



Vol. 8 No. 8 August 2013



Message from Chairman

Dear Members,

As we all know, the prosperity of any nation is intrinsically linked to its human resources. Human capital of a country is its intellectual and skillful citizens. A quality human capital comes from a quality education process. Over the last five and a half decades, the technical and management education system in the country has grown enormously. But, as per Nasscom Press Information note, despite the strong technical and management education system in India, there are growing concerns that a large part of the talent pool produced are being unsuitable for employment due to a skill gap.

The Communiqué of the 18th Conference of Commonwealth Education Ministers (18CCEM) held in Mauritius states that the generation of skills and aptitudes need to be incorporated in all areas of the curriculum and the system must produce graduates that not only enter employment, but also create it. It insists that Entrepreneurial skills, in the widest sense, should be actively supported.

While serving at Bharathidasan University as Vice-Chancellor I introduced skill based curriculum in all the UG programs offered by the University. Later the same curriculum was adopted and is being offered by all the Arts & Science Universities in Tamil Nadu. Further, I introduced Empowerment of Rural youth through skill based training programs, Entrepreneurship Development Programs and Certificate Course in IT for School Children (SUITS)

IEEE offers a wide range of learning, career enhancement, and employment opportunities within the engineering sciences, research, and other technology areas. The goal of these programs is to ensure the growth of skill and knowledge among professionals and to foster individual commitment to continuing education among IEEE members, the engineering and scientific community, and the general public. IEEE provides a series of services and programs to the academic faculty, students, and volunteers and collaborates with allied education organizations with the aim of enhancing engineering, computing, and technology education globally and providing programs for faculty and student development.

IEEE serves the community through its Regional offices, Councils, Sections, Societies, Chapters, and Student Branches to realize its goals and objectives. IEEE India Council is one of such Units of IEEE to serve the Indian IEEE Community. In India we have 11 Sections, 12 Chapters, over 10 Societies and a large number of Student Branches spread over the country. As a professional society it is not our responsibility to fill the Skill gap of the talent pool produced by the Academic Institutions in India. Most of the IEEE Members are from the academic Institutions, either as teachers or students. In my considered opinion we can do a lot to solve this problem using the services of IEEE Societies and Chapters which have Industrial collaborators.

I strongly believe that IEEE Technical Societies could adopt Institutions in their areas of specialisation and involve Industries to provide skill based training to the students in a planned manner. I had already appealed to the India Council Vice-Chairs responsible for various activities and to the Section Chairs to take initiatives in this direction. But, I have not received any input from the members. In this connection I reiterate my appeal and invite suggestions from the learned members of IEEE community in India.

During the Face to Face meeting of the EC of India Council held on 27th April 2013 I discussed about a Skill based program "IT-SUITS" for the School children with a view to implement the "Pre-University Education" program introduced by the IEEE Educational Activities of IEEE. This program could be implemented successfully only with cooperation of the Section Chairs and the Student Branch Counselors. I invite the views and implementation plans from the learned Chairs of the IEEE Sections and Student Branch Counselors in this connection.

I wrote about the IEEE Region 10 Electronic Communication Coordination Committee's "IEEE R10 Digital Connect Survey" in my message in the last month's Newsletter. The Deadline for filling the survey is 31st of August 2013. If not acted so far, I encourage the Sections, Chapters, Societies and the Affinity Groups to do it before the deadline.

The monthly membership development report MD June 2013 of the IEEE Member & Geographic Activities Board shows that there is an increase of 2,9% in the total IEEE Membership in the world from May to June 2013, raising the membership strength from 366,889 to 377,711 and 3.0% increase in the Society Membership, raising the membership strength from 308,551 to 317,872. In my message last month I had requested that such a report for Indian Membership can be obtained by the Vice-Chair, Membership Development of India Council and sent it to the IC News letter for publication. But, no report has been received so far. I appeal to him to do the needful at his earliest convenience.

I am happy to inform that under the Member-Get-a-Member (MGM) Program the following members from India have been recognized as this month's top program participants:(1) Mr. Joyal Peter from Kerala Section with 63 new members, (2) Mr. Akshai M from Kerala Section with 15 new members, (3) Mr. Sahil Munjal from Delhi Section with 14 new members, and (4) Mr. Chandrasekharan V V from Madras Section with 12 new members. My hearty congratulations to all these achievers.

I am also happy to inform that R10 has considered a detailed plan with the support of IEEE Meetings, Conferences and Events (MCE) and Bombay Section, and has decided to have the program in Mumbai this year in conjunction with the 2013 INDICON in the name of "2013 R10 South Asia Conference Leadership Program".

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. Ponnaivaikko
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Message from Editor

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Dear readers,

The IC Chairman, in his message has highlighted the need for skill development and the role of IEEE India Council and other IEEE OUs in this regard.

Our regular columnist, Prof. San Murugesan of BRITE Professional Services and University of Western Sydney, Australia, in his informative article "MOOCs: Free Online Courses That You Can Embrace" has provided an into to the future of education and learning and enticing business opportunities.

Dr. Rekha Shetty Management Consultant & Best Selling Author of 7 books, in her article "An Opportunity for Innovation in Indian Business" has highlighted how Indians, far from being techno-coolies, are giving innovative new solutions to the world in IT, life sciences, health and agriculture.

In the article "Oscad: An open source EDA tool for circuit design, simulation, analysis and PCB design", Prof. Kannan M. Moudgalya, IIT Bombay has explained some activities around Oscad that are designed to help the college students, faculty and practising professionals.

The fourth article, in the series dealing with the skill development for engineering graduates by Mr. Ballav Sahoo, Co-Founder & CEO of Victory Mind Educare Services appearing in this issue focusses on Educating Skills for 2025 and Beyond.

With the usual features such as "IT in July 2013" Prof. S. Sadagopan, Director, IIIT-Bangalore, "News from Sections", "Information Resources", "TechQuiz" and "book Reviews", "Forthcoming Events" and "announcements", the current issue of ICNL is as complete in all respects. We look forward to feature activity reports from IEEE OUs and articles on current interest topics from seasoned academicians, articles sharing the experiences and best practices from professionals. Pl. send your contributions as per the guidelines available at <http://goo.gl/dzSIJ>

An Opportunity for Innovation in Indian Business



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India is poised to become the innovation capital of the world – the ideas supermarket! Far from being techno-coolies, Indians are giving innovative new solutions to the world in IT, life sciences, health and agriculture. E-choupal from the fields of IT and agriculture - a mega vision that could link rural India to the world.

Here are a few new trends in Indian business which could bring innovation to the centre stage:

- Entrepreneurship needs innovation. It is creativity that will fuel this emerging revolution. Over 18 per cent of India's workforce is engaged in entrepreneurship. Compare this with the 10.2 per cent in the USA. Only Thailand ranks higher. India has moved from being a brand that stands for imitation to a name in innovation.
- India has filed 4,000 patents in five years. Over 100 top MNCs in India and Indian research laboratories are fuelling the innovator's dream. We need to overcome our innate dislike for selling knowledge, 'Saraswathi'. We need to wake up. Multi-nationals have even tried to patent basmati rice and 2000-year-old ayurvedic drugs while we continue to merely speak of our glorious past tradition.
- India's 250 million people who live below the poverty line and 750 million who live on less than a dollar a day, need products and services that combine economy with utility. The CEO of Ericsson asked a creative question, 'Why do rural cell phones need a screen?' ITC and e-choupal in Madhya Pradesh has created an IT tool that can put poor soyabean farmers, in touch with the world. Poor fishermen in Kerala are being enabled to track the movement of shoals of fish, using satellite imaging with net linked PC. Arvind Eye hospital has created a cataract kit costing less than US\$ 15. Poor Africans are grabbing it. Indians created the Simputer in Bangalore. Innocation is required to turn India's poor into consumers. If we succeed, the world's five billion poor become our market, making the Goldman Sachs report, that India will be world's third largest economy, come true.
- India has the largest population of young people in the world. The marketplace is youthful and idealistic. We are "The world's youngest nation": 55 per cent of Indians are now below twenty-five years of age. 550 million Indians – the numbers are more than Latin America and the Caribbean put together! You can feel their vibrant energy in the media, on the street, in the upward streaking GNP. They want the world and they want it now! The 'core competence of India' is her brilliant young people. Our intellectual capital or mindspower is our Unique Selling Proposition (USP) provided we put it to good use. The Planning Commission is of the opinion that India will crack the population problem. With fewer children to care for, people will have more disposable incomes, resulting in higher saving for banks to collect and maybe higher consumption. India is shining with a growing literacy rate of 65 per cent, 55 per cent young people below twenty-five and a 7 per cent plus compounded growth rate.
- The next item is a corollary to the previous one. In the words of Azim Premji, Chairman of WIPRO, on his success, - 'what made the difference, is people Translating this experience into the language of economics, it has taught me that Labour is a far more important factor of growth than Capital.' We don't need to read Amartya Sen to know that the key to economic leadership in India is education and health. If we can make our one billion people fully, zestfully human, instead of being half alive, the path to global leadership is open. How can we talk of equality or quality, when children in their mother's womb, have their intelligence grossly retarded, because their mothers do not get even one full meal a day?
- Personal excellence has become the only solution to escape being a victim of restructuring. Flexible, adaptable, innovative performers rise to the top, passengers are fired. Globalization and competitive scenarios leave no room for flab. Hierarchies are giving way to small, tight, commando teams. Departments dissolve into lean profit centres and strategic business units. Strict accountability is the rule. Entrepreneurship and intrapreneurship define all economic activity.

