IEEE India Info
IEEE India Council Newsletter

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Message from Chairman

Dear Members,

I am very happy to note the excellent job done by Dr. Preeti Bajaj, Vice-Chair Student Activities, IEEE India Council and her SAC Team for successfully conducting the M V Chauhan All India Student Paper Contest 2013. My hearty greetings to Mr. Neeraj Kumar Sharma from IISc, Banglore, Mr. Gaurav Saxena from IIT Guhati, and Mr. Navjot Khara from LPU, the winners of First, Second and Third Prizes, respectively.

One of our responsibilities, as the Members of IEEE, is to choose the right leaders of IEEE. It is the right time to cast our votes to elect committed volunteers as the global leaders of IEEE. As of now, India Council has as many as 16342 high-grade members who are eligible to vote. I appeal to all the eligible IEEE members in India to exercise their right to vote for electing good leaders, before **1st October 2013**. Ballots can be accessed electronically at www.ieee.org/elections. The Region 10 has announced to offer bonus incentives of $500, $300, $200 to the three Sections with the highest voting percentage. The sections may encourage the members in their sections to vote and to avail this offer.

As you might have noticed in the IEEE MGA SCOOP June and August Issues, "Call for Nominations: 2013 MGA Awards" has been announced for recognizing outstanding IEEE volunteers. The deadline for filing the nomination is **15 October, 2013**. I would like to encourage all India Council members to consider sending the nominations for the following 2013 MGA Awards:

- MGA Larry K. Wilson Regional/Transnational Award
- MGA Innovation Award
- MGA Leadership Award
- MGA Achievement Award
- MGA GOLD (Graduates of the Last Decade) Achievement Award

The detailed information can be found at
http://www.ieee.org/societies_communities/geo_activities/awards/recipients/nomform_award.html
IEEE Region 10 has also called for Nominations for the 2013 IEEE Region 10 WIE Student / Professional Volunteer Award. Nomination Deadline is **31th October 2013.** I encourage the India Council WIE Student / Professional Volunteers to make use of this opportunity.

IEEE Region 10 has now called for proposals to host section of 2015 TENSYMP (Region 10 Symposium). Last date of receiving proposals is 15th November, 2013. The proposals are to be sent to taka.minami@jp.fujitsu.com with a copy to ieeeapo@pacific.net.sg.

In the last issue of IC Newsletter I wrote about the skill based program "IT-SUITS" to be offered for the benefit of the School children as the "Pre-University Education" program of IEEE Educational Activities. Since this program could be implemented successfully only with cooperation of the Section Chairs and the Student Branch Counselors, I had invited the views and implementation plans from the Chairs of the IEEE Sections and Student Branch Counselors in this connection. However, no views have been received so for. I would like to remind the Section Chairs and SB Counselors to send their views in this connection.

The monthly membership development report MD July 2013 of the IEEE Member & Geographic Activities Board shows that there is an increase of 2,6% in the total IEEE Membership in the world from May to June 2013, raising the membership strength from 366,889 to 377,711 and 3.0% increase in the Society Membership, raising the membership strength from 317,872 to

325,562. In my message last month, I had requested that such a report for Indian Membership can be obtained by the Vice-Chair, Membership development of India Council and sent it to the IC Newsletter for publication. However, no report has been received so for. I appeal to him to do the needful soon.

The next face-to-face meeting of the EC of the India Council is scheduled to be held in Nagpur, hosted by Dr. Preeti Bajaj, Vice-Chair, Student Activities, India Council. I thank for her courtesy and invite all the EC members of IC to participate in the meeting and contribute for the effective functioning of India Council.

I would like to end my message by thanking all of you for your support to the IEEE initiatives and activities and looking forward to your continued support and inputs.

With kind regards,
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Message from Editor

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Dear readers,

Our regular columnist, Prof. San Murugesan of BRITE Professional Services and University of Western Sydney, Australia, in his informative article "The Internet of Things (IoT): Opportunities Abound" explains IoT which blends the digital (cyber) and physical worlds by bringing different concepts and technologies together, thereby creating cyberphysical systems and facilitates deployment many new applications and services.

Dr. Kumar Saurabh, Chief Architect, Tech Mahindra, in his article "Next-Gen Cloud Innovations" deals with the insights of the new paradigms cloud technology innovations, architecture and managing the services with respect to business goals.

The article "Big Data and How to handle it using VectorWise, an SQL DB software" by Sridhar Ramaswamy, Director - Business Solution, OBSI Technologies presents a solution to deal with the next wave "Big Data" with which organizations can analyse the data to gain a competitive advantage.

The article "Information Communication Technology- ICT, Internet, Digital Media and Learning Environment for Developing Skills", fifth in the series dealing with the skill development for engineering graduates by Mr. Ballav Sahoo, Co-Founder & CEO of Victory Mind Educare Services deals with the learning environments using ICT.

The article "In-Sure" the Need of Secure from Cyberbullying" by Dr. K. Thangadurai & G. Gopu deals with growth of the internet technology and its impact among the children's and teenagers and discusses on empowering children and teenager to stay safe while they enjoy these new technologies.

With the usual features such as "IT in Aug 2013" by Prof. S. Sadagopan, Director, IIIT-Bangalore, "News from Sections", "Information Resources" , "TechQuiz" and "Book Reviews" by by H.R. Mohan, "Forthcoming Events" and "Announcements", the current issue of ICNL is as usual complete in all respects.

As our aim is to make the ICNL, a source of information for both professionals and students, we look forward to feature activity reports from IEEE OUs and articles on current interest topics from seasoned academicians, articles sharing the experiences and best practices from professionals. Pl. send your contributions as per the guidelines available at http://goo.gl/dzSIJ

The membership fee for the year 2014 has been announced. Those who join the IEEE from mid Aug 2013, by paying the fee for 12 months, enjoy the membership benefits for l6 months or till end of 2014. Pl. encourage your colleagues and classmates to bcome the members of IEEE and get benefited. Combined membership is also available for the students in IEEE & IEEE CS with access to IEEE digital library.

ICNL congratulates the winners of the M.V. Chauhan All India Student Paper Contest and look forward to their presentations at the All India Student Congress – 2013 at Amrita, Coimbatore.

The Internet of Things (IoT): Opportunities Abound

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The Internet of Things (IoT) represents the progression of Internet utilisation, from computers, to people and now to things. It blends the digital (cyber) and physical worlds by bringing different concepts and technologies together, thereby creating cyberphysical systems. The IoT facilitates deployment many new applications and services and is fast becoming an important priority, not only for academia, but also for industries and governments. Should you be interested? Yes.

* Underlined text embeds a hyperlink to further information.
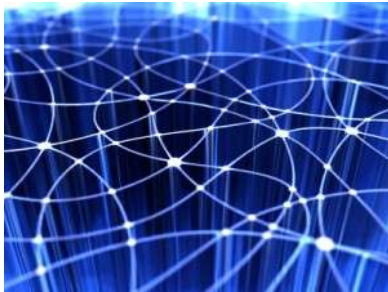
In previous issues of the Newsletter, we examined three hot topics that have been receiving greater interest and attention among professionals, executives and businesses -- Green IT, 3D-printing, and MOOCs (Massive Open Online Courses). Now, let's explore another hot topic – the Internet of Things (IoT), also known as the 'Internet of Every Thing', 'Web of Things', the 'Industrial Internet' and Web 3.0.

The evolution and growth of the Internet is phenomenal and is an ongoing process: in twenty five years, from connecting about a thousand servers, it has grown to link billions of people through computers and mobile devices. It has now evolved to interconnect various objects - electrical appliances, cars, sensors, controllers, TVs, machinery, containers, and other goods – creating the 'Internet of things.' The term *Internet of Things* was first coined by Kevin Ashton in a presentation in 1999. As he said then, "the Internet of Things has the potential to change the world, just as the Internet did -- maybe even more so." Any object that can be uniquely identified and addressed can be connected in an Internet like structure facilitating human-to-human, human-to-thing and thing-to-thing (also called M2M) communication.

The IoT reaches out into the real world of physical objects. It enables not only people but also objects communicate with each other and with people in unprecedented ways stimulating technological innovations and a variety new applications that were not feasible or not even thought of earlier. These objects have their own Internet Protocol (IP) addresses, are embedded in complex systems and use sensors to obtain information from their environment (example: sensors that record the temperature along the food supply chain) and/or use actuators to interact with it (example: air conditioning valves that react to the presence of people). The IoT represents the progression of the Internet utilisation, from computers, to people and now to things, allowing for many new applications and services.

It's predicted that by the year 2020, 50 to 100 billion things will be electronically connected in the IoT. Continuing price/performance improvements in processing and networking are accelerating ubiquitous connectivity among things and people which could be leveraged to our benefit. The pervasive connectivity and distributed intelligence of the IoT will play increasingly important roles in our daily lives. A glimpse of the IoT is already here.

As a TechRepublic publication observed, "Although this first Internet/Web revolution changed the world profoundly, the next disruptive development, in which the majority of Internet traffic will be generated by "things" rather than by human-operated computers, has the potential to change it even more."

THE IoT: A REALITY

The IoT vision enhances connectivity from "any-time, any-place, *for anyone*" to "any-time, any-place *for anything*."

According to the *IEEE Internet of Things* journal, "An IoT system is a network of networks where, typically, a massive number of objects/things/sensors/devices are connected through communications and information infrastructure to provide value-added services via intelligent data processing and management for different applications (e.g. smart cities, smart health, smart grid, smart home, smart transportation, and smart shopping)."

The "things" in the IoT are physical entities whose identity and state (or the state of whose surroundings) are capable of being relayed to an Internet-connected IT infrastructure. Almost anything to which you can attach a sensor—a cow in a field, a container on a cargo vessel, the air-conditioning unit in your office, a lamppost in the street—can become a node in the Internet of Things. Domestic white goods, cars, your passport, your family pet, the CCTV camera in your street or building, the elevator in your office, and other such things can be connected to the Internet.

Inexpensive high-speed networks, the introduction of Internet Protocol Version 6 (IPv6) which vastly increases the number of internet addresses, and the ability to process and analyse huge volumes of data are driving the growth and adoption of the IoT. Internet applications using IPv6 would be able to communicate with devices attached to virtually all human-made objects because of the extremely large address space (128 bit) of the IPv6 protocol. According to Cisco there are potentially 1.5 trillion things that could be connected to the Internet, equivalent to about 200 connectable things per person in the world today. Cisco and others refer to the connection of people, data and devices as the Internet of Everything.

The technology required to power the IoT is already here, but some of it needs improvement. The networking protocol IPv6 and networking devices is already here. All IoT sensors and objects require some means of relaying data to the outside world. There's a number of short-range, or local area, wireless technologies available, including RFID, NFC, Wi-Fi, Bluetooth, Low Energy (LE) Bluetooth, XBee, Zigbee, Z-Wave, and Wireless M-Bus. There are a number of wired link potions including Ethernet, HomePlug, HomePNA, HomeGrid (G.hn), and LonWorks (local operation network). For long range, or wide-area, links, there are existing mobile networks (GSM, GPRS, 3G, LTE, or WiMAX) and satellite connections. New wireless networks, such as the ultra-narrowband SIGFOX and the TV white-space are also emerging to cater specifically to M2M connectivity. Fixed "things" in convenient locations could use wired Ethernet or phone lines for wide-area connections.

Once things of our interest get connected into the network and communicate their status and environment and share information, smart processes and services that support our economy, environment and wellbeing emerge.

APPLICATIONS

The IoT is not a utopian concept; in fact, several early-birds of IoT are already being deployed by automotive, transportation, utility, and surveillance industries. Skeptics originally dismissed the IoT as trivial and unnecessary, but the concept soon proved itself to be much more useful than people originally gave it credit for. The IoT is already yielding benefits in many application domains including supply chain management, transportation and logistics, aerospace, and automotive, smart environments (homes, buildings, infrastructure), energy, defence, agriculture and more.

Asin and Gascon identified 54 application domains under twelve categories: smart cities, smart environment, smart water, smart metering, security and emergencies, retail, logistics, industrial control, smart agriculture, smart animal farming, domestic and home automation, and eHealth. Societal applications of IoT include smart cities, telecommunications, medical technology, healthcare, smart buildings, home and office, media, entertainment, and ticketing. Environment-focused applications include agriculture and breeding, recycling, disaster alerting, and environmental monitoring.

Here are some examples of how the internet of things is being implemented today to improve customer service, reduce costs and add value (BCS):

- Car manufacturers and dealers track vehicle wear and tear and alert customers when wear reaches a critical point or when engines or other components are failing or due to be changed.
- Healthcare services are able to allow patients recuperate in their own homes while their heath conditions are monitored and fed back to medical staff in hospitals who communicate with patients at home by voice and video internet links.
- Smart refrigerators allow consumers to check stored food items for expiry dates, identify shopping lists and plan menus, accessing this information on their smartphones.
- Companies are able to develop a deeper and richer understanding of their customers, their preferences and demographic profile.

- Smart water metering produces accurate data about consumption without the need for home visits and automatically alerts customers if consumption patterns are abnormal (which may indicate a water leak).
- Farmers use temperature and humidity sensors distributed among high-value crops to identify where conditions encourage outbreaks of diseases. Irrigation can be targeted precisely to where water is needed, helping reduce water consumption costs.
- Smart grids allow utility companies to better understand power use patterns and improve the reliability, efficiency and sustainability of the production and distribution of electricity.
- Devices and apps that rely on the IoT enable consumers to manage their personal exercise, food intake and heart rate.

The IoT can bring significant business benefits in five key areas, as identified by Cisco:

- enhancing business processes and making more efficient use of assets, reducing expenses and the cost of goods sold;
- eliminating waste and improving supply chain and logistics processes;
- enhancing the customer experience and growing market share;
- using employees more effectively and efficiently; and
- creating new revenue streams from new business models and opportunities.

AN ENABLER

The IoT is opening up opportunities to combine data across different industry sectors, breaking down the silos of data capture and processing, as billions of devices share a common communications network. The IoT has the potential to significantly influence all facets of society.

