

IEEE India Council Newsletter

Vol. 8 No. 3 March 2013

Message from Chairman



Dear Members,

As you are aware, IEEE Region 10 Annual General Meeting was held during 2nd and 3rd of March at Chiang Mai, Thailand. Sixteen members from India participated in the meet. The poceedings of the R10 meet gave encouraging and useful inputs to serve

the IEEE community.

The Vice-President, IEEE and MGA Board Chairman Mr.Ralph M.Ford, in his address stated that the total IEEE Members as of 2012 statistics is 438246 in 333 sections all over the world along with 2110 Technical Chapters. The R10 Director Mr. Toshio Fukuda in his address stated that the membership strength in the Region is 111412. For your information the membership strength in India council alone is 51831 which is about 50% of the R10 strength. The student membership is 32368 which forms over 60% of the toal membership. While we can feel proud that we have more number of student members and student branches, we have to feel sorry that about 50% of the student branches are inactive and in many cases, the activities are not commesurate with the membership strength. I wish that the Sections motivate the student branches and the technical society chapters to organise more activities.

The Managing Director, Education Activity Board of IEEE, Mr. Douglas Gorham presented a new initiative of IEEE, the Pre-University Education, similar to the one, such as IT-SUITS - computer skill empowerment program for school children that I wrote in my message in the February issue of IC newsletter. I took the opportunity to discuss with him about this program. He received the idea with interest and promised to implement it through the Education Activity Board of IEEE.

We had a sideline meeting of India Council in the morning on 3rd which was attended by 23 members, including the Vice-President of IEEE Mr. Ralph M.Ford, the MGA Managing

Director Ms.Cecelia Jankowski, the IEEE President-Elect candidate Mr.Tariq Durani, the IEEE Asia Pacific Manager Ms.Fanny Su, the past R10 Director Mr.Lawrence Wong, and the IEEE India Director Mr.Harish Mysore. Various issues including activation of inactive student branches, membership promotion, motivating technical society chapters for more activities, organization of All India Gold and WIE meets, issues related to fund transfer from IEEE Head Quarters through IEEE India Operatios Office, etc., The MGA Managing Director Ms.Cecelia Jankowski promissed to address the issues related to the signing of an agreement with IEEE India Operations for making the fund transfer procedure simple to the Sections. It was also agreed by all the India Council members present to have face-to-face meetings of India Council.

The past R10 Director Mr. Lawrence Wong made a presentation on "Developing an MGA Plan for India" in which he said that India has been identified as a high priority country for membership growth by MGA. He added that during 2013, the IEEE Strategic Direction and Environmental Assessment (SD&EA) committee will lead the development of a clear plan for India as it relates to membership. The committee will work in conjunction with volunteers and staff in India to develop this plan and conduct critical assessment of applicable internal and external factors and data for India and Perform SWOT Analysis based on prior data/information, develop and recommend high level strategies for member/membership growth in India, prioritize recommended strategies in conjunction with local volunteers & staff, develop tactical programs for top strategies for MGA and other OUs to consider for funding/priority, provide recommended project plans for implementation of tactical plans (including financial models). For this purpose, it was decided to form a working group to assist the IEEE Strategic Direction and Environmental Assessment (SD&EA) committee.

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

With kind regards,
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Message from Editor



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Thanks for your positive feedback on the web interface to the contents introduced. While all attempts are being made to retain the file size of the newsletter small to facilitate downloading and reading, this interface to contents seem to have been useful and this will be continued.

While it is heartening to note that India Council accounts for 50% of the R10 membership, the Chairman's concerns expressed in his message needs to be addressed by everyone. Every OU of IEEE India Council needs to critically self-evaluate and strive hard to full-fill its objectives by organizing more meaningful and purposeful activities and emerge as the best Council not only in R10 but globally.

The outcome of the recent R10 meeting appears to be very positive with the proposed "MGA Plan for India" to be steered by the IEEE Strategic Direction and Environmental Assessment (SD&EA) committee and assisted by the our volunteers. We hope the impact of this activity will be beneficial to us.

In this issue, one of our Life Member, Dr. S. Thiruvengadam, a seasoned professor who had served long years at NIT Calicut and then at SVCE Chennai has contributed an article on "Whistle Blowing" dealing with ethical and moral issues in an organization. As engineers, we have the responsibility of making things happen in the right way and draw attention and set things right when they tend to go wrong.