- Higher profit is the golden deer that corporations chase through eighteen-hour days and seven day weeks. Corporate bonsais and techno-coolies who cannot call their body, mind or soul their own: Is this a Tofflerian nightmare or are we speeding towards this state of waning humanness in corporations? Health is the boat given to us to cross the ocean of life. We are responsible for keeping it seaworthy.
- The dominance of services as the fastest growth sector of the world economy is an unprecedented Indian opportunity. We are not talking of ayahs to Asia and nurses to the Middle East. We are talking about doctors, hospitality and travel experts, teachers, customer service specialist (not just BPO bee-hives). Services: entertainment, hospitality, travel are on the roll. Indian call-centre employees are graduates (average age twenty-three). They work for one-seventh of the salary of their European counterparts and earn about 8 times more than the average Indian. The downside of aging economies, is India's upside. The demand for services will make India the world's back office.
- This is the age of knowledge. Bill Gates became the richest man in the world, at the speed of thought, leveraging knowledge and information. How are we Indians dealing with the education of children? Are we training them to be innovative and creative leaders? Quality learning is as important as ensuring equal access to education.
- Towards democracy and peace: India has been a democracy since 1947, which has managed a billion people without descending into anarchy. In the age of knowledge, India has a population trained in handling dissent and fresh thinking. She should use this extraordinary resource. The Goldman Sachs report talks of BRIC (Brazil, Russia, India and China), of a far improved tomorrow in India, while the largest economies US and China face an aging population and shrinking number of workers and consumers. India's productive human resources are growing rapidly.
- Reversing the Brain Drain: The Best brains have migrated to the West. Let India give them a way of coming home with honour. The reversal has started. Let government work to enable it instead of trying to regulate it.
- India has the world's most sophisticated technologies. The study of creativity and innovation as a science and as a subject needs to be introduced in all educational institutions. Anna University, Chennai has a forty-hour optional course on innovation in the undergraduate syllabus. To realize the mind power of our people, creativity and innovation should be introduced into the core syllabus in schools and colleges. There is a need to establish Departments for Innovation and Creativity both at the Central and the state level to create a million incubators for Indian thinkers.
- Resurgence of Indian pride. This is a wonderful time to be Indian. Brand India has metamorphosed into a country perceived to be of brilliant people, rich in the ultimate software – the human mind. Today India's young fuel the IT incubators of Silicon Valley, while swelling her foreign exchange reserves. Amitabh Bachchan in the BPL ad said, 'Indians are the most creative people in the world – we use washing machines in Chandigarh to make excellent lassi'. Gandhiji's 'Be Indian Buy Indian' has made a confident comeback. The world loves everything Indian: from the catwalks of Paris to the hallowed portals of Oxford. Aishwarya and Amartya Sen have made us A1. Such confidence, faith and national pride will create the climate or positive field where innovation can thrive.

IEEE Mentoring Program

The IEEE Mentoring Connection is now the IEEE MentorCentre. Mentoring at IEEE now has a new name, new on-line platform and commitment to providing a valuable resource to IEEE members seeking a professional mentoring partnership. That means all the best practices you have come to expect from an IEEE mentoring program are in place, with ample opportunity to enter a unique mentoring partnership not found anywhere else.

What you will find with IEEE MentorCentre:

- The ability to connect with mentors based on specialized areas of practice, experience, IEEE societal affiliation and more;
- Opportunities to give back to the profession by registering as a mentor;
- Additional fields to narrow down the preferred profile of the mentor, and;
- Improved mentor controls allowing them to control how they are viewed in the system.

Participation in the program is voluntary and open to all IEEE members above the grade of Student Member. For more information on the program, go to www.ieee.org/mentoring

MOOCs: Free Online Courses That You Can Embrace



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Education and learning is poised for a transformation driven by MOOCs. Whether you're a learner, a teacher or an educational service provider, it's time embrace MOOCs to your advantage.

** Underlined text embeds a hyperlink to further information.*



(Image courtesy: Shutterstock)

Massive Open Online Courses (MOOCs) are gaining interest among learners, educators, training providers, colleges and universities. These online courses support large-scale participation, from a few hundred to few thousands, and are open (free) access via the Internet. A number of initiatives supported by leading universities and colleges, currently primarily from the US, offers MOOCs in a wide range of areas – psychology, science, computer science, business, mathematics, languages and more. Some people envisage MOOCs as the future of education and learning and enticing business opportunities.

What are the key elements of MOOCs? What're their pros and cons? Why have they gained much interest in just two years? Are MOOCs a game changer as some people project? Will they transform the face of education and training? How can learners and educational institutions embrace and harness them? Let's explore.

MOOC: KEY FEATURES

As some of you may recall, before the widespread adoption of the Internet and Web, distance education and learning were in the form of written correspondence courses, broadcast courses, and early incarnations of e-learning. MOOCs are a recent development in online and distance education, and they have several distinguishing features compared to previous distance education models. MOOCs are online courses aimed at large-scale interactive participation and open access via the web. In addition to traditional course materials such as slides, notes, readings, problem sets and videos, MOOCs provide learners forums for interaction and collaboration that help build a community for the learners (students) and the teacher(s).

Key features of a MOOC are apparent in its name:

- **Massive.** A MOOC is designed to enroll a large number of students - tens of thousands. For instance, in Spring 2013, one of the Harvard University's first MOOCs, "CB22x: The Ancient Greek Hero" by Professor Gregory Nagy (70) catered to thirty-one thousand enrolments around the globe.
- **Open.** The courses are open to anyone. Anyone around the globe can enroll in the course.
- **Online.** The delivery, communication and interaction are through the Web.
- **Course.** Like a formal course, it has assessment (assignment, quiz, test or examination) and presents a credential (certificates) to successful learners. When you take a MOOC, you're expected to keep pace and your work gets evaluated regularly.

While traditional online courses charge tuition (course) fee, carry credit and limit enrollment to about 60 to 70 to ensure better interaction with the instructor, the MOOCs are generally free (currently), credit-less and support massive enrolments. Because anyone can enroll in a MOOC, course design, presentation and features such as interactivity assumes greater significance and

relevance. Typically, a MOCC knit together education, collaborative learning through forums and social networking, group work and even entertainment (game-based learning). Online courses are an effective learning environment, especially in comparison with large lecture-style courses. According to global survey by *Scientific American* and *Nature* of students who had studied MOOCs, Students say online courses enrich on-campus learning, and most of them said they would take a MOOC again.

The free MOOCs provide education in a wide range of areas at different levels to a huge number of people, even those in the most remote corners of the planet, help people in their careers and expand their intellectual and personal networks.

THE RISE OF MOOCs

While MOOCs are infancy, they have quickly gained prominence. Several MOOC providers have emerged and a large number of learners are embracing it. *The New York Times* dubbed 2012 “The Year of the MOOC,” and *Time magazine* wrote free MOOCs open the door to the “Ivy League for the Masses.”

There are two categories of MOOCs: 1) xMOOCs that use traditional lecture-based model, and 2) cMOOCs (connectivist MOCC) that uses connection and collaborations among the learners.

Table-1 provides a list of major MOCC providers. For a comprehensive, frequently updated list, refer to this Web page.

Table-1. List of MOOC Providers

Course Provider	Description
<u>Courseera</u>	A Stanford University spinoff that is currently the largest MOOC producer offering over 450 courses.
<u>Udacity</u>	It focuses on tech and science. An outgrowth of a Stanford University experiment in which Sebastian Thrun and Peter Norvig offered their ‘Introduction to Artificial Intelligence’ course online for free in which over 160,000 students in over 190 countries enrolled.
<u>EdX</u>	Jointly founded Harvard University and Massachusetts Institute of Technology in the US, it’s a nonprofit MOOC company that works with several colleges and universities, including University of California Berkeley and Rice. EdX is organized as a confederation, with each member institution maintaining sovereignty over its MOOC production.
<u>OpenUpEd</u>	It’s the first Pan-European MOOC initiative with support of the European commission and includes partners from 11 countries.
<u>Open2Study</u>	An initiative of Open Universities Australia which itself is a leading provider online education through collaboration of several Australian universities.
<u>CourseSites</u>	It’s supported by Blackboard. It’s a free, hosted and scalable online learning platform. Explore and enroll in courses below or <u>start your own</u> .
<u>Khan Academy</u>	It aims to offer free world-class education for anyone anywhere. Its <u>library of over 4500 videos</u> covers K-12 math, biology, chemistry, and physics, and humanities.

MOOCs from India

In March this year, Dr. Shroff, who heads TCS’ Innovation Lab in Delhi, launched a new course, Web Intelligence and Big Data, at Coursera. This course is about building web-intelligence applications exploiting big data gathered from social media, mobile devices and sensors, using the ‘map-reduce’ parallel programming paradigm. This 12weeks-long free course starts on 26th August 2013.

According to Mr Pawan Agarwal, adviser for higher education for Indian government's Planning Commission, “Plans are afoot for the Indian Institutes of Technology, widely considered to be among the world's top engineering schools, to offer three basic IT

courses in data structure, programming and algorithms to hundreds of thousands of undergraduates through MOOCs. These courses would award credits and count toward degrees” [[How MOOCs Can Help India](#), P. Agarwal, 2013].

NEW OPPORTUNITIES AND CHALLENGES

The MOOC concept, like many new technologies, presents several new opportunities and challenges.

MOOCs bring Web-based interactions, discussions and sharing of ideas and perspectives at higher levels and scales that are not possible in traditional a class room settings. This will hopefully bring learners from different parts of the world closer to each other.

MOOC providers can offer or sell employers information about high-performing students who might be a good fit for open jobs and thereby gaining revenue. Coursera, Udacity and few others provide [such services](#), and according a recent report, some high-profile tech companies have already signed up for these services. With MOOCs mostly free, a few course providers search for viable [business models](#). For potential new business models for MOOCs, refer to [this article](#).

MOOC happens to be predominantly a US-based offering, but it is catching up globally. Recently, 12 universities in the UK have launched Future Learn, their flavor of MOOCs. Universities in Hong Kong are developing MOOCs in Chinese. To create MOOC, a few open source and free platforms are available. Open source platforms include CourseBuilder, Class2Go and OpenMOOC.

Enrolments in MOOCs are global. Indians are among the major users of MOOCs. Of the 2.9 million registered users of Coursera in March, more than 250,000 were from India, second only to those from the US.

New challenges

MOOCs present challenges for learners, instructors and faculty, course providers and educational institutions. They range from course design, changes to teaching and learning methods, leaning materials development, assessment of student performance and to economic sustainability of course offerings and business model, quality of offering and learning, reliable online access and accreditation. . Most of these stem from the sheer class size as well as social, racial and geographical diversity of the students.

The participating students might themselves be teachers, researchers, business people, or government officials each having their own mind-sets and legacies.

Researchers at Stanford University who examined forum usage data from 23 Stanford MOOCs offered from 2012 to early 2013 found a positive correlation between forum participation and student scores. We need to devise mechanisms and tailor subject matter to foster meaningful discussion among a few hundreds to a few thousands of learners.

How do you grade work in a class containing thousands of students? Multiple-choice quizzes, tests, discussion boards, and annotation are some of the techniques used for assessment, although there’s lots of debate. Peer marking is also being used in some courses. edX has been developing a software tool to computer-grade essays and revise their work.

To leverage MOOCs, Indian educational institutions and training providers need to be innovative in coming up with right models to use MOOCs in Indian context. They could make use of both locally developed MOOCs and popular quality MOOCs provided by top universities and developer abroad.

HYPE AND REALITY

Currently, there is lot of hype about MOOCs and expectations outweigh reality. These courses will work for motivated learners and professionals seeking to expand their knowledge and skills set. MOOCs, however, may not be appropriate young or unmotivated learners. Combining in-class instruction with quality MOOCs may address some of the hurdles and limitations of standalone MOOCs. Such blended courses – MOOCs with in-person instructions and support – that derive the benefit of both the worlds, coupled with credentials offered by local institutions, might become an attractive option.