"The IoT has the capacity to be a transformative force, positively impacting the lives of millions worldwide," says Bingmei Wu, Deputy Secretary-General of the China Communications Standards Association. China has identified the IoT as one of its seven strategic emerging industries and plans to invest US $800 million in the IoT industry by 2015. Some Chinese municipalities plan to build so-called smart cities, which would rely on IoT applications to make infrastructure and services—including education, health care, public safety, transportation, and utilities—more interconnected and efficient

You can identify potential IoT applications in your domain of interest by addressing such questions as [Gartner]:
- What might be possible if we knew the real-time location and status of our assets and employees?
- Could the improved communications that the IoT delivers be used to make our business processes more dynamic, such as using real-time pricing of products depending on stock and demand?
- How could we exploit remote control and monitoring?
- How could we exploit large-scale introduction of sensors into our products, assets and other things?

As with any technological development, of course, the IoT brings not only benefits but also challenges and risks.

ADDRESS THE ISSUES

Some of the keys issues to address are:

- **Data deluge:** Huge volumes of data that will be collected from connected devices. According to a rough estimate, more than 2.5 trillion bytes of new data every day will be logged by these systems. We need layers of intelligence to transform this data into actionable information and insights. Analysis of data and its context will play a key role and poses significant challenges.
- **Integration with other systems.** IoT applications will integrate data from machines, ERP, CRM systems and social media in real-time, allowing humans to intelligently interact with devices, devices with devices, and devices back to humans. This poses a few integration issues.
- **Security and privacy.** As more things are connected, cyberattacks become a major risk and the attacks could cause serious impact. As we expose more of our personal data to the IoT and the cloud information privacy becomes a major concern. We need to incorporate appropriate security measures.
- **Connectivity.** Reliable connectivity, including among gateways and the cloud, at an affordable price is the key to the success of IoT.

OUTLOOK

Justifiably, in its 2013 emerging technology hype cycle, Gartner has put the IoT near the peak. IoT is fast becoming an important priority for academia, industry and governments. Many in the IT and other industries have recognised the commercial potential of the IoT and many multinational companies are developing new IoT technologies, products and applications. A number of universities in the US, Europe, and Asia have launched R&D programs in the IoT, and researchers from academia and industry are

addressing unresolved issues and key challenges in fully embracing the potential of the IoT. Placing the IoT high on its agenda, the European Commission is funding a massive IoT Initiative. The Chinese government sees the IoT as a vehicle for economic growth and has identified the IoT as a technology of national priority.

The IoT is gaining momentum and presents new business opportunities and innovation potential. The Internet changed our lives irrevocably, and the IoT will change us again – perhaps even more significantly. Emerging economies should try to exploit the potential of the IoT for their socioeconomic development. Time is ripe to look at how we can leverage and benefit from the IoT. We can optimistically look forward to an IoT-assisted world that is both connected and smarter.

Helpful Resources for Information

1. The Executive's Guide to the Internet of Things.
2. Internet of Things: Endless Opportunities, Infosys
3. Machine to Machine Technologies: Unlocking the potential of a $1 trillion Industry, AT&T
4. Internet of Things and Ubiquitous Sensing, Computing Now, September 2013
5. IEEE IoT Site

   Videos
6. What is The Internet of Things?
7. Potential Applications of IoT
8. How the Internet of Things Will Change Everything--Including Ourselves

Share Your Thoughts on the IoT

We would like to know what you think about the IoT and its potential, how you may already be using or addressing the issues, or your thoughts on how we could use the IoT for the benefit of our businesses and society.

We've created a platform for our discussion at LinkedIn. Please share your thoughts and join the discussion at LinkedIn or send us an email.
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Unisys Cloud 20/20 V5 Demonstrable Project of the Year 2013

Unisys Cloud 20/20 V5- India's largest Demonstrable Student Project of the year Registration closes on 2nd October 2013. For more details visit: http://www.app3.unisys.com/common/about__unisys/Cloud20_20V5/index.html

Please follow the following steps to participate in the contest:

Step 1: All student team members are required Register at: http://utfi.co.in/ as Unisys Technology Forum India as an individual member

Step 2: One of the team members or designated team leader (maximum four team members and a maximum of two project guides from your college) should register for the contest at: http://utfi.co.in/course/view.php?id=82

Step 3: Submit your preliminary project abstract/plan as per given template at: http://utfi.co.in/mod/assignment/view.php?id=513 on or before 2nd October 2013

Step 4: Attend Daily webinars between 6PM-6:30PM by registering at: https://www3.gotomeeting.com/register/189689254 to receive tips from Unisys engineers to succeed in the contest.

Step 5: By 10th October 2013, selected teams will receive confirmation and will be assigned a Unisys Project guide to work on your project. Successful project teams will participate in the Unisys Cloud 20/20 V5 Grand Finale Event at Bangalore in the last week of February 2014.

Next-Gen Cloud Innovations

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Abstract

Now cloud adoption and diffusion can be seen in the larger domains of ICT. But it is accepted that it is commercialized in the recent time only with the larger pie and penetration by the managed, shared and remote infrastructure management services. Today Clouds are not only seen as an outsourcing strategy but it is accepted as a medium to reduce the overheads, utilizing the existing infrastructure in optimized fashion and removing barriers for the new entrants for the cloud service providers. Now the cloud service providers can take more risks by launching new service offerings with the minimum capex investment and experiment the new market conditions. These changes drive the new demands by consumer, business models, technology and architecture developments and therefore more competition. With the IT consumerization, there is huge demand and distribution of data by widely accepted mobile personas using tabs and smart phones and it pushes for more services and challenges to the cloud providers. With this the data traffic is also increasing that poses challenge as well as the position to tap new opportunities. The coming text will depict the insights of the new paradigms cloud technology innovations, architecture and managing the services with respect to business goals.

1. Introduction

Based on the characteristics Cloud computing offers various benefits:

- Pay per use and multi-tenancy help to increase the return on investment and there is no upfront investment and helps to improve payback cycles in quicker terms
- It helps to achieve
    - Abstraction
    - Scalability
    - Faster deployment
    - Flexibility
    - Agility

This helps organizations to get rid of IT services by using cloud provider services and they can emphasize more on their core competencies rather investing time on non- productive areas that can be outsourced. Near future will the era of SaaS services. All the enterprise technologies will transform to the SaaS forms. SaaS will deliver the low cost and less capex investment based business models for the enterprises. But one thing is to remember it will be a costly affair if the same model is used for multiyear programs. Enterprise will be familiar to use the SaaS business models and they will master it. Also Enterprise CXOs are also having great interest for private clouds. They want to use it for their bundled offering of virtualization strategy by virtualizing the x86 based workloads first and this strategy will increase day by day.

2. Cloud Innovations

Today the buying actions are being changed by freedom of choice, time to market, deployment accelerations and economies of scale provided by cloud based technologies. To achieve the above characteristics various new innovations and service offerings are getting bundled with cloud providers strategy and policies. In the coming sections we will discuss the innovations that will be adopted and diffused into the enterprises in the coming years.

- **DevOps-Platfrom**

This methodology was propounded when the mutual activities of cloud service providers and Web2.0 community adopted the cloud based development platforms. Web 2.0 communities was looking for scale out performance because of the online and rapid development platforms This is well rooted with the agile methodologies and principles. The main notion of this

platform is to establish the trust between the development and operations team. This help to transit the code to production, which requires mutual support between both the teams. In reality this is focused on different releases where teams face problems. Also it emphasize the code as the infrastructure where data centers are more programmable today and provide agility to meet the changing business demands. It adopts the orchestration and automation processes to reduce the pains of the lifecycle of application. Agile methodologies, continuous integration and automated way of testing should be practiced to get all the values of the Dev-Ops platform.

- **Private- Platform as a service**

It is referred to the application based infrastructure software in a service based model. It provides

- Application based servers,
- DBMSs
- Integration Aggregators and Brokers
- Portal Artifacts
- Message queue Technology
- BPM technology

These services when offered in pay as you go model it is represented as PaaS. When offered as services, these become examples of PaaS. The requirement of the private PaaS is to improve the development cycles with more agility and flexibility. It is achieved over the private cloud by sharing the computing resources with software stacks also in a multitenant model. It further helps to expand the compute and software in an automated and elastic way to more number of consumers.

- **Cloud Services Aggregation and Broker**

Cloud Services Aggregation and Broker is a bridge and intermediate service. It integrates multiple roles and business models within or outside the enterprises to add the cloud offerings provided by the service provider. Cloud Services Aggregation and Broker platform works as the technology to implement the intermediate services within the private cloud services of the organization and external cloud service provider.

- **Hybrid IT**

This is referred as a hybrid model of the public cloud and internal compute available in the private cloud model or infrastructure or operations. It is the integration between the resources available internal and external at different layers of process, management and data.

This can take multiple forms based on the use case and combination of technologies.

- Dynamic Workload Management: This is referred as the placements of the workloads as per the utilization and placement policies may be available internal or external after meeting the compliances and resources available.
- Cloudburst: It is actually extending the internal private cloud platform dynamically to external public cloud service providers when the resources are required.
- Service composition: This is composition of the two solutions running concurrently on internal as well as external service provider based infrastructure. There is concurrent data movement and coordination of the processes between the two environments.
- Dynamic cloud: This is the amalgamation of the Dynamic Workload Management, Cloudburst and Service composition of the services.

- **Big Data**

This refers to the quantification of the information and points related to data like

- Information Volume
- Forms of Data
- Rapid Data arrival- Scale up and Scale down

Based on the data types there can be various compliances, standards, archival policies and complexities in the information processing. This is the term accepted by the information industry to define the extreme information processing capabilities and complexities. Today it is mostly focused on handling the large volume set of information processing for platforms like

social platforms, Internet and streaming. Multiple OEMs and ISVs are coming with multifold hardware and software solution to deal with the issue.

- **Cloud BPM**

BPM methodologies are used as a management framework for the execution of enterprise/s. This is managed by Business processes that depict the actual work of the enterprise. This establishes the defined set of rules with the work activities. When these processes are laid for cloud based environment may be public or private – it is termed as Cloud BPM. We should differentiate the Cloud BPM with BPMPaaS. Cloud BPM is a product while BPMPaaS is the service provided by the cloud service provider in pay as you go model. It is differentiated by the delivery model. One can use the on-premise version and can offer the platforms to the internal consumers of the private cloud. Other model can be available by the service provider.

- **Cloud Collaboration Platforms**

This is one of the low hanging fruits of cloud deployment. This includes platforms like

- Email Service
- Messaging Platforms
- Document Management Systems
- Workspaces
- Wikis
- Blogs
- Audio/Video Conferencing
- Social Media Etc

It is widely accepted platforms based on the mature technologies and requires less composition of multiple solutions. These solutions are also suited for SaaS based technologies and it can be bundled in various combinations and permutations.

- **Mobile Enterprise Application Platform**

Mobile Enterprise Application Platform has been envisaged, modeled and deployed by developers all the way through mobilizing current organization applications of customers in various vertical including Financial Institutions, healthcare, Government, retail Products, for their field based mobile users both in-house or external stakeholders. Mobile Enterprise Application Platform deal with all the widespread challenges increased and considerably speeds up the mobility competence of current organization applications with negligible transformation.

- **Community Cloud**

This is shared platforms mostly with government agencies working with the common objectives, standards and policies. This is deployed to achieve the greater flexibility to use the common resources. These cloud service are established when multiple agencies share the same scalability, security, availability and performance. They have the common and unique entrance mechanism to the community. Based on the policy and trust, one agency shares the infrastructure with all other members of the community with proper authentication mechanism.

- **Cloud Based Application Design**

The application that can scale horizontally and vertically on cloud infrastructure should be designed in such a way that it can enjoy the benefits of performance, availability, unmatched performance and world class infrastructure. These applications require optimized architectures and patterns to support the unique service delivery and release. It should be able to work with

- Multitenant environment
- Huge availability
- Distributed environment
- Pay a of s you go model

3. Cloud: The Next Wave

Bundles of opportunities are available with Clouds but we need the competence to tap it. This can help to solve the problems of economies of scale, environmental problem like climate control, social problems like heath care etc. It can be used to establish the e-governance imitative of applicable software and hardware with minimum investments. This provide the green

option that is proven and tested by the industry also. One should be well equipped to adopt the above innovations and tap the benefits of the cloud. With the arrival of Cloud computing, organizations are at perimeter to experiment, test, prove and adopt the technology in the faster manner. One should adopt and diffuse the technology in the system swiftly to get the early bird benefits of the novel ideas and implementation. This way enterprises can become agile and the agent of the business Transformations.

Author Profile

Dr. Kumar Saurabh has several years of industry experience with companies like Tech Mahindra and IBM. Currently he is Chief Architect – Cloud Computing and Virtualization at Tech Mahindra. He was Technical Consultant with IBM and worked on Sizing for IBM hardware platform and servers. He is the author of more than 20 research papers published in various International, National journals and proceedings. He has authored several books like "Unix Programming – The First Drive" and "Cloud Computing –Insight into New-Era Infrastructure", Cloud Computing 2nd Edition published by Wiley-India.

Dr. Saurabh's research interests include virtualization, cloud computing and project management. His main area of research is System Dynamics and Simulation, Process Synchronization and Optimizations of cloud Infrastructures. He has also handled several large-scale systems performance and planning projects in a wide range of professional environments.

M.V. Chauhan All India Student Paper Contest

M.V. Chauhan All India Student Paper Contest 2013 brings together all IEEE students members of India to discuss the latest advancements and future directions in the areas of IEEE. The contest invited full paper submissions from undergraduate and postgraduate students in all areas of interest to IEEE in the Engineering, Technology and Science.

This year, IEEE India SAC Team floated it under the leadership of IEEE India Council -Vice Chair (Students Activities) Dr. Preeti Bajaj. The very first time online submission system "easy chair" was made available to the students for submission of papers. Three prizes were declared as First: Rs. 6000; Second: Rs. 4000; Third: Rs. 3000.

