

Vol. 8 No. 7 July 2013



Message from Chairman

Dear Members,

In the today's era of rapid growth, Information Technology is encompassing all walks of life all over the world. These technological developments have made the transition from paper to paperless transactions possible. We are now creating new standards of speed, efficiency, and accuracy in communication, which has become key tools for boosting innovations, creativity and increasing overall productivity. Computers are extensively used to store confidential data of political, social, economic or personal nature bringing immense benefit to the society. The rapid development of Internet and Computer technology globally has led to the growth of new forms of transnational crime especially Internet related. These crimes have virtually no boundaries and may affect any country across the globe. Thus, there is a need for awareness and enactment of necessary legislation in all countries for the prevention of computer related crime. On 2nd July 2013 the Government of India has announced the "National Cyber Security policy- 2013" (http://india.gov.in/national-cyber-security-policy-2013). On 13th July, Data Security Council of India had organized the 'Best Practices Meet' to discuss on the Cyber Security. I participated in the meet. A lot of issues and solutions were discussed in the meet. The "National Cyber Security policy- 2013" announced by the Government of India on 2nd July 2013 was also presented in the meet. This subject is of great importance to the IEEE community. But to my disappointment, the participation by the local IEEE members in the meet was the least. My appeal to all the IEEE Chapters and Sections in India is to ensure that the local IEEE Sections, Societies and Chapters are involved in such Meets or Conferences, whenever organized.

I am happy to inform you that The IEEE R10 Electronics & Communication Committee (ECC) is inviting proposals from IEEE Operational Units (Student Branches, Sections, Society Chapters and Affinity Groups) across Region 10 for projects which make the best use of latest Web and Social Media technologies. Funds will be provided from R10 ECC committee up to USD 500. If the proposal seeks for funds higher than USD 500, it should be supported with valid documents. Details can be had from Mr. Gowtham Prasad K N, IEEE R10 - Electronics & Communication Coordinator, gowthamk@ieee.org and the proposal should be sent to him on or before August 16th 2013.

IEEE Region 10 Electronic Communication Coordination Committee has undertaken the project "**IEEE R10 Digital Connect Survey**", a survey with the objectives to obtain feedback on IEEE VTools and best practices followed to successfully run their IEEE Operational Unit and to recognize the best Digital, Online & Social Media Communication Strategies followed in R10. The Survey Link is <u>www.ieeer10.org/survey</u>. This survey will act as a platform to share the brilliant ideas being followed across R10 and also get rewarded as the (1) Best Digitally Interactive Section - \$200, (2) Best Digitally Interactive Society Chapter - \$200 and (3) Best Digitally Interactive Affinity Group - \$200. The Deadline for filling the survey: **31**st **August 2013.** I encourage the Sections, Chapters, Societies and the Affinity Groups to participate in this survey.

The monthly membership development report issued on behalf of the IEEE Member & Geographic Activities Board shows that there is an increase of 3.7% in the total IEEE Membership in the world from April to May 2013, raising the membership strength from 353,885 to 366,889 and 3.6% increase in the Society Membership, raising the membership strength from 297,797 to 308,551. I wish 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. Similarly, the Section Chairs can obtain such details and discuss in their EC meetings, which will help to evolve plans to promote the Membership in the Section.

I am happy to know that 25 out of 35 proposals selected for the R10 WIE support fund 2013 are from India, selected based on the quality/impact of the activities proposed, distribution of Affinity Group and type of activities. My hearty congratulations to all the recipients and I wish the successful recipients to organize fruitful activities.

Thanks to Mr. Ramakrishna, IEEE R10 director- elect who has taken initiatives to finalize the GIEEE – IEEE India Section Agreement. The final version seems to be good. However, there may still be a concern in the minds of the Section Chairs that if the Sections have to get paid only on submission of vouchers and invoices for expenses incurred, every quarter at actual, how do they get their rebates paid in full as in the past or as is happening in the other sections in the world. I think that this can be overcome by the provision given in the Schedule-B as "If so required and on mutual consent, IEEE SECTION will also be entitled to request advance payment, which will be adjusted against the invoiced amount". Using this Clause the Sections can get their Rebates as Advance and settle the same later. However, this can be got clarified. As such, in my opinion, the Sections can agree to sign the Agreement.

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, M. Ponnavaikko ponnav@gmail.com



Message from Editor H.R. Mohan hrmohan.ieee@gmail.com Blog: http://infoforuse.blogspot.com

Dear readers,

The IC Chairman, in his message has shared his happiness and concerns on different items, which our members may note and act accordingly.

The article "3D Printing: A Game Changer" by Prof. San Murugesan of BRITE Professional Services and University of Western Sydney, Australia provides and intro to the new type of printing which lets one easily make almost anything, even those that were not feasible so far, and which is poised to transform many fields and our society. The 3D printing could inspire new designs and businesses and has huge implications.

The third article, in the series dealing with the skill development for engineering graduates by Mr. Ballav Sahoo, Co-Founder & CEO of Victory Mind Educare Services appears in this issue of the NL focusses on the skills needed to run the race of life in 21st Century which include: Employability skills; Transferable skills; and Technical or job specific skills.

In this issue under the column "News from Sections", our coverage is limited to the extent of few events for which the details came from Kerala, Madras and Mumbai Sections. We are not receiving reports from other Sections, though a no. of events are being held. Getting published in the ICNL gives visibility to the OUs (Sections, Student Branches and Society Chapters and Affinity Groups). Pl. send brief reports on major activities like conferences, FDPs, contest, etc., for publication in the NL as per the guidelines available at http://goo.gl/dzSIJ Similarly, we encourage the OUs to provide the details of the forthcoming events through the respective Section chairs for getting listed in the NL to get good response for the papers and delegates.

Madras Section has reported the inauguration of two society chapters -- Antennas and Propagation Society Electromagnetic Compatibility Society and distinguished guest lectures delivered at the inaugural event. Mumbai Section had organized a timely programme on "Renewable Energy and Energy Efficiency". Kerala Section has reported a major International Conference on Microelectronics, Communication and Renewable Energy which attracted over 550 papers.

"IT in June 2013" by Prof. S. Sadagopan, Director, IIIT-Bangalore provides an overview of major happenings in the country and around world along with interesting statistics. In the "Information Resources", we have featured interesting reports, technology trends, software, videos, software and free books that would be of use to our readers. We continue with the increased no. of books reviewed and the prizes offered for the TechQuiz winners.

The point to ponder -- Is teaching the last resort of the incompetent? - is the perception (which is true) of a prof. from IITM. Other items such as Tips to take control of your own destiny, How to leave a lasting impression, OpenStand - a global community that supports the modern paradigm for standards, and a no. of announcements – we feel would interest our readers. We request our readers to share interesting information they come across and also provide feedback, by emailing them to ieeeindiainfo@gmail.com

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3D Printing: A Game Changer



Professor San Murugesan BRITE Professional Services, Australia san1@internode.net



Three-dimensional (3D) printing lets you easily make almost anything, even those that were not feasible so far, and is poised to transform many fields and our society. 3D printing could inspire new designs and businesses and has huge implications.

* Underlined text embeds a hyperlink to further information.

Some technologies have huge potential and significant transformative power and receive intense interest than others. Three-dimensional (3D) printing is one such technology that is currently receiving growing attention and adoption. It is poised to transform manufacturing, new product development, prototyping, business processes, product lifecycle and service management and foster innovation several areas. It presents several new opportunities that we can embrace.

3D PRINTING

What is 3D printing? Does it refer to printing a "3D picture" that appears to be in three spacial dimensions when you look through special glasses or at different angles. No, it's not.

3D printing is a process of making a three-dimensional solid object from its digital model. A 3D printer creates, or fabricates, *real* 3D objects using an additive process where an object is created by laying down successive layers of material, one thin layer at a time until the object is completed (Figure 1). 3D printing is a popular name for 'additive manufacturing.' It's opposed to traditional subtractive manufacturing methodologies which rely on the removal of material by drilling, cutting, milling and other such operations.

Why then it's called "3D printing"? Perhaps because of the way some 3D printers make their fabrications -- by spouting out tiny volumes of materials through very small nozzles, like a popular ink jet printer. The "ink" in a 3D printer is, however, a material which is deposited in successive thin layers until a solid object emerges. The layers are defined by software -- a series of 'digital slices' of the required object derived from the object's model. The software drives

(controls) the 3D printer to construct the respective layers and the object.



Figure 1. Fab@home 3D Printer

In 1984, to make plastic prototypes of complex designs, Chuck Hull of 3D Systems Corporation in the US created the first 3D printer and since then 3D printing has progressively advanced. However, only in the last 2 or 3 years 3D printing has become popular as they have now become more capable and affordable and are able to work with a broader range of materials - such as glass, silicon, plastic, resin, ceramic powder, metal, simple chemicals, concrete, paper, chocolates and other edible materials. To harden and bind layers of material several techniques are used - techniques such as ultraviolet stereolithography, selective laser sintering, electron beam freeform fabrication and direct metal layer sintering. Depending on size and complexity of the object to be printed, capabilities of the printer and materials used time required to print an object can vary from a few minutes to a few days.

3D printing can make shapes impossible to achieve using the traditional "subtractive" manufacturing processes. It is excellent for making prototypes, customised objects and short production runs as there is no need to retool each time the specification changes -- all that needs be done is to alter

the software that controls the print mechanisms. A 3D printer lets you print objects on-demand, and using a 3D scanner it possible to scan an object and print a duplicate.

A wide spectrum of 3D printers - ranging from the huge professional-grade printers to amateur-grade printers – is currently available, and prices of printers have been reducing substantially. Low-cost 3D printers from <u>Printrbot</u>, <u>Makibox</u> and <u>others</u> are available at prices ranging from \Box 12,000 to 40,000. While industrial 3D scanners are expensive, you can use your smart <u>mobile phone or tablet computer as a scanner</u> with additional accessories.

The 3D printing finds applications in architecture, construction, industrial design, manufacturing, automotive, aerospace, defence, engineering, dental, medical, aged-care, biotech, fashion, footwear, jewellery, eyewear, education, food preparation and other fields.

FEATURES

3D printing is fascinating. It has several significant features that make it attractive compared to other fabrication and manufacturing techniques:

- Versatile. Using a single 3D printer you can make many different types or shapes of objects. Further, 3D printing removes the overhead associated with retooling traditional machines or re-training human machinists.
- **Reduced manufacturing complexity and cost**. With 3D printing, the process of fabricating complicated objects becomes relatively easier and less expensive. This will disrupt traditional manufacturing and prototyping.
- Less or no assembly required. 3D printing can form objects that contain already interlocked parts.
- Zero lead time. A 3D printer can print on-demand, when an object is needed. The capacity for on-the-spot manufacturing reduces the need for companies to stock inventory.
- Less waste. 3D printing results in less waste than the traditional subtractive manufacturing processes.
- **Supports a blend of materials.** 3D printers let you create an object using different materials.
- **Compact and portable**. Most 3D printers occupy small space and are easily portable.