CONCLUDING REMARKS

The line between online and on campus education is already blurring. Universities have begun to give credit for students with MOOC credentials and certificates, like the way they do now with advanced placement. In January 2013, Udacity launched MOOCs-for-credit, in collaboration with San Jose State University in the US. The Georgia Institute of Technology in partnership with Udacity and AT&T is offering the first accredited entirely MOOC-based Master of Science in Computer Science degree for a fraction of the cost of traditional, on-campus program. MOOCs seem to have potential for enticing business opportunities. Last

year, two major MOOC providers, Coursera and Udacity, launched for-profit companies. Google, MIT, Georgia Tech, Stanford and a few others are investing millions of dollars in MOOC initiatives and start-ups.

We have to cope with the disruption of the digital revolution, and emerging new models of education and learning. MOCCs are heralded as "the single biggest change in education since the printing press" and "one of the largest educational revolutions of our time." Will MOCCs change the face of education, as some pundits predict?

MOCCs are only about two years old; time will tell how they get shaped and how they've transformed education and learning. Nevertheless, individuals and educational institutions should now start embracing MOCCs to their advantage.

Further Information

1. [What is a MOCC? Video.](#)
2. [The World of Massive Open Online Courses](#)
3. [The Rise of MOOCs, *Campus Technology*, August 2013](#)
4. [Massive List of MOOC Resources, Lit and Literati.](#)
5. [MOCC List.](#)
6. [Trends in Massive Open Online Courses.](#) Results of a worldwide survey, May 2013

Share Your Views on MOCCs

What're your views on MOOCs? What MOOCs mean for the future of education and life-long learning? How relevant is MOCCs to India? Are you aware of any other MOOC courses developed or offered in India? Would you enrol in MOOC courses or accredited degrees based on MOOCs?

We invite you to share your ideas and thoughts, and join the discussion at [LinkedIn](#)  or send an [email](#) 

Previous Articles by the author

[3D Printing: A Game Changer](#)

[Green IT: Good for Business, the Environment and Everyone](#)

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Free IEEE-USA eBook Offered as Special Benefit to IEEE Members

As a special benefit of IEEE Membership for the month of August, IEEE-USA is offering a free eBook, Technical Presentations – Book 2: Structure-Anatomy of a Successful Presentation written by Nita K. Patel, former IEEE-USA Vice President, Communications and Public Awareness.

In Book 2: Structure-Anatomy of a Successful Presentation, Patel shares that a technical expert must not only know, understand and interpret complex data—but also present the facts through clear, concise and correct speech. The first step in conveying technical information is to establish a clear understanding of when, where, why, how, what, and to whom your information is to be presented. The next step is to structure the presentation.

Some of the topics in this eBook include: pre-writing, personal introductions, captivating openings, and compelling conclusions. Examples and check-lists make this eBook a great reference tool for those who want to achieve structure for that perfect presentation.

Technical Presentations–Book 2: Structure-Anatomy of a Successful Presentation can be downloaded for FREE from <http://www.ieeeusa.org/communications/ebooks/files/2ndi290d/Technical-Presentations-Book-2.pdf>

Oscad: An open source EDA tool for circuit design, simulation, analysis and PCB design



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Using open source software software, such as KiCad, Ngspice and Scilab, we have built an integrated open source EDA tool, Oscad. One may draw a circuit using KiCad, create a netlist and simulate it using Ngspice. One may also do PCB design and generate Gerber files. One may add models and subcircuits. One may also generate differential equations of analog circuits and solve them through Scilab. Oscad runs on Linux (Desktop, laptop and Aakash), and MS Windows. Oscad can be freely downloaded from [1]. We have written a book that explains the use of Oscad [2]. An e-version of this book can be freely downloaded from [1]. We now explain some activities around Oscad that are designed to help the college students, faculty and practising professionals.

1. SELF Workshops through Spoken Tutorials

Spoken Tutorials are instructional material created for self-learning [3]. The modalities of conducting a workshop on Oscad are explained below:

- As Oscad is open source, the Oscad installers for Linux and MS Windows are available at [1]. One may download these free of cost, and install them.
- At the same URL, spoken tutorials for self-learning of Oscad are available for free download.
- Using the material mentioned above, one can get effective training through SELF workshops of two hour duration.
- A college that wants to organise a SELF workshop should provide the following: (1) A volunteer, who can be a faculty member or a student (2) One computer (desktop or laptop) per participant with audio output capability (3) One head phone per participant - a low cost head phone will do.
- Although not compulsory, one (only one) Skype connection will make the SELF workshops effective as it provides a mechanism for interaction between the participants and the Oscad Team at IIT Bombay.
- There is no lower or upper limit on the number of participants. This just depends on the number of computers available.

We hope to offer on on-line test and provide Certificates from the Spoken Tutorial Project, IIT Bombay, for participants who pass the test. The on-line test is typically held two weeks after SELF workshops. Every computer should have Internet for On-line tests.

The current mandate of our funding agency NMEICT [4] is that SELF workshops and on-line certificates are offered free of cost.

Useful links for conducting SELF workshops are [3], [1] and SELF-workshop@oscad.in or contact@spoken-tutorial.org.

2. Textbook Companion on Oscad

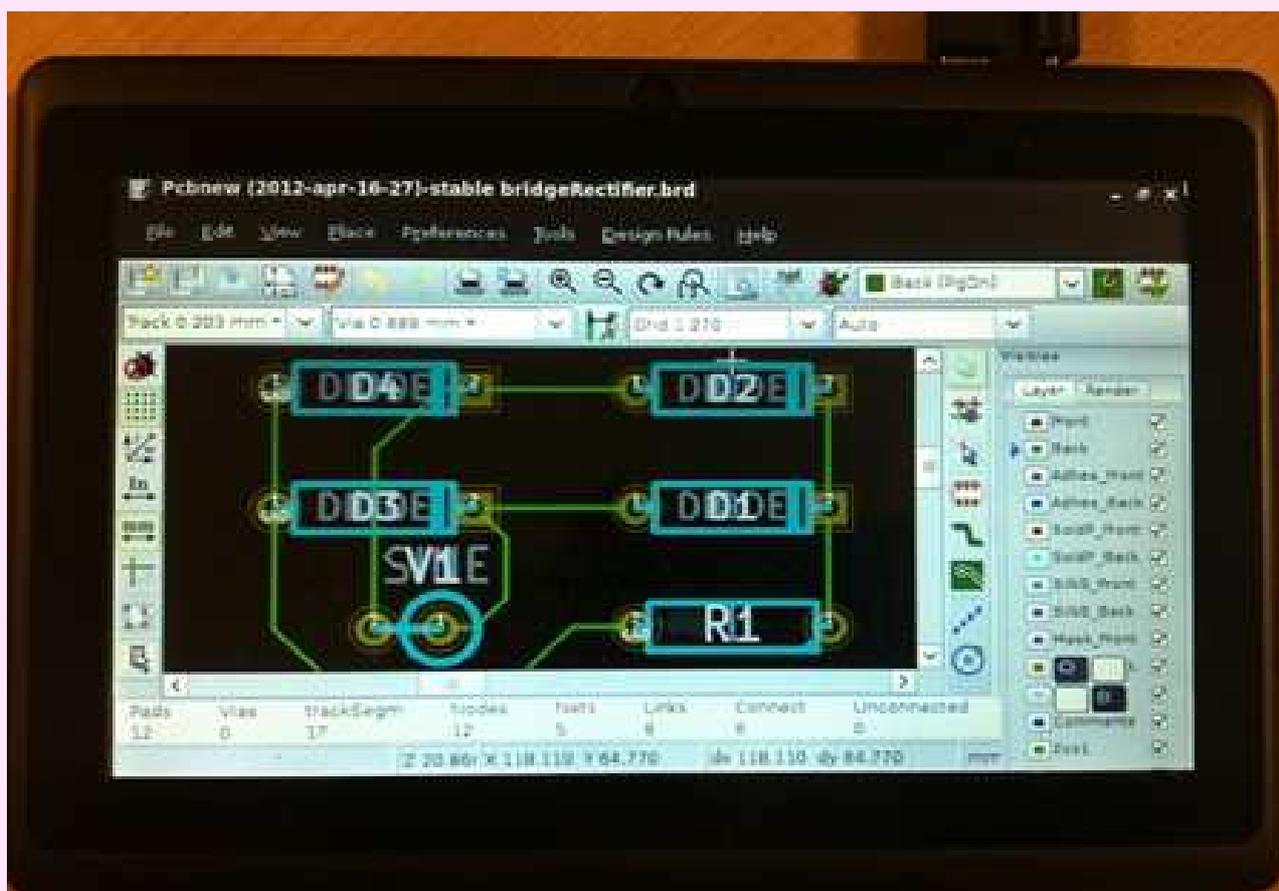
An Oscad Textbook Companion (OTC) has the Oscad code for the solved problems of standard textbooks on circuit design and simulation. We have already created OTCs for [5] and [6], which will shortly be available for free download from [1]. All OTCs have only code and no documentation. For example, to understand the code given in OTC of [5], one needs a copy of [5] and to understand the theory explained therein. We invite students, teachers and professionals to create OTCs for other standard textbooks as well.

The latest list of completed and in-progress OTCs will be available at [1]. An enthusiast who is interested in creating an OTC should code the solved examples of a book that is not completed nor in-progress and upload them on to [1].

As per the recommendations of NMEICT, the person who creates an OTC will be given an honorarium of Rs. 10,000 and their teacher will be given an honorarium of Rs. 5,000. The teacher's honorarium is for reviewing the OTC and for certifying its correctness. Teachers and Professionals can also create OTCs.

3. Oscad on Aakash

We have successfully ported OScad to Aakash, on the Linux side. To use it comfortably on Aakash, one needs to attach an external keyboard and a mouse. The cost of all of these, including Aakash, is less than Rs. 2,500. Thus, we are in a position to give a complete EDA Tool Set, including the hardware, for less than Rs. 2,500. This has the potential to unleash creativity and entrepreneurship from the electronics enthusiasts and professionals. A few screenshots of Aakash are given below. These show (1) a bridge rectifier circuit schematic (2) hardware configuration showing the keyboard and mouse, with Ngspice simulation output and (3) PCB design.



4. Other Oscad Activities

Lab Migration: This service is provided for all educational institutions that are interested in shifting their proprietary EDA tool based circuit design labs to OScad. The interested college could contact us expressing their intent and a statement of their lab experiments. The OScad Team at IIT Bombay will provide the equivalent OScad code to help conduct the experiments. The required coding will be done by our team and student/teacher volunteers from colleges. Thanks to NMEICT funds, we are in a position to give honorarium for those who do this coding. This code will be available free of cost from [1] for everyone.