A total 34 papers were received from IIT, IISc Bangalore, NIT Trichi, NIT Suratkal, Singapore and many other reputed universities and institutions. Top three have been shortlisted as prizewinners based on reviewer's remarks, originality of the work, organization, literature review. Around 20 reviewers reviewed the submitted papers and shortlisted seven at the first round. In the second round, another two-professor committee was appointed to evaluate these seven shortlisted papers. Based on the committees' recommendations, the following were declared as the winners.

- **1st Prize:** Detect And Sample: Event-Triggered Sampling and Reconstruction of Sparse Real Trigonometric Polynomials by Neeraj Kumar Sharma, IEEE Student Member, Department of Electrical Communication Engineering, Indian Institute of Science, Bangalore-560012. Member ID No.:91131177

- **2nd Prize:** Design, Fabrication and Characterization of Square Micro Hot Plate by Gaurav Saxena, Graduate Student Member, IEEE and Roy Paily, Member, IEEE, Department of Electronics and Electrical Engineering, Indian Institute of Technology Guwahati-781039, Assam, India. saxena@iitg.ernet.in, royapaily@iitg.ernet.in Member ID No.: 92637646

- **3rd Prize:** A Novel High Isolation Single-Pole Four-Throw RF MEMS Switch for Xband Applications by Navjot Khaira, Student Member, IEEE, Tejinder Singh, Student Member, IEEE, Department of Electronics and Communication Engineering, Lovely Professional University, Phagwara, India. tejinder.singh@ieee.org Member ID No.: 92386809.

Heartiest Congratulations to all winning candidates. The AWARD CEREMONY and presentation of papers will be held on 4th September 2013 during All India Students Congress 2013 (AISC 2013) to be held at Coimbatore. The details of AISC2013 are given at www.ieeeaisc2013.org. The AWARD prize in cash of Rs.6000/-, Rs.4000/- and Rs.3000/- respectively for 1st, 2nd, and third winner will be given during the above event. One candidate first author for each paper will get travel grant.

Big Data and How to handle it using VectorWise, an SQL DB software

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Data Analytics Then …

It is no secret that a tremendous amount of useful business information is locked away in unstructured documents and data files.

The amount of this unstructured data, however, may surprise you. At the conference in Miami in 2005, Zach Wahl from the Project Performance Corporation presented the following facts:

- *80 percent of business is conducted on unstructured information (Gartner Group).*
- *85 percent of all data stored is held in an unstructured format (Butler Group).*
- *Unstructured data doubles every three months (Gartner Group).*
- *7 million web pages are added every day (Gartner Group).*

These figures clearly demonstrate that a significant amount of valuable business information is encapsulated in unstructured data. Because of this, many organizations are realizing that consolidating, accessing and analyzing this unstructured data is an important factor in optimizing and analyzing business processes. Organizations can also use this data to gain a competitive advantage.

Originally published December 12, 2005

Data Analytics Now …

Today everyone is talking of Big Data…

Big data analytics is the next big area of concern that CIOs are faced with and need to tackle. This is more evident after few years of successful ERP run, which has the tendency to run up transaction data at a constant pace but becomes unmanageable over a period of time.

To put it simply, big data reflects the present world we live in. The more things change, the more the changes are captured and recorded as data. Take weather as an example. For a weather forecaster, the amount of data collected around the world about local conditions is substantial. Logically, it would make sense that local environments dictate regional effects and regional effects dictate global effects, but it could well be the other way around. One way or another, large volumes of transactional data reflects the attributes of big data, where real-time processing is needed for a massive amount of data, and where the large number of inputs can be machine generated, personal observations or outside forces like sun spots.

Processing information illustrates why big data has become so important:

Most data collected now is unstructured and requires different storage and processing than that found in traditional relational databases.

Available computational power is sky-rocketing, meaning there are more opportunities to process big data.

The Internet has democratized data, steadily increasing the data available while also producing more and more raw data.

As we all know simple collection of Data in its raw form has no value. Data needs to be processed in order to be of valuable. However, herein lies the inherent problem of big data. Is processing data from native object format to a usable insight worth the massive capital cost of doing so? Or is there just too much data with unknown values to justify the gamble of processing it with big data tools? Most of us would agree that being able to predict analysis of

Big Data say that of a 'scientific research data' or perhaps a 'weather data' would have value, the question is whether that value could outweigh the costs of crunching all the real-time data into a scientific prediction or a weather report that could be counted on.

Any way we need to manage such data proliferation.

Big data can be managed in following way:

Using software tools commonly used as part of advanced analytics disciplines such Predictive Analytics and Data Mining to analyze data sources used for big data analytics that may not fit in traditional data warehouses.

In these days of detailed data capture that happens on large volume of transactions traditional data warehouses may not be able to handle the processing demands posed by big data. As a result, a new class of big data technology has emerged and is being used in many big data analytics environments. The technologies associated with big data analytics include Hadoop, NoSQL and MapReduce.

These technologies form the core of an open source software framework that supports the processing of large data sets across clustered systems.

The primary goal of big data analytics is to help companies make better business decisions by enabling users to analyze huge volumes of transaction data as well as other data sources that may be left untapped by conventional business intelligence tools and Data Warehousing technology.

Apart from conventional transaction data that gets to the BigData Database there are other data sources that may include Web server logs and Internet click stream data, social media activity reports, mobile-phone call detail records and information captured by sensors.

Record breaking Vectorwise helps companies take action on Big Data

Vectorwise is an SQL relational database management system designed for high performance in analytical database applications. It currently holds the records as top performing database on the Transaction Processing Performance Council's TPC-H benchmark for database sizes of 100 GB, 300GB, and 1TB on non-clustered hardware. It has held these records since March 2011. Vectorwise originated as the X100 research project carried out within the Dutch National Research Institute for Mathematics and Computer Science (Centrum Wiskunde & Informatica (CWI)) between 2003 and 2008, and was released as a commercial product in June, 2010. The current version was released on June 5th, 2012, and is available for 64-bit Linux and Windows platforms.

When data volumes explode, traditional databases become slow and expensive, but Actian's record-breaking Vectorwise helps organizations gain the insights required to analyze and monetize Big Data faster on less hardware and with virtually no database tuning.

Vectorwise allows organizations of all types to create Business Intelligence (BI) projects faster and give BI users access to reports much sooner. If you or your organization often analyze huge amounts of historical data with ad hoc or complex queries and your performance or business depends on the speed, accuracy or frequency of turnaround, then Vectorwise is worth investigation.
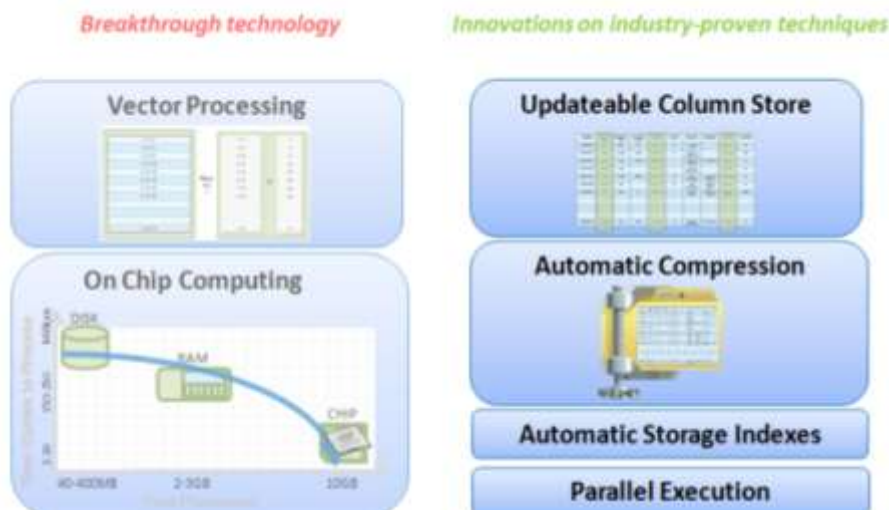
Benefits of Vectorwise Database

Performance
- Vector-based processing enables up to 100 instructions to be processed simultaneously
- Vector-based processing enables up to 100 instructions to be processed simultaneously
- Vectors of data are processed using the chip cache memory which is more than 100x faster than using RAM
- I/O and storage requirements are minimized with automatic optimum compression technology
- Data is streamed into the CPU cache using vector-based decompression
- The compressed updateable column store requires far fewer disks than other databases for the same amount of data
- Storage indexes ensure minimum I/O to retrieve the data requested

Simplicity
- Improved processing efficiency enables a single server to comfortably support a data-intensive workload against Terabytes of data. Many other databases require a cluster of servers to deliver comparable performance
- Vectorwise automatically chooses the optimal compression scheme. Storage indexes are created and maintained automatically
- Vectorwise storage and processing are seamlessly integrated into the reliable infrastructure of Ingres Database. Use Ingres utilities and drivers to work with Vectorwise
- Use standard ANSI SQL and ODBC or JDBC or .Net to access data in Vectorwise

Low TCO
- Vectorwise delivers extremely fast performance using any of the standard modern off-the-shelf servers based on Intel or AMD micro processors. No special micro processors or server configurations are needed which results in substantial hardware savings
- A single server of Vectorwise delivers the performance for analyzing multiple Tera-bytes of data for which many other solutions would necessitate a cluster of servers for comparable performance. This again results in substantial hardware savings
- No special SQL has to be learnt as Vectorwise uses standard ANSI SQL and supports commonly available BI tools. Developers do not need to learn new technologies
- No need for extensive indexing and tuning as Vectorwise provides auto indexing and auto tuning capabilities.

Low Risk
- Vectorwise is already deployed in leading enterprises. The Ingres database of course already powers thousands of businesses world-wide for many years
- Actian Corporation has 20+ years of experience in the market and a global 24x7 support infrastructure
- Modest hardware requirements and ease-of-use ensure you see a quick return on investment
- The Vectorwise engine has been developed by leading database researchers who developed the very first column-based database in the early 1990s

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Congrats to Prasanth Mohan for receiving IEEE CS Richard E Merwin Scholarship

The prestigious Richard E. Merwin scholarship from IEEE Computer Society has been awarded to Mr. Prasanth Mohan a fourth year Computer Science student of Sri Muthukumaran Institute of Technology (SMIT), Chennai for his exemplary service to the society. With a great effort, he is one among the initiator of IEEE CS Chapter at SMIT. He is currently serving as Webmaster of IEEE SMIT SB. He is also the Chairman of IEEE SMIT Computer Society Chapter. He also serves as the Chennai Hub leader for IEEE Madras Section Student network. At present, he is elected as Regional Student Ambassador for IEEE Computer Society. Prasanth Mohan is one among the 16 students globally to receive this scholarship http://www.computer.org/portal/web/studentactivities/merwin from IEEE Computer Society. IEEE India Info congratulates Mr. Prasanth Mohan.

"In-Sure" the Need of Secure from Cyberbullying

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Abstract

Today many people take out insurance policies. The Insurance policies and plans provide the comprehensive life insurance coverage, as well as the extra edge of financial support in their future education and careers. And they do this in the hope that they are securing their future by preparing for the worst. Parents always wish to make their child well educated, aim for his/her successful career in life thus fulfilling all his/ her dreams. And they believe it will maximize their children's potential life. Children in the current generation are enamored with technology. Due to the growth of technology updates, it's needed to insure and secure their life from Cyber bullying.

This article deals with growth of technology updates and its impact among the children's and teenagers. Some of the issues and its impact are discussed in this article.

Keywords : Meaning of Cyberbullying, Methods behind cyberbullying, Impacts of cyberbullying, Identifying incidents of cyberbullying, Cyberbullying solutions, Survey findings, Packet Sniffing and its works, Packet Sniffing in prevention of Cyberbullying.

Introduction

People all over the world have the capability to communicate with each other with just a click of a button. In particular, children and teenagers used to actually talk to their friends over the phone or hanging out with pals in the neighborhood after school and college vanished long ago. But now, even chatting on cellphones or via e-mail is old. For today's children and teenagers, the give and take of friendship seems to be conducted increasingly in the abbreviated snatches of cellphone texts and instant messages, or through the very public forum of Facebook walls and MySpace bulletins. To date, much of the concern over all this use of technology has been focused on the implications for children's and teenager's intellectual development. Worry about the social impacts has centered on the darker side of online interactions, like cyberbullying or texting sexually explicit messages on network devices.

Meaning of Cyberbullying

The brand of bullying called Cyberbullying is relatively new and has become more prevalent over the last few years with the rise of social networks being the choice communication vehicle for most children and teenagers. Cyberbullying occurs when individuals "the Internet and electronic communication technologies to transmit hostile messages and images".

In the current scenario, Cyberbullying is considered harassment. Pressure or mean comments that focus on things like a person's gender, religion, sexual orientation, race, or physical differences fall into this category. Cyberbullying often leads to real-life, physical conflicts as well as feelings of depression, hopelessness and loss. Whether it's done in person or online, this type of meanness counts as discrimination and is against the law in many states.

Methods behind the Cyberbullying

Cyberbullying happens in lots of different ways, by mobile phone, text messages, email, or through social networking sites such as Facebook. Examples of Cyberbullying include sending anonymous threatening emails, spreading rumors on the school e-bulletin board to break up friendships, or setting up an unkind or unpleasant fake social networking account using real photos and contact details. Other examples of Cyberbullying include various methods using network and network devices as bellow.