These features make 3D printing attractive for several applications – new and traditional – and inspire new designs. **APPLICATIONS**

3D printing lets more people make innovative, hard-to-make things, besides traditional objects. Many new helpful products have been developed -- medical implants and devices, aerospace products, food items, energy-efficient 3D solar cells, bicycles, furniture, musical instruments, sailing vessels and more. The following presents a glimpse of 3D printing applications in a few different areas: 3D printers are increasingly used in medical care for making implants of jawbones, portions of skulls, ears and bones for dental work. A team of medical researchers from Belgium and the Netherlands has successfully <u>replaced the jaw</u> of an 83-year old woman with a 3-D printed model of her lower mandible. Surgeons <u>3D-print bones</u> to gain significant cost savings and minimize wait time. Last year, using a 3D printer, doctors at the University of Michigan in the US <u>printed a special custom airway</u> for a 20-month-old baby, surgically implanted and saved his life. The artificial airway was made using a CT scan of the baby's airways, which was then used to custom-fabricate an airway splint with the help of a polymer and a 3D printer. The splint is meant to reabsorb into the boy's body over three years as his windpipe remodels and grows healthily.

To help heal broken bones, a graduate student from Victoria University in New Zealand created a 3D-printed breathable, lightweight, recyclable and washable <u>Cortex cast</u> (Figure 2). This cast replaces the traditional solid, heavy plaster cast.



Figure 2. 3D-printed cast (Image courtesy: Jake Evill)

3D printing holds promise for bioprinting of human parts. Scientists in Scotland are closer to being able to create human tissue using a 3D printer, with stem cells as "ink." Boeing aerospace company has printed about 22,000 parts for their jet planes, both military and civilian. The US military has deployed <u>mobile 3D print laboratory</u> in Afghanistan to print prototypes and spare parts when required. Airbus wants to use a giant 3D printer to build a <u>full-size jetliner</u> by 2050.

3D printers are making adventures in <u>printing food</u>. NASA has recently contracted a company called <u>Made In Space</u> to develop the first-ever <u>3D printer for microgravity</u>, which it's planning to use on the International Space Station (ISS) and other future missions. NASA is funding development of a prototype <u>3D printer for food</u>, so astronauts can enjoy 3Dprinted pizza and food on Mars. Systems and Materials Research Corporation in the US showed NASA a demo of a food-based 3D printer making a chocolate pastry, and got a grant to build a complete prototype system.

Ford Motor Company, General Electric, Adidas, Logitech and several other companies are turning to industrial 3D printing for rapid prototyping, as well as for the production of products. Ford envisages a future where customers will be able to print their own replacement parts -- a customer could log onto the Web, scan a bar code or print up an order, take it to a local 3D printer, and have the part in hours or minutes.

The production of the full-size building is expected to be done on a 3D printer called the <u>D-Shape</u>. The D-Shape uses a stereolithography printing process with sand and a binding agent and lets builders create structures that are strong like concrete.

3D solar cells made by 3D printing process are more efficient, less complex and cheaper and can also capture more sunlight than conventional photovoltaic (PV) cells.

Jewellery, football boots designed for individual feet, grandfather clock, complex lampshades, racing-car parts, solid-state batteries and customised mobile phones are some of the other parts made by 3D printing.

You can build even a 3D printer with a 3D printer. <u>RepRap</u> is an open source desktop 3D printer capable of printing plastic objects, and many parts of RepRap are made from plastic. As it can print those parts, it can self-replicate by making a kit of itself - a kit that anyone can assemble. So, if you've got a RepRap printer, you can print another 3D printer.

3D printing has gone far beyond making plastic prototypes to making production runs of actual objects. According to a research firm specialising in this area, more than 20 percent of the output of 3D printers is now final products rather than prototypes, and this expected to rise to 50 percent by 2020.

Several <u>case studies</u> outline how several industries have embraced 3D printing studies and highlight the resulting benefits.

3D printing studios (production centres) are beginning to emerge where you can get objects made from the software 3D models that you provide -- in a memory stick or on a CD, or upload to the printing studio's web site --, like you get your photos printed in a photo studio. The studio can also print objects from downloadable models available online, some of which are free and open-sourced.

3D PRINTING IN EDUCATION AND RESEARCH

3D printing <u>empowers students</u> in schools, colleges and universities. It helps enhance student learning and understanding as they get to see and test their ideas in real space. For researchers, 3D Printing breaks barriers and opens up vast opportunities for discovery and innovation. Students and researchers in several universities are already <u>embracing 3D printing</u> for education and research.

IMPLICTATIONS

The implications of 3D printing are huge, varied and significant. Driven by the promises of 3D printing, a new industrial revolution is on the horizon transforming manufacturing and heralding new generation of entrepreneurs and enterprises. Some of major potential nearterm implications are:

 Manufacturing will be liberated from the tyrannies of economies of scale, enabling businesses to run small batches and make custom-made products on demand.

- Large factories and global supply chains will shrink; local manufacturing (printing) will grow. You may get products and spare parts printed locally.
- Inexpensive 3-D printers aimed at innovators and home users will foster user-driven and crowd-sourced innovations. Individuals are sharing designs for 3D printing at sites such as <u>Thingiverse</u> and <u>Fab@Home</u>.
- Users will derive benefits from having custom-made products.
- 3D printing could help create things that advance socioeconomic development including low-cost medical devices and foster rural employment through new small scale and cottage industries. For instance, Michigan Tech University in the US has announced a <u>contest</u> (to anyone in the United States or Canada) to design 3D printable products for that advance the cause of peace and socioeconomic development. To come up with ideas, it suggests: "ask yourself what Mother Theresa, Martin Luther King, or [Mahatma] Gandhi would make if they'd had access to 3D printing."
- Intellectual property, copyright, trademark and licensing laws will once again need to be redefined.
- The nexus between 'digital world' and 'printed world' will become closer, stronger and fruitful.

However, while we to begin recognize its transformative power, 3D printing raises a few valid concerns.

CONCERNS

A major concern is the illicit use of 3D printers to fabricate guns, weapons, keys for unauthorised use, fake drugs, counterfeit parts and other such items that are detrimental to businesses and the society. Other concerns are intellectual property (IP) and copyright infringement and quality issues.

OUTLOOK

3D printing is a new digital revolution in fabrication. It is a reality now. The cost 3D printers are coming down making them available to innovators with even small budget. Just as the Web democratized innovation in bits, 3D printers is democratizing innovation in atoms (Chris Anderson, *Makers: The New Industrial Revolution)*. 3D printing promises to revolutionize many fields and fundamentally change our lives (*Fabricated: The New World of 3D Printing*, Wiley, 2013).

Further advances in 3D printing are on the horizon. The upcoming Microsoft Windows 8.1 will feature native support for 3D printers and scanners, like for conventional printers and scanners, bringing 3D printing easier and closer to the masses.

What's next? 4D printing! The 4Ds could be three spacial dimensions and time dimension. For instance, an engineer at the Massachusetts Institute of Technology, Skylar Tibbits, is working on 4D printing -- printing objects that change and exhibit different characteristics over time (listen to his <u>TED</u> talk outlining his motivation and ideas).

Like the industrial revolution, the information and communication revolution brought out by computes, the Internet, mobile phones and the social media, 3D Printing is – and will be - a game changer.

Whether you are an engineer, a designer, an inventor, business executive, an entrepreneur planning new products or services, or someone who loves create helpful products and services, think how you can harness the promise of 3D printing for good.

Share Your Thoughts on 3D Printing

What would you create if you had a 3D printer? How 3D printing could help advance the cause of socioeconomic development in India? How it could transform education and training and help advance student projects? What are key challenges and real concerns with 3D printing? Will 3D printing change the world?

Share your ideas and thoughts, and join the discussion at:

in or send an email 🗭

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OpenStand

OpenStand is a global community that stands together in support of The Modern Paradigm for Standards – an open, collective movement to radically improve the way people around the globe develop, deploy and embrace technologies for the benefit of humanity. The OpenStand principles are based on the effective and efficient standardization processes that have made the Internet and Web the premiere platforms for innovation and borderless commerce and are extendable to other technologies. The principles stress voluntary adoption and empower the economies of global markets — fueled by technological innovation — to drive global standards deployment. The result is The Modern Paradigm for Standards.

The Modern Paradigm for Standards is shaped by adherence to the following five principles:

1. Cooperation: Respectful cooperation between standards organizations, whereby each respects the autonomy, integrity, processes, and intellectual property rules of the others.

2. Adherence to Principles: Adherence to the five fundamental principles of standards development:

- **Due process.** Decisions are made with equity and fairness among participants. No one party dominates or guides standards development. Standards processes are transparent and opportunities exist to appeal decisions. Processes for periodic standards review and updating are well defined.
- **Broad consensus.** Processes allow for all views to be considered and addressed, such that agreement can be found across a range of interests.
- **Transparency.** Standards organizations provide advance public notice of proposed standards development activities, the scope of work to be undertaken, and conditions for participation. Easily accessible records of decisions and the materials used in reaching those decisions are provided. Public comment periods are provided before final standards approval and adoption.
- Balance. Standards activities are not exclusively dominated by any particular person, company or interest group.
- Openness. Standards processes are open to all interested and informed parties.

3. Collective Empowerment: Commitment by affirming standards organizations and their participants to collective empowerment by striving for standards that:

- are chosen and defined based on technical merit, as judged by the contributed expertise of each participant;
- provide global interoperability, scalability, stability, and resiliency;
- enable global competition;
- serve as building blocks for further innovation; and
- contribute to the creation of global communities, benefiting humanity.

4. Availability: Standards specifications are made accessible to all for implementation and deployment. Affirming standards organizations have defined procedures to develop specifications that can be implemented under fair terms. Given market diversity, fair terms may vary from royalty-free to fair, reasonable, and non-discriminatory terms (FRAND).

5. Voluntary Adoption: Standards are voluntarily adopted and success is determined by the market.

More at: <u>http://open-stand.org/</u>

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Skills needed to run the race of life in 21st Century



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The search for the secret of success in life is an on going pursuit for each of us. We go to world class institutions for acquiring certificates, we buy books after books on personality development and balanced life, take course after course for soft skill and specialised skills, attend session after session with motivational speakers, and our ears and eyes are constantly open and alert for the latest and greatest developments. We are mentored by local and global experts, trained and guided by best professionals, counselled by therapists. We all aspire to become better individual, better leaders, and professionals, better motivators in our life at home, institutions, work place and society. All of us spend a lot of time and money to learn and improve ourselves and support the growth of organisation at family, work place and society level with individual contribution and development.

Unfortunately, the result of most of this works wonderfully only for a few individuals. Sometimes the investment of time and money pays off, but mostly it does not. Why? Because the root cause of problems tend to remain unaddressed. Beyond all the hype and hoopla of big changes in education management and opening educational institutions "there is one thing that can always count on: No matter how exciting or important of the scaling of new areas of specific skill and certificate programs with breakthrough might it looks for the current era, it will turn out to be big challenges without imbibing the true nature of solutions to advance in individual and personal life to be successful.