Circuit Creation: We will provide a mechanism for students who do their projects on circuit design using OScad to upload on to [1]. We will provide a forum based help service to clear conceptual questions. We will also provide a ranking and a feedback mechanism for the uploaded circuits.

Expanding OScad's Capabilities: We invite participation from the public to expand OScad's capabilities. We are also establishing processes to support student projects in this area. To participate in this activity, one needs IT skills and a knowledge of electronic design. These services will also be coordinated through [1].

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Educating Skills for 2025 and Beyond



Ballav Sahoo

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When we look back over 25-plus years after the liberalization and globalization of our economy, we realize that many things have changed remarkably, but others seem not to have changed at all. Issues that have been with us for the past 25 years include: how to make the learning and educating more exciting for students; how to communicate what they actually do; how to improve the writing and communication skills of graduates; how to bring the richness of mental and intellectual development into the current workforce up bringing individuals be responsible individual and citizen; how to give students a basic understanding of mental fitness; and how to get students to think about professional ethics and social responsibility. But for the most part, things have changed in astounding ways. We have moved from slide rules to calculators to PCs to wireless laptops to tablets. Just think of all that implies.

Looking ahead to 2025, about 10 years, and setting goals should be a "piece of cake". But to gain some perspective, look back about 25 years, and think about what was not going on in 1990. There was no World Wide Web. Cell phones and wireless communication were in the embryonic stage. The big challenge was the inability of Indian manufacturing and services sector to compete in world markets; Dollar reserves was about to bury us economically. We hadn't even begun to inflate the global slow down, let alone watch it burst. And terrorism was something major issues.

As today's societies rapidly become ever more diversified both demographically and politically, our youth and adolescents face multifaceted challenges. What do these societal demands imply for the key skills that young people need to acquire? Answering this question is important not only for maintaining the quality of civic life and social cohesion, but also for enabling children and adolescents to develop into healthy, productive, and autonomous adults. Defining such skills can also improve our assessment of how well prepared young people are for life's challenges, and it can help us identify overarching goals for monitoring and evaluating education and intervention practices.

So predicting the future, or even setting meaningful goals, is risky, even on a scale of a mere 15 years. I read Dr. Kalam's Vision 2020 made a study of predictions of the future and found one simple constant --- we always underestimate the rate of technological change and overestimate the rate of social change. That is an important lesson for our political leaders, industry leaders, bureaucrats, academicians, professional managers and lastly educators. We educate and train the men and women who drive technological and social change, but we sometimes forget that they must work in a developing social, economic, and political context.

I envy the next generation of students because this is the most exciting period in human history for science and engineering. Exponential advances in knowledge, instrumentation, communication, and computational capabilities have created overwhelming possibilities, and students are cutting across traditional disciplinary boundaries in unprecedented ways. Indeed, the distinction between science and engineering in some domains has been blurred to extinction, which raises some serious issues for learning and education.

As we think about the challenges ahead, it is important to remember that students are driven by passion, curiosity, engagement, and dreams. Although we cannot know exactly what they should be taught, we can focus on the environment in which they learn and the forces, ideas, inspirations, and empowering situations to which they are exposed. Despite our best efforts to plan their education, however, to a large extent we simply wind them up, step back, and watch the amazing things they do.

In the long run, making universities, colleges and schools exciting, creative, adventurous, rigorous, demanding, and empowering milieus is more important than specifying curricular details with Life skills. In fact, that is our primary message for educating 2025 and beyond. Relevance of curriculum to the real world is extremely important for students. It is not necessary to look at the high-technology arte facts to value product related work. One has to look around to realise that every aspect of human surroundings necessitates enterprising behaviour. A systemic study of entrepreneurship provides opportunities for learning a broad spectrum of

generic skills and competencies. In addition to subject-related competencies, development of generic skills and competencies for 'Entrepreneurship' should be an important objective of any educational programme for all students in general and elementary stage children in particular.

Public policies fostering skills development for young people are crucial to the development of urban economies. Because of the diversity of the informal sector, training needs are wide ranging. For some youth, the immediate need is a second chance to develop foundation skills. Approaches that combine basic literacy and numeracy with social protection can be particularly effective. Those who have already achieved foundation skills need equitable opportunities to develop further skills in a trade, as well as transferable skills to enable them to become entrepreneurs that are more successful.

Academics led the way in core and Life skills development, but don't think we have led the way in systems of skill development framework. In fact, as we observe developments in industry, government, and society, we are asking what in the world we should teach our students. We need to establish a proper intellectual framework within which to study, understand, and develop large, simple skill development systems. In other words, how can we practice so many skills?

We need to recharge corporate entrepreneurial and academic R&D, as well as curricula in energy. We need to make energy an exciting, well-supported, dynamic field that attracts the best and brightest young men and women and gives them opportunities to contribute and to innovate.

Therefore, we must keep our sights high. However, how are we going to accomplish all this teaching and learning? What has stayed constant, and what needs to be changed? But even we admit there is a good deal of truth in what extraordinary Visionary, Murray Gell-Mann, likes to say: "We need to move from the sage on the stage to the guide on the side." Studio teaching, team projects, open-ended problem solving, experiential learning, engagement in research, and the philosophy of CDIO (conceive/design/implement/operate) should be integral elements of education.

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News From Sections

Delhi Section

Meeting with IEEE President Elect



Prof. Jose Roberto De Marca, IEEE President Elect was in India recently to participate in the R10 WIE, Gold & Student Congress at Hyderabad. During his stay at Hyderabad, he also visited Birla Science Museum. He had also saw some of the IEEE exhibits and had discussions.

After the R 10 Congress, on his way to London via Delhi, on 14th Jul he met the Delhi Section Execom members.

Eleven Delhi Section Execom members had a meeting with Prof. Jose Roberto De Marca at Delhi Golf Club and Mr. Harish Mysore, Director IEEE India Office.

Some issues relating Section functioning were discussed and a few problems were brought to his notice including “Benefits available to Indian Members” as compared to Members Globally.

Hyderabad Section

Progress Program conducted by IEEE Student Branch, MJCET



The IEEE WIE affinity group of Muffakham Jah College of Engineering and Technology (MJCET), Hyderabad Section undertook the Progress Program with the motto “**On the track, to improve the quality of life**” at Yankapalli, located in the rural area of Moinabad, Ranga Reddy district, which is about 25 kms away from Hyderabad city on 13th June 2013. The event was conducted at Zilla Parishad High School, where in the medium of instruction was Telugu.

The Book Donation Campaign: The students of the school are from poor background and could not afford to buy notebooks for their basic education needs. IEEE MJCET and its constituent chapters PES, WIE, ICS took up a ‘Notebook Donation Campaign’ to support these little kids and collected 250 notebooks, 260 pens, 265 pencils, 150 sharpeners, 150 erasers, 150 scales, and 25 bags and distributed them at to the students.

Considering the fact that their classrooms did not even have minimum facilities of tube light and fan, which lead to difficulty in concentration of the students during hot summers, the IEEE team procured fans, tube lights in all the classrooms and a part of the MJCET innovation team made a solar cooker and a mini cooler for their help. The helping hand stretched forward by the WIE and IEEE members of Muffakham Jah College elated the students of the school.

The IEEE MJCET team not only helped the students with few donations but also undertook the task of teaching the students with some useful and practical lessons of life.

Teaching the students: The WIE students also gave short lectures on various topics like: Gender Equality and its importance by Ms. Asfia, Bio Sand filter for water purification by Ms. Zainab Fatima; and Bio gas by Ms. Umiha Mahveen. These lectures were given in English language and Ms. D.S. Pranavi translated them into the local language Telugu for ease of understanding.

The school headmaster Mr. Mallaih thanked the entire team and wished to continue rapport with Muffakham Jah College of Engineering & Technology. Our IEEE SB counselor Dr. Kaleem Fatima and IEEE SB mentor Mr. Md Arifuddin Sohel also wished to adopt Zilla Parishad High school and improve the schooling environment with regular visits to the school by the IEEE MJCET team.

Report by: Name: D.S. Pranavi, pranavi.duvva@gmail.com

Kerala Section

Congratulations

Mr. Satish Babu, former Chair, has been elected to the Nominations Committee (NomCom) of ICANN for 2014, representing the represent Asia-Pacific geographical area. ICANN is mandated with the coordination of the global Internet's systems of unique identifiers such as domain names and IP addresses, and, in particular, ensuring its stable and secure operation.

News and Events

KiTES 2013, the second edition of the Darell Chong Student Activity Award winning event was held during 6th and 7th July 2013. KiTES was hosted at Government College of Engineering, Trichur and had a participation of 400+ students from 63 Student Branches across the state. Various workshops on Raspberry Pi, LabVIEW, Energy Auditing, Audrino and Photoshop were conducted. While some exhibits are given below, for more details and detailed event reporting may be found at <http://kites.ieee-link.org/about.php>



- Amrita Student Branch, Kollam, gets approved with IEEE SIGHT Humanitarian Technologies (HuT)
- KMEA Student Branch, Ernakulum, gets approved with RAS Chapter
- Meeting with Dr. Michael Lightner, Global President, IEEE (2006) & Current Vice - President, EAB on 18th July, 2013 to kick start activities related to IEEE EAB Early Career Faculty Development Program.
- IEEE Communications society, Kerala chapter & C-DAC, Thiruvananthapuram organizes a technical talk on "Networking the Cloud: Enabling Enterprise Computing and Storage" by Dr. K. K. Ramakrishnan, AT&T Fellow, IEEE Fellow (Distinguished Member of Technical Staff, AT&T Labs-Research) on Monday, 05-Aug-2013, 5.45 pm

Announcements

IEEE Kerala PES Chapter gets awarded with U S \$840.00 for its performance in 2012 at HPCP (High Performance Chapter Program).

R10 Congress Awards

- Ms. Alka Isac, College of Engineering Trivandrum - Runner up 2013 Larry K Wilson Award
- Student Branch, College of Engineering, Trivandrum - Runner up 2013 R10 exemplary SB award
- Ajithesh Gupta et.al, Amrita V V Kollam, Third place in 2013 R10 student Paper contest (UG Category)

Forthcoming Events

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

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

- Submission of full papers : 12 – Aug – 2013 (Final Extension)
- Intimation of acceptance of papers : 01 – Oct – 2013
- Camera Ready Paper and Author Registration : 01 – Nov – 2013

Community Engagement Workshop: Community Engagement Workshop on SIGHT, EPICS and TISP, hosted by IEEE Kerala SIGHT and IEEE Kerala GOLD SIGHT with support from IEEE SIGHT is planned to share the needs of the society where technology solutions are required to address humanitarian issues by experts and to share the experience of volunteers who have already provided solutions for demanding humanitarian issues. The event is scheduled on 23rd August at Techno park, Trivandrum.