- **Flaming** is a type of online fight. It is an act of sending or posting electronic messages that are deliberately hostile, insulting, mean, angry, vulgar or insulting, to one person or several, either privately or publicly to an online group.
- **Images and videos** have become a growing concern that many schools are taking seriously. Due in part to the prevalence and accessibility of camera cell phones, photographs and videos of unsuspecting victims, taken in bathrooms, locker rooms or other compromising situations, are being distributed electronically. Some images are emailed to other people, while others are published on video sites such as YouTube.
- **Denigration** also known as "dissing", occurs when a person sends or publishes cruel rumors, hearsay or untrue statements about a person to intentionally damage the victim's reputation or friendships.
- **Bash boards** are online bulletin boards where people post anything they choose. Generally, the postings are mean, hateful and malicious.
- **Outing** occurs when someone sends or publishes confidential, private, or embarrassing information, online. Private email messages or images meant for private viewing, is then forwarded to others.
- **Trickery** is when a person purposely tricks another person into sensational secrets, private information or embarrassing information, and publishes that information online.
- **Harassment** is when the electronic bully repeatedly sends insulting, hurtful, rude, insulting messages.
- **Happy slapping** is a relatively new type of bullying. This occurs when an unsuspecting victim is physically attacked, in person, as an accomplice films or take pictures of the incident. The image or video is then posted online or distributed electronically. Often the attackers will say it was only a prank or joke, hence the term "happy slapping". Happy slapping is becoming more common, especially since many cell phones now include cameras.
- **Text wars** or attacks are when several people gang up on the victim, sending the target hundreds of emails or text messages. Besides the emotional toil it can take on the victim, the victims' cell phone charges may escalate as well.
- **Online polls** ask readers to vote on specific questions, often very hurtful and demeaning, such as "Who is the ugliest person in 8th grade" or "Who do you love to hate?"
- **Sending malicious code** intentionally, to damage or harm the victim's system or to spy on the victim.

Impacts of Cyberbullying

Cyberbullying can happen to anyone and anyone can become a victim of cyberbullying, many children and teenagers become victims due to their desire use modern technology and their failure to use safe internet practices. Victims may or may not be the target. Children and teenagers are not the only people being targeted. Educators and school staff are also being targeted electronically. According to survey the children are highly affected comparing to others. Global research has identified that girls are more likely to report that they have been victims of cyber bullying than boys, potentially because they engage in a higher level of technology-assisted social communication such as using SMS, emailing and social networking.

Survey Findings based on Cyberbullying

According to the survey conducted by Microsoft noted that Cyberbullying was on the rise among Indian children and teenagers in the age bracket of 8 to 17. Over half (53 percent) of children in India have been bullied online says the survey. The report puts India third on the list behind China (70 percent) and Singapore (58 percent), stressing on the need to increase education about online behavior in India amongst all stakeholders.

http://www.microsoft.com/security/resources/research.aspx#onlinebullying.
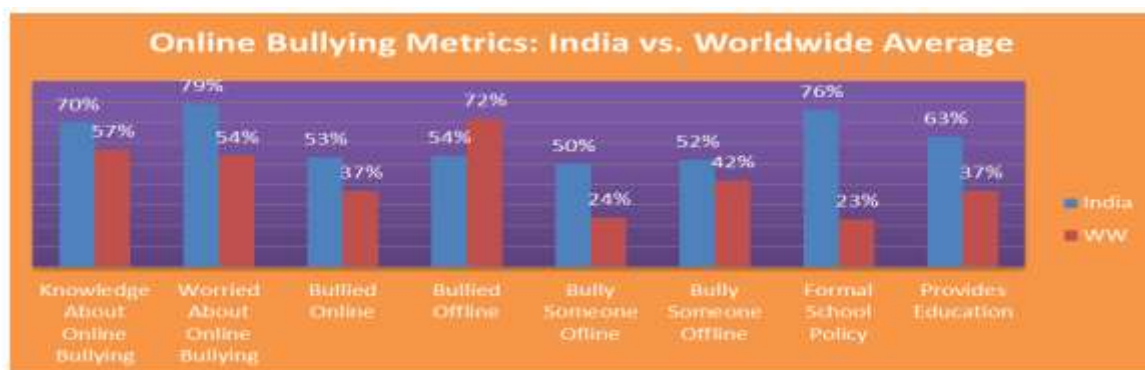
The survey was conducted in 25 countries between January 11 and February 19 2012, among more than 7,600 children of ages 8 to 17, and focused on how kids are treating one another online and whether parents are addressing online behaviors. The children were asked whether somebody was unfriendly or mean towards them on the Internet or if other children had made fun or teased them.

The survey also noted that unlike offline bullying where girls were more likely to be bullied, the online playground seems to be free for all as both genders are equally likely to face cyber bullying. The Indian youth also seem to be aware young netizens as 8 out of 10 boys and nearly the same number of girls acknowledge cyber bullying.

The US security software company conducted a survey in seven Indian metros with 750 parents and 757 teenagers and released on 2012, found 67% of the kids had a bad experience after finding new friends online.
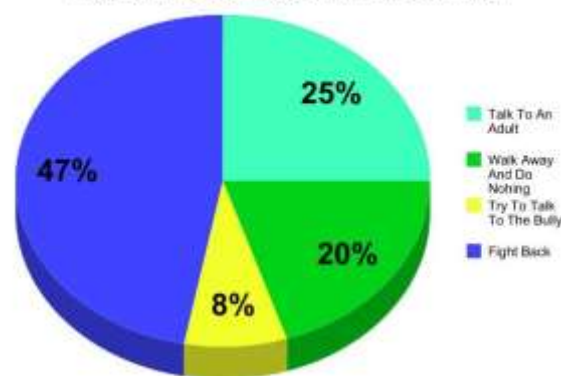
As many as 70% of the teenagers know they shouldn't share their home address, but 40% still do, the survey found. And 74% know they shouldn't share their mobile-phone number, but 30% did it nevertheless. It's not as if parents are not aware of this because 28% said their children might have put up their phone number on the world's largest social-networking website. Facebook,

Reports of a cyberbullying explosion over the past few years because of increasing use of mobile devices have been greatly exaggerated, According to the website KidsHealth.com survey, in which they asked 1,229 boys and girls to answer some questions about bullying. Nearly half of them said they had been bullied before. Some said it was happening every day. Others said it only happened once in a while.

Source: http://kidshealth.org

Percentage of Kids Bullied

- Every Day — 8%
- Every Week, But Not Every Day — 7%
- Once In A While — 33%
- Never — 52%

Globally, the survey also revealed that children want to talk to parents about the issue, but only 29 percent of kids say their parents have talked to them about protecting themselves online. Further, according to the results, there is not one common step taken by parents to address the problem, with only 17 percent having communicated a clear set of rules for negative online behaviors.

Reactions of Kids When Bullied

- Talk To An Adult — 25%
- Walk Away And Do Nothing — 20%
- Try To Talk To The Bully — 8%
- Fight Back — 47%

A new poll conducted by global research company Ipsos finds that more than three out of ten parents (32%) in India say their children have been victim of cyberbullying. The findings also disclosed that 45 percent of Indian parents believed a child in their community was being cyberbullied, while a majority (53%) of parents online in India is aware of the issue.

"The findings are quite surprising, which revealed that the frequency of cyberbullying in India was higher than that of western nations including the US (15% of children), UK (11% of children) and France (5% of children). Prior to this survey, there has been little evidence to suggest cyberbullying is a major issue in the country. This is in contrast to the US, where the phenomenon has been linked to several teen suicides," said Biswarup Banerjee, Head - Marketing Communications, Ipsos in India.

General Solutions to prevent Cyberbullying

The defense against cyberbullying is not electronic it's relational. Having a healthy personal relationship, especially a parent is the best bully prevention program. The below mentioned are the few possible solutions to prevent cyberbullying.
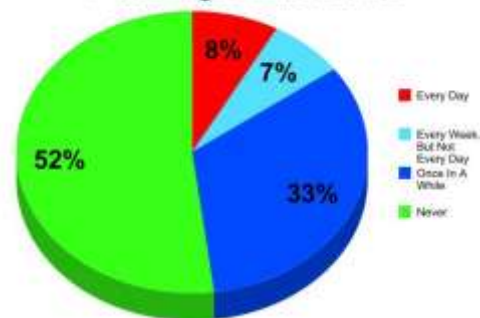
Children and Youth solutions – If being cyber bullied:
- ✓ Do not respond/engage to the abuse. No back and forth.
- ✓ Talk to someone about it. Don't keep it to yourself. Ignoring bullying only leads to its escalation.
- ✓ Keep records/print off messages if possible, to help identify bully.
- ✓ If necessary get a new number, account, give it out one person at a time and keep a diary daily to record any abuse, your tormenter may be closer than you think.

Parent Solutions – If your child is being cyber bullied:
- ✓ Make this topic a talk able subject
- ✓ Place and keep the computer in an open, common space
- ✓ Inform Internet Service Provider (ISP) or cell phone service provider of abuse.
- ✓ Do not erase messages; keep for evidence.
- ✓ Software help – Parental Controls filter both IM and Chat Rooms. Tracker programs.

School Solutions
- ✓ Amend anti-bullying policies to include text messaging, cell phone use, and online bullying.
- ✓ Make a commitment to educate teachers, students, and parents about cyber bullying.
- ✓ Make sure parents know whom to contact at the school if there is a problem.
- ✓ Never allow a known incident of bullying to pass unchallenged and not dealt with.

Business Solutions
- ✓ Need to become educated and made aware of how their products may/are being used.
- ✓ Encourage them to advertise responsibly
- ✓ Help in shutting certain sites, when appropriate to do so.

Government Solutions
- ✓ Passing of legislation to encourage, empower school districts to take bullying seriously.
- ✓ Funding of anti-bullying efforts.
- ✓ National anti-bullying hotline.

Technological solutions to prevent Cyberbullying

Another possibility for Internet Service Providers to aid in tracking cyberbullying is to use packet sniffing. This will allow them to intercept packets of information sent across a network and see everything that happens, including being able to read emails and files sent to individuals. This can help internet service providers and law enforcement to actively monitor where foul play is occurring, and take action accordingly. The information obtained can also be saved to use as proof in the future. If used appropriately, packet sniffing could be a very useful tool to aid in the prevention of cyberbullying.

Conclusion

Everyone has a role to play in empowering children and teenager to stay safe while they enjoy these new technologies, just as it is everyone's responsibility to keep children safe in the non-digital world. Government, industry, parents, schools, the public and third sectors, we all have an important part to play, and we must work together to achieve our goals. But this isn't just about a top-down approach, children and young people need to be empowered to keep themselves safe. It also doesn't mean we close down our children's digital opportunities in order to eliminate risk. Though technology has brought new opportunities for students and teenagers, it is important that everyone learn to use it responsibly. Instead, we need to listen to, empower and support our young people to understand and manage risks, and make the digital world safer.

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Information Communication Technology- ICT, Internet, Digital Media and Learning Environment for Developing Skills

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In the book, *The World Is Flat: A Brief History of the Twenty-first Century*, the author, Thomas L. Friedman argues that technology has leveled the playing fields between industrial and emerging countries. The same concept can apply to levelling the playing field for education and learning, where technology -- which has been accelerating the education divide -- now provides an opportunity to close the divide, enabling educational institutions around the world to share and participate in the global development of knowledge and information.

A survey published by online charity YouthNet, has found that 75% of 16-to-24 year-olds feel that they "couldn't live" without the Internet. The report also found that 82% would look online for advice and that 45% "felt happiest" when spending time online. Thirty-two percent of respondents also said that they did not need to ask a real person about their problems as they could find everything they needed online. Less than half would give advice online, with just 37% saying they would give advice on sensitive issues to those seeking it online.

Information Technology is more or less the paper and pencil of the twenty-first century. For students of 21st Century Skills, it should be like the air they breathe -- simply there to be used, a means, not an end. The Internet, World Wide Web, and computers can do two things for engineering schools. First, they can send information outward, beyond the campus boundary. And second, they can bring the external world to the campus. By sending information out, we can teach, or, better yet, provide teaching materials to teachers and learners all over the world. By bringing the world in, we can enrich learning, exploration, and discovery for our students.

Information Technology can also create learning communities across time and distance. It can access, display, store, and manipulate unfathomable amounts of information: text, images, video, and sound. It can provide design tools and sophisticated simulations.

In my view, openness is creating a global meta-university, a transcendent, accessible, empowering, dynamic, communally constructed framework of Web-based open materials and platforms on which much of higher education worldwide can be either constructed or enhanced. Like the computer operating system Linux, knowledge creation and teaching at each university will be elevated by the efforts of individuals and groups all over the world. It will rapidly adapt to the changing learning styles of students who have grown up in a computationally rich environment. But the biggest potential winners are clearly in developing nations like India.

Learning environments have now evolved into the Collaborative Era of the 21st century, in which the new generation of technology tools enable timely, community-generated content creation, interactive social collaboration networks, decentralized information sharing, and access to global knowledge and information resources. The Collaborative Era creates a unique opportunity for technology -- which once fuelled acceleration of the education divide — to help developing nations and regions leap across that divide. The convergence of affordable technology and connectivity enables students in countries that once were left behind to emerge with 21st-century skills. These skills can now be developed through advances such as these:

- **Technology:** Affordable, rugged, state-of the-art computer technology designed for educational environments
- **Connectivity:** Affordable, high-speed Internet connectivity to rural and remote areas, and intranet connectivity within schools and communities
- **Digital Curriculum:** Collaborative rich-media applications, content and curriculum localized for language and culture
- **Professional Development:** Readily available training to help teachers acquire the necessary ICT skills to assist students and fully integrate technology into the education process

- **Improved Learning Methods:** Interactive and collaborative e-Learning methods that help teachers incorporate technology into their lesson plans and enable students to learn anytime, anywhere use of technology

The impact of ICT on education and learning are that cognition is now distributed across human minds, tools/media, groups of people, and space/time (Salomon, 1993; Hutchins, 1995; Dede, in press). Further, the types of representations available in mediated interaction (e.g., immersive simulations, non-linear conceptual maps) are richer and more nuanced than those possible in face-to-face settings without ICT. For example, a class can discuss geography using Google Earth as a common referent in a more sophisticated way than through utilizing paper maps. Because of advanced computers and telecommunications, the process of individual and collective thought in civilization is increasingly dispersed symbolically, socially, and physically.

Our great-grandparents would see our lifestyle as bizarre -- "electronic nomads wandering among virtual campfires" (Mitchell, 2003) – yet in counterpoint many youth today see prior generations as hapless prisoners of geography, trapped in the limits of a single physical location. Given that distributed thought, action, and sociability show no signs of receding, formal education should prepare people to achieve their full potential as workers and citizens in this emerging, novel, intellectual and psychosocial context, avoiding its weaknesses and traps while maximizing its strengths and opportunities.