We propose to publish a series of articles, which will deal with the skill development for engineering graduates with the first one, by Mr. Ballav Sahoo, Co-Founder & CEO of VictoryMind Educare Services on Importance of Life Skills appearing in this issue. This, we hope will address the employability issues. As lack of life skills and soft skills are being attributed for the un-employability, it becomes essential to take this issue seriously and look at ways and means to impart the skills to our young members. While most of the engineering institutions claim that their students are providing training in these skills, the improvements are not visible. The IEEE Professional Communication Society can step in, devise specific programmes along with the experts and consultants, and train our student members.

An article 'Social Impact: It Really is Very Simple..." by Mr. Sampath, Co-Founder & CEO of BeWo Technologies and spearheading the IEEE Rural Mobile Technology Initiative highlights the role of technology in impacting the social life and empowering people. Mr. Sampath is willing to popularize the concepts of technology for rural development by organizing joint events with the IEEE OUs. Interested Sections/Societies or AGs/SBs may get in touch with him.

When we came know from a recent posting at www.theinstitute.ieee.org that growth in membership and events is the highest in R10, it was realized to be true when we compiled the events being organized in India Council. Pl. inform about your event details to be listed. The forthcoming events list being published is growing, even without all the OUs communicating to us. The newsletter will bring the event organizers and readers together so that all get benefited.

We look forward to your feedback for improvement. Please email them at ieeeindiainfo@gmail.com

Call for Project Proposal for 2013 IEEE Region 10 Humanitarian Technology Activities

Dear Section Chairs,

IEEE Region 10 is encouraging to carry out Humanitarian Technology Activities in its sections for the benefit of underserved. IEEE also encourages to form a **Special Interest Group on Humanitarian Technology (SIGHT)** in the sections and to take up Humanitarian Technology activities. Kindly refer http://ieeesight.net for details on SIGHT and its formations. All the members forming SIGHT are required to register online at http://ieeesight.net

IEEE Region 10 is inviting project proposal(s) on Humanitarian Technology in 2013 from Sections of Region 10 to further promote HT activities. **Projects those are Technology Solutions for the underserved will only be considered**. Region 10 will provide support fund to carry out the project for underserved community in **partnership** with respective sections.

IEEE Region 10 had invited such proposals in 2012. 20 proposals were received from different sections of Region 10. Eight projects were selected for support from region 10. Seven projects were successfully completed. For details visit www.ieeer10.org.

Following are the salient features of R10 supported HT activities:

- Region 10 will provide 75% of the cost of the project or a maximum of US\$750 in each case. It is expected that 25% of the cost of the project be borne by the respective section.
- Region 10 will provide support to 8 (eight) select projects.
- Such projects are expected to be completed in 2013 (Report to be submitted by 15 Dec 2013).
- The project should clearly outline the aspect of scalability and self sustainability.
- The project should be proposed by the SIGHT of that section and duly endorsed by the Section Chair.
- The proposed budget should clearly mention the requirement of the fund from R10, support from the Section and from other sources (if any)
- The proposal for the project should be submitted in the following format:
- Name of Project:
- Name of Section:
- Name of Section SIGHT Coordinator:
- Name of the Project leader:
- Name of the project team members:
- Objective of the project (Maximum 200 words):
- How the project will serve the underserved (Maximum 500 words):
- Project outline (stating what form of Technology being used):
- How the project will be sustainable (Maximum 500 words):
- Proposed date of completion of the project and submission of report: dd/mm/yyyy (the date should not be later than 15 December 2013)
- Total fund required:
 - Support from R10: (75% of project cost or US\$750 whichever is less)
 - o Support from the Section: (25% of project cost or more)
 - Support from any other source (if any):
- Endorsement by Section Chair: The project has got approval and support of section as detailed above. (Signature of the Chair)

Please send project proposals to $\underline{deepakmathur@ieee.org}$ and $\underline{ieeeapo@pacific.net.sg}$

Last date of receiving project proposals is 30th April 2013.

Kindly give wide publicity to this 'Call for project proposal (s)' in your section.