Madras Section

Jeppiaar Engineering College: IEEE PES Chapter Inauguration



The IEEE Power and Energy Society Chapter at JEC was inaugurated on 10th Jul 2013 by Mr. K. V. Rupchand, Chairman, IEEE PES Chapter, Madras. In his enlightening speech on the topic "IEEE and Technological Development" Mr. Rupchand enunciating ideas of what IEEE and PES is, the future technologies, energy sustainability and lot more. It was then followed by introduction of the office bearers: Amarnath R, Chairman, Priyanka V, Secretary and Vivek Venkatasubramaniam, Treasurer. Then a short video on PES was presented. The session concluded with vote of thanks by Amarnath R.



The Computer Society Chapter of JEC hosted **GOOGLE IT, an online treasure hunt**, in association with the IEEE Computer Society Chapter of Madras Section with the aim of testing the logical thinking of the students and also to check how aware they were on the current issues in the country. It was open for all the IEEE India Council members and we received 308 participants from Delhi, Hyderabad, Kerala, Bangalore, Gujarat and Madras, trying tirelessly to crack the answers. A team of ten spent their quality time to frame questions and design the website. All the areas like latest inventions, books, movies, sports and much more were covered in the whole hunt. The hunt, which lasted for a week **from 20th July 2013 to 27th July 2013** turned out to be the platform for fun and knowledge to meet. Atchai Viknesh, Jeppiaar Engineering College won the contest and the runners-up were Prasanth Pulakala and Naveen S from Hyderabad Section. The event conveyed that 'There is a search in everyone's life, only the smart manage to get to the destination'.

IEEE Power and Energy Society: Report on IEEE PES GM2013



The IEEE PES General Meeting 2013 was held at Vancouver, Canada during 21-25 July 2013. This is the annual Flag Ship event of PES, held every year in North America. Statistics pertaining to the GM are mind boggling: 3000 attendees, 1000 Papers, Many Panel Sessions, Posters, GOLD, WIE, Students Exclusive Meetings, Award Functions & Committee Meetings. I chaired & led a two hour Panel Session titled 'Linkage between Energy and Water' on 25th July 2013. Co-Panellists were Dr. Maike Luiken, Lambert College & Chair PES London Chapter and Dr. Jeff Carmichael, Director Research, Vancouver Metro Water. I had to put up sustained effort for 9 months to set up this Panel. The title was considered as of great significance reckoning the theme of the Conference 'Shaping the Future Energy Industry'. I also attended the following other events:

- PES Chapter Chairs Meeting
- Chapter Awards Meeting & Luncheon (Madras Chapter Outstanding Chapter Award Runner-up announced & I was recognized as the Chapter Chair)
- Steering Committee Meeting for PES R 10 Meetings
- Welcome Reception & Dinner
- Members General Meeting Plenary
- Opening Plenary Sessions
- PES Renewable Technology Sub-Committee as its member
- PES RTSC Photo-Voltaic Working Group as its member.

It was exhilarating to rub shoulders with the top executives of PES, other peers, exchange 'notes' and renew contacts which I established at the GM2011 at Detroit & Chapter Chairs meeting at Perth, 2011. At every meet, I highlighted the statistics of Madras Section, especially its enterprising officers and large & active Student Chapters & its Members.

Report by: Mr. K. V. Rupchand, Chair, IEEE PES Madras Chapter from USA

Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya: IEEE Student Branch Inaugural Function



The IEEE SB was inaugurated on 24th Jul 2013 by Mr. H.R. Mohan, Vice Chairman, IEEE Madras Section and Chairman of IEEE Computer Society Madras Chapter and Associate Vice President (Systems) at The Hindu. The dignitaries at the inaugural included the Prof. K. C. Srinivas, Dean-Faculty of Engineering & Technology, Dr. M. Rathinakumar, SB Counselor & HOD/EEE, Prof Dr. M. Sivanandam, HOD/ECE, Branch Chair Mr. R. Purandhar and Vice Chair Mr. Venkata Sumanth.

The dignitaries' speech made the gathering feel energetic and they got an overview of IEEE and its benefits. Branch Chair Mr. R. Purandhar gave the welcome speech and outlined the plan of activities. Prof. K. C. Srinivas, in his address, spoke about the development of technology and highlighted the availability useful material in IEEE Xplorer and purposes of joining in IEEE. Mr. H.R. Mohan, in his detailed presentation, highlighted the organization of IEEE, features, benefits, society branches, awards, educational and professional services, scholarships, volunteer opportunities etc and then administered the IEEE Code of Ethics. He also touched upon the branch operations and know-how on various activities that can be executed under the branch.

National Engineering College: CRYPT-ARITHMETIC



As part of the regular activities of IEEE Computer Society SB Chapter organized Crypt-Arithmetic, a encrypting/decrypting event on 22nd Jul 2013 at the IBM Laboratory which had a participation of over 50 blooming engineers from the departments of EC,EE,IT,EI,CS.

The event was aimed to encourage the students and make them a part of the core technical team in the college, right from the start. All the participants performed brilliantly and most of them solved all the problems within the stipulated time. The winners were chosen by judges based on the sharpness and accuracy. The winners of the event were: I Prize - Ms. J. Pavithra, III year ECE, II Prize - Mr . G. Chandrakala - II year CSE, and III Prize - Mr. A. Aravind - III year CSE.

Scad College of Engineering and Technology: Inauguration of IEEE student Branch



The IEEE SB was inaugurated organized on 23rd July 2013 by Prof. A. Darwin Jose Raju, Chairman of IEEE GOLD Affinity Group, and Execom Member, Madras Section. Mr. A. Mohamed Asarudeen, SB chairman welcomed the gathering. Dr. N. Mohamed Sheriff, Principal SCAD CET in his presidential address advised the IEEE members to be socially relevant, responsible and actively participate in the events which are to be conducted in this academic year and encouraged them to come up with innovative ideas.

The chief guest, in his address, explained about IEEE & its benefits to the professionals and students. He highlighted present day competition & importance of participation in the student activities. Prof. S. Vellaisamy, HOD/EEE, Prof. D. Jeya Mani Latha, HOD/ECE offered felicitations. Mr. S. Muthukruppasamy, Assistant Professor & SB Counselor introduced the office bearers for the year 2013-2014 and also presented a brief report on the student membership and the activities. Mr. Jinesh conducted a student interaction session and answered the queries by student IEEE members. The programme ended with the vote of thanks by Ms. J. JESLIN BELLA, Vice chair, SB

Kalasalingam University: Workshop on “Image Processing and its Applications”



The IEEE SB organized a two days' workshop on “Image Processing and its applications” on 2nd & 3rd August 2013. Dr. S. Saravana Sankar, Vice-Chancellor, Kalasalingam University, inaugurated the workshop and lauded the efforts of the IEEE Branch in organizing technical events for the benefit of the students. Dr D. Devaraj, Dean, Planning and Development and IEEE SB Counselor welcomed the gathering and gave an overview of the workshop.

The resource persons for the program were Dr D. Devaraj; Dr. R.Balasubramanian Professor, Manonmaniam Sundaranar University; Mrs. K. Punitha, Kalasalingam University; Dr. M. Balasubramanian, Assistant Professor, Annamalai University, Chidambaram; Dr. V. Masilamani, Assistant Professor, Chennai; Mr. A. Muthukumar, Assistant Professor, Kalasalingam University; and Dr. R. Narmatha Banu, Professor, Velammal Engineering College, Madurai.

The topics covered included: Basics of Image Processing, Image Segmentation Techniques, Image Processing using Matlab, Algorithms for Tomography, Biometrics and cryptosystems, Image classification and Feed forward Neural networks. In addition, the participants were given hands-on training using Matlab.

Erode Builder Educational Trust Group of Institutions: Student Branch Inauguration



The official inauguration of IEEE SB and Association of ECE took place on 13th Jul 2013. Prof. D. Umamaheswari, HoD/ECE welcomed the gathering. After the presidential address by the trustee Thiru. S. N. Natarajan, director, Dr. P. Govindasamy offered felicitations. The association office bearers were introduced by Dr. C. Venkatesh, Dean, Faculty of Engineering.

Shri. T.S. Rangarajan, Chairman, IEEE Madras Section, after inauguration of the SB, briefed on the significance and benefits of the IEEE membership and also emphasized the need for a professional membership. He advised the students to join IEEE and to volunteer with the activities of SB. He also insisted to initiate WIE affinity group in the institution. He then introduced the office bearers of SB for the academic year 2013-14.

Antennas and Propagation Society and the Microwave Theory and Techniques Society Chapters: Seminar on 'Research and Publishing'



A half-day seminar on “Research and Publishing” was organized by the IEEE Madras Section Chapters of the Antennas and Propagation Society (APS) and the Microwave Theory and Techniques Society (MTTS) in association with SAMEER - Centre for Electromagnetics, on 20th July 2013.

Prof. Krishnasamy Selvan of SSN College of Engineering delivered a talk on ‘Perspectives on research and publishing.’ This talk covered general reflections on quality, nature of research and originality, literature review, types of research papers and tips for improving writing skills. The talk concluded with a discussion of academic ethos including plagiarism.

Dr. P.H. Rao of SAMEER in his talk on ‘The art of writing technical papers’ offered general guidelines for writing technical papers for both journals and conferences. Selection of an appropriate journal for the submission of a manuscript, best practices for compiling and presenting research results were explored. Ways of responding to reviewers’ comments were also discussed.

The seminar was attended by 67 participants, including 26 IEEE members. The participants included students (25), faculty, and professionals from R&D and industry. The sessions were interactive, asking questions and seeking clarifications.

IEEE Madras Section: Badminton Premier League

ICNL is pleased to announce the approval of the “IEEE Madras Section - Badminton Premier League” for funding of USD 700 by the SEC Team. Mr. B. Anand, submitted the proposal as an IEEE R10 Section, Subsection and Chapter Leadership and Social Activity. Details of the BPL will follow.