ICT is considered a critical tool that can furnish students with the required skills for the global workplace. Technology plays a double role - both educating students so that they can continually adapt to a work world of continuous technological innovations, and making it easier for students to access the world's knowledge systems. ICT is regarded as an engine for growth and tool for empowerment, with profound implications for education change and socio-economic development. As policymakers aim to improve efficiency and innovation in educational provision that positions countries for economic competition, technology integration is becoming a key element in almost every plan for the restructuring and re-engineering of education systems (Scheffler and Logan 2000). Butcher (2010) however cautions that ICT use in education and training plans not be seen as vehicles for teaching 'ICT literacy', but as a means to build higher-order skills, such as knowing and understanding what it means to live in a digitized and networked society and use digital technology in everyday life. In this regard new technologies provide opportunities and tools for reengineering traditional and often times archaic education and training systems and provide alternative ways to reverse youth employment trends while producing a more effective, productive and innovative workforce.

IEEE Day 2013

IEEE Day 2013 will be held on Tuesday, 1 October!

IEEE Day 2013 is the 4th time in history when engineers worldwide will celebrate the anniversary of the first time IEEE members gathered to share their technical ideas in 1884.

While the world benefits from what's new, IEEE is focused on what's next. Thus, this year the theme of IEEE Day will be "Leveraging Technology for a Better Tomorrow".

The IEEE Day team is made up of IEEE student volunteers, young professionals and staff to assure that this years celebration will be even bigger and more impressive than the last three editions. The main task of the IEEE Day team is to initiate, motivate and coordinate events and efforts to celebrate this day worldwide.

Based on the experience from the past IEEE Day editions, the website will be updated as well as the IEEE Day social network pages and accounts. The 2013 new t-shirt design will be published in the coming weeks for all who want to actively participate.

Besides a great time and empowering members to engineer the future and beyond, the team actively supports members and volunteers encouraging them to participate in the 2013 photo contest.

In 2012 the top ten best photos were awarded with a US $500 prize, designated for unit activities. Besides the contest, IEEE units were encourage to submit a group photo, to be gathered in one video and published in IEEE.tv.

In addition professional members who joined on IEEE Day will receive a US $30 discount off of their IEEE membership for 2014.

Do not hesitate; share your excitement, visions and joy with engineers worldwide. Pl. visit http://www.ieeeday.org/

News From Sections

Bangalore Section

Professional Workshop Series - Objective C & iOS App development

IEEE GOLD Bangalore felt the need for practical and do it yourself based professional workshops targeted towards the young technology professionals which would add and enhance their skill set in their professional career by collaborating with technology companies and impart workshops on latest technologies. As part of this initiative, a workshop on iOS and Objective C Application Development was organized in association with EXILANT Technologies Pvt Ltd at Bangalore from August 24th to August 28th 2013.

There was an overwhelming response from the engineering community and 260 registered within 48 hours of the call for registration. Over 100 registrations were denied later and many more queries answered. An online quiz was conducted to choose the best-fit participant, after which 20 participants were given an opportunity to be a part of the workshop. Selected participants had come from varied background such as senior industry professionals, academicians, entrepreneurs and students. There were 12 student members and 9 professional members who participated in the workshop.

Topics workshop cover the following:

- Introduction to Mac OS X & iOS Architecture.
- Introduction to Frameworks & Cocoa, Xcode-Objective C
- Functions, Constructors & Memory Management
- Utilities & Collections & Data Structures
- Threading & Exception Handling
- Protocols, Categories, Properties, KVC
- Helper Objects: NSTableView, Delegates & DataSource
- Bindings, KVC, KVO
- NSTableView with NSArrayController, MVC
- Connections, Creating First iPhone application
- Core Location, Map Kit and text Input
- Sub Classing and UI View
- View Controllers
- Notification and Rotation/Orientation
- Debugging Techniques
- Crash Analysis
- Use of Instruments
- App distribution process on App store

The closing day event was presided over by Mr. Ravikiran, CEO, Teritree and Vice-Chair of IEEE Bangalore Section. Mr. T G Srinath, Global Head - Sales and Marketing, Exilant Technologies Pvt Limited, while addressing the participants, mentioned that learning has four phases: Unconscious Incompetence; Conscious Incompetence; Conscious Competence; and Unconscious Competence. He made the participants realise that each of us would start from the first phase of Unconscious Incompetence and reach a phase of Unconscious Competence where all the efforts in training would be fruitful.

Participation certificates were distributed and feedback from the participants was elicited.

Report by: Nipun Manral, nipun.manral@gmail.com

Gujarat Section

Workshop on "Open Hardware Arduino & Interfacing

IEEE - LDRP ITR SB, in collaboration with IEEE - CHARUSAT SB organized a two day workshop on "Open Hardware Arduino & Interfacing" on 9th & 10th August 2013. Professor Jignesh Patolia, from Charotar Institute of Technology conducted the workshop.

About 65 students from both LDRP - ITR as well as CHARUSAT attended the workshop. Every student was provided with a trainer kit for the duration of the workshop. The students were encouraged to take the kits home and get some hands on experience.

Day 1 of the workshop began with the basics of Open Hardware and Open Software and the advantages they offer. The discussion then moved on to what Arduino is and why it is the platform of choice for various projects and applications. The students were also introduced to the programming language for the Arduino, known as Arduino C.

Day 2 of the workshop was built on what the students had already learnt. Students were given hands-on practice so that they could get comfortable with using the provided kits. Practical implementation of programs was also done by Shri Jignesh Patoliya and the student volunteer teams. Once the students were comfortable with the kits, they were also taught how to interface other devices with the Arduino and increase its functionality manifold.

The workshop concluded with the handing-out of certificate to all the participating students.

Report by: Ankit V Patel, ecengineer2011@ieee.org

Kolkata Section

IEEE ComSoc Distinguished Lecture Programme

The IEEE ComSoc Kolkata Chapter (affiliated to the IEEE Kolkata Section) formed on 13th Oct 2003 is an active chapter and had been organizing the Distinguished Lecture Programmes regularly and in the past during 2007, 2008 and 2010.

Recently, on 10th Aug 2013 a DLP was organized with Dr. K. K. Ramakrishnan, Fellow, AT & T Labs - Research, Florham Park, NJ, USA as Distinguished Lecturer. In his welcome address, Prof. R. Nandi, Chairman, IEEE ComSoc Kolkata Chapter highlighted the activities of the chapter, especially the membership recruitment drive. Then, Dr. K. K. Ramakrishan delivered the Lecture on Networking the Cloud: Enabling Enterprise Computing and Storage. After a brief introduction on Cloud Computing, he proposed a Virtual Cloud Pool abstraction to logically unify cloud and enterprise data center resources and presented the vision behind CloudNet, a cloud platform architecture which utilizes Virtual Private Networks to securely and seamlessly link cloud and enterprise sites. Dr. Ramakrishnan explained how WAN latency between a cloud site and an enterprise can become a major performance bottleneck when synchronously replicating an application's data into the cloud and then described their proposal called '*Pipelined synchrony*' to address this problem.

The audience interacted with the speaker during the lecture and in the Q&A session. The DLP had provided a rare opportunity for the researchers and industry members of ComSoc Kolkata to have the first hand information on Cloud Computing from the Distinguished Lecturer. A total of 50 participants (IEEE Members – 30, Student Members – 5, Non Members – 15) attended the DLP. Dr. Swarup Mandal presented a memento to the speaker and Ms. Shilpa Basu proposed the Vote of Thanks. Dr. P. Venkateswaran, Assoiate Professor of Jadavpur University was the coordinator of this DLP.

Report By: Dr. P. Venkateswaran, pvwn@ieee.org

Kerala Section

- Dr. K. Suresh from College of Engineering, Trivandrum and Prof. Rajesh Kannan from Amrita Vishwa Vidyapeetham on being awarded with Outstanding Branch Counselor Award – 2013

Announcements

- **Student Enterprise Award Recipients**
  - College of Engineering, Trivandrum
  - Amrita Vishwa Vidyapeetham, Kollam
  - College of Engineering, Changannur
  - Mar Baselios College of Engineering and Technology, Trivandrum
  - Vimal Jyothi Engineering College, Kannur

- **Darrell Chong Student Activity Award**
  - College of Engineering, Changannur – Silver Category

IEEE GHTC South Asia Satellite – 23rd & 24th August, 2013

South Asia, home to one-sixth of the world population and having a significant number of humanitarian challenges of specific relevance to GHTC, mandated Kerala Section with the first-ever South Asia Satellite conference, IEEE Global Humanitarian Technology Conference – South Asia Satellite 2013 (IEEE GHTC SAS 2013). The Global Humanitarian Technology Conference (GHTC-SAS) was formally inaugurated at Technopark, Trivandrum, Kerala by Mr. P. H. Kurian IAS, Principal Secretary (IT), Government of Kerala, in the presence of over 150 delegates and participants from 4 countries.

Mr. P. H. Kurian, inaugurating the GHTC-SAS, said that, technologies should serve the best interests of people. Historically, India has been extremely rich in terms of innovation, but has lost its leadership position. It is important to reclaim the role of innovation in the Indian economy. Kerala has proved successful in innovation through Technology Business Incubation Centers (TBIC) and similar initiatives. The Government of Kerala has created enabling frameworks to promote innovation that will doubtless serve the interests of the state in future.

Prof. Kannan Moudgalya of IIT Bombay, who delivered the keynote address at the inaugural session, explained the concept of spoken tutorials, an electronic educational technology that was becoming very popular amongst students and the academic community. He said that Aakash, a low-cost tablet device introduced by the Government of India, coupled with Spoken Tutorials, are together "humane weapons of mass instruction" that can radically transform the educational scenario in the country.

The Community Engagement Workshop (CEW) held in the sidelines of the Conference saw participation from over 95 delegates from various NGOs. Mr. Stan Thekaekkara, a social activist who had been working with tribals in the Western Ghats for over 30 years, delivered the keynote address at the CEW. He pointed out that technology, given its increasing role in the lives of communities, must be controlled by communities themselves, and young engineers should reflect on their values and contributions to society.

On day two of the Conference, around 81 papers were presented on different innovations, on five tracks of contemporary relevance: Distributed renewable energy generation and microgrids; Municipal solid waste management; Inclusive technologies for the differently-abled; Agriculture, water, disaster management, health and education; and Emerging Technologies for Humanitarian Applications. The selected Best paper will be given a chance to be presented at the IEEE GHTC, Silicon Valley, California during October, 2013.

GHTC-SAS, the first conference of its kind outside the US, gave a platform for different stakeholders interested in the technology-society interface to engage with the challenges of the 21st the century.

- **FOSS Young Professional Meet - 2013 :** The FOSS Young Professional Meet is the first event of its kind that brings together students, new graduates, young professionals and start-up companies that are interested in FOSS-based tools and technologies, for the purpose of acquiring information, skills and competencies. The event is being carried out under the Pre-incubation Support Services of ICFOSS. The event is supported by IEEE Computer Society and IEEE GOLD of IEEE Kerala Section. For details, please see http://programs.icfoss.org/fypm2013

- **RAICS-2013:** The 2nd IEEE International Conference on Recent Advances in Computational Systems (RAICS-2013) is a high quality technical forum organized by IEEE and scheduled to be held in Trivandrum, India during 19-21, December 2013. IEEE RAICS-2013 focuses on a special theme "Technologies for Bridging Cyber Physical Divide" bringing together researchers, developers and practitioners across the world. Organized into six technical tracks, IEEE RAICS-2013 features a host of highly relevant and cutting edge events including Keynote addresses and PhD forum besides having a high quality technical program prepared by a world-wide Technical Program Committee.
  - Submission of full papers   : 12 – Aug – 2013 (Final Extension)
  - Intimation of acceptance of papers   : 01 – Oct – 2013
  - Camera Ready Paper and Author Registration   : 01 – Nov – 2013

Madras Section

Teachers In-Service Programme

The IEEE Madras Section organized the R10 sponsored Teachers In-Service Programme (TISP) on 31st August 2013 at Suharshan Engineering College (SEC), Sathiyamangalam, Pudukkottai. This program aimed at imparting the ability of technical literacy among teachers and students and producing quality engineers. This event was attended by a total of 82 teachers and students (12 Schools from Pudukkottai and Karaikudi). The co-ordinators of the program were Dr. N. Kumarappan, EA Chair and Treasurer IEEE Madras Section and Mr. A Ravi IEEE SB counselor of SEC.

At the inaugural session, Mr. A Ravi, welcomed the gathering, Dr. K Ganesan Principal, SEC delivered the presidential address, Dr. N Kumarappan delivered the Inaugural Address. Dr. S Palani Director SEC delivered the special address.

The resource persons for the program were Dr. N. Kumarappan, Prof. Annamalai University and Er. M Venkatesh Kumar, Asst. Prof. Saveetha University. The program included two theory sessions, 'Understanding the IEEE' and 'Engineer your classroom!'. After lunch, the participants were divided into twelve groups and were given hands-on activity. First they built their own solar toy car and then wind mill. The participants actively took part and enjoyed doing these activities. There was a panel discussion for one hour towards the end of the programme.

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At the valedictory session, certificates were distributed to all the participants. The program received an excellent feedback from all the participants. Sathiyamangalam being a rural area was highly suitable for this type of program as the people over here needed awareness about engineering. The TISP provided an excellent opportunity to enhance the level of technological literacy of pre-university students. It also provided guidance to pre-university educators on professional development areas that students needed. The theory sessions motivated the students while the hands-on training using basic engineering principles inspired and built an interest on engineering.

Report By: Dr N Kumarappan, kumarappan_n@hotmail.com

Madras IEEE Education Society Chapter: Inauguration of IEEE Education Society Madras Chapter and Workshop on Robotics

IEEE Education Society (EdSoc) provides aid in promoting close cooperation and exchange of technical information among student members and faculty on advanced technologies. The IEEE Education Society Madras Chapter along with the KCT IEEE SB and IEEE GOLD Affinity Group Madras Section organized a one day hands-on workshop on Robotics at Kumaraguru College of Technology Coimbatore on 31st Aug 2013. The one-day program was conducted in two sessions, one as the inauguration of Madras IEEE Education Society Chapter and another as the workshop on Robotics.