Basically our educational approaches give importance to develop skills like reading, writing and arithmetic. The subject matter or themes of such traditional educational system helps to develop language and arithmetic skills. But today changes and challenges of fast growing society demands more contextual approach in education to meet actual use in real life situations.

Another aspect of traditional approaches is that it has concentrated too much on the instrumental and vocational skills. It is concentrated on the cognitive dimension rather than on other dimensions such as the reflective and psychological dimensions. On the other hand researchers have shown that skills can be systematically acquired and reinforced through non formal and informal learning settings. Such learning occurs in families, communities, organization and association, the work place and through the media. They focus attention on people's empowerment and on values and attitudes such promoting a better understanding between individuals, active participation and the capacity to negotiate, to live together and to develop critical thinking.

Skills and knowledge are the engines of economic growth and social development. Countries with higher and better levels of knowledge and skills respond more effectively and promptly to challenges and opportunities of globalisation. India is in transition to a knowledge based economy and its competitive edge will be determined by the abilities of its people to create, share and use knowledge more effectively. This transition requires to develop educated certified technical and non-technical people into knowledge and skilled workers who will be more flexible, analytical, adaptable and multi skilled. In the new knowledge economy the skill sets will include professional, managerial, operational, behavioural, inter personal and inter functional skills.

A person is equipped with a number of intellectual and practical tools that enable him to take decisions and act in a way that is likely to contribute positively to survive in the world whatever the ways. For individuals, skills are not just about work. They also serve essential social purposes. Achieving a fair, more inclusive society depends on young people leaving school or college with the skills they need to work. Where they lack such skills, their exclusion is likely to be compounded during their lives.

Skills are behaviours that a person can learn and improve through practice. Every day, students are learning and practicing skills as they also increase their knowledge in the subjects they study. Skills can be categorized by how they are used and by whom. Some skills are very specific to a particular activity, job, or industry. Others are needed by all workers, regardless of job, work setting, or industry. These latter skills are often called employability skills. Young people need to be developing these employability skills. Skills can be categorized in many different ways. One helpful way to break them apart is to look at them as:

- **Employability skills.** Skills that are needed by all workers, regardless of job, work setting, or industry. These include good work habits and other personal qualities, basic reading, writing and math skills, and thinking skills that are required to perform any type of work effectively.
- **Transferable skills.** Skills that are used in many different work settings by different kinds of workers. They can be transferred from one line of work to another.
- **Technical or job specific skills.** Skills those are very specific to a particular activity, job, or industry. For example, the technical skills for a plumber include installing and soldering pipes.

The concept of "21st century skills" is a term that has gained currency among many education reformers over the past few years. In general, when education reformers talk about "21st century skills" and related concepts, they are referring to the essential skills that children need to succeed as citizens and workers in the 21st century. These include such diverse competencies as civic literacy, global awareness, critical thinking and problem-solving, technology literacy, team-building, and a host of other skills not always associated with traditional education curricula and goals.

Numerous reports on the global, knowledge-based economy and the "flat" world document that tomorrow's workers must be prepared to shift jobs and careers more frequently, to be flexible and adaptable in acquiring job skills, and to integrate and focus a changing mix of job-derived and education-based knowledge on business processes and problems (Friedman, 2005). The application of information technology to the very core of business operations has caused a profound change in the needed skills and talents of New Economy workers (OECD, 2004). Markets in the New Economy are rewarding those who have high educational achievement and technical skill (Task Force on the Future of American Innovation, 2005).

The worker of the 21st century must have science and mathematics skills, creativity, fluency in information and communication technologies, and the ability to solve complex problems (Business-Higher Education Forum, 2005). As the global economy continues to evolve, predictions are that workers will change jobs seven or eight times during their work life. To be competitive in this constant churn, workers will have to engage in lifelong learning to update their education and job skills (Card & Dinardo, 2002). Clearly, the future personal economic security and well-being of workers is tied to educational achievement.

The growing importance of skills, especially at the college level in allocating economic opportunity is especially significant in the 21st century. The growing reliance on postsecondary education and training as the threshold for allocating opportunity means that poorly educated individuals, rather than employers or governments, pay the price of educational inequality and lack of skills with the graduates passing out from technical and non-technical streams of our educational system. Individuals who do not acquire college-level skills are more likely to be forced into low-wage and low-benefit jobs, and the earnings disadvantage associated with those jobs has been rising since the liberalization and globalization of economy.

A low-skill, low-productivity, low-wage economy is unsustainable in the long term and is incompatible with poverty reduction. This is the vicious circle of inadequate education, poor training, low productivity and poor quality jobs and low wages that traps the working poor and excludes workers without relevant skills from participating in economic growth and social development in the context of globalization. This also negatively affects the competitiveness of enterprises and their capacity to contribute to economic and social development.

Within this virtuous circle, skills development is an essential factor for achieving the objective of decent work both by increasing the productivity and sustainability of the enterprise and for improving working conditions and the employability of workers. Effective skills development requires a holistic approach. This approach encompasses the following features:

- (a) Continuous and seamless pathways of learning that start with pre-school and primary education that adequately prepares student and young people for secondary and higher education and vocational training; that provide career guidance, labour market information, and counselling as young women and men move into the labour market; and that offer workers and entrepreneurs opportunities for continuous learning to upgrade their competencies and learn new skills throughout their lives;
- (b) **Development of core skills** including literacy, numeracy, communication skills, teamwork and problem-solving and other relevant skills and learning ability as well as awareness of workers' rights and an understanding of entrepreneurship as the building blocks for lifelong learning and capability to adapt to change;
- (c) **Development of higher level skills** professional, technical and human resource skills to capitalize on or create opportunities for high-quality or high-wage jobs;
- (d) **Portability of skills** is based firstly on core skills to enable workers to apply knowledge and experience to new occupations or industries and secondly on systems that codify, standardize, assess and certify skills so that levels of competence can be easily recognized by social partners in different labour sectors across national, regional or international labour markets; and
- (e) **Employability results from all these factors** a foundation of core skills, access to education, availability of training opportunities, motivation, ability and support to take advantage of opportunities for continuous learning, and recognition

of acquired skills – and is critical for enabling workers to attain decent work and manage change and for enabling enterprises to adopt new technologies and enter new markets.

The conclusion underscores that the principle of effective skills development policies need to be integral components of national development strategies in order to prepare the workforce and enterprises for new opportunities and adopt a forward-looking approach to dealing with change for the students. In order to successfully link skills to productivity, employment creation and development, skills development policies should target three objectives: matching supply to current demand for skills; helping students adjust to change; and anticipating and delivering the new and different skills that will be needed in the future.

7 Modern Day Ways To Leave A Lasting Impression

Dale Carnegie wrote a fantastic book back in 1936 that really spelled out How to Win Friends and Influence People, and in my view it was so successful and continues to be successful because it contains such a lot of common sense about treating others how we ourselves like to be treated.

Unfortunately, we sometimes forget our common sense due to work and other pressures, and times have changed a little too, so I have put together a quick list with a few examples of both "old" and modern day areas to focus on to leave a lasting impression and be remembered for the right reasons.

1. Pay someone a compliment: If there is a genuine reason to pay someone a compliment, make their day and tell them. The person wearing a great shirt or a nice perfume will always appreciate a positive compliment, and that compliment will stay with them all day. I wear the best shoes I can afford and they get noticed, very often making the topic of conversation.

2. Say thanks often: Show your appreciation by saying thanks when someone holds the door open for you, or goes out of their way to do something. When did you last thank your partner for being awesome or your staff for doing a great job? Appreciation is one of the main drivers for someone staying committed in a relationship or job, don't forget to tell them.

3. Give generously: If you are not the type to get stuck in when manual labor is needed, how else can you give generously? A fellow Rotarian who didn't have the time for the physical work, gave his expertise generously instead, allowing the club and other charities to benefit from his experience and knowledge.

4. Do what you say you will: Don't let others think badly of you by not doing what you said you will, even the smallest of things, someone may well be relying on you.

5. Smile: I am a big believer in this. The chap that held the door open for me with a beaming smile made me feel like a princess. How can you pass on such great feelings to others to make their day?

6. Use their name: What was the name of the barista that made your coffee this morning? Next time you order, thank them as usual and follow up with their name, it will be noticed. Using their name really is Dale 101, "the single sweetest sound in any language is a person's name".

7. Follow up: The drain layer that came to give me a quote didn't follow up until 2 months after he visited. Needless to say, someone else did the job and he lost out. Do you follow up 100% of the time in a timely manner before your competitor gets in? You will stand out just by following up every time because so few people do it.

Thomas Edison, born in Ohio in 1847, obtained his first patent at the age of 22. The last patent in his name was granted two years after his death, in 1933. In between, he tallied 1,093 US patents and 1,200 patents in other countries. Edison averaged a patent every two weeks during his working life. Even though many of his inventions were not unique -- and he engaged in some well-publicized court battles with other inventors whose ideas he "borrowed" -- Edison's skill at marketing and using his influence often got him the credit. Most of his inventions fall into eight main categories: batteries, electric lights and power, phonographs and sound recording, cement, mining, motion pictures, telegraphs and telephones.

Source: <u>www.howstuffworks.com</u>

IT in June 2013



Prof. S. Sadagopan Director, IIIT-Bangalore <u>s.sadagopan@gmail.com</u>

General

- Rain fury in Uttaranchal (Eastern Himalayas) leaves hundreds dead, thousands homeless and caused misery to far too many visitors; one of the worst disasters in recent history; it also exposed the poor disaster-preparedness of the country and complete lack of Statesmanship in the political leadership
- Tweet enters Oxford dictionary
- Car sales in India fall for seventh quarter

Technology

- Google "Project Loon" experiments with novel "Internet balloon" in New Zealand to provide Net access to rural area
- Solar powered plane lands after 21-hour flight on June 4; will complete the last leg (Washington DC to New York) on July 7
- Chinese manned spaceship Shenzhou 10 with three astronauts takes off on June 11and safely lands 15 days later, a major milestone in Chinese space quest

Products

- Lenovo launched its smartphones in India on June 5
- BlackBerry launches BB 10 at Rs 44,000 on June 9
- Apple launches iOS 7 was launched on June 10
- Amazon Kindle and other "eBook Readers" and "Tablets" launched in India in June 12
- Huawei launches Ascend Mate smart phones in India on June 18
- Intel launches 4th Generation "Haswell" processors (22-nanometer technology with very high energy efficiency needed by Tablets and Laptops) on June 28 in India

Markets

- Rupee slides to a new record; INR to USD sinks below 60 mark on June 26
- Gold plunges to 22-month low on June 28
- Sensex (Indian Stock market index) plunges 526 points a 21 month record on June 20
- IBM buys Softlayer an unusually efficient cloud service company for \$ 2 billion on June 4
- Google buys Waze mapping company that also does social mapping for \$ 1.1 billion on June 10
- Bangalore-based OnMobile acquires US-based Livewire Mobile a mobile entertainment company for \$ 17.8 million on June 3
- Amidst so much doom, JustDial IPO on June 5 was a success