St. Xavier's Catholic College of Engineering: ICEETS – 2013: International Conference on “Energy Efficient Technologies for Sustainability”



An International Conference on “Energy Efficient Technologies for Sustainability” technically co-sponsored by IEEE Madras Section and Education Society Chapter was organized by the Mechanical Engineering Department during 10-12, April, 2013. Resource persons from reputed institutions shared their knowledge in energy efficient technologies to a gathering of researchers, academicians, industrialists and students. The topics for deliberation in the conference were demarcated into six technical tracks as Alternate Energy, Building Technologies, Automotive Technologies, Modelling and Design, Manufacturing Systems and Power Systems. The conf. attracted delegates from all over the country and especially delegates from Delhi, Uttarkhand, West Bengal, Gujarat, Punjab, Uttar Pradesh, Bihar, Madhya Pradesh, Maharashtra, Odhisa, etc representing prestigious institution like IIT's and NIT's. Foreign delegates from Canada, Iran, Australia, and Bangladesh added the international flavour to the conference.

The conference featured 12 invited keynote talks and 247 selected full paper presentations from around 700 submitted papers.

The invited keynote talks include:

- “Doing Research” by Dr. Joshi C. Haran, Professor, Amirtha School of Engineering, Coimbatore.
- “Zeotrophic Mixure - Biomass” by Dr. T. Srinivas, Professor, VIT, Vellore.
- “H₂ Fuel Generation System” by Dr. S. Vasudevan, Principal Scientist, Central Electrochemical Research Institute, Karaikudi.
- “Biomass Gasification Technologies” by Dr. V. Kirubakaran, Professor, Gandigram University, Dindigul.
- “Trigeneration Cycle on Biomass Power Generation” by Dr. Bale V Reddy, Professor, University of Ontario, Canada.
- “Alternatives to HCF22 refrigerant for Air-conditioning Application” by Dr. D. Mohanlal, Professor, Anna University Chennai.
- “Energy Efficient Automotive Technologies” by Dr. G. Nagarajan, Professor, Anna University Chennai.
- “Green Building & Solar Power Cooling” by Dr. V. Antony Arul Raj, Professor of Easwari Engineering College, Chennai.
- “Smart Materials for Smart Applications” by Dr. M. Sreekumar, Professor, IIITDM, Chennai.
- “Combined Power & Cooling System” by Dr. R. Saravanan, Professor, Anna University Chennai.
- “Nanotechnology for Energy Efficient Technologies” by Dr. B.S.S. Daniel, Professor, IIT Roorkee.
- “HVAC Systems” by Dr. Ashok Kumar, Professor, College of Engineering Trivandrum.

The ICEETS 2013 Organizing Committee adopted full electronic paper submission system for transparency and efficiency. All the technical research papers were checked for plagiarism through iThenticate professional plagiarism checker provided by IEEE. Meticulous planning for technical presentation simultaneously at ten venues with each venues having five sessions, accounting to 50 sessions, chaired by 100 chairs persons, who are eminent Professors from various institutions in and around Tamil Nadu and abroad made this conference a great knowledge sharing forum.

Dedicated and committed efforts of ICEETS team headed by the Conference Chair and Principal Dr. S. Joseph Sekhar, consisted of faculty members, research scholars and UG & PG students, backed by the management along with their entire machinery, especially by the Correspondent Rev. Fr. A. Jesumarian and Bursar Rev. Fr. Dr. A.S. Michael Raj made this conference a successful one. The conference was coordinated by the Organizing Secretary Dr. R. Edwin Raj, Coordinator of Research & Development Center

IT in July 2013



Prof. S. Sadagopan
Director, IIIT-Bangalore
s.sadagopan@gmail.com

General

- 26 applications (including one from Tata Sons) for new Bank Licenses were received on July 1
- Bihar school children dying due to food poisoning in mid-day meal on July 17, Bodhgaya blast on July 8, Hyderabad hotel building collapse, Air Asiana plane crash, Chinese earthquake, train accident in Spain and Air taxi crash in Alaska killed several dozens across the globe in July

Technology

- ISRO launches satellite on July 1 paving the way for India's own GPS by 2015-16; it also launched INSAT 3D Weather satellite from France on July 26
- Chinese manned spaceship Shenzhou 10 with three astronauts takes off on June 11 and safely lands 15 days later, a major milestone in Chinese space quest
- Telegram as a service is dead in India on July 15 (after 163 years)
- Solar powered plane completed the last leg (Washington DC to New York) on July 7

Products

- Google launches Nexus 7 tablet and Chromecast (a \$ 35 dongle) to view video from phone / tablet on to any HDMI-compatible TV on July 24
- Nokia launches Lumia 1020 (with 41 mega-pixel camera) in India on July 18
- Samsung launches Galaxy Tab 3 Tablets in India on July 18
- Yahoo shuts down Altavista search engine on July 10
- HP Slate 21 and Slate book X2 Android PC / Tablet launched in India in July

Markets

- Indian Rupee sinks to Rs 61 per USD on July 8
- Nokia buys Siemens share in NSN at \$2.2 billion
- Cisco buys Sourcefire for \$2.5 b on July 25

Indian IT companies

- Infosys gets an order for Finacle in July 2013 to power Corporation Bank CBS
- Satyam computers is history; after merger with Mahindra Satyam had its last day of trading July 3

- E-Commerce major Flipkart raises \$300 million on July 10; valued at \$ 1.3 billion

Education & Research

- 4PI (earlier CMAACS) – a CSIR Lab in Bangalore - to commission the largest super computer with 360 teraflops soon

Interesting applications

- EPFO (Employees Provident Fund) goes online in July 2013

Telecom

- Telegram service was stopped on July 15

People

- US Vice President Jo Biden visits India in July
- Prof Subra Suresh (IITM Alum) takes over as the first Asian to lead Carnegie Mellon University on July 1
- Harvard Marketing Prof Nirmalya Kumar to guide Tata Group from July
- Former Telecom Secretary R Chandrasekhar was elected to be the next NASSCOM President from January 2014
- Justice Sathasivam takes charge as the 40th Chief Justice of India on July 19
- Douglas Engelbart - inventor of mouse - passed away on July 4; Amar Bose of Bose Inc. – the leader in high quality audio devices - died on July 16

Interesting numbers

- India's Foreign Exchange on July 26 at \$280.16 billion (RBI)
- Indian Rupee stood at 61.38 against USD on Aug 2 (RBI)
- BSE Sensex and NSE NIFTY 50 (India's stock market indices) on Aug 2 stood at 19,164 and 5,678 (Reuters)
- Akamai publishes the Status of Internet Report in July; Hong Kong is No 1 in global average of "peak Net speed" with 63.6 Mbps; Japan is No 2 at 50.0; Romania is No 3 at 47.9; USA is at 36.6 & UK is at 36.3; India is at 10.6; in terms of global "average Net speed" South Korea is at 14.2, while China is at 1.7 and India is at 1.3 Mbps!

Information Resources



Compiled by
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Budgeting power: Four Rajasthan villages get microgrid solar power using an innovative pre-paid meter that detects theft. Solar power is stored in batteries and distributed among consumers. (Photographs: Ankur Paliwal) It looks no different from the regular electricity meter, but its innovative version is changing the way people use electricity and pay for it. Neechli Babhan, a small village in Rajasthan's Pali district, has a smart meter installed in 80 of its 150 houses. The smart meter forces people to use electricity diligently. Read the full story at <http://goo.gl/9Czat>

Madhya Pradesh doctor invents suicide-proof' ceiling fan: When German engineer Philip H Diehi invented the ceiling fan in 1892, he had no clue that apart from providing comfort during summers, his invention will very often be put to use to commit suicide. But there could soon be a remedy. A Madhya Pradesh cardiologist has invented a suicide-proof ceiling fan. R S Sharma, a professor in government medical college in Jabalpur, calls it "a simple contraption rigged up by using plain common sense". Read the full story at <http://goo.gl/sqhXn>

Researchers Find a Way to Code Using Plain English: Programmers often spend years in school learning how to program. Now, researchers say that they have come up with a way that may allow even the most inexperienced person to develop code. Writing computer programs has always generally required using special-purpose languages like C++, Fortran, or Assembly language. In a pair of research papers (PDF links), computer scientists at MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL) investigated if it's possible to write programs using natural language--that is, the sort of language we speak or write with on a daily basis. As it turns out, it might be--for some things, anyway. For the full story and the research paper visit <http://goo.gl/F1TbE>

10 open source projects that are leading innovation: Technology depends upon Innovation. Without boundary-pushing ideas, technology (and those who depend upon it) would get nowhere. Innovation also drives businesses and society. Many people assume that most innovation is derived from closed source software and developers. That assumption is, in many instances, very wrong. There are thousands of open source projects that bring about innovation. Some do so on a small scale, while others are thinking massive and global. Of the thousands of open source projects out there, the author of this post, Jack Wallen, has come up with a list of 10 that are leading innovation in the world of technology. More on this post at: <http://goo.gl/1eDCF>

Ethernet Crosses 40 years and Continues to Bloom: Ethernet crosses 40 years and continues to bloom: The Computer History Museum and the Metro Ethernet Forum (MEF) recently came together to celebrate the fortieth anniversary of invention of 'Ethernet' in Mountain View, California. Being in an era of massive centralized computing and yet being able to predict distributed computing to be the future, was one of the key pillars of success for Ethernet. The inventors believed in a simple yet overwhelming philosophy 'Build and they will come', referring to the devices which were yet to come. Read the full story at <http://goo.gl/xRfYx>

Cyber Intelligence Update: IBM Managed Security Services (MSS) monitors tens of billions of events per day for more than 3,700 clients in more than 130 countries, 24 hours a day, and 365 days a year. While analyzing threats is critically important, it is only part of the story. This report is intended to ask the follow-up questions. How many attacks turn into incidents? What measures could have stopped them? And how do these trends vary from industry to industry? The results and data reflected in this paper, were presented at the IBM Pulse conference on March 4, 2013. Download it from <http://goo.gl/ep9kA>

Ted Talk: How to "sketch" With electronics (6m 34s): Designing electronics is generally cumbersome and expensive -- or was, until Leah Buechley and her team at MIT developed tools to treat electronics just like paper and pen. In this talk from TEDYouth 2011, Buechley shows some of her charming designs, like a paper piano you can sketch and then play. Leah Buechley is an MIT electronics designer who mixes high and low tech to create smart and playful results. Watch the video at <http://goo.gl/1YSsch>

How Google Is Fighting Sex Trafficking With Big Data: For years human traffickers have used the latest technology to profit from the slave trade, but now software engineers at big data companies like Palantir and Salesforce are enabling anti-trafficking organizations to fight back--thanks to a little funding help from Google. Read the article at <http://goo.gl/kb0zL>

PCI DSS Cloud Computing Guidelines: Cloud security is a shared responsibility between the cloud service provider (CSP) and its clients. If payment card data is stored, processed or transmitted in a cloud environment, PCI DSS will apply to that environment, and will typically involve validation of both the CSP's infrastructure and the client's usage of that environment. The allocation of responsibility between client and provider for managing security controls does not exempt a client from the responsibility of ensuring that their cardholder data is properly secured according to applicable PCI DSS requirements. Download the guidelines from <http://goo.gl/E8TSM>

The IEEE Robots App Is Now Free!: If you like robots, check out the Robots for iPad app, the best and most complete guide to the amazing world of robotics. The app is now free on Apple's App Store and works on any iPad model. More than 75,000 people from all over the globe have already downloaded it. Created by IEEE Spectrum, the Robots app lets you explore over 100 real-world robots from 19 countries, with hundreds of animations, photos, videos, and articles. Using your fingers, you can spin robots 360 degrees or move them through different actions. Androids, humanoids, drones, and other machines come alive on the iPad screen. An award winning, critically acclaimed, the Robots app offers countless hours of exploration and entertainment. Robot enthusiasts can review in-depth, technical data about each robot, while beginners can learn how robots work and how to get started in robotics. It's the perfect iPad app for anyone who wants to learn more about the past, present, and future of robots. For details to download your free Robots app, visit <http://goo.gl/RXFGrd>

One hundred and One uses For Emergency Notification: When a disaster or crisis occurs, lack of communications and slow response team mobilization can make them far worse. Automated two-way communication enhances incident management by delivering disaster response, works over multiple mediums and can reach thousands or tens of thousands of people in minutes. In this white paper at <http://goo.gl/N2hwp7> learn about the essential requirements for an emergency mass notification system, regardless of the use. You'll also see why preplanning combined with automated, immediate communication ensures you can quickly and efficiently reach the right people at the right time.