Inauguration of IEEE EdSoc: The day started with a guest lecture by Dr. V. Dhakshinamurthy, President of the International School of Engineering, Hyderabad. His talk on Engineering Skills was well received by the participants. Dr. R.S. Kumar, Principal, KCT welcomed the gathering. The Joint Correspondent of KCT Sri Shankar Vanavarayar felicitated the gathering by pointing out the skill gaps that are to be filled to make the students employable and explained how workshops and certification courses will enhance their knowledge. Dr. Ramalatha Marimuthu, Chair of IEEE WIE Affinity Group, Madras Section and HoD/IT, KCT explained about the IEEE Education Society and the chief guest briefed about how to develop a bigger picture in machine learning education. Prof. John Moses, Chair of IEEE EdSoc proposed the vote of thanks.

Workshop: The workshop was conducted in two sessions - one on theory and another on hands-on training. The trainers, Ms. Sowmya Reddy and Ms. Akila from Associate Track Executives provided the basics on the robotics concepts and details about the hands-on session. Later in the afternoon session, the students were taught how to build a robot and make it run with the help of switches and chassis. They also brought a line following robot and explained the programmability of the robots.

Around 50 students from various colleges including Maharaja Engineering College, EBET group of institutions, St. Xaviers Catholic College of Engineering and Kumaraguru College of Technology attended the workshop. The feedback from the participants was very positive and many of the students asked for a continuation of the workshop with advanced robot kits.

IEEE Control System Society, Madras Chapter: Technical Lecture on "Wireless Monitoring & Control in Process Industries"

IEEE Control System Society, Madras Chapter, ISA South India Section and IEEE Madras Section Jointly organized a Technical Lecture on "Wireless Monitoring & Control in Process Industries" on 23rd Aug 2013.

Dr. Hemamalini, Chair, Technical Meet, IEEE Madras Section welcomed the participants. Dr. R. Hariprakash, Secretary IEEE Control System Society introduced the speaker Mr. D. Sundarasekaran, General Manager (Plant), Madras Fertilizer Limited, Chennai.

Mr. D. Sundarasekaran started his presentation touching the basics of wireless technology followed by developments in process industries from analog, HART Technology, Field Bus, Wireless

Communications etc., He then emphasized the importance of wireless over wired communication with illustrative examples. He also briefed the participants on the spread spectrum communication, boilers, reactors and the technology used to measure variables in them. The speaker presented the day-to- day problems being faced in plant operations and the solutions to overcome them. The speaker also shared his experiences in the Methanol plant, in Iran which received great attention among the participants. He concluded with highlighting the importance of Wireless network, Air Pollution in process industries and lauded the innovation of making measurement of variables simple; direct to the control room that is about 127 meters or more, from the ground level. In the interactive Q&A session, the speaker replied to queries and stated that there is lot of scope for design engineers in process industries and the students can take up design projects. The meeting attended by about 80 participants came to an end with vote of thanks by Dr. Ranganathan Muthu, President ISA South India Section.

Report by: Dr. R. Hariprakash, rhp_27@ieee.org

SASTRA University: IEEE International Conference on "The Changing Paradigms of Technology and Strategic Management"

SASTRA University, Thanjavur, had organized the IEEE International Conference on "The Changing Paradigms of Technology and Strategic Management" with technical support from IEEE, Madras Section and IEEE TMC Madras Chapter on 30th and 31st August, 2013. Shri L.R.K. Krishnan, Sr. Vice President and Corporate Head (T&D), Reliance Communications Ltd inaugurated the conf. and highlighted the importance of technology and management convergence for global reach by the corporates. Shri T.S. Rangarajan, Chairman, IEEE Madras Section, in his keynote address recalled a research paper on economics and statistics published in 1957, which indicated that 88% of the increase in the standard of living was due to developments in technology. Earlier, Dr. S. Vaidhyasubramaniam, Dean (Planning and Development), SASTRA University introduced the theme of the conference and distinguished operational efficiency and strategy. Dr.V. Badrinath, Dean, School of Management and the conference chair welcomed the gathering.

The plenary session of the conference was chaired by Shri K.V. Rupchand, Chair, IEEE TMC Madras Chapter. The speakers were: Dr. R. Bhaskaran, CEO, Indian Institute of Banking and Finance, Mumbai, Shri Ramesh Krishnan, General Manager-Treasury, Karur Vysya Bank, Karur, Shri S. L. Narasimhan, Director – Regional Head of Talent Acquisition, State Street Asia Limited, Hong Kong and Shri C. Mahalingam, Executive Coach and HR Advisor to Corporate Houses, Bangalore. The speakers enlightened the delegates on the recent trends in Technology, Banking, Forex, Financial Services and Human Resource Management.   The first day events came to a close with a technical session on Human Resource Management chaired by Dr. L.R.K. Krishnan and Shri C. Mahalingam.

The second day started with a plenary session on Technology and Marketing. Dr. T.V. Krishnan, Professor, National University of Singapore, Shri K.V. Rupchand. Dr. Venkataramanan Sankararaman, Associate Dean, School of Information Systems, Singapore Management University and Dr. S. Sundar, Professor, Bharathidasan Institute of Management, Trichy spoke at the session. Dr. T.V. Krishnan narrated how technology is used in practical life in Singapore. Dr. Venkataramanan Sankararaman discussed about the recent trends in IT applications. Dr. S. Sundar gave examples of innovative marketing by Indian companies.

There were two parallel technical sessions -- one on Technology and the other on Marketing in the forenoon. In the afternoon, the session on Finance and Strategy was conducted with Shri R. Senthil Kumar, Associate Vice President, South India, Bajaj Capital Insurance Broking Limited, Chennai and Shri S. L. Narasimhan as Technical Chairs. The last session on the Changing Paradigms of Technology and Strategic Management was the valedictory session was presided over by Shri N. Prasad Menon, Director- HR, McAfee Software India, Bangalore. He emphasized about coping up with Change Management. Dr. A.K.S. Sukumaran, Professor, School of Management and the convener of the conference proposed vote of thanks.

Report by: Dr. A.K.S. Sukumaran, icpsm2013@sastra.ac.in

Thangavelu Engineering College: Workshop on Robotics And Embedded Systems

A two day workshop on robotics and embedded systems was organized by the IEEE SB in association with EPR Labs on 6th and 7th Sep 2013. The workshop was inaugurated by lighting the kuthuvilaku by Mr.Purushothaman, founder of EPR Labs which was followed by a technical talk about robotics and embedded systems.

Participants from various IEEE SB groups such as Sathyabama University, SRR Engineering College, Sree Sastha Institute of Engineering & Technology, Sri Venkateshwara College of Engineering, Anna University CEG, Jeppiaar Engineering College, Meenakshi Sundararajan Engineering College, MNM Jain Engineering College, Jerusalem College of Engineering, Asan Memorial College of Engineering and Technology, TJ Institute of Technology and Thangavelu Engineering College actively participated in the workshop. The practical hands-on-training kit was provided to each team individually during the workshop. Well trained professionals from EPR Labs mentored the participants. At the end of the workshop, participation certificates were provided to all the participants.

VIT University Chennai Campus: Inauguration of IEEE Power Electronics Society SB chapter and Technical Talk

The Inaugural meeting cum technical talk of the student chapter of the IEEE Power Electronics Society was held on 29th Aug 2013. There were 65 attendees including 21 IEEE members.

Dr. Sreedevi V. T., Faculty advisor welcomed the gathering. Mr. Sajin M , Chairman of student chapter, introduced the office bearers and briefed on the activity plan for the future.

Mr. T. S. Rangarajan, Chairman, IEEE Madras Chapter, inaugurated the PES SB chapter and addressed the student on how to use power electronics for the benefit of common man and effective utilization of renewable energy resources by explaining various case studies. The inaugural address was followed by an invited technical talk by Dr. K. Selva Jyothi, Asst. Prof, IIIT D&M, Kanchipuram, on "Applying FPGAs in Power Electronics".

Kathir College of Engineering: Robotics workshop "ACCELEROBOTIX"

A two days robotics workshop "ACCELEROBOTIX" was conducted on 20th & 31st Aug 2013 in association with Technophilia Systems, Mumbai which had selected the institution as a zonal centre for International Robotics competition and workshop series. Technophilia systems represent India at ROBO GAMES, USA, the worlds largest Robot Competition, according to Guinness Book of Records.

About 75 students from different disciplines and from various technical institutions participated. A group of 4 students were provided with a robot kit. At the inaugural session, Dr. P. Vijayakumar, Vice Principal stressed upon the importance of Robotics in the present world and the role of various departments of engineering in the existence of a Robot.

Mr.Amey Bhophi, from Technophilia Systems handled the sessions and provided hands on training to the participants. Subsequently, the zonal level competition was conducted in the final session of the second day. Three teams of students were selected and were provided with Certificate of Merit and an invite to participate in the National level Robotic Competition to be held during March 2014at IIT Bombay.

Pune Section

PICT: Credenz '13

'CREDENZ' is an awe-inspiring event and is regarded as one of the most inspiring national level technical events, which gives a platform to engineering students. Every year 'CREDENZ' has participants from some of the finest colleges from inside and outside the state of Maharashtra.

CREDENZ '13 came with the slogan 'Beyond Conventionality'. This three day symposium was a cluster of various events, seminars and workshop. Such events would provide an opportunity for students to present their talents, and to interact with senior and junior members and enhance their abilities. Thus, it will also give us an opportunity for the betterment of our managing and organizing skills as well as gain knowledge about the leading trends in our fields.

The event was backed by the IT industry. Some of the corporate houses who extended active support include BMC Software, Q Technologic, SSK Infotech, Pune Diary.com, Campus Component, T.I.M.E., Soft Corner, Virscent.

The event was organized by the IEEE SB of PICT with the support of IEEE Pune Section.

Credenz '13 had participants not only from India but also from foreign countries like Romania, Tokyo, United States of America, and Australia. Due to the co-operation of the students and encouragement of various industry professionals, we could achieve the following spectacular feats:

No. of Colleges: 170+
No. of Participants: 5,500+
Prize Money: Rs. 5, 75,000+

Registrations for On Campus Events:

Sr. No.	Event	Description	No. of Registrations
1	Paper Presentation	Technical Paper Presentation	220
2	Clash	C/C++ coding competition	900+
3	B plan	Business idea presentation competition	65
4	M.A.D. Talks	Presentation of an abstract idea	85
5	Pixelate	Digital poster making competition	52
6	Web weaver	Website development competition	62
7	Quiz	G.K. Quiz competition	650+
8	Roboliga	Robot football tournament	50+
9	Work shop – Robotics		216
10	Workshop – 3-D Game development		64
11	S/w Development		7

Registrations for Online Events:

Sr. No.	Events	Description	No. of Registrations
1	Network Treasure Hunt	Online treasure hunt	1200+
2	XO-dia	AI bot making competition	15+
3	Croodle	Credenz doodle making competition	9

Overall the event was a grand success and the entire PICT IEEE SB had a memorable time organizing such a wonderful event. More info at www.pictieee.org & www.credenz.info

IT in August 2013

Prof. S. Sadagopan
Director, IIIT-Bangalore
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General

- Bangalore in the "Top 8 Tech Clusters in the world" (MIT Tech Review August 2013); also in the "Top 10 Startup places globally" (Startup Genome's Startup Ecosystem Report 2012)
- India launched the 40,000 tons indigenously built aircraft carrier INS Vikrant on August 12; India's indigenous nuclear-powered submarine INS Arihant – got its locally built nuclear reactor commissioned on August 10, paving the way for the submarine to join the forces (after due trials) by 2015
- In addition to economic turmoil (details in Market section) there was negative sentiment all over the country; Indian Parliament passes the new Companies Bill - a modern bill that replaces 50-year old Companies Bill on August 19; Food Security Bill on August 26 that is likely to lead to disastrous economic management and Land Acquisition Bill on August 29 that will make industrial growth a very big challenge; also, the Union Cabinet decides to keep political parties out of Right to Information (RTI) and to appeal against Supreme Court judgment that stopped leaders with criminal record from contesting Parliamentary Elections; UP government unfairly punishing young IAS Officer Durga Nagpal gets national attention throughout August 2013; Telengana issue keeps Andhra Pradesh in boil for much of August 2013
- There were a series of accidents too; Indian Navy submarine INS Sindhurakshak meets with an accident killing five Navy men on August 15; August 19 train accident in Bihar mows down 37 people; globally, Egypt crisis on August 15 saw 600+ people getting killed; US Intelligence feels Syria uses chemical weapons that leave thousands dead on August 21; there was even a talk of "attack" on Syria by Allied Forces by August 31

Technology

- ISRO GSLV held back just an hour before takeoff on August 19 due to leakage; Indian maiden military satellite launched on August 30

Markets

- There was bloodbath in the markets, particularly in India; India Inc. Q1 sales shrink for the first time in four years; Rupee tumbled, crossing Rs 63 to 1 USD on August 19; 64 on August 20;… and 68 on August 28; losing nearly 20% in 3 months! Black Friday on August 16 saw Indian markets witnessing the highest fall in four years; Sensex lost 769 points; Panic stricken government orders capital control but quickly retracts
- Baring Private Equity Partner announced its decision to acquire majority stake in Hexaware - Tier II Indian IT Services major - for USD 420 million on August 28
- Globally, Apple stock price touched 500 on August 15, the highest in the past seven months; Amazon founder Jeff Bezos buys Washington Post for $ 260 million on Aug 6

Products

- Google launched Moto X smart phone on August 1
- Google launched "Hindi hand-writing recognition engine" on August 21
- Nokia Lumia 625, 925 models were launched in India on Aug 22

Indian IT companies

- Lexity - started by India-born Amit Kumar – was acquired by Yahoo on August 1
- TCS announces its plan to invest Rs 500 crores in Indore campus on August 10
- Wipro wins $ 100 m contract from USA on August 27
- Tata Steel to supply 60,000 tonnes of steel rail to connect the holy cities of Mecca and Medina in Saudi Arabia (to be completed by 2015)