Indian IT companies

- Wipro bags a large technology outsourcing order valued nearly \$ 500 million from Citi
- Chennai-based cloud ERP vendor Ramco gets Eurocopter order in June 19

MNC IT companies in India

- Lenovo launches its smartphones in India
- LinkedIn takes up 75,000 sq. ft. space in Bangalore
- Scalia (Swedish truck firm) starts its Narsapura operation in Bangalore
- Amazon brings its marketplace in India

Education & Research

• The country moved to JEE Main and JEE Advanced as the common entrance exam to more than 50% of the engineering colleges admission in India

Interesting applications

- Government planning corpus to fund startups focusing on Mobile Apps
- Google tries balloon to provide Internet access in Africa

Infrastructure

- Central government gives green signal to IT Region (first in India) in Bangalore on June 10, a 10,000 acre SEZ
- Kerala "Sea-plane service" takes off on June 1
- Kashmir linked by train thru the longest tunnel "Pir Panjal" constructed at a cost of Rs 1,700 crores

Telecom

- Telegram service stopped from July 15th
- Mobile 2G data tariff sees big drop
- Tatas launch "Indicash" white label ATM network on June 27 with a goal of 50,000 ATM's by 2016

People

- US Secretary of State Mr. John Kerry visits India
- India-born Sri Srinivasan was sworn in as Judge in USA On Jun 18 the first time in US history
- N R Narayana Murthy is back as Chairman, Infosys from June 1; former Chairman K V Kamath continues as Director on Infosys Board
- TCS vice-chair S Ramadorai is Chairman of AirAsia India from June 18
- Iran gets a new President Rahuani in June 2013; Nawas Sharif is back as Pakistan Prime Minister
- Indian origin singer sweeps all awards in Melbourne music on June 11
- Former Madhya Pradesh Chief Minister VC Shukla succumbs to his injuries in Mao violence on June 11

Interesting numbers

- Flipkart sells 100,000 books online in a day on June 3, a new record
- Office space supply addition in India to reduce to 196 million sq. ft. in 2012-13; it increased from 228 million sq. ft. in 2007-08 to 447 million sq. ft. in 2011-12 (Knight Frank)
- Mobile handsets sales in India touched 60.7 million in Jan Mar 2013 compared to 48.3 million in Jan Mar 2012 Q1 (IDC)
- Telecom subscriber base on April 30 stood at 897.02 million with 867.03 million mobile subscribers and 29.99 million wireline subscribers (with net reduction of 0.78 million mobile subscribers and 0.22 million wire-line subscribers in April) (TRAI Press Release No. 48/2013 dated July 3, 2013)
- India's Foreign Exchange on June 28 at \$ 284.65 billion (RBI)
- Indian Rupee stood at 59.52 against USD on June 30 (RBI)
- BSE Sensex and NSE NIFTY 50 (India's stock market indices) on June 30 stood at 19,400 and 5,860 (Reuters)

To take control of your own destiny

Declare Independence from

people who whine and bring down your day. those stuck in mediocrity, who force it upon others. those who criticize you without consideration. family members who do not support you. that which keeps you from being confident. that which keeps you ignorant. that which makes you unproductive. that which makes you unhappy. that which makes you unsuccessful. that which makes you uninspired. that which keeps you from being an amazing boss. that which keeps you from being an amazing employee.

http://www.inc.com/kevin-daum/12-ways-to-gain-independence.html

News from Sections

Kerala Section

Announcement

- IEEE Kerala Section is happy to appreciate and congratulate Mr. S Gopakumar, Chair IEEE Kerala EAC, on being elected to the office of MGA as Vice Chair of Information Management 2014. Congratulations!!!
- IEEE Kerala Section Congratulates the following members on being elevated to "Senior Member Grade"
 - o Mr. Simon Akkara
 - o Mr. Srinivasan Ravindran
 - Mr. Saseendran Pillai
 - o Mr. Samuel Varghese
 - o Mr. Rajesh Kannan Megalingam
 - o Dr. Sameer Muhammed
 - o Dr. Sakuntala Pillai
 - o Mr. Sabarinath Pillai
 - o Dr. Maneesha Ramesh
 - o Dr. Abraham T Mathew
 - o Mr. K B Senthilkumar
 - o Mr. Madhukumar S D

Technical Talks

- Technical Talk on "Metal Joining by Welding an overview" by Dr. S Biju, ISRO, on 19th June 2013 at the Institution of Engineers Hall, Trivandrum.
- Technical Talk on "The Story of Soviet Moon Rocket" by Mr. A K Ashraf, ISRO, on 26th June 2013 at the Institution of Engineers Hall, Trivandrum.
- One day Certification and Hands on Workshop on Fundamentals of Labview on 29th June 2013 at Mar Baselios College of Engg and Tech, Trivandrum. The event was organized by IEEE Kerala Professional Activities Committee.
- Technical talk on "Vedic Mathematics" by Mr. Ajay Mohan on 27th June 2013 at CSI Hall, Kochi. The event was organized by IEEE Kochi Subsection.

Conference: AICERA 2013: ICMiCR

The Department of Electronics and Communication Engineering organized ICMiCR – International Conference on Microelectronics, Communication and Renewable Energy under the banner of AICERA – Annual International Conference on Emerging Research Areas, Amal Jyothi College of Engineering, Kanjirapally, during 4th June - 6th June 2013. The conference was Technically cosponsored by IEEE Kerala Section and financially sponsored by Defence Research and Development Organization (DRDO) and Kerala State Council for Science Technology and Environment (KSCSTE). The conference received 551 papers of which after strict review and scrutiny 201 were selected of which 149 registered and 125 were presented.



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The conference was inaugurated by Dr. T. P. Srinivasan, Executive Vice Chairman, State Council for Higher Education and former Ambassador. Rev. Dr. Jose Kannampuzha, Principal, presided. Dr. Sameer Bataineh of U.A.E University, the invited guest delivered the keynote addresses. Dr. Chris Rodger from Seneca College, Canada, released the proceedings. Dr. James Jacob, Dean-Research & Development, Prof. K. G. Satheeshkumar, Organizing Chair and HoD, ECE and Prof. Geevarghese Titus, Co-Chair, spoke on the occasion. Mr. Sabarinath Pillai, Secretary, IEEE Kerala Section also addressed the audience.

Keynote Addresses and Invited Talks: The following delegates carried out the keynote and Invited talks during the conference.

- 1) Dr. Sameer Bataineh : Professor and Acting Dean, College of Information Technology United Arab Emirates University
- 2) Prof. Chris Rodgers, Professional Engineers Ontario (PEO), Seneca College, Canada
- 3) Dr. R. M. Vasu, Professor, Department of Instrumentation and Applied Physics, Indian Institute of Science, Bangalore
- 4) Dr. V. N. Mani, Scientist-E, C-MET, Department of Electronics & Information Technology, Govt. of India, Hyderabad
- 5) Dr. Sreelal S Pillai, Engineer-SF, Section Head, BSED / CDSG, VSSC / ISRO, Trivandrum
- 6) Dr. A. Sreekumaran Nair, Amrita Centre for Nanosciences, Cochin
- 7) Meena D, Scientist F, LRDE DRDO, Bangalore
- 8) Dr. Gladston Raj S, Head, Department of Computer Science, Government College, Trivandrum
- 9) Dr. S. Jayaraj, Professor, Mechanical Engineering Department, National Institute of Technology Calicut

Research Papers Presentation: The organisers received 551 papers from participants over 8 countries. Out of 551 papers, 201 were selected after Expert Review and 149 papers were registered and 125 were presented.. Papers were received from the following Countries, Iraq, Iran, US, Malaysia, Saudi Arabia, Vietnam, South Africa and Chile. The papers were presented in around 30 sessions conducted within 3 days in 6 different venues. The sessions were chaired by more than 30 technical experts from various leading institutions over India and abroad.



Cultural: The second day of the international conference witnessed a cultural night. It hosted a professional team to perform a 'Kacheri', a traditional classical music presentation. It marked a colorful end to the second day of the programme.



The last day witnessed everyone taking part in a 'sadhya', thus learning more about the culture followed in Kerala and associated celebrations of 'Onam', a traditional festival.

Valedictory Ceremony: The conference entered into its final lap with the Valedictory function attended by an august audience and Dr. A.V.George, Vice Chancellor, Mahatma Gandhi University, Kottayam was the Chief Guest. The function was presided over by Rev. Dr. Jose Kannampuzha, Principal, Dr Sameer Bataineh from U.A.E University; Prof. Chris Rodgers, Seneca College, Canada and Dr. James Jacob, Dean Research; who also addressed the audience. Prof. K.G.Satheeshkumar proposed the Vote of Thanks

Madras Section

IEEE Antennas and Propagation Society Madras Chapter

Inauguration of the chapter & Distinguished Lecture



The 'Inaugural Meeting cum Distinguished Lecture' of the Madras Chapter of the IEEE Antennas and Propagation Society was held on Friday, June 21, 2013. There were 46 attendees -21 IEEE members and 25 non-members in all including about 10 students.

Prof. Selvan Krishnasamy, the Founding Chair of the Chapter, welcomed the gathering, and listed the following objectives for the Chapter:

- 1. To contribute to quality enhancement of electromagnetic education in the region by organizing, among others, staff development programmes and seminars. A seminar on electromagnetics has been scheduled for October 28-30, 2013. Preliminary discussions have also been initiated to organize a conference on EM education during 2014 summer.
- 2. To contribute to enhanced experience for students undertaking research and development in electromagnetics, antennas and propagation. Toward this goal, a half-day seminar on 'Research and Publishing' has been scheduled for Saturday, July 20, 2013.
- 3. To improve interactions between industry and academe. This objective was the motivation for nominating an industry colleague, Mr. Ganesh Balasubramanian of Amphenol Antenna Solutions, as the Secretary of the Chapter.

Ms. Vidyalakshmi, Graduate Student Member, spoke on the expectations of students from the Chapter. She sought to know the benefits of IEEE membership for students, apart from access to journal and conference articles, which most of the institutions anyway offer.

Professor Sembiam Rengarajan, California State University, Northridge, USA, who delivered the inaugural address, addressed this concern and gave ideas as to how the Chapter can contribute to students. His suggestions included organizing student poster presentations and organizing industry sponsored events, where students would get to interact with industry representatives. In a subsequent response to that query, Prof. Selvan added that IEEE membership could be effectively used for professional networking.

The inaugural address was followed by an invited technical talk by Dr. D.C Pande, Director (Technologies), LRDE, Bangalore. His talk was on 'The impulse radiating antenna.'

Dr. P.H Rao, the Chapter's Vice-Chair, spoke on how the Chapter hopes to continue to organize events for the benefit of its members. He concluded the inaugural meeting with a vote of thanks.

After tea break, Prof. Rengarajan delivered two interesting lectures. The first one was his distinguished lecture entitled 'Design, Analysis and Applications of Waveguide-Fed Slot Arrays.' The second one was on 'Microstrip Reflectarray Antennas: Theory, Design and Applications.'