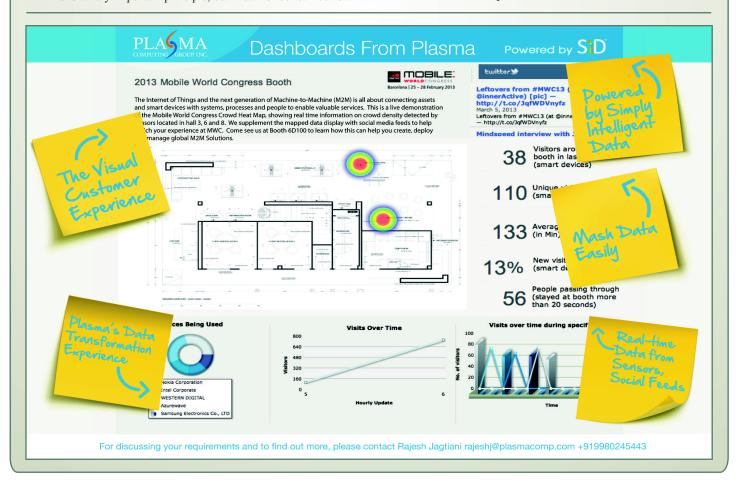
Deepak Mathur 2013-14 IEEE Region 10 Humanitarian Technology Activities Coordinator

A Compendium of Learning Principles

- 1. Guide the learner. Be sure that students know the objectives. Tell them what will be next. Provide organization and structure appropriate for their developmental level.
- Develop a structured hierarchy of content. Some organization in the material should be clear, but there should be opportunities for the student to do some structuring. Content needs to include concepts, applications and problem solving.
- 3. Use images and visual learning. Most people prefer visual learning and have better retention when this mode is used. Encourage students to generate their own visual learning aids.
- Ensure that the student is active. Students must actively grapple with the material. This can be done internally or externally by writing or speaking.
- Require practice. Learning complex concepts, tasks, or problem solving requires a chance to practice in a nonthreatening environment. Some repetition is required to become both quick and accurate at tasks.
- Provide feedback. Feedback should be prompt and, if at all
 possible, positive. Reward works much better than punishment.
 Students need a second chance to practice after feedback in order
 to benefit fully from it.
- 7. Have positive expectations of students. Positive expectations by the professor and respect from the professor are highly motivating. Low expectations and disrespect are demotivating. This is a very important principle, but it cannot be learned as a

- "method." A master teacher truly believes that her or his students are capable of great things.
- 8. Provide means for students to be challenged yet successful. Be sure students have the proper background. Provide sufficient time and tasks that everyone can do successfully but be sure that there is a challenge for everyone. Success is very motivating.
- Individualize the teaching style. Use a variety of teaching styles and learning exercises so that each student can use his or her favorite style and so that each student becomes more proficient at all styles.
- 10. Make the class more cooperative. Use cooperative group exercises. Stop grading on a curve and either use mastery learning or grade against an absolute standard.
- 11. Ask thought-provoking questions. Thought-provoking questions do not have to have answers. Posing questions without answers can be particularly motivating for more mature students.
- 12. Be enthusiastic and demonstrate the joy of learning. Enthusiasm is motivating and will help students enjoy the class.
- 13. Encourage students to teach other students. Students who tutor others learn more themselves and the students they tutor learn more. In addition, students who tutor develop a sense of accomplishment and confidence in their ability.
- 14. Care about what you are doing. The professor who puts teaching "on automatic" cannot do an outstanding job.
- 15. If possible, separate teaching from evaluation. If a different person does the evaluation, the teacher can become a coach and ally whose goal is to help the student learn.

Adapted from the book "Teaching Engineering" by: Wankat, Phillip C.; Oreovicz, Frank S. © 1993 Knovel



Social Impact: It Really is Very Simple...



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"Recall the face of the poorest and weakest man you have seen, and ask yourself if this step you contemplate is going to be any use to him."

- Mahatma Gandhi

It seemed like just the other day when we started our new social entrepreneurial venture, with grand visions of transforming rural India and empowering the Below-Poverty-Line segment. As ventures go, we were lucky to be incubated by a US Fortune -500 Telecom company. This ecosystem provided us with the right mix of guidance and credibility as we tackled the fundamental challenges of poverty alleviation in India. The key was to leverage the largest network in India the cellular network.

Lessons Learned

India is not a poor nation. Fundamental change is indeed possible with the right approaches in vision, implementation, and partnerships. Some lessons from the field:

- Vision: It helps to have an aggressive goal such as transforming and improving lives in over 638,000 villages in India. Think scalability. Think holistic solutions. Think relevance. The rural countryside is littered with terrific innovations that never made it past pilots in a few villages.
- Implementation: Successful execution requires a clear perspective on addressing pain factors, optimal usage of technology, and easy-to-use solutions. The minimum amount of reliable technology necessary to meet the field needs. Imagine the worst conditions, and plan for it.
- Partnerships: The primary partnership is with the semiliterate villager without whose buy-in, there is no possibility of success. Engaging with governments, local NGOs, institutions, global organizations, and the private sector are means of creating sustainability for the longer term.