Book: Engineering Tomorrow: Today's Technology Experts Envision the Next Century: The rush of technology in the 20th century brought more advances than the 11th through 19th centuries combined. Automobiles and aircraft, television and radio, computers and global communications, medical imaging and the leap of humans beyond Earth's atmosphere -- all these were born from the creative spark and labor of scientists and engineers. How can we ensure that technology is humane and not inane? Can nations mount an effective defense without having to shoot? When computer intelligence exceeds human intelligence, what will it mean to be human? If you could "uninvent" one technology, which would you choose -- and why? How can we prevent ourselves from drowning in high-tech waste? Why should engineers take the long view? These questions and many others are explored in Engineering Tomorrow: Today's Technology Experts Envision the Next Century by 50 world-renowned experts in all disciplines of science and technology. Nobel laureates Arno Penzias and Charles H. Townes, Internet co-inventor Vinton G. Cerf, environmentalist Stewart Brand, physicist Freeman J. Dyson, record-holding oceanographer Sylvia A. Earle, arms experts Norman R. Augustine and Richard L. Garwin, and microchip pioneers Jack S. Kilby and Gordon E. Moore are among the 50 featured scientists and engineers who envision technology's potential for the 21st century -- as well as the social responsibility borne by all who are engineering today and planning for tomorrow. IEEE members can access this book free at <http://goo.gl/NZ4IU>

Book: Hargrave's Communications Dictionary (2001): "This comprehensive book, which provides a succinct-as-possible glossary of the plethora of terms commonly used in communications, is destined to become an indispensable desk-side reference for engineers and others working in the area." - Curtis Siller, Lucent Technologies Are you sometimes overwhelmed by the overabundance of jargon encountered in technical books and articles? Hargrave's Communications Dictionary is a treasure of simplified communications terms, definitions, acronyms, charts, equations, and a wealth of related information amassed over the author's extensive engineering career. From ATM to Zone Paging, this volume includes over ten thousand definitions of key phrases that readers in industry, government, and academia need to understand. Many definitions incorporate basic tools for problem solving not found in other publications--such as drawings, graphs, charts, and references to IEEE standards. Real-world examples associated with voice and data communications are also included, as well as terminology from peripheral disciplines, including optics, computer science, data networks, and the Internet. Hargrave's Communications Dictionary is a fundamental resource for basic to intermediate-level students and practitioners, and is an essential quick reference for more experienced electronic technicians and engineers. This comprehensive dictionary is also an invaluable text for technical schools and universities. About the Author Frank Hargrave has more than 30 years experience in engineering and manufacturing at several major companies, including Multitech, Inc., ITT, and Yale Security, Inc. He is published in a variety of topics, including active filter design, residential telemetry systems, thermal compensation methods in electronic circuits, and telephone line interface methods. Mr. Hargrave currently runs his own consulting business in Charlotte, NC, where he also teaches classes at the Electronic Computer & Programming Institute. He has been issued 12 U.S. patents and has several others disclosed and in process. IEEE members can access this book free at <http://goo.gl/Zjlfm>

Books

A Brief History of Computing: Author: Gerard O'Regan. Published by: Springer. Pages: 264. Price: Euro. 26.95/=

This lively and fascinating text traces the key developments in computation -- from 3000 B.C. to the present day -- in an easy-to-follow and concise manner. Introducing the most significant events and concepts in the history of computing, this book embarks upon a journey from ancient Egypt to modern times; taking in mechanical calculators, early digital computers, the first personal computers and 3G mobile phones, among other topics. This revised edition examines the evolution of programming languages and the history of software engineering, in addition to such revolutions in computing as the invention of the World Wide Web. This book presents detailed information on major figures in computing, such as Boole, Babbage, Shannon, Turing, Zuse and Von Neumann; reviews the history of software engineering and of programming languages, including syntax and semantics; discusses the progress of artificial intelligence, examines the impact on society of the introduction of the personal computer, the World Wide Web, and the development of mobile phone technology; and follows the evolution of a number of major technology companies, including IBM, Microsoft and Apple. This broad-ranging text both gives the reader a flavour of the history and stimulates further study in the subject. As such, it will be of great benefit to students of computer science, while also capturing the interest of the more casual reader. More about the book at <http://goo.gl/XmcTRK> (This book is being given as a prize to the TechQuiz Winners)

Data Mining Techniques: Author: Arun K Pujari. Published by: Universities Press. Pages: 340. Price: Rs. 350/=.

This book focusses on the major and latest techniques of data mining and data warehousing and deals with the latest algorithms for discovering association rules, decision trees, clustering, neural networks and genetic algorithms. It also contains the algorithmic details of different techniques such as A priori, Pincer-search, Dynamic Itemset Counting, FP-Tree growth, SLIQ, SPRINT, BOAT, CART, RainForest, BIRCH, CURE, BUBBLE, ROCK, STIRR, PAM, CLARANS, DBSCAN, GSP, SPADE, SPIRIT, etc. Interesting and recent developments such as Support Vector Machines and Rough Set Theory are covered in this book. This book also discusses the mining of web data, spatial data, temporal data and text data. It can serve as a textbook for students of computer science, mathematical science and management science and as a handbook for researchers in the area of data mining and data warehousing. Pl. visit: <http://goo.gl/1hLXsF> for more info. (This book is being given as a prize to the TechQuiz Winners)

An Introduction to Geotechnical Engineering: Authors: Robert D Holtz, William D Kovacs & Thomas C Sheahan. Published by: Pearson Education. Pages: 864. Price: Rs. 599/=

This book provides a descriptive, elementary introduction to geotechnical engineering with applications to civil engineering practice. It focuses on the engineering classification, behavior, and properties of soils necessary for the design and construction of foundations and earth structures. It includes chapters on Geology, Landforms, and the Origin of Geomaterials. The 2nd edition has been updated to include many new useful engineering property correlations, as well as units on both SI and customary engineering. It also covers an introduction to vibratory and dynamic compaction, the method of fragments, the Schmertmann procedure for determining field compressibility, secondary compression, liquefaction, and an extensive use of the stress path method. More on the book at <http://goo.gl/gbtQoU> 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)

Innovation Secrets of Indian CEOs: Author: Rekha Shetty. Published by: Westland. Pages: 222. Price: Rs. 250/=.

Indian CEOs have their own brand of innovation. A people oriented, low cost innovation on the run. This kind of innovation is born out of thrift and a desire to squeeze the last ounce of value from limited resources. It is jugaad in spirit and respectful of all forms of potential wealth. This book gives the reader a glimpse into this unique form of Innovation. Not patented yet. But it should be. Dr Rekha Shetty's seventh book brings 50 CEOs and their methods into the limelight. A life time in the field of innovation has given her a ring side view of Indian Innovation and the principles that govern it. The author recommends this book for youngsters entering the corporate world and says, "I like to think of an India which is solution-oriented, not excuse oriented. Anyone can innovate but the challenge is to innovate consistently and implement those ideas. This book will teach you to do that." (This book is being given as a prize to the TechQuiz Winners)

Cracking the C, C++ and Java Interview: Authors: Ganesh SG & Subhash KU. Published by: McGraw Hill Education (India). Pages: 304. Price Not stated.

This book in five sections offers categorized presentation of questions according to their level of difficulty and at the end includes sample written test question papers. The FAQs on Cracking the IT Interview, Suggested Readings and List of Certification Courses are very informative. The section on General Programming Concepts includes questions on Data Structures, Algorithms and Object Oriented Programming. The sections devoted to C Programming, C++ Programming & Java Programming include MCQs, Aptitude and Theory questions. The UNIX and Operating Systems section has questions on OS principles, UNIX systems and UNIX Shell programming. (This book is being given as a prize to the TechQuiz Winners)

TechQuiz – 2013-08

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

1. Identify the product whose tagline is “Accelerating the pace of engineering and science”
2. ----- from Toyota is Japan's first robot astronaut .
3. Google: Google+ hangout = Facebook : -----
4. STEM fields or STEM education is an acronym for the fields of study in the categories of science, technology, engineering, and -----
5. Arrange them in increasing order: Byte, Bit, Nibble, Word

Email your answers by **15th Sep 2013** to ieee.techquiz@gmail.com with subject “**techquiz-2013-08**”. Please provide your name, designation, company/institution, full postal address (to send the prize) and the contact phone nos. after the answers.

There are FIVE 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 **Springer** (<http://springer.com>), **Universities Press** (www.universitiespress.com), **Pearson Education** (<http://www.pearsoned.co.in>), **Dr. Rekha Shetty**, the author of the book “Innovation Secrets of Indian CEOs” and **Tata McGraw Hill Education Pvt. Ltd** (www.tmhshop.com). Answers along with the winners’ info will be published in the next issue.

Answers & Winners of TechQuiz-2013-07

- AP, The Internship, Douglas Engelbart, GOST, Kharagpur
- The winners are: Nidish Vashistha(from Delhi), Arihant Jain (from Medak), Siddharth Baburao Dabhade (from Aurangabad) and Sharath Chandra (from Warangal)

Standards Scope – What?

THERE'S BEEN A LOT OF CONFUSION OVER 1024 vs 1000, KBYTE vs KBIT, AND THE CAPITALIZATION FOR EACH.