Report by Dr. Krishnasamy Selvan, selvankt@ssn.edu.in

National Engineering College

Inauguration of IEEE Computer Society SB Chapter



The IEEE Computer Society SB Chapter of National Engineering College, Kovilpatti was inaugurated on 10th July 2013 by Mr. H.R. Mohan, Chairman IEEE Computer Society, Madras and Vice President of IEEE Madras Section and CSI and AVP-Systems, The Hindu, Chennai in the presence of Dr. P. Subburaj, Principal and Dr. B. Paramasivan, Professor & HoD/CSE

Mr. B. Mahadevan, the student chair of IEEE CS welcomed the gathering. The Principal in his presidential address stated that memberships in societies like IEEE CS are useful to the students and highlighted the certification programmes and conferences being conducted by the IEEE CS which would help the students in their career.

After the introduction of the chief guest by N. Vinodhini, IEEE CS executive member, Mr. Mohan, formally inaugurated the IEEE CS SB branch by launching a creative video presentation highlighting the salient features of IEEE CS, engineered by the students. In his inaugural address, Mr. Mohan stated that, the younger generation is more creative and innovative. He said that computers have become ubiquitous and pervasive and are playing an important role in all walks of our life through different applications. He traced the development of computer science during last 30 years and highlighted the opportunities available to the students in the major domes of CSE such as hardware, Software, Applications, Networking & Security, Infrastructure and Management. He also briefed on the benefits of IEEE CS membership in keeping one updated with the developments and added excellent facilities like digital library and elearning courses are available for members free of cost.

Ms. I. Muthuselvi, Asst. prof., Dept. of CSE introduced the bearers. Mr. S. Sethu Ram Balaji, executive member proposed the cote of thanks. The arrangements for the inaugural function were made under the guidance of Dr. B. Paramasivan, HoD/CSE with the support from staff coordinators M. Jayalakshmi, A. Shenbagaraman and students of CSE.

Ranganathan Engineering College

Academia Industry Meet: REC-AIM 2013



REC Academia – Industry Meet 2013 was organised on 29th Jun 2013. Prof. Dr. M. Rajaram, Vice-chancellor, Anna University, Chennai, inaugurated the meet and addressed the gathering. He said that the interaction between technical institutions and industry is the need of the hour which cannot be postponed at any cost. He added that the gap that exists between industrial expectations and students' preparedness in the area of soft skills and technical knowledge can be bridged only through healthy interaction between industries and institutions. He also pointed out that institutions can

consider sending the faculty to the industries at least for 15 to 20 days in a year to start with and give them specific training in the areas of their interest to enable them go for application oriented teaching.

Dr. P. Tamilarasi Murugesan, Chairperson of Ranganathan Educational Institutions presided over the inaugural function and Dr. S. Nithiyanandam, Principal, Ranganathan Engineering College, welcomed the gathering.

In the meet, Mr. Murale Narayanan Director, Information technology India Centre of Excellence-EMC, Bangalore, Mr. P.S. Badrinath General Manager, AXIS IT &T, Chennai, Mr. Chandrasekar Chenniappan, Head of Human Resources-India Atmel Corporation, Chennai, Mrs. R. Sivakami, HR Business Partner FL Smidth Pvt Ltd, Chennai, Mr. P. Thirunavukkarasu, Senior Manager, Wipro Technologies, Chennai, and Er. S. Balaubramanian, Chief Consultant, SBS Associates, Coimbatore, addressed the participants explaining what the industry people expect from academician, and how the students could be prepared for industry job. They also briefed about the job opportunities available.

Dr. R. Murugesan, President ISTE, New Delhi was the Chief Guest at Valedictory session. Around 300 students and 100 faculty members participated in this meet and benefitted. The event came to an end with vote of thanks by Ms. Amritha Kailesh.

Report by: Mr. Mohan J

Kingston Engineering College

NCETICT-13: National Conference on Emerging Trends in Information & Computer Technology



NCETICT-13, a two days National Conference on Emerging Trends in Information & Computer Technology was organized during 8th & 9th June 2013 by Department of Information Technology and Computer Science & Engineering. This National Conference was technically cosponsored by IEEE Madras Section, ICT Academy of Tamil Nadu.

Dr. G. Baskar, Principal, welcomed the gathering and spoke on the importance of the Conferences, Research & Development in various fields. Thiru. D..M..Kathir Anand, Chairman, in his presidential address, pointed out that automation is the future of technology & that computer

science & information technology engineers have a major role to play in every aspect of life starting from agriculture to rocket science.

The chief guest Dr. M. Ponnavaikko, Vice Chancellor of SRM University, Chennai, inaugurated the Conference and delivered the inaugural address. In his address, he took us on a memorable trip down memory lane by narrating the beginnings of computers. His informative talk outlined the sequential development from mainframe computers to FORTRAN, to our current day peer computing, grid computing and cloud computing. His hilarious remarks on robots were both refreshing as well as thought provoking. He reminded us that irrespective of the developments in technology we humans must remember our role and not forget the tasks that we need to carry out. The Inaugural function ended up with vote of thanks by Ms. U.V.Arivazhagu, HOD/IT.

In NCETICT-13, around 150 papers were received from various institutes out of which 46 papers were selected and presented in the conference. Each Paper Presentation session began with a talk given by eminent academicians from leading institutions.

On 8th June the first session was kick started by Dr. C. Tharini, Professor, B.S. Abdur Rahman University, Chennai. Her keynote address on "wireless sensor networks" was very informative and the algorithms for each and every layer in OSI model were highly informative. It gave us a clear picture about the research possibilities in this field as well as the issues faced in wireless sensor networks.

The post lunch session witnessed Dr. T. Mala, (Sr. AP, Anna University, Chennai) addressing the participants about Cloud Computing. She elaborated on how cloud computing is an upcoming trend in information technology. Cloud computing is working on the principle of virtualization and its major advantages are less storage space and less memory consumption. She explained how cloud computing has four types of models and went on to explain the disadvantages such as security issues in storage.

Mr. E. Iniya Nehru (Senior Technical Director, National Informatics Centre, Chennai) was the keynote speaker in Session 3 and he spoke about 'Security in e-Governance Projects'. He mentioned that the e-governance projects put up by the government needed proper security to safeguard it from hackers. This security is required to identify and evaluate potential security threats. He further, stressed that the main requirement is authentication, confidentiality and integrity.

On 9th June Dr. V. Vaidehi (Prof & Head, MIT, Chennai) delivered the keynote address on Fall Detection using Wireless Sensor Networks. Her address was based on health care application using RFID readers and CED funded projects for DST. Dr. M. Anand (Associate Prof, VIT – Vellore) delivered his keynote address on Theoretical Computer Science and elaborated on different molecular structures and importance of memory capacity in DNA based on bio molecular computing.

Dr. R. Saravanan (Sr.Prof & Dean, SITE-VIT, Vellore) in his keynote address on Network Security, explained about the key challenges and issues in security and importance of the emerging trends in security.

In the valedictory function, Mrs. M. Menaka, AP/CSE welcomed the gathering. The certificates were issued to the participants by Dr. R. Saravanan (Sr.Prof & Dean,SITE-VIT,Vellore). The function ended up with vote of thanks by Mrs..J..Daphney Joann, AP/CSE.

Kingston Engineering College

NCEVEECT-13 National Conference on Emerging Vistas of Electrical, Electronics & Communication Technologies



A two days national conference on Emerging Vistas of Electrical, Electronics & Communication Technologies, organized by the Department of EEE and ECE in association with IEEE Madras Section was held on 15th & 16th June 2013.

At the inaugural, Professor Dr. G. Baskar, Principal welcomed the gathering, introduced Chief guests and gave an overview of the conference. Thiru. D..M..Kathir Anand, Chairman, delivered presidential address. Prof. D. Thukaram, Dept. of EEE, IISc, Bangalore, in his inaugural address, focused how to publish paper in reputed journals. He explained about the expectations of a

reviewer and listed out the possible reasons for the paper to be rejected. He also motivated participants to upgrade their knowledge in emerging technologies. Prof. Nilesh Jayantilal Vasa, Prof. & Head, Dept. of Engineering Design, IIT Chennai, in a special address highlighted the future technologies in power system. The conference proceedings are released by chairman, eminent professors and conveners of the conference.

The aim of the conference is to bring research scholars, academicians and industry delegates together to present new ideas, innovation and research results. In this two days conference, about 127 technical and research papers were presented in 4 sessions in parallel tracks at eight different venues in the areas of Power System, Power Electronics and Drives, Smart Grid, Intelligent Controllers, VLSI Design, Embedded Systems, Nano Photonics, Wireless Network Technologies, MEMS & Digital Instrumentation.

Invited talks by eminent academicians and industry professionals were delivered as detailed below

- Dr. Thukaram, Professor, IISc., Bangalore on Power electronics application in power systems.
- Dr. C.Chistropher Asir Rajan, Associate Professor, Pondicherry Engineering College, Puducherry on Principle, modelling and control of renewable energy sources.
- Dr. Ashwin Kumar Sahoo, Professor, SSN College of Engineering on Power quality issues and energy auditing.
- Dr..N.Kumarappan, Professor, Annamalai University on Soft computing techniques
- Dr. Nilesh Jayantilal Vasa, Professor & Head, IIT Madras on Compact gas sensors for environment & bio medical monitoring.
- Dr. Raja Veerapa, Principal, Global Institute of Engineering & Technology on Smart antennas for wireless and mobile communication.
- Dr..Ramalatha Marimuthu, Professor & Head, Kumaraguru college of Technology, Coimbatore, on Research and assistive technologies.
- Dr. Raja Paul Perinbam, Professor, Karpaga Vinayaga College of Engineering & Technology, Chennai on DSP architecture design essentials".

At the valedictory function, Dr. Baskar, Principal delivered key note address and certificates were issued to participants. The event ended up with vote of thanks by Professor. T. Senthil Kumar, HoD/ECE

Report by: Jayachitra Selvaraj, jayanethaji@gmail.com

Knowledge Institute of Technology

Course on PCB Hardware Design



The IEEE SB in association with ECE Dept. organized a non-formal course on PCB design during 26-27, Jun 2013. On the first day, brief history, PCB types were provided by Mr. Vaithiyanadhan of RR Circuits. He explained the steps involved in creating a layout using ORCAD software. On the second day, the students were grouped and practical sessions were held to prepare PCB and the basic circuit was also made over the circuit and output was obtained. This course will be useful to the students in their projects.