Be prepared for a most rewarding journey, where you end up meeting so many people ready to help you in the cause. The right team, networks and financial sustainability ensure staying the course for the long haul.

Innovation

BeWo Technologies (short for Better World) specializes in last-mile products & services for enterprises and governments serving rural markets.

Solutions include rugged Android tablet based field devices incorporating biometrics, printer, smartcard readers, regional

language capability, payments, and extended battery life. Essential services and software applications meet needs of rural entrepreneurs, e-governance, NGOs, rural banking and financial inclusion.

Broader engagement with UIDAI/Aadhaar and rural market access ensure viable benefits and offerings are more readily available to the underserved rural segment.

Apart from technology, innovations span a fundamental shift in bridging humanitarianism, entrepreneurship, and policy.



BeWo Solutions in Use - 2013

Case Studies

- Rural Livelihood: The Rural Entrepreneur Suite changes the way services are delivered in rural India. The rural entrepreneur is able to generate regular income through door-step services (m-Governance, retail, etc.) using BeWo mobile solutions. This enables rural citizens to save time and money in accessing products more conveniently.
- Mother and Child Tracking: BeWo's comprehensive solution enables mother & child health monitoring from pregnancy to postnatal care and inoculation. Village health nurses use BeWo Mobile Healthcare Solutions to track patient health, reducing *infant mortality* and *postpartum maternal morbidity*.
- Rural Development: BeWo e-Governance and Rural Development applications ensure timely and reliable distribution of welfare payments to beneficiaries through biometrics and more efficient government processes.

Call to Action

In this climate of change where activism reigns, it is up to each one of us to make an impact. This can be achieved through innovation, awareness, and ultimately... action. It really is very simple. Do reach out to us!

About the author: R Sampath is Co-Founder & CEO of BeWo Technologies, an enterprise with a mission to drive change in Below-Poverty-Line markets. He is an active proponent of humanitarian entrepreneurialism that creates a shift in perspective and policy. He also spearheads the IEEE Rural Mobile Technology Initiative. Sampath holds an MBA from the University of Southern California, and a BE from the National Institute of Technology, Trichy, India. info@bewotechno.com:: www.BeWo.in :: www.ieee.org/go/rural

Whistle Blowing



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Introduction: The referee in a sports event like football, basketball blows the whistle whenever he finds any player /players committing a foul deed in the course of the play. Similarly a whistle blower in the context of any organization conveys information about a significant moral problem outside approved organizational channels to someone who is in a position to take action on the problem. According to a "Glossary of ethical terms" of an online ethics centre, whistle blower is a person who evinces concern, such as concern about safety, financial fraud or mistreatment (of research animals etc) and complains to authorities outside the organization in which the abuse is occurring and to which the whistle blower is affiliated.

Types

- Internal whistle blowing: This occurs when the information is passed on to someone within the organization.
- External whistle blowing: This occurs when the information is passed outside the organization.
- Open whistle blowing or Acknowledged whistle blowing: This occurs when persons openly reveal their identity as they convey the information.
- Anonymous whistle blowing: This occurs when the whistle blower desires his identity to be kept confidential.

Main features of whistle blowing

Act of disclosure.

- Topic/subject matter: The information relates to a significant moral problem in the organization. Examples are criminal behavior, unethical policies or practices, injustice to workers within the organization and serious threats to public safety and wellbeing and threat to national integrity.
- Agent: The person disclosing the information can be an employee or a former employee or someone closely associated with the organization.
- Recipient: A person or organization in a position to act on the problem.
- Investigation: The process of consulting with associates or colleagues to discuss and investigate the allegation.
- Action: If allegation is found to be true the relevant action to be taken.

Guidelines: It is morally permissible for employees to resort to whistle blowing concerning safety when 3 conditions are

satisfied. If the harm that is done by the product or activity to the public is serious and considerable.

- If they make their concerns known to their superiors.
- If their superiors evince lukewarm and indifferent attitude in the matter and they have exhausted all avenues of redressal available within the organization.
- He / She must have convincing documented proof.
- There should be strong proof that making the information public will prevent serious harm to the public.

Practical procedures to be adopted: Always, except in threatening emergencies normal organizational channels are to be used. Try to become aware of the formal and informal rules for making appeals within the organization.