HERE, AT LAST, IS A SINGLE, DEFINITIVE STANDARD:

SYMBOL	NAME	SIZE	NOTES
kB	KILOBYTE	1024 BYTES OR 1000 BYTES	1000 BYTES DURING LEAP YEARS, 1024 OTHERWISE
KB	KELLY-BOOTLE STANDARD UNIT	1012 BYTES	COMPROMISE BETWEEN 1000 AND 1024 BYTES
KiB	IMAGINARY KILOBYTE	1024 $\sqrt{2}$ BYTES	USED IN QUANTUM COMPUTING
kb	INTEL KILOBYTE	1023.937528 BYTES	CALCULATED ON PENTIUM FPU
Kb	DRIVEMAKER'S KILOBYTE	CURRENTLY 908 BYTES	SHRINKS BY 4 BYTES EACH YEAR FOR MARKETING REASONS
KBa	BAKER'S KILOBYTE	1152 BYTES	9 BITS TO THE BYTE SINCE YOU'RE SUCH A GOOD CUSTOMER

IEEE India -- Forthcoming Events

- 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: aradhya.mysore@gmail.com Website: <http://icacci-conference.org/>
- ICHCI' 13: IEEE International Conference on Human Computer Interactions. August 23-24, 2013 at Saveetha University, Chennai, India. Website: <http://www.ichci.in/>
- GHTC SAS 2013: Theme: "Humanitarian Technology". August 23-24, 2013 at Technopark, Trivandrum. Contact: Mr. Shahim Baker, Conference Secretary, shahim@ieee.org (Mobile: 9895100209) or IEEE Kerala Section Office (0471 2473515). Website: <http://www.ghtc-sas.org/>
- R10-HTC2013: IEEE Region10 Humanitarian Technology Conference 2013. August 26-29, 2013, at Tohoku University Kawauchi-North Campus, Sendai, Japan. Website: <http://www.r10-htc2013.org/>
- 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: <http://www.pmi.org.in/conference2013/>
- AISC-2013: The All India Student Congress 2013. October 3-6, 2013 at Amrita University, Coimbatore. More details at: <http://www.ieeeaisc2013.org/index.php>
- C²SPCA 2013: International Conference on Emerging Trends in Communication, Control, Signal Processing and Computing Applications. October 10-11, 2013 at Oxford College of Engineering, Bengaluru, India. Website: <http://www.c2spca.com>
- LCN-2013: The 38th Annual IEEE Conference on Local Computer Networks (LCN). October 21-24, 2013 at Citigate Central, Sydney, Australia. Paper registration: April 5, 2013. Website: <http://www.ieeelcn.org>
- CCEM-2013: IEEE International Conference on Cloud Computing for Emerging Markets. October 16-18, 2013 at Bangalore, India. Website: <https://ewh.ieee.org/ieee/ccem/>
- UTW-2013: International Workshop on Underwater Technology. October 21, 2013 at NIOT, Chennai. Contact: utw2013@niot.res.in Website: www.niot.res.in/utw2013
- SYMPOL-2013: International Symposium on Ocean Electronics. October 23-25, 2013 at Kochi, India. Contact: 1 Dr.P.R.S. Pillai, Email: prspillai@cusat.ac.in Mobile: +91 484 2576418 and Dr.M.H. Supriya, Email: supriya@cusat.ac.in Mobile: +91 484 2576418. Website: <http://sympol.cusat.ac.in/>
- IEEE CATCON 2013: IEEE International Conference on Condition Assessment Techniques in Electrical Systems December 6-8, 2013 at Jadavpur University, Kolkata, India. Last date for full paper submission: July 15, 2013. Contact: catcon2013@gmail.com Tel: +91 33 2414 6949, +91 98300 92189, +91 90511 64988. Website: www.catcon2013.org
- ACC 2013: Second International Conference on Advances in Cloud Computing. 19-20, Sep 2013 at Bangalore. Contact: Dr. Anirban Basu at abasu@pqrsoftware.com
- ICICN-2013: International Conference on computational Intelligence and Communication Networks. September 27-29, 2013 at GLA University Mathura. Last date for paper submission: April 30, 2013. Contact: GS Tomar. Email: gstomar@ieee.org Ph: 09425744460. Website: www.cicn.in
- ISGT ASIA – 2013: Innovative Smart Grid Technologies Conference. November 10-13, 2013 at Bangalore, India. Last date for paper submission: 20th June 2013. Contact: pesbangalorechapter@gmail.com Phone: +91-80-42455555. Website: <http://ieee-isgt-2013.asia/>
- CUBE 2013: Theme: "Cloud & Ubiquitous Computing & emerging Technologies". November 15-16, 2013 at MCCIA Trade Tower, Pune India. Last date for manuscript submission: June 15, 2013. Contact: Prof. Vidyasagar Potdar, General Chair, info@thecubeconf.com or Prof. Rajesh Ingle, Program Chair, ingle@ieee.org (mobile: +91 9822 457390). Website: <http://www.thecubeconf.com/academic/> Submission page: <https://www.easychair.org/conferences/?conf=cube2013>

- IMPACT-2013: International Conference on Multimedia, Signal Processing and Communication Technologies. November 23-25, 2013 at Dept. of Electronics Engineering, Aligarh Muslim University, Aligarh, India. Last date for paper submission: 31st May 2013. Contact: Prof. Ekram Khan, Ph: 09457110112, Email: ekhan67@gmail.com Website: <http://www.electronics-amu.com/impact-2013.html>
- ISED-2013: 4th International Symposium on Electronic System Design. December 12-13, 2013 at Nanyang Technological University, Singapore. Paper Submission Due on 31st May 2013. Website: <http://ised.seedsnet.org/>
- ICGCE-2013: International Conference on Green Computing, Communication and Conservation of Energy. December 12-14, 2013 at Chennai, India. Website: <http://www.rmd.ac.in/icgce2013/>
- INDICON 2013: Theme: "Impact of Engineering on Global Sustainability". December 13-15, 2013 at Victor Menezes Convention Centre, IIT Bombay, India. Last date for manuscript submission: Aug 15, 2013. Contact: Prof. Suryanarayana Doolla, Publication Chair, suryad@iitb.ac.in (mobile: +91 96190 46767) or Mr. Ashok Jagatia, General Chair, ashok@acevin.com (mobile: +91 98212 42200). Website: <http://www.indicon2013.org>
- ANTS-2013: 2013 IEEE International Conference on Advanced Networks and Telecommunications Systems. December 15-18, 2013 at SRM University, Chennai, India. Contact: hod.itce@ktr.srmuniv.ac.in
- ICSISPD-2013: Sustainable Innovation and Successful Product Development for a Turbulent Global Market. December 16-18, 2013 & Special Workshop on Doctoral Research. December 17, 2013 at Chennai, India. Last date for submission of abstracts: 15th May 2013. Contact: Prof. Dr. K.Chandrasekaran. Email: kesavan.chandrasekaran@gmail.com Website: <http://icsispd2013.org/>
- ICMIRA-2013: International Conference on Machine Intelligence Research and Advancement. December 21, 2013 at Shri Mata Vaishno Devi University, Katra, Jammu and Kashmir. Contact: Email: icmira@icmira.com Mobile: +91-9419165834, Website: www.icmira.com
- IEEE CONNECT-2014: IEEE International Conference on Electronics, Computing and Communication Technologies. January 6-7, 2014 at Indian Institute of Science, Bangalore, INDIA. Website: <http://conecct.ieceebangalore.org>
- ICSE-2014: 36th International Conference on Software Engineering. June 1-7, 2014 at Hyderabad International Convention Centre, Hyderabad. Deadline: June 15, 2013 for Mentoring program. Deadline: September 13, 2013 for Research papers. Deadline: January 14th, 2014 for Posters track. Website: <http://2014.icse-conferences.org/>

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

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

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

We request the details be provided with the above information in the format in which the events are listed above.
 For example,

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

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

Announcements

Second International Conference on Advances in Cloud Computing (ACC 2013)

The IEEE Bangalore Section supported conference ACC 2013 is being organized by Computer Society of India during September 19-20, 2013, NIMHANS Convention Centre, Bangalore, India

The speakers at the conf. include: Arindam Sen (HCL); Bharat Goenka (Tally); Bob Brewin (Tyco); Jemal H. Abawajy (Deakin University, Australia); Jothi Padmanabhan (Yahoo); Kumar Padmanabh (Robert Bosch); Prasad Deshpande (IBM); Raghunath Nambiar (CISCO); Sarat Chandra Babu (CDAC); Shikharesh Majumdar (Carleton University, Canada); Srinivas Rao (Hitachi Data Systems); Umesh Bellur (IIT, Mumbai)

Concessional registration fee is applicable to the members of IEEE. Corporate Members: Rs. 2500/= . Members from Academia & Student Members: Rs. 1000/=. For registrations visit: <http://www.meraevents.com/event/acc-2013> or contact: csi_bc@yahoo.com OR acc2013@csibc.org

IEEE Day 2013

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

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

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

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

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

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

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

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

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

Student Branch Website Contest 2013 for Region 10

The IEEE India Info congratulates the following SBs for winning in the contest.

1st Place: USD500 & Certificate: Federal Institute of Science And Technology (Kerala Section)
<http://ewh.ieee.org/sb/kerala/fisat/>

2nd Place: USD350 & Certificate: Jeppiaar Engineering College (Madras Section)
<http://jeppiaarieee.org/Beta>

3rd Place: USD200 & Certificate: Thadomal Shahani Engineering College (Bombay Section)
www.ieee-tsec.org

These websites will be representing the region 10 at the global website contest for student branches.

A New Publication on Life Sciences - Survey

IEEE is considering producing a new publication focusing on Life Sciences, but we need your help. Since Life Sciences covers such a wide variety of topics, we want to understand which areas would be of interest to you and which features might be most important. We appreciate your assistance, and for responding to our survey. If you provide your email address, you will be entered into a drawing for \$100 Amazon gift card.

Please access the survey at: <http://www.surveymonkey.com/s/IEEECS-LifeSciences>

IEEE India Council – Student Branches

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

IEEE ComSoc Community Store

IEEE Communications Society has just launched its online Community Store!. The IEEE ComSoc Community Store at <http://www.cafepress.com/ieeecomsocstore> is a new service to meet the increasing demand from friends of ComSoc for the IEEE ComSoc's brand products and collections. For members and volunteers, the online store provides a convenient self-service stop for quick easy ordering of IEEE ComSoc branded products for global and local events.

Contributions

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

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Address for communication

Address all your communications relating to IEEE India Info to the Editor at: H.R. Mohan, AVP-Systems, The Hindu, Chennai – 600002. Phone: 044-28576411. Email: hrmohan.ieee@gmail.com

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