Course on LABVIEW Software Training



The IEEE SB of KIOT in association with Dept. of ECE organized a non-formal course on LABVIEW during 17-21, Jun 2013 with Mr. Jagedish from National Instruments as resource person. On the first, the basics of LABVIEW, the wiring and dataflow programming for the data types were explained. The students came to know about the Front panel, Block diagram and Icons in Virtual Instrument. Then creating, editing and debugging the VI were taught. Various examples were practically explained and also made the students to execute. On the second day, the usage of case structure, formula nodes and sequence structures were explained. On the third day, the loops and their examples like sum of even numbers and Fibonacci series were explained. On the fourth

day, array concept was explained with detailed examples. On the fifth day, the participants were explained about the data acquisition system, Signal conditioning, DAQ hardware and module types. Then the hardware implementation was shown and explained with various modules. The various LABVIEW exams were conducted and their values were also explained. This course on LABVIEW will be useful for the students in executing their projects.

Report by: B. Shriaarthi & M. Nethravathi, msece@kiot.ac.in

Akshaya College of Engineering and Technology

Technical Workshops on "Electrical Substation Design using ETAP Software" and "Industrial Automation using LabView Software"



The IEEE SB and the EEE Dept. organised two technical workshops -- "Electrical Substation Design using ETAP Software" and "Industrial Automation using LabView Software" for the final year UG students of EEE Dept. during 19-29, Jun 2013 in the alma mater.

At the inaugural of the workshops, Dr. J. Jaya, principal extended a warm welcome to the gathering. In a special address, Director Dr. K. Thanushkodi highlighted the necessities of various software in the field of Electrical Engineering and introduced the resource persons from M/s. Power Projects, Kangeyam

and M/s. National Instruments, Bangalore.

This programme was conducted in two phases. In the first phase, Mr. M. Ranjith and Mr. S. Selvakumar from Power Projects, Kangayem, focused on electrical power plants and electrical substation design. They incepted with the basics of illumination engineering and also the calculation of illumination in any area using "Dialux" software. In addition, they threw light on the "ETAP" software and its substantial usage in the area of Power System Engineering. Students were provided hands-on training to design electrical machines using ETAP software. Field visit was also a part of this programme, which played a cardinal role in determining the efficiency of various electrical equipments.

In the second phase, Mr. Sriram and Mr. Santhosh Balaji from National Instruments, Bangalore conducted the programme "A course on LabVIEW software and Data Acquisition System". They preluded the LabVIEW software and its usage in engineering. They also highlighted that LabVIEW's comprehensive set of tools that can be used for acquiring, analyzing, displaying, and storing data for easy troubleshooting. Designing of small electrical systems using LabVIEW was also covered.

At the end, Prof. S. Elangovan, SB Counselor proposed the vote of thanks. The event took place in the august presence of Managing Trustee Shri A. Nagarasan, Chairman Shri T. Subramaniyan, Secretary Shri K. Pavithran, Director Dr. K. Thanushkodi, Joint Director Dr. N. Suguna, Principal Dr. J. Jaya, and Heads of various departments, faculty members and students of Akshya College of Engineering and Technology.

Report by: Prof. S. Elangovan, elangoprt@gmail.com

IEEE Electromagnetic Compatibility Society Madras Chapter

Inaugural meeting and the Distinguished Lecture



The Inaugural Meeting cum Distinguished Lecture of the IEEE EMC Society was held on Friday, July 12, 2013. A total of 43 delegates participated in the meeting. The delegates represented various Industries, Academic Institutions and R&D organisations. Among the delegates there were Eight IEEE EMC society members.

Dr. B. Subbarao, the Founding Chair of the Chapter delivered the welcome address. In his speech he high lightened the formation of the EMCS Madras chapter as a major achievement. It was like a dream come true with lot of efforts put over the years in forming the chapter. The chapter is the first exclusive EMC society Chapter formed in the country. He also briefed the growth of EMI/EMC awareness and activities in the country.

This was followed by the distinguished lecture by Dr. Vignesh Rajamani, School of Electrical and Computer Engineering Oklahoma State University. Mr. G. Mahesh, Scientist-D, SAMEER-CEM introduced the speaker. The lecture titled "A practitioners approach to EMC testing with Reverberation Chambers" evoked good interest in the participants which was evident with the large number of queries made. The lecture was concluded with the vote of thanks by Mr. P. Salil, Vice-Chair / Secretary, EMCS Madras Chapter.

The lecture was followed by the tea session where the participants were involved in discussion on the future events of the chapter. There were a lot of requests for lectures on EMI/EMC at different organisations and colleges. With the inputs, it was decided that the next event will be a workshop for the teachers from the Engineering Colleges, in a way to enable them to pass on the fundamentals to the students. Mr. T R Suresh Kumar, Treasurer, EMCS Madras Chapter agreed to organise the event. This will be followed by industry specific meeting proposed to be held for the benefit of the automobile industry to discuss the problems and issues as well as other suggestions related to the EM compliance.

Bombay Section

Indo-German Private Sector Collaboration on Renewable Energy and Energy Efficiency



The IEEE Bombay Section, in association with Indo-German Chamber of Commerce had organised a conference on Renewable Energy and Energy efficiency on 3rd May 2013.

Business leaders and managers from varied industries participated. Useful insights were provided at the conference that led to healthy discussions among the participants, with them eventually agreeing upon the need to understand the sustainability of the energy in the industry with respect to cost, requirement, efficiency, availability and environment.

The thought-provoking keynote by Prof. Rangan Banerjee, IIT Bombay stressed on the need to shift the focus from energy sources to energy services. Mr. Achim Rodewald of IGCC elaborated on the EU Energy Manager program and certification while Dr. Felix Weber of Green Elephant, showcased some profitable uses of compressed bio gas plants. Dr. Kulkarni shared information on practical implementations of sustainable indigenous solutions for energy storage.

Industry professionals benefitted from the discussions on various strategies to manage the energy cycle and also develop and implement policies for technologies to flourish in the market while operating in an environment friendly manner. The conference covered the need, sufficiency and efficiency of energy resources that were discussed as important parameters, considering its renewability and use.

Mr. Ashok Jagatia, Section Chair made the inaugural address and Mr. Aiyappan Pillai, Technical & Professional Activities Chair proposed the vote of thanks.

Information Resources



Compiled by H.R. Mohan AVP-Systems The Hindu, Chennai hrmohan@gmail.com

Green Computing Report: It is a major news source and covers the entire ecosystem of green computing, from chips to systems and everything in between. In partnership with the Green IT Council, the publication is the primary resource for news and information on the latest advancements taking place in energy-efficient and environmentally friendly technologies for the data center. As such, Green Computing Report provides in-depth reporting on the adoption and deployment of solutions that IT professionals can use to lower their operating costs, reduce e-waste, and improve profitability, while minimizing their environmental footprint. Visit at http://www.greencomputingreport.com/

Keys to a successful Windows 8 migration: This handbook presents best practices for moving to Microsoft's latest operating system, including including assessing Windows 8 to determine if it's a good move for your organization and which applications you should involve in the migration. Hear from experts about avoiding common Windows 8 migration challenges and learn what resources and help is available for your migration project and licensing. The ToC: Why migrate to Windows 8; How to handle legacy apps; Which migration tools can help; and What to know about Windows 8 licensing. Download it from http://goo.gl/V4K0e

Introduction to Evolvable Hardware: A Practical Guide for Designing Self-Adaptive Systems: This book provides a fundamental introduction for engineers, designers, and managers involved in the development of adaptive, high reliability systems. It also introduces the concepts of evolvable hardware (EHW) to new researchers in a structured way. With this practical book, you'll be able to quickly apply the techniques presented to existing design problems. IEEE members can access this book free at http://goo.gl/dItYB

Technologies Improve Quality of Life: As people live longer, the number of those with disabilities will rise significantly. About 15 percent of the world's population today lives with some form of disability, up from 10 percent in the 1970s, according to the World Health Organization. Many disabled people are hard-pressed to do such household chores as cleaning and cooking or even simply moving around. But innovative technologies are being developed to help, and IEEE members are at the forefront of these efforts. Read the post in the special issue of *The Institute* at http://goo.gl/yWiL1

Cheat sheet: What you need to know about 802.11ac: Wi-Fi junkies, people addicted to streaming content, and Ethernet-cable haters are excited. There's a new Wi-Fi protocol in town, and vendors are starting to push products based on the new standard out the door. It seems like a good time to meet 802.11ac, which is to be ratified in 2013, and see what all the excitement's about. Read at http://goo.gl/euca2

Need Power? Go Fly a Kite!: According to legend, Ben Franklin flew a kite during a thunderstorm in order to harness the electrical energy in lightning. It seems fitting, then, that two companies are designing kites that "pull" energy from the sky, although not quite the way that wise-old-Ben did it. SwissKitePower and SkySails are two companies independently developing kite-based generators. Read the article at http://goo.gl/od7Dk

What Happens When Robots Eliminate All Our Jobs?: Paul Krugman says we're running out of jobs--because they're all being automated. But can we sit back and let bots do all the work without going into another Great Depression? And is a new kind of welfare the solution? Read the full article at <u>http://goo.gl/Dh4s0</u>

How To Build The Digital Subway Map Of The Future: Slow-moving bureaucracy, diverse users, risky monetization schemes, unpredictable station layouts, spotty networks, underpowered hardware. These are just some of the challenges Control Group faced in bringing the digital map of the future to the New York City subway. How did they overcome these challenges? They used the web. Read this interesting article at http://goo.gl/uKWo2

Tracking: The NSA's Secret Surveillance Programs: The National Security Agency (NSA) and America's other intelligence agencies suddenly lost control of their biggest open secret: The U.S. government is monitoring the Internet and telephone communications. A series of revelations spurred by leaker Edward Snowden forced the NSA to admit to a secret surveillance regime that includes the mass collection of phone and web metadata. In the latest disclosure, the European Union found substantial evidence that the NSA was spying on them. Snowden is facing an unclear future as he lives in the transit zone of Sheremetyevo Airport, new leaks are revealing how the NSA spies on American citizens, and tech companies are in revolt for their own reasons. These are interesting times. We're tracking--and explaining--news about this story as it unfolds. Read the stories been tracked at http://goo.gl/IMIUk

Video: Self-Contained, PV-Powered Wastewater Treatment System (4m 55 sec): Caltech's solar-powered toilet has won the Reinventing the Toilet Challenge issued by the Bill and Melinda Gates Foundation. The challenge is part of a \$40 million program initiated by the Gates Foundation to tackle the problems of water, sanitation, and hygiene throughout the developing world. Caltech's toilet uses the sun to power an electrochemical reactor. The reactor breaks down water and human waste into fertilizer and hydrogen, which can be stored in hydrogen fuel cells as energy. The treated water can then be reused to flush the toilet or for irrigation. Watch the video at http://goo.gl/j193C