- Should be prompt in raising the issue.
- A tactful approach should be used to keep focused on the issues. Acrimony or personal criticisms should be avoided. They will deflect the attention from the core of the problem.
- The supervisors should be kept informed of all the actions either through informal or formal communications.
- Claims and observations made should be accurate.
- If there is an ethics committee in the organization, it should be made aware of the developments.
- Informal/formal legal advice must be obtained.

Indian scenario: RBI had announced in 2006 a scheme for protection of whistle blowers in all private sector and foreign banks. Actually the issue of whistle blowing came into limelight due to "Dubey" Case. Mr. Dubey was an all India's service officer posted in Bihar. When he came across serious financial irregularities being committed at high levels of administration, he blew the whistle by writing to the PM's office. Unfortunately the matter was leaked to the perpetrators of the criminal acts and they arranged to silence Mr. Dubey forever and he was murdered. He paid with his life for his honesty.

How to prevent whistle blowing? Whistle blowing can be prevented by establishing strong ethics culture in the organization.

- Encouraging free and open channels of communication.
- Establishing review committee to investigate complaints and offer unbiased suggestions to management.
- The management should accept mistakes graciously and remedy them.

Conclusion: Whistle blowing is not the best possible method for remedying problems and should be resorted to as a last resort.

References

- Mike W Martin and Roland Schinzinger "Ethics and Engineering" Tata Mcgraw Hill Co 3rd Edition.
- Charles E Harris, Michael S Pritchard and Michael J Rubin "Engineering Ethics- Concepts and cases" 2nd Edition. Thomson & Wadsworth.

Importance of Life Skills for Engineering Students



Ballav Sahoo Co-Founder & CEO VictoryMind Educare Services chhayabs@victorymind.co.in

In India, large numbers of students opt for engineering courses every year. From last few years engineering courses have become favorites among students and parents. With the increase in number of engineering institutions, it has become easier for many students to get into these institutions. Because of this, every year lakhs of engineering graduates enter in to job market. And if believed on many reports, about 75% to 80% of these graduates are unemployable by India's highgrowth industries. This figure directly reveals about the overall development of engineering students during their course period and lack of skills for getting employed. It is not the matter of only lack of skills among the students but also challenges due to fluctuations in job market.

Looking in to four year of graduation period, an engineering student comes across many small and big tribulations. All these troubles need to be addressed properly to gain experiential learning out of it. Life skills are those skills which enable an individual to be more competent in dealing with the day to day challenges in a positive way. Life skills are very useful for engineering students to lead a positive life in order to achieve their desired goals. Life skills can act as a single capsule for teaching students art of life and giving solution to most of their problems. It develops the way of seeing problems and letting to prepare to handle difficult situations. It provides intrinsic motivation for growth and progress.

American Engineers' Council for Professional Development (ECPD) has defined "Engineering" as: the creative application of scientific principles to design or develop structures, machines, apparatus, or manufacturing processes, or works utilizing them singly or in combination; or to construct or operate the same with full cognizance of their design; or to forecast their behavior under specific operating conditions; all as respects an intended function, economics of operation or safety to life and property. And according to the Accreditation Board for Engineering and Technology (ABET): "Engineering" is the profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize economically the materials and forces of nature for the benefit of mankind. Both these definitions talk about

being critical, creative, decision making, to develop understanding about concepts and principles, keeping mankind as objective of creation, application of knowledge in order to benefit society and proper utilization of resources. From here these questions arise: Do engineering students are aware of what they need to do? Whether they have understood the concepts and applications? Are they creative to develop something new? Are they capable enough to take right decisions? Are they fruitful for society or becoming burden for society? Are they able to handle pressure that arises from job market?

Life skills have the ability to bring tremendous modification in engineering student's behavior and their way to approach engineering field, job market and finally their life. Life skills can make students more positive in their attitude and will bring overall wellbeing to them. In the process of their growth and development, life skills will provide them with major psychosocial competencies by giving Self-Acceptance which will allow them to possess positive attitude towards self, accepting multiple aspects of self and feeling positive about their past. Personal growth: life skills generate the feeling of continued development and make people open to new learning. Goals in life: life skills generate goal and direction in life which will stop students from wandering aimlessly. Mastery of surrounding: life skills make students to feel competent and able to manage a complex environment. Autonomy: life skills make people to be self determining, resist social pressures to think and act in certain ways and evaluate self by personal standards. Positive relation with others: to have warm, trusting and healthy relation with the sense of empathy and affection. Social contribution: life skills will allow students to feel that they have something valuable to contribute to society and positive attitudes toward people. Life satisfaction: life skills will help students to develop sense of contentment, peace and satisfaction from life.