MNC Companies in India
- Xerox Research started their Bangalore operations on August 27
- Samsung builds support for nine Indian languages (Hindi, Punjabi, Bengali, Tamil, Gujarati, Marathi, Telugu, Kannada and Malayalam) in all its Galaxy range of phones / tablets from August 2013

Education & Research
- Indian Government HRD Ministry launches free online library of course materials National Repository of Open Educational Resources (NROER) project (nroer.gov.in) on August 13

Telecom
- Tata DoCoMo starts Tablets bundled with broadband plans in August 2013

Applications
- Google in Hindi launched in August 2013
- EPFO (Employees Provident Fund Online) that serves nearly 6.16 crores (61.6 million) employees employed by 7 Lakhs (0.7 million) establishments in the organized sector to start the "online passbook scheme" in August 2013

People
- India gets a new Foreign Secretary Mrs. Sujatha Singh on August 1
- Mrs. Arundhati Bhattacharya is the Managing Director of SBI (State Bank of India) (SBI) - the largest public sector bank with over 15,000 branches) from August 4; interestingly, she is the first woman MD of SBI!
- Renowned Economist (Univ. of Chicago Economics Professor) Dr. Raghuram Rajan appointed as 23rd Reserve Bank of India (India's Central Bank) Governor on August 5 (term starts September 5, 2013), with the status of Officer on Special Duty during the transition period (August 5 to September 5, 2013)
- Ratan Tata and Anil Ambani appear in Supreme Court in connection with 2G scam, a first of its kind in the Indian corporate history
- Xerox CEO Ursula Burns visits India to launch Xerox R & D facility in Bangalore in August 2013
- Forging pioneer N Kalyani (father of Baba Kalyani) and founder of $ 2.5 Billion Kalyani group, passed away on August 25
- Wanted terrorist and IM Founder Yasin Bhatkal was nabbed on August 25

Globally,
- Steve Ballmer announces his decision to quit as Microsoft CEO in a year on August 25
- Snowden gets asylum in Russia finally on August 1

Some interesting numbers
- Telecom subscriber base on May 31, 2013 stood at 900.05 million with 870.20 million mobile subscribers and 29.85 million wire-line subscribers (with net addition of 3.18 million mobile subscribers and net reduction of 0.14 million wire-line subscribers in May 2013) (TRAI Press Release No. 60/2013 dated August 18, 2013)
- India's Foreign Exchange on August 23 at $ 277.72 billion (RBI)
- Indian Rupee stood at 65.71 against USD on Aug 2 (RBI)
- BSE Sensex and NSE NIFTY 50 (India's stock market indices) on August 31 stood at 18,620 and 5,472 (Reuters)
- Hero Motors rolls out its 50 millionth two wheeler on August 8
- Facebook users in India touch 82 million by June 2013
- State Bank of India (SBI) gets its 15,000th branch inaugurated on August 29
- Hindi Movie Chennai Express launched on August 8 makes history - Rs 100 Crores collection in 3 days, the highest ever for any Indian film, viewed in 3,700 screens on Day 2 & 3 and by month end its collections cross Rs 206 crores, setting a new record in Bollywood film industry

Information Resources

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Book: Maintaining Mission Critical Systems in a 24/7 Environment (2011): Author: Curtis, P. Publisher: Wiley-IEEE Press. Topics: Communication, Networking & Broadcasting ; Components, Circuits, Devices & Systems ; Computing & Processing (Hardware/Software) ; Power, Energy, & Industry Applications ; Signal Processing & Analysis. An imperative, all-inclusive guide to designing, operating, and maintaining mission critical equipment and systems. This proven guide offers a comprehensive study of the fundamentals of mission critical systems, which are designed to maintain ultra-high reliability, availability, and resiliency of electrical, mechanical, and digital systems and eliminate costly downtime. With an emphasis on clean energy and energy security, this Second Edition offers insight into the mission critical environment, featuring the industry improvements, standards, and techniques prevalent today. The author draws upon decades of experience in mission critical facilities engineering, offering recommendations for maintaining essential operations based on his firsthand knowledge of what does and does not work. Practical in focus, the text helps readers configure and customize their designs to correspond to their organizations' unique needs and risk tolerance. Most chapters in this text concentrate on an individual component of the mission critical system, including standby generators; automatic transfer switches; uninterruptible power supplies; fuel, fire, and battery systems; energy security; and data center cooling, along with other common challenges facing industry engineers. For each component, the author sets forth applications, available models, design choices, standard operating procedures, emergency action plans, maintenance procedures, and applicable codes and standards. This new edition emphasizes green technologies and certifications, illustrating alternative strategies for generating power in a cleaner, more efficient manner while maintaining business reliability and resiliency. New chapters on energy security and integrating clean energy into mission critical applications have be en added. A description of the U.S. energy infrastructure's dependency on oil in relation to energy security in the mission critical industry is discussed. In addition, extensive photographs and diagrams illustrate how individual components and integrated systems work, and the author highlights measures that are mandated by policy and regulation.In today's global digital economy and 24/7 business operations, mission critical systems are at the forefront of concerns among both private and public operations. Architects, property managers, facility managers, building engineers, information technology professionals, data center personnel, and electrical and mechanical technicians will consult this text regularly to ensure the protection of operations and to reduce human error, equipment failures, and other critical events. This guide is also an ideal textbook for students in undergraduate, graduate, or continuing education programs. IEEE members can access this book free at http://ieeexplore.ieee.org/xpl/bkabstractplus.jsp?bkn=6047593

Technology for good: Innovative use of technology by charities: This report covers innovative use of technology in charity and development and showcases how charity organizations utilize technology in the field and in their day-to-day operations. The top ten technologies selected are:

- Mobile technology: Mobile devices that range from low-end talk and text phones to smartphones or tablets.
- Tracking technology: GPS or other monitoring systems that track people and goods.
- Mapping technology: Tools that organize geographic data and feed data sets into a digital map.
- Social media and crowdsourcing: Data collection through open-sources.
- Data management technologies: Tools for processing large amounts of data or improving administrative functions.
- Radio/TV: New uses of these two important mass communication mediums in the developing world.
- Translation Tools: Quick or immediate translations using a combination of technology and crowdsourcing.
- Cloud Technology: Computing that allows access to software and information via the Internet instead of a hard drive or computer network.
- Portable Networks: Moveable devices that can create instant Internet connectivity or telecommunication networks.
- Drone Technology: Unmanned aerial vehicles used to leapfrog infrastructural deficits.

Pl. visit https://register.theguardian.com/global-development/ to register and download this free report.

Information shared by: Dr. San Murugesan

An Engineering Career: Only a Young Person's Game?: If you are an engineer (or a computer professional, for that matter), the danger of becoming technologically obsolete is an ever-growing risk. To be an engineer is to accept the fact that at some future time—always sooner than one expects—most of the technical knowledge you once worked hard to master will be obsolete. Read the full article at http://spectrum.ieee.org/riskfactor/computing/it/an-engineering-career-only-a-young-persons-game/

Energy Conservation: Critical to the Survival of Civilization: This white paper at http://pages.knovel.com/rs/knovel/images/Knovel_Energy_Conservation_Critical_to_the_Survival_of_Civilization1082013.pdf will get you thinking about why energy conservation is so critical and how to accomplish energy savings by tackling the most fruitful opportunities first. After reading it you will understand where the prime targets for energy conservation exist and the four steps you need for successful energy management.

Wikibook: Data Science: An Introduction: This Wikibook at http://en.wikibooks.org/wiki/Data_Science:_An_Introduction is a very basic introduction to data science. It is designed for the advanced high school student or average college freshman with a high school-level understanding of math, science, word processing and spreadsheets. No understanding of computer science is assumed. The main emphasis of this book to help students think about the world in data science terms. While some elementary data science skills will be taught, the point is not skill development, but rather critical thinking and problem solving development. These are skills that can be successfully applied to all phases of life, not just data science.

IT students miss out on roles due to lack of creativity: IT graduates fail to land top jobs due to a lack of creativity, employment firm Connections Recruitment has suggested. According to the recruitment specialist the UK currently produces 30,520 computer science graduates each year, but almost a quarter of these settle for non-graduate or unskilled roles after university. Jonathan Dobkin, director at Connections Recruitment, said: "With IT companies receiving an average of 73 applications for each graduate vacancy, it's clear college leavers need to make more use of the skills they should excel at such as creative problem solving and technology in order to stand out from the crowd. Read the full blog post at http://www.computerweekly.com/blogs/itworks/2013/04/it-students-miss-out-on-roles.html

Making the Right Decision When "Going Wireless": Anaren Integrated Radio (AIR) team member, Geof Cohler, walks through the key considerations engineers have to make when implementing a wireless product. Topics touched include: wired vs. wireless; trade-offs between range, frequency, power, and latency; which wireless protocol to choose; and making your own RF solution vs. using an RF module. Watch this 15 min video presentation at http://video.techbriefs.com/video/Making-the-Right-Decision-When;RF-Microwave-Electronics

Printable Robots Designed to be Inexpensive & Consumer-Friendly: A project funded by the National Science Foundation's Expeditions in Computing Program envisions a future in which 3D robotic systems can be produced and designed using 2D desktop technology fabrication methods. MIT Professor Daniela Rus is the project leader, and also the director of the Computer Science and Artificial Intelligence Laboratory (CSAIL) - the largest interdepartmental laboratory at MIT and one of the world's most important centers of computer science and information technology research. "This research envisions a whole new way of thinking about the design and manufacturing of robots, and could have a profound impact on society," says Rus. "We believe that it has the potential to transform manufacturing and to democratize access to robots.". Watch this 3 min video presentation at http://video.techbriefs.com/video/Science-Nation-Printable-Robots

Finding the Strongest Shapes with 3D Printing: Heinrich Jaeger, a professor at the University of Chicago, and his research group examine materials and phenomena that appear simple at the surface, but which reveal great complexity upon close examination. One such phenomenon is jamming, in which aggregates of randomly placed particles transition from fluid-like to solid-like behavior. Jamming lends itself especially to soft robotics. Jaeger and graduate student Marc Miskin have used computer simulations and experiments to analyze how the properties of a jammed material can be tuned by changing the shape of the constituent particles. Miskin employed a computer algorithm and once an optimal shape was identified, he manufactured a large number of copies with the lab's 3D printer for testing in a viselike squeezing apparatus. Watch this 4 min video at http://video.techbriefs.com/video/Finding-the-strongest-shapes-wi

TED Video: Innovating to zero!: At TED2010, Bill Gates unveils his vision for the world's energy future, describing the need for "miracles" to avoid planetary catastrophe and explaining why he's backing a dramatically different type of nuclear reactor. The necessary goal? Zero carbon emissions globally by 2050. Watch this 28 min TED video at http://www.ted.com/talks/bill_gates.html

TED Video: Build a School in the Cloud: Onstage at TED2013, Sugata Mitra makes his bold TED Prize wish: Help me design the School in the Cloud, a learning lab in India, where children can explore and learn from each other -- using resources and mentoring from the cloud. Hear his inspiring vision for Self Organized Learning Environments (SOLE). Watch this 23 min TED video at http://www.ted.com/talks/sugata_mitra_build_a_school_in_the_cloud.html

Books

GPS Satellite Surveying: Author: Alfred Leick. Published by: Wiley India. Pages: 464. Price: Rs. 1095/=

Global Positioning Systems make use of orbiting satellites to make precise geodectic measurements. This rapidly growing technology has found widespread applications in the last ten years, including helping to revolutionize the accuracy and efficiency of surveying measurements and calculations. Written to help specialists get the most out of GPS surveying techniques and the resulting measurements, this standard industry reference and study text book provides the latest fundamental and cutting-edge material for working with GPS today. This volume offers presentation of procedures that apply to the Russian GLONASS, the forthcoming European GALILEO, and US GPS satellite systems. It also addresses emerging precise-point positioning technology as well the most current information on: Geodesic reference systems; GPS modernization; Least-square adjustments; Pseudo ranges and carrier phases; The troposphere and ionosphere; The LAMBDA technique; The ellipsoidal and conformal mapping models. More about the book at http://goo.gl/e5nB5P   (This book is being given as a prize to the TechQuiz Winners)

Nanoscience and Nanotechnology: Fundamentals to Frontiers: Authors: M.S. Ramachandra Rao & Shubra Singh. Published by: Wiley India. Pages: 388. Price: Rs. 449/=

Nanoscience and nanotechnology are evolving at a rapid pace and there have been a number of scientific and technological advancements in these fields in recent times. This book explains scientific foundations governing the functionality of nanostructures and makes the reader familiar with several basic and application aspects of nano-structured systems. It is designed as a course text book for the Physics, Materials Science, Nanoscience and Engineering streams in various core departments and nanotechnology centres and other related departments in universities, institutes and colleges. In addition, it can serve as a self-study book to postgraduate and research students. This book in ten chapters cover: The Science Behind Nanotechnology; Concepts of Solid-State Physics Relevant to Low-Dimensional Systems; Quantum Mechanics of Low-Dimensional Systems and Its Application to Nanoscience; Basic Aspects of Synthesis of Nanomaterials and Device Fabrication; Different Types of Nanostructures; Diffusion Kinetics; Nanostructured Thin Films and Nanocomposites; Nanoscale Characterization Techniques; Recent Advances in Nanotechnology; and New Trends in Nanoscience and Applications of Nanotechnology in Various Fields. Solved examples, Review questions, Multple choice questions reinforces the concepts. This book als presenta numerous references for further reading on the topics and also an appendix containing relevant laboratory experiments and useful tables. More about the book at http://goo.gl/2NqVon   (This book is being given as a prize to the TechQuiz Winners)

Squaring the Circle: Seven Steps to Indian Renaissance: Authors: APJ Abdul Kalam, Arun Tiwari. Published by: Universities Press. Pages: 304. Price: Rs. 295/=.