Book: Putt's Law and the Successful Technocrat: How to Win in the Information Age: "Technology is dominated by two types of people: those who understand what they do not manage, and those who manage what they do not understand." -- Putt's Law Early Praise for Putt's Law and the Successful Technocrat: "This is management writing the way it ought to be. Think Dilbert, but with a very big brain. Read it and weep. Or laugh, depending on your current job situation." -Spectral Lines, IEEE Spectrum. April 2006 "It's a classic. It reads at first like humor, but one eventually realizes that it's all true. The first edition changed my life. I loaned my copy to a subordinate at IBM, and he didn't return it to me until he was my boss." -Dave Thompson, PhD, IBM Fellow (retired), Member National Academy of Engineering, and IEEE Fellow "Putt's humor ranges from sharp to whimsical and is always on target. Readers will be reminded of many personal experiences and of lessons in life they wish they had learned earlier in their careers." -- Eric Herz, former IEEE executive director and general manager "Anyone who thinks 'engineering management' is an oxymoron needs to read this terrific book -- then they will know." -- Norman R. Augustine, author of Augustine's Laws and retired Chairman & CEO of Lockheed Martin Corporation Putt's Law is as true today as it was when technoeveryman Archibald Putt first stated it. Now, in Putt's Law and the Successful Technocrat: How to Win in the Information Age, Putt is back with the unvarnished truth about success in the modern, technology-driven organization. As you learn the real rules of the technology world, you'll meet such characters as the successful technocrat, Dr. I. M. Sharp. You'll find out how he wrangles career victories from corporate failures, nearly bankrupting the firm with his projects while somehow emerging the hero. You'll also meet such unfortunates as Roger Proofsworthy, top-level perfectionist yet low in the hierarchy, and come to understand how he assiduously preserves his spot near the bottom of the totem pole. Whether you work in business, IT, or are a freelance technocrat, you'll want to study Putt's hard-won wisdom and laugh—all the way to the bank! IEEE members can access this book free at http://goo.gl/2DQH2

Book: Emergent Information Technologies and Enabling Policies for Counter-Terrorism (2006): Explores both counterterrorism and enabling policy dimensions of emerging information technologies in national security After the September 11th attacks, "connecting the dots" has become the watchword for using information and intelligence to protect the United States from future terrorist attacks. Advanced and emerging information technologies offer key assets in confronting a secretive, asymmetric, and networked enemy. Yet, in a free and open society, policies must ensure that these powerful technologies are used responsibly, and that privacy and civil liberties remain protected. Emergent Information Technologies and Enabling Policies for Counter-Terrorism provides a unique, integrated treatment of cutting-edge counter-terrorism technologies and their corresponding policy options. Featuring contributions from nationally recognized authorities and experts, this book brings together a diverse knowledge base for those charged with protecting our nation from terrorist attacks while preserving our civil liberties. Topics covered include: Counter-terrorism modeling; Quantitative and computational social science; Signal processing and information management techniques; Semantic Web and knowledge management technologies; Information and intelligence sharing technologies; Text/data processing and language translation technologies; Social network analysis; Legal standards for data mining; and Potential structures for enabling policies. Technical system design to support policy Countering terrorism in today's world requires innovative technologies and corresponding creative policies; the two cannot be practically and realistically addressed separately. Emergent Information Technologies and Enabling Policies for Counter-Terrorism offers a com prehensive examination of both areas, serving as an essential resource for students, practitioners, researchers, developers, and decision-makers. IEEE members can access this book free at http://goo.gl/epU7O

Book: Real-World Engineering: A Guide to Achieving Career Success (1991): This book helps readers cultivate natural abilities, adapt to on-the-job pressure, cope with people problems, broaden their knowledge base, and, above all, plan a genuinely rewarding and successful engineering career. Throughout the book, real-world examples, taken from the author's own career, depict both the best and the worst on-the-job decision-making. IEEE members can access this book free at http://goo.gl/FrbOQ

Books



Developing Web Applications Authors: Ralph Moseley Published by: Wiley India Pvt. Ltd. Pages: 424. Price: Rs. 469/=

Building applications for the Internet is a complex and fast-moving field, which utilizes a variety of continually evolving technologies. Whether your perspective is from the client or server side, there are many languages to master -- X(HTML), JavaScript, PHP, XML and CSS to name but a few. These languages have to

work together cleanly, logically and in harmony with the systems they run on and be compatible with any browsers with which they interact. This book covers the web design concepts, web development technologies from both conceptual and syntactical aspects that include HTML, XHTML, CSII, XML, JavaScript, PHP, MySQL, CGI and Perl. This book is suitable for the students of engineering in CSE/IT as well as BCA. MCA & MSc students of CSE. Programme listings, multiple choice questions, review questions, quiz questions and practice problems reinforce the learning. More about the book at <u>http://goo.gl/kYeYp</u> Readers of ICNL can get this book at 20% discount with free shipping. Contact: <u>abbhardwaj@wiley.com</u> (This book is being given as a prize to the TechQuiz Winners)



Data Structures, Algorithms and Applications in Java Author: Sartaj Sahni Published by: Universities Press. Pages: 872. Price: Rs. 550/=

This book provides a comprehensive coverage of fundamental data structures, making it ideal for use in computer science courses. Real-world applications are a unique feature of this text. The author provides several applications for each data structure and algorithm design method discussed, taking examples from topics such

as sorting, compression and coding, and image processing. These applications motivate and interest students by connecting concepts with their use. The pedagogy in this book reinforces concepts and gives students plenty of practice. There are almost 1,000 exercises, including comprehension and simple programming problems, and projects. Additionally, the book has an associated website at http://www.cise.ufl.edu/~sahni/dsaaj/ that contains all the programs in the book, animations, sample data, generated output, solutions to selected exercises, and sample tests with answers. Pl. visit: http://goo.gl/p9qy7 for more info. (This book is being given as a prize to the TechQuiz Winners)

Feedback Control Systems: This book offers a thorough analysis of the principles of classical and modern feedback control in language that can be understood by students and practicing engineers with no prior background in the subject matter. Organized into three sections -- analog control systems, digital control systems, and nonlinear analog control systems, this text helps students understand the difference between mathematical models and the physical systems that the models represent. This latest, fifth edition provides a new introduction to modern control analysis and design for digital systems, the addition of emulation methods of design for digital control, and numerous other updates. Authors: Charles L. Phillips and John M. Parr. Published by: Pearson Education. Pages: 784. Price: Rs. 550/=. More on the book at http://goo.gl/7hdXx 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)

Innovate! 90 Days to Transform Your Business: Author: Rekha Shetty. Publsihed by Penguin Books India. Pages: 246. Price: Rs. 299/=. Constant and consistent innovation is the only sure-fire way to profitability, but many organizations are limited by the lack of an innovation culture. This book, Innovate! 90 Days to Transform Your Business is the answer to this problem, allowing you to build a culture of innovation, which embraces everyone from the door attendant to the chairperson. A daily implementation schedule, Innovate! will give you step-by-step ideas for yourself, your team, your department, and your organization. Start today and see the difference you can make. This 90-day plan will help you: to create a climate which empowers everyone in the company to achieve their full potential; to launch an initiative which will invigorate the whole organization; to build young, proactive commando teams, or innovation spirals, trained to think outside the box; to inspire team leaders to transform their departments, and the organization, through their youthful, proactive ideas; and to develop a daily plan to institutionalize innovation and establish long-term culture change. A practical, do-it-yourself toolkit, Innovate! Is recommended for reading by all in an organization to get inspired to innovate. More about the author and the book at the author's blog at http://innovation90days.blogspot.com/ (This book is being given as a prize to the TechQuiz Winners)

TechQuiz – 2013-07

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

- 1. India's first Department of Information Technology was set up in the state of -----
- 2. ----- is the recently released (on 7th Jun 2013) comedy movie related to working at Google.
- 3. Name the legendary inventor died in early Jul 2013 who invented the computer mouse and credited with many of the concepts that underpin modern computing and the Internet.
- 4. Provide the answer. India : BIS = Russia : -----
- 5. Name the Indian Section, the recipient of 2012 R10 Distinguished Small Section Award.

Email your answers by 10th Aug 2013 to <u>ieee.techquiz@gmail.com</u> with subject "techquiz-2013-07". 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** (<u>www.wileyindia.com</u>), **Universities Press** (<u>www.universitiespress.com</u>), **Pearson Education** and **Dr. Rekha Shetty**, the author of the book "Innovate! 90 Days to Transform Your Business". Answers along with the winners' info will be published in the next issue.

Answers & Winners of TechQuiz-2013-06

- Rhinos, Prism, telegram, Python, GoogleApps@IEEE
- "8086 Programming and Advance Processor Architecture" from Wiley India to Ratan Pal Singh (Kolkata)
- "Data Structures, Algorithms and Applications in C++" from Universities Press to William Taube (Pilani)
- "Introduction to Soft Computing: Neuro-Fuzzy and Genetic Algorithms" from Pearson India to Siva Kumar Pukkalla (Chennai)
- "Corporate Strategy Minds Power innovation" from the author Dr. Rekha Shetty to Sohan R Ranjan (Bangalore)

Is teaching the last resort of the incompetent?



Source: Presentation made by Prof. T.T. Narendran, Department of Management Studies (DoMS), IIT Madras at the session on "Strategies for developing sustainable partnership between Institutions & Industries" at the SEED Conf. held at IIT Madras.

IEEE India -- Forthcoming Events

- IEEE Standards Association Workshop. Topic: Last Mile Connectivity. July 31, 2013 at C-DAC, Electronics City, Bangalore. Details at http://standards.ieee.org/events/last_mile/index.html
- ICACCI-2013: IEEE International Conference on Advances in Computing, Communications and Informatics. August 22-25, 2013 at Sri Jayachamarajendra College of Engineering (SJCE), Mysore. Last date for submission of papers for Main Tracks and Special Sessions: March 30, 2013 and for Workshops and Affiliated Symposiums: April 30, 2013. Contact: Dr. Manjunath Aradhya, Mobile: 09886896108 E-mail: <u>aradhya.mysore@gmail.com</u> Website: <u>http://icacci-conference.org/</u>
- ICHCI'13: IEEE International Conference on Human Computer Interactions. August 23-24, 2013 at Saveetha University, Chennai, India. Website: <u>http://www.ichci.in/</u>
- GHTC SAS 2013: Theme: "Humanitarian Technology". August 23-24, 2013 at Technopark, Trivandrum. Contact: Mr. Shahim Baker, Conference Secretary, <u>shahim@ieee.org</u> (Mobile: 9895100209) or IEEE Kerala Section Office (0471 2473515). Website: <u>http://www.ghtc-sas.org/</u>
- R10-HTC2013: IEEE Region10 Humanitarian Technology Conference 2013. August 26-29, 2013, at Tohoku University Kawauchi-North Campus, Sendai, Japan. Website: <u>http://www.r10-htc2013.org/</u>
- National Workshop on Distributed Generation and Restructuring of Power Systems. August 30-31, 2013 at College of Technology and Engineering, Udaipur. Contact: Dr. Naveen Jain, Mobile: +91-9414490458, Email: njain@mpuat.ac.in or njain@ieee.org Website: www.ctae.ac.in
- Project Management National Conference, India 2013. September 27-28, 2013 at The Leela Kempinski, Gurgaon, NCR -New Delhi. Theme: Project Management - Bringing Certainty in Uncertain Times. Last date for Abstract Submission: Apr. 15, 2013. Website: <u>http://www.pmi.org.in/conference2013/</u>
- 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: <u>http://www.c2spca.com</u>
- 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: <u>http://www.ieeelcn.org</u>
- CCEM-2013: IEEE International Conference on Cloud Computing for Emerging Markets. October 16-18, 2013 at Bangalore, India. Website: <u>https://ewh.ieee.org/ieee/ccem/</u>
- UTW-2013: International Workshop on Underwater Technology. October 21, 2013 at NIOT, Chennai. Contact: <u>utw2013@niot.res.in</u> Website: <u>www.niot.res.in/utw2013</u>
- 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: <u>catcon2013@gmail.com</u> Tel: +91 33 2414 6949, +91 98300 92189, +91 90511 64988. Website: <u>www.catcon2013.org</u>
- ACC 2013: Second International Conference on Advances in Cloud Computing. 19-20, Sep 2013 at Bangalore. Contact: Dr. Anirban Basu at <u>abasu@pqrsoftware.com</u>
- 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: <u>gstomar@ieee.org</u> Ph: 09425744460. Website: <u>www.cicn.in</u>
- ISGT ASIA 2013: Innovative Smart Grid Technologies Conference. November 10-13, 2013 at Bangalore, India. Last date for paper submission: 20th June 2013. Contact: <u>pesbangalorechapter@gmail.com</u> Phone: +91-80-42455555. Website: <u>http://ieee-isgt-2013.asia/</u>
- 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, <u>info@thecubeconf.com</u> or Prof. Rajesh Ingle, Program Chair, <u>ingle@ieee.org</u> (mobile: +91 9822 457390). Website: <u>http://www.thecubeconf.com/academic/</u> Submission page: <u>https://www.easychair.org/conferences/?conf=cube2013</u>