Life skills for engineering students can be imparted through different methodologies. These methodologies will follow participatory approach. Life skills can be included directly in to curriculum or it can be delivered through training and workshops. Life skills can be given in forms of generic skills to students but ultimate aim should be to make engineering students capable enough in using generic life skills in different situations by own. Life skills success depends on conscious application by students to use it in their life and a faith in using them. If all the engineering students start using life skill approach in their life, the figures of unemployment will start reversing and drop considerably. Students will be benefitted with a strong sense and faith in their abilities and competencies.

Note: This is an introductory article, in a series of forthcoming articles which will deal with the skill development for engineering graduates being proposed.

IT in February 2013



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General

- ISRO (Indian Space Research Organization) successfully launches seven satellites on Feb 25 aboard its own launch vehicle PSLV; they include Indo-French satellite SARAL, INIBRITE and BRITE from Austria, SAPPHIRE and NEOSSAT from Canada, AAUSTAT-3 from Denmark and STRaND-1 from UK
- *Kumbh Mela* continues to attract millions of pilgrims to Allahabad, with 30 million (3 crore) pilgrims on "*mauni amavasya*" day on Feb 10; for the first time, the event is getting live streamed every day on NextgTV on mobile phones; unfortunately, in a stampede 10 people got killed on February 10
- "Life of Pi" shot in India and with Indian characters, wins
 Oscar Award on Feb 20; Carnatic singer Bombay
 Jayashree, who composed the lyrics for the lullaby song
 and sang the song in the movie had eleven nominations, yet
 missed the award by a whisker
- Wipro Chairman Azim Premji pledges Rs 12,300 crores to Bill Gates & Warren Buffet initiated Giving Pledge club on Feb 22
- Government announces norms for new bank license on Feb 18
- MCX starts as the third electronic exchange in India in Feb
- AirAsia & Tata form JV set to start a low cost Airline in India
- iSpirit the new organization to represent software product companies starts on Feb 1
- India's GDP growth slows down a lot; the 5% in the last three quarters is the slowest in a decade
- Helicopter deal with kickbacks paid by Italian company rocks the parliament in mid Feb
- Centre notifies Cauvery panel causing tension between Tamil Nadu & Karnataka in water sharing
- Iconic magazine Readers Digest (91 year old) files for bankruptcy on Feb 20; another iconic brand HMV Stores shuts down in UK in Feb
- "Kingfisher Airlines" is a closed chapter on Feb 25
- Hyderabad blast in India and a bomb explosion in Damascus kill many on Feb 21

- All India strike on Feb 20, 21 paralyses life in India
- Afzal Guru, the key attacked Parliament on Dec 13, 2001, was hanged on Feb 9
- Meteorite streaks over Russia on Feb 15 injuring nearly 1,000 people

Products

- Samsung launches dual SIM Galaxy Grand phone in India in Feb; it also launches Rex Series to take on Nokia Asha phones to address the low-end market; these are "Designed in India, Designed for India" phones
- Penguin starts Partridge (self-publishing platform for authors) in India in Feb, India being the first country of launch of this unique product
- Google launches high-end "Chrome laptop" priced \$ 1,499 in Feb
- Microsoft Surface Pro has long queue on the day of its launch on Feb 10
- Apple TV is launched in India on Feb 20
- Yahoo designs a new page for its US web-site on Feb 20
- Microsoft kills "Hotmail" on Feb 21
- Sony launches PlayStation 4 on Feb 21
- Huawei launches the world's fastest mobile phone on February 25
- Nokia launches low-end Lumia phones on Feb 25
- Blackberry 10 was launched in India on Fe 25

Markets

- Mu Sigma, the analytics start-up company out of Bangalore is worth a billion dollars on Feb 20
- BSE stock markets index Sensex is down by 317 points to reach 19,325 the biggest fall in recent times, on Feb 21
- Google stock touches \$800 for the first time on Feb 21
- Dell decides to go private on Feb 4
- Cadence buys Bangalore-based start-up Cosmic Circuits (founded by Ganapathy Subramaniam) on Feb 10
- American Airlines & US Airways announce their decision of a \$ 11 billion mega-merger in Feb

