a heated AC vs. DC battle, it looks like the two currents will end up working parallel to each other in a sort of hybrid armistice. And none of that would be possible without the genius of both Tesla and Edison.

Dusshera Celebrations

Swachh Bharat Abhiyaan

autoMATE

DST Seminar

ASSET Council Inaugration

IEEEXTreme

Tandav 2014

IETE Foundation day

How Cloud Computing Works
Jonathan Strickland

"If you think you've seen this movie before, you are right. Cloud computing is based on the time-sharing model we leveraged years ago before we could afford our own computers. The idea is to share computing power among many companies and people, thereby reducing the cost of that computing power to those who leverage it. The value of time share and the core value of cloud computing are pretty much the same, only the resources these days are much better and more cost effective." – *David Linthicum*, author, Cloud Computing and SOA Convergence in Your Enterprise: A Step-by-Step Guide
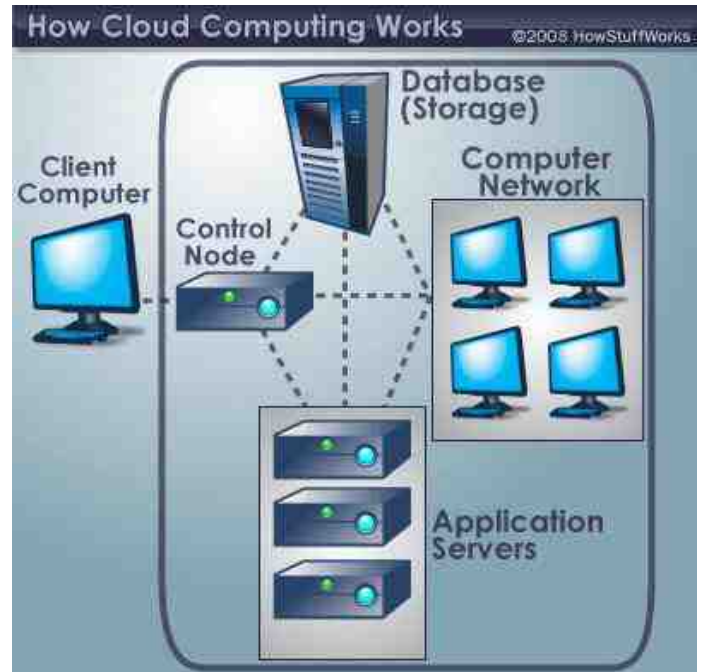
Let's say you're an executive at a large corporation. Your particular responsibilities include making sure that all of your employees have the right hardware and software they need to do their jobs. Buying computers for everyone isn't enough -- you also have to purchase software or software licenses to give employees the tools they require. Whenever you have a new hire, you have to buy more software or make sure your current software license allows another user. It's so stressful that you find it difficult to go to sleep on your huge pile of money every night.

Soon, there may be an alternative for executives like you. Instead of installing a suite of software for each computer, you'd only have to load one application. That application would allow workers to log into a Web-based service which hosts all the programs the user would need for his or her job. Remote machines owned by another company would run everything from e-mail to word processing to complex data analysis programs. It's called cloud computing, and it could change the entire computer industry.

In a cloud computing system, there's a significant workload shift. Local computers no longer have to do all the heavy lifting when it comes to running applications. The network of computers that make up the cloud handles them instead. Hardware and software demands on the user's side decrease. The only thing the user's computer needs to be able to run is the cloud computing system's interface software, which can be as simple as a Web browser, and the cloud's network takes care of the rest.

There's a good chance you've already used some form of cloud computing. If you have an e-mail account with a Web-based e-mail service like Hotmail, Yahoo! Mail or Gmail, then you've had some experience with cloud computing. Instead of running an e-mail program on your computer, you log in to a Web e-mail account remotely. The software and storage for your account doesn't exist on your computer -- it's on the service's computer cloud.

To continue reading : http://computer.howstuffworks.com/cloud-computing/cloud-computing.htm

QUIZ

Technical

1. Why Power in pure Inductive Circuit is Zero?
2. What is the main difference between Linear and Non-Linear Circuit? Give an example of each
3. How to convert a Square wave to a Sine wave?
4. Simplify the following logic expression Y= B(A+C(AB+BC)')

Logic

You have four bags, each containing two coins. Bag A contains two 1-Rupee coins, Bag B contains two 2-Rupees coin, Bag C contains one 1-Rupee coin and a 5-Rupees coin, and Bag D contains two 5-Rupees coins.
You pick a random bag and take out one coin which turns out to be a 1-Rupee coin. What is the probability that the remaining coin from the same bag is also 1-Rupee coin?