In this book, Dr Kalam calls for an Indian Renaissance, which he describes in seven steps involving the common people of the land, and in particular, the youth. He urges people to arise out of servitude to a vested ruling class, awake from the slumber of a passive democracy, and advance to manifest our destiny of a developed nation. He recommends that by turning inward and listening to the voice of our conscience, we can live a virtuous life and thereby build a strong and secure India. This book talks about making India strong through sustainable development systems for achieving energy security for small industry and food security for poor and marginalized and thereby achieving peace and prosperity of the nation. Through a series of dialogues, this inspirational book presents complex concepts in a simple way. Pl. visit: http://goo.gl/FkJpvh for more info.   (This book is being given as a prize to the TechQuiz Winners)

Probability, Statistics and Random Processes: Author: P. Kousalya. Published by: Pearson Education. Pages: 592. Price: Rs. 290/=

This book, designed to meet the requirements of engineering students of all disciplines to help them understand the concepts from the first principles. Spread across 16 chapters, it discusses the theoretical aspects that have been refined and updated to reflect the current developments in the subjects. It expounds on theoretical concepts that have immense practical applications, giving adequate proofs to establish significant theorems. The text covers: Probability; Random Variables (discrete and continuous); Mathematical Expectation; Standard Discrete Distributions; Standard Continuous Distributions; Sampling Theory & Distributions; Testing of Hypothesis (Large Samples); Testing of Hypothesis (Small samples); Estimation; Curve Fitting; Correlation; Regression; Queuing theory; Design of Experiments; Random Processes; and Advanced Random Processes. More on the book at http://goo.gl/2XiHD4 Readers of ICNL can get this book at 20% discount with free shipping. Contact: john.mathews@pearson.com   (This book is being given as a prize to the TechQuiz Winners)

TechQuiz – 2013-09

(Four Prizes to win – Books reviewed will be presented to the winners)

1. Identify the company whose tagline is "Keep Moving"
2. The terms ATF, LCC, and MRO are associated with which industry
3. Tiger Cloud is a private cloud service from ------
4. Firefox OS (or FxOS), built upon the Linux kernel is a mobile OS from ------Mozilla
5. Android 4.4, the next version of the Android mobile OS from Google has been named as -------

Email your answers by **20th Oct 2013** to ieee.techquiz@gmail.com **with subject "techquiz-2013-09".** Please provide your name, designation, company/institution, full postal address (to send the prize) and the contact phone nos. after the answers.

There are FOUR prizes to win. The prizes will be in the form of books which are briefly reviewed in this edition of the newsletter. They are being offered by **Wiley India Pvt. Ltd** (www.wileyindia.com), **Universities Press** (www.universitiespress.com), and **Pearson Education** (http://www.pearsoned.co.in). Answers along with the winners' info will be published in the next issue.

Answers & Winners of TechQuiz-2013-08

- MathWorks, Kirobo, Skype video chat/ Video Calling (Livestream), Mathematics, Bit – Nibble – Byte – Word

- The winners are: Ankit Jain (from Delhi), Jibin Sabu (from Ernakulum), Rakesh Panguloori (from Bangalore), Saswata Mukherjee (from Hooghly) and Kiran VK (from Coimbatore)

ANITA BORG INSTITUTE
GRACE HOPPER | INDIA
CELEBRATION OF WOMEN IN COMPUTING

STUDENT ONLY CAREER FAIR

Objective: To provide the student community with an opportunity of meeting the recruiters from top companies and obtaining jobs and internship opportunities.

Date: 14.11.2013

What Will a Student Get:
- The insight of what is actually happening in the real world of computing by participating in the live discussion.
- The perfect platform to express your novel ideas to the experts from your dream company and thus discovering the availability of jobs and internships.
- The opportunity to nurture your talents by interacting with your peers and the role models from the world of technology and computing.
- The chance to attend a thought provoking keynote address from a tech savvy core career professional

Hurry!
- Be sure to submit your resume to the Resume Database to be considered for internships and jobs at sponsor companies.
- The Student Only Career Fair is open to all aspiring students who are attending the conference. A limited number of passes are also available for career fair only – apply online to attend.
- For more information, please contact: http://gracehopper.org.in/2013/conference/student-only-career-fair/

Poster Sessions: The students are also encouraged to submit posters for the conference in one of the topics given. For complete details on the posters pl visit http://gracehopper.org.in/2013/participate/call-for-participation-poster-session/

IEEE India -- Forthcoming Events

- AISC-2013: The All India Student Congress 2013. October 3-6, 2013 at Amrita University, Coimbatore. More details at: http://www.ieeeaisc2013.org/index.php

- C²SPCA 2013: International Conference on Emerging Trends in Communication, Control, Signal Processing and Computing Applications. October 10-11, 2013 at Oxford College of Engineering, Bengaluru, India. Website: http://www.c2spca.com

- LCN-2013: The 38th Annual IEEE Conference on Local Computer Networks (LCN). October 21-24, 2013 at Citigate Central, Sydney, Australia. Paper registration: April 5, 2013. Website: http://www.ieeelcn.org

- CCEM-2013: IEEE International Conference on Cloud Computing for Emerging Markets. October 16-18, 2013 at Bangalore, India. Website: https://ewh.ieee.org/ieee/ccem/

- UTW-2013: International Workshop on Underwater Technology. October 21, 2013 at NIOT, Chennai. Contact: utw2013@niot.res.in Website: www.niot.res.in/utw2013

- SYMPOL-2013: International Symposium on Ocean Electronics. October 23-25, 2013 at Kochi, India. Contact: 1 Dr.P.R.S. Pillai, Email: prspillai@cusat.ac.in Mobile: +91 484 2576418 and Dr.M.H. Supriya, Email: supriya@cusat.ac.in Mobile: +91 484 2576418. Website: http://sympol.cusat.ac.in/

- IEEE CATCON 2013: IEEE International Conference on Condition Assessment Techniques in Electrical Systems December 6-8, 2013 at Jadavpur University, Kolkata, India. Last date for full paper submission: July 15, 2013. Contact: catcon2013@gmail.com   Tel: +91 33 2414 6949 , +91 98300 92189, +91 90511 64988. Website: www.catcon2013.org

- ACC 2013: Second International Conference on Advances in Cloud Computing. 19-20, Sep 2013 at Bangalore. Contact: Dr. Anirban Basu at abasu@pqrsoftware.com

- ICICN-2013: International Conference on computational Intelligence and Communication Networks. September 27-29, 2013 at GLA University Mathura. Last date for paper submission: April 30, 2013. Contact: GS Tomar. Email: gstomar@ieee.org Ph: 09425744460. Website: www.cicn.in

- ISGT ASIA – 2013: Innovative Smart Grid Technologies Conference. November 10-13, 2013 at Bangalore, India. Last date for paper submission: 20th June 2013. Contact: pesbangalorechapter@gmail.com Phone: +91-80-42455555. Website: http://ieee-isgt-2013.asia/

- CUBE 2013: Theme: "Cloud & Ubiquitous Computing & emerging Technologies". November 15-16, 2013 at MCCIA Trade Tower, Pune India. Last date for manuscript submission: June 15, 2013. Contact: Prof. Vidyasagar Potdar, General Chair, info@thecubeconf.com   or Prof. Rajesh Ingle, Program Chair, ingle@ieee.org (mobile: +91 9822 457390). Website: http://www.thecubeconf.com/academic/ Submission page: https://www.easychair.org/conferences/?conf=cube2013

- IMPACT-2013: International Conference on Multimedia, Signal Processing and Communication Technologies. November 23-25, 2013 at Dept. of Electronics Engineering, Aligarh Muslim University, Aligarh, India. Last date for paper submission: 31st May 2013. Contact: Prof. Ekram Khan, Ph: 09457110112, Email: ekhan67@gmail.com Website: http://www.electronics-amu.com/impact-2013.html

- ISED-2013: 4th International Symposium on Electronic System Design. December 12-13, 2013 at Nanyang Technological University, Singapore. Paper Submission Due on 31st May 2013. Website: http://ised.seedsnet.org/

- ICGCE-2013: International Conference on Green Computing, Communication and Conservation of Energy. December 12-14, 2013 at Chennai, India. Website: http://www.rmd.ac.in/icgce2013/

- INDICON 2013: Theme: "Impact of Engineering on Global Sustainability". December 13-15, 2013 at Victor Menezes Convention Centre, IIT Bombay, India. Last date for manuscript submission: Aug 15, 2013. Contact: Prof. Suryanarayana Doolla, Publication Chair, suryad@iitb.ac.in (mobile: +91 96190 46767) or Mr. Ashok Jagatia, General Chair, ashok@acevin.com   (mobile: +91 98212 42200). Website: http://www.indicon2013.org

- ANTS-2013: 2013 IEEE International Conference on Advanced Networks and Telecommuncations Systems. December 15-18, 2013 at SRM University, Chennai, India. Contact: hod.itce@ktr.srmuniv.ac.in

- ICSISPD-2013: Sustainable Innovation and Successful Product Development for a Turbulent Global Market. December 16-18, 2013 & Special Workshop on Doctoral Research. December 17, 2013 at Chennai, India. Last date for submission of abstracts: 15th May 2013. Contact: Prof. Dr. K.Chandrasekaran. Email: kesavan.chandrasekaran@gmail.com Website: http://icsispd2013.org/

- ICMIRA-2013: International Conference on Machine Intelligence Research and Advancement. December 21, 2013 at Shri Mata Vaishno Devi University, Katra, Jammu and Kashmir. Contact: Email: icmira@icmira.com Mobile: +91-9419165834, Website: www.icmira.com

- IEEE CONNECT-2014: IEEE International Conference on Electronics, Computing and Communication Technologies. January 6-7, 2014 at Indian Institute of Science, Bangalore, INDIA. Website: http://conecct.ieeebangalore.org

- ICSE-2014: 36th International Conference on Software Engineering. June 1-7, 2014 at Hyderabad International Convention Centre, Hyderabad. Deadline: June 15, 2013 for Mentoring program. Deadline: September 13, 2013 for Research papers. Deadline: January 14th, 2014 for Posters track. Website: http://2014.icse-conferences.org/

IEEE OU's organizing or supporting events, to get their events listed in the "Forthcoming Events" column in the IEEE India Council newsletter, may send the event details **THROUGH THE SECTION OFFICE BERAERS** by email to ieeeindiainfo@gmail.com **Pl. note that direct emails from the organisers will not be entertained.** This decision has been taken by India Council Execom to ensure that the events are authorized /approved by IEEE OUs.

Pl. provide the following details (to match the format of the listing)

Event name (short name: full name)
Dates of the event (month dates, year)
Place of the event (institute & city)
Deadline for call for papers (if any)
Contact details (name, phone, email id)
Website

We request the details be provided with the above information in the format in which the events are listed above.
For example,
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INDICON 2013: Theme: "Impact of Engineering on Global Sustainability". December 13-15, 2013 at Victor Menezes Convention Centre, IIT Bombay, India. Last date for manuscript submission: June 15, 2013. Contact: Prof. Suryanarayana Doolla, Publication Chair, suryad@iitb.ac.in (mobile: +91 96190 46767) or Mr. Ashok Jagatia, General Chair, ashok@acevin.com (mobile: +91 98212 42200). Website: http://www.indicon2013.org
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Please DO NOT send brochure files in pdf / jpg. The above details are adequate.

The 15 Invaluable Laws of Growth: Live Them and Reach Your Potential

1. Law of Intentionality: Growth does not just happen.
2. Law of Awareness: You must know yourself to grow yourself.
3. Law of the Mirror: You must see value in yourself to add value to yourself.
4. Law of Reflection: Learning to pause allows growth to catch up with you.
5. Law of Consistency: Motivation gets you going. Discipline keeps you growing.
6. Law of Environment: Growth thrives in conducive surroundings.
7. Law of Design: To maximize growth develop strategies.
8. Law of Pain: Good management of bad experiences leads to great growth.
9. Law of ladder: Character growth determines the height of your personal growth.
10. Law of the rubber band: Growth stops when you lose the tension of where you are and where you could be.
11. Law of tradeoffs: You have to give up to go up.
12. Law of Curiosity: Growth is stimulated is asking why.
13. Law of Modeling: It's hard to improve when you have no one but yourself to follow.
14. Law of expansion: Growth always increases your capacity.
15. Law of Contribution: Growing yourself enables you to grow others.

Announcements

IEEE India Council – Student Branches

The Student Branches page of the IEEE India Council website has been updated with list of student branches section wise as on 8th Aug 2013 at http://www.ewh.ieee.org/r10/india_council/student.html

Collaborative Learning

iEARN - International Education And Resource Network is a U.S govt's initiative. The NGO www.NaliniFoundation.org run by Mr. Narayen Ugar, a life senior member of IEEE is a facilitator for its Learning Circle program, in which an educational institution collaborates with a group of educational institutions in the world in a program in collaborative learning. Those interested, may pl. get in touch with Mr. Narayen Ugar at ugar_n@yahoo.com

Student Branch Online Reporting

Annual reporting of student branch officers and activities is vital for the continuous operation, and unbroken affinity with the Region / MGA. IEEE has made the reporting process very convenient with online reporting tools. Many benefits such as rebates will be directly derived from reporting. The document at http://www.slideshare.net/PrasanthEmy/ieee-student-branch-reporting-guidelines is a simple guide which will be helpful in online reporting. Please update your reports in vtools at your earliest and guidelines report officers aptly.

Contributions

IEEE India Info, the newsletter of the IEEE India Council welcomes contributions from Sections and members. The Section Chairs may pl. send brief reports on conferences, workshops and other major events held in the section along with info on news student & society branches added, honours & recognition to the members of the Section. Call for papers & participation in national & international conferences organized or supported by IEEE Sections or Societies are also welcome in the standard format. While sending the matter, pl. ensure that they are in MS WORD doc / rft format. Pl. avoid matter in pdf / jpg format. For guidelines on submitting matter pl. visit http://goo.gl/dzSIJ Pl. send the matter by email to ieeeindiainfo@gmail.com or before 7th of each month for getting published in the same month issue of the newsletter.

Acknowledgement

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Address for communication

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