- 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: <u>ekhan67@gmail.com</u> Website: <u>http://www.electronics-amu.com/impact-2013.html</u>
- 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: <u>http://ised.seedsnet.org/</u>
- ICGCE-2013: International Conference on Green Computing, Communication and Conservation of Energy. December 12-14, 2013 at Chennai, India. Website: <u>http://www.rmd.ac.in/icgce2013/</u>
- 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, <u>suryad@iitb.ac.in</u> (mobile: +91 96190 46767) or Mr. Ashok Jagatia, General Chair, <u>ashok@acevin.com</u> (mobile: +91 98212 42200). Website: <u>http://www.indicon2013.org</u>
- ANTS-2013: 2013 IEEE International Conference on Advanced Networks and Telecommuncations Systems. December 15-18, 2013 at SRM University, Chennai, India. Contact: <u>hod.itce@ktr.srmuniv.ac.in</u>
- 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: <u>kesavan.chandrasekaran@gmail.com</u> Website: <u>http://icsispd2013.org/</u>
- 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: <u>icmira@icmira.com</u> Mobile: +91-9419165834, Website: <u>www.icmira.com</u>
- IEEE CONNECT-2014: IEEE International Conference on Electronics, Computing and Communication Technologies. January 6-7, 2014 at Indian Institute of Science, Bangalore, INDIA. Website: <u>http://conecct.ieeebangalore.org</u>
- 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 <u>ieeeindiainfo@gmail.com</u> **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,

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, <u>suryad@iitb.ac.in</u> (mobile: +91 96190 46767) or Mr. Ashok Jagatia, General Chair, <u>ashok@acevin.com</u> (mobile: +91 98212 42200). Website: <u>http://www.indicon2013.org</u>

Please DO NOT send brochure files in pdf / jpg. The above details are adequate.

Announcements

IEEE Standards Association Workshop

Topic: Last Mile Connectivity Date & Timings: 31st July 2013 :: 9.00 a.m. to 5.10 p.m. Venue: C-DAC, Electronics City, Bangalore

The IEEE Standards Association (IEEE-SA) is offering this one-day workshop which explore various wireless and wireline communication technologies deployed in the Last Mile, their applications to enable efficient development and deployment of next generation systems, as well as the role of market-driven standards through the OpenStand initiative. The workshop will also focus on current research trends happening in the technology being used in the Last Mile.

The conference is being hosted by C-DAC Bangalore at their Electronics City campus. Attendance at the workshop is through (free) registration. Please visit <u>http://standards.ieee.org/events/last_mile/index.html</u> for the details of the workshop agenda and speaker bio and registration formalities. For further assistance, pl. contact: Sri Chandra, IEEE Standards Senior Manager at <u>sri.chandra@ieee.org</u>

IEEE INDICON-2013: Extension of paper submission deadline

IEEE INDICON 2013, organized by IEEE Bombay Section, jointly with the Indian Institute of Technology Bombay, will be held on the IIT Bombay campus during December 13-15, 2013.

INDICON is the most prestigious conference conceptualized by IEEE India Council in the field of Electrical Engineering, Electronics & Communication Engineering and Computer Science and Engineering, in general.

INDICON 2013 is expected to attract delegates from academia and industry, coming from all over the country and abroad. The theme of the conference this year is "Impact of Engineering on Global Sustainability". The conference will consist of very high quality technical sessions and tutorials.

We invite you to submit original technical papers for presentation at the conference as well as publication in the proceedings. All the accepted papers, meeting the quality criteria, will appear in IEEE Xplore.

Topics within the scope of the conference will include, but are not limited to:

- Antennas, Microwaves, VLSI and Micro/Nano-electronics
- Communications and Computing
- Control, Energy and Power
- Technology to Bridge Rural and Urban Divide Theme Based
- Communications and Control for a better Power--Smart Grid- Theme Based

Extended date for paper submission is August 15, 2013.

For more details and contact information, please visit <u>http://www.indicon2013.org</u> If you have any further queries, please send an email to <u>indicon2013@iitb.ac.in</u>

Ashok Jagatia, General Chair, IEEE INDICON 2013

The All India Student Congress 2013

Dates & Venue: 3-6, Oct 2013 at Amrita University, Coimbatore.

It is a never before like opportunity for students to interact with and learn from various leaders and the top brass of IEEE. The congress will provide impetus for its participants to observe, assimilate and learn from many inspiring sessions and thereby evolve as better leaders for taking on the challenges ahead. It will also be a unique opportunity for students from various disciplines and institutions to interact and exchange ideas and hence benefit mutually. The congress promises to be an informative yet an enjoyable experience for all its attendees. The first three days will elucidate the various dimensions of IEEE and its host of functionalities, along with a number of fun packed and exciting events. The last day will cater to the raise awareness and bring in more involvement into two societies namely, IEEE Communication Society and IEEE Power and Energy Society.

Come, participate in the congress and ignite the transformation for a lifetime! More details at: <u>http://www.ieeeaisc2013.org/index.php</u>

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Best Student Project Award

IEEE Consumer Electronics Bangalore Chapter is pleased to announce the "Best Student Project Award" for the year 2013. It is an opportunity for the students to showcase their engineering skills to address and solve problems related to society.

Award: Cash award of Rs. 5000 for First Position; Rs. 3000 for Second Position; Rs. 2000 for Third Position

Eligibility: All undergraduate Engineering students can participate.

To apply visit https://docs.google.com/forms/d/1ebA0WW72HG8iGHF oYaAu3vjK1434lCnzGaY ecYh I/viewform

To upload project, visit https://docs.google.com/forms/d/1ebA0WW72HG8iGHF_oYaAu3vjK1434lCnzGaY_ecYh_I/viewform

Schedule: Last date of collection of proposals - July 31st, 2013; Demo by selected participants - August 31st, 2013.

Nominations for The Skoch Awards 2013

The Skoch Awards celebrate human excellence and agents of change in Indian society. The Awards are based on the philosophy of spearheading positive socio-economic changes through recognising persons who have contributed immensely to salutary transformations in society and governance by displaying exemplary leadership abilities. They are the highest independently instituted civilian honours in India. Since 2003, when these were instituted, the Skoch Awards have become the only independent benchmark of best practices in India in the fields of governance, finance, banking, technology, corporate citizenship, economics and inclusive growth. These salute individuals, highlight projects and focus institutions that go the extra mile to make India a better nation. The Awards are conferred on the mighty and the ordinary alike. In case you are directly responsible for some such good work or are aware of the same in your domain, we invite you to submit the nomination for the Skoch Award 2013. The last date to apply is 20th July 2013. More details at http://www.digitalinclusion.in/index.php

IEEE CONECCT – 2014

IEEE BANGALORE SECTION presents 2014 IEEE International Conference on Electronics, Computing and Communication Technologies - IEEE CONECCT – 2014 during 6-7 Jan 2014 at Indian Institute of Science, Bangalore 560012, INDIA

Academic Partner: Indian Institute of Science, Bangalore and the Technical Co-Sponsors are the Bangalore chapters of IEEE Signal Processing Society, IEEE Communications Society and IEEE Computer Society.

Prospective authors are invited to submit 2 to 6 pages long, PDF manuscripts using EDAS conference system http://edas.info/N15319 by 1st Sep 2013

Website: http://conecct.ieeebangalore.org

GoogleApps@IEEE

The IEEE.org alias service has been upgraded to a Google platform. Members will have the ability to continue forwarding mail or make use of a personal Gmail inbox, calendar and additional services such as Google Drive, Google+ and Picasa. This new benefit, GoogleApps@IEEE, is made available to members at no additional cost. Users will have access to:

- A unique IEEE email address
- (e.g.; j.doe.94@ieee.org);
- 25gigabite inbox;
- 99.9% guaranteed up time; and
- Advertisement free Gmail
- Storage of files in the cloud for easy sharing and access from anywhere, via Google Drive.

More information about this upgrade, please visit: https://supportcenter.ieee.org/

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The IEEE Job Site Career Alert delivers a free bi-weekly e-mail report on jobs, education, management, and the engineering workplace from the editors of IEEE Spectrum. Subscribe it at <u>http://careers.ieee.org/subscribe_alerts/subscribenew.html</u>

IEEE Communications Society Publications Contents Digest

IEEE Communications Society Publications Contents Digest is a handy guide that helps readers keep track of the latest published articles in one place. This ComSoc Publications Contents Digest provides lists of current tables of contents of the periodicals sponsored by the Communications Society. Each issue offers readers a rapid means to survey and access the peer-reviewed papers of the IEEE Communications Society. Readers can take a glimpse of the hot topics. Click on the interested title. The interactive links of the titles take you directly to magazine and journal abstracts and full paper pdfs via IEEE Xplore. Publications covered by the ComSoc Publications Contents Digest:

- IEEE Communications Magazine
- IEEE Network Magazine
- IEEE Wireless Communications Magazine
- IEEE Transactions on Communications
- IEEE Journal on Selected Areas In Communications (J-SAC)
- IEEE/OSA Journal of Optical Communications & Networking (JOCN)
- IEEE/ACM Transactions on Networking
- IEEE Communications Letters
- IEEE Transactions on Network & Service Management (TNSM)
- IEEE Transactions on Wireless Communications
- IEEE Wireless Communications Letters
- IEEE Communications Surveys & Tutorials
- IEEE/OSA Journal of Lightwave Technology
- IEEE Transactions on Mobile Computing
- IEEE Transactions on Multimedia

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