Indian IT companies

- Bangalore-based start-up InMobi (in the mobile advertisement space) included in "MIT Tech Review 2013 list" of most innovative 50 companies
- TCS expands UK operations with a new delivery center in Liverpool; its contract with Nielson grows in size to \$ 2.5 billion in Feb
- Infosys starts trading on NYSE Euronext from Feb 20, 2013, the first Indian company to trade on this platform; the new "Big Data" platform from Infosys helps companies to gain 40% increase in performance

 Bangalore Airport IT contract goes to Data logic; Wipro wins the award from Mumbai Airport for managing IT operations

MNC Companies in India

- French IT Services major CapGemini to hire 28,000 people in India by 2015
- French IT major Altos bets on India; hiring 1,000 more people immediately
- Daimler to add 800 more in its R & D Center in India
- Samsung starts selling "Made in India, Made for India" phones (Rex) in China

Applications

 Chennai-based English newspaper The Hindu launches its iPad App on Feb 4

People

- Ratan Tata receives "Lifetime Achievement" award from E & Y on Feb 21
- The highly ranked CMU (Carnegie Mellon University) names IITM alumnus and MIT, USA Professor Dr. Subra Suresh as the next President on Feb 5
- British PM David Cameron and French President Francois Hollande visit India in Feb
- Former LIC Chairman TS Vijayan takes over as IRDA (Insurance Regulatory Authority) Chairman on Feb 21
- Well-known Professor P.V. Indiresan (former Director of IITM) passed away on Feb 23

Education & Research

- The largest known Prime number with 17 million digits was discovered in Feb 2013; the second largest one was discovered in 2008; today the only way is to use extensive computational resources
- The highly ranked CMU (Carnegie Mellon University) names IITM alumnus and MIT, USA Professor Dr. Subra Suresh as the next President on Feb 5
- Harvard University had a record case of 60 students being asked to withdraw from their studies for a limited period on Feb 2 as a punishment towards mass copying

Telecom

- Broadband service providers allowed to offer telephony (using IPv6) from Feb 20
- 2G spectrum auction ends up as flop show on Feb 25

Infrastructure

- Piped CNG (compressed natural gas) reaches Bangalore on Feb 18
- Mumbai's "monorail project" trial run starts on Feb 16 in the Wadala Chembur section; to be commissioned in Aug 2013

- Chennai commissions 100 Million Litres/Day solar desalination plant on Feb 22
- Pondicherry (Puduchery) gets air connectivity on Feb 9

Some interesting numbers

- Telecom subscriber base on Dec 31, 2012 stood at 895.51 million with 864.72 million mobile subscribers and 30.79 million wire-line subscribers (with net reduction of 25.88 million mobile subscribers and 0.08 million wire-line subscribers in Dec 2012) (TRAI Press Release No. 28 dated Feb 7, 2013) (Further data still awaited)
- India's Foreign Exchange on Feb 28 at \$290.6 billion (RBI)
- Indian Rupee stood at 55.08 against USD on Feb 21 (RBI)
- Sensex (India's stock market index) on Feb 28 stood at 18,861 (Reuters)
- Apple iTunes University crossed one billion download on Feb 28
- Indian biscuit brand "Parle G" in Feb 2013 became the first Indian FMCG brand to cross retail annual sale of more than Rs 5,000 crores (about a Billion Dollars)

Special Interest Groups on Humanitarian Technology

IEEE has instituted a program called **Special Interest Group on Humanitarian Technology** (SIGHT) targeted and dedicated towards humanitarian technology activities.

Region 10 is also encouraging Humanitarian Technology activities in the sections for the benefit of underserved. Sections are showing lots of interest in addressing this humanitarian mission of IEEE and coming forward to forming 'Special Interest Group on Humanitarian Technology' (SIGHT). We have already formed eight SIGHTs in Region 10.

Each SIGHT on formation will be granted an amount of US\$250 as start-up amount for initiation of activities.

Please visit http://www.ieeer10.org/activities/humanitarian-technology.html for details on Humanitarian Technology Activities and SIGHT.

You are requested to form SIGHT to promote Humanitarian Technology Activities in your section. Petition form and guidelines on formation of SIGHT is available on the website.

Petition form, completed in all respect, may be sent to Holly Brown (h.s.brown@ieee.org) and Deepak Mathur (deepakmathur@ieee.org).

Kindly give the concept of SIGHT a wide publicity in your section and encourage members to form this special interest group to promote humanitarian activities by application and use of technology to serve the underserved population.

Deepak Mathur IEEE Region 10 Humanitarian Technology Activities Coordinator

Information Resources



H.R. Mohan AVP-Systems The Hindu Chennai <u>hrmohan.ieee@gmail.com</u> http://infoforuse.blogspot.com

Frontiers of Engineering (2012): This volume includes 12 papers from the National Academy of Engineering's 2012 U.S. Frontiers of Engineering (USFOE) Symposium held in September 2012. USFOE meetings bring together 100 outstanding engineers (ages 30 to 45) to exchange information about leading-edge technologies in a range of engineering fields. The 2012 symposium covered four topic areas: Climate Engineering, Vehicle Electrification, Serious Games, and Engineering for the Biological Interface. The papers describe leading-edge research on such topics as the challenges of removing carbon dioxide from the atmosphere, keeping up with the demand for electrochemical energy storage, innovative technology taken from the lab to the living room, and the advancements made to better mimic human biology, among other topics. One can read this volume free on online. Registered users can download the pdf version of this volume. Visit http://goo.gl/xkkDJ

Infusing Real World Experiences into Engineering Education: This report showcases 29 engineering programs at US colleges and universities that effectively incorporate real world experiences in their curriculum, and highlights best practices for schools seeking to create such programs. Best practices include incorporating multidisciplinary team-based projects into curricula to help students develop skills in decision making, leadership, written and oral communication, organization/time management, cultural awareness, and problem solving. The report identifies impediments to infusing real world experiences in engineering programs and suggests ideas for overcoming them. The most frequent obstacles cited are lack of funding and financial support, faculty workload concerns, and challenges encountered with partners. Case studies in the report compare anticipated versus actual program outcomes to demonstrate how each institution is improving the level of preparedness of its engineering students. The Real World Engineering Education committee received 95 nominations from accredited four-year undergraduate schools with engineering or engineering technology programs. Submissions were judged based on program creativity, innovation, attention to diversity (including geographic, institution, racial/ethnic, and gender), sustainability plan, assessment of student learning, level of real-world experience, and anticipated versus actual outcomes. Visit http://goo.gl/Vjlkq

Educating Engineers: Preparing 21st Century Leaders in the Context of New Modes of Learning: Engineering education is changing in the United States and around the world in response to integration with new science, particularly

nanoscale science and biology; increased emphasis on innovation and entrepreneurship to drive economic growth; accelerating speed, complexity, and globalization of engineering functions; preparation of graduates to address the Grand Challenges; efforts to empower a more diverse population of young American engineers; renewed commitment to design and production; and new approaches to large-scale engineering systems that must engage society. As in all of higher education, there are also significant challenges such as declining financial support and vast opportunities such as interactive online learning and massive open online courses. What lies ahead? What are the ramifications for engineering schools? During the 2012 annual meeting of the National Academy of Engineering, these questions were at the center of the forum titled "Educating Engineers: Preparing 21st Century Leaders in the Context of New Modes of Learning." This report is a summary of that discussion. Visit http://goo.gl/LqIr2

Video: Identifying Compromised Integrated Circuits (7m 18s): Integrated circuits (ICs or "chips") are the brains for virtually everything electronic, and at the Center for Security, Testing, and Reliability (CSTAR), University of Connecticut associate professor Mohammad Tehranipoor and his research team are developing innovative techniques for identifying compromised chips. Dr. Tehranipoor discusses two major thrusts of his research: the detection of so-called hardware "Trojans" in ICs, and the detection of recycled chips, which may find their way into products such as automotive electronics - where their early expiration can have disastrous consequences. Watch it at http://goo.gl/KlCn6

Video: Electronics Engineering Project Showcase (4m 46s):

The graduating class of Electronics Engineering Technology at the School of Engineering Technology & Computing at RCC Institute of Technology showcased their final projects at the beginning of the summer. The projects were completed in teams of three or more students over a period of two terms (eight months). Each team researched, designed, and implemented a complex electronics, computer, or network-related project that would be commercially appealing in the industry. Watch it at http://goo.gl/RlvT2

The Post Post-PC Era: Will Apple, Google, Samsung, Amazon Or Microsoft Win?: Many unknowns remain in the larger post-PC-era war, which has only just begun and has already seen an explosion of devices and form factors, all competing to fill the void of the now-ancient desktop computer: tablets, smartphones, minis, phablets, ultrabooks, hybrid laptops. As the market evolves, these devices will be competing to fulfill niche needs, with certain devices bound to flourish and others bound to fail. A number of factors that will influence which device types will survive through 2015 include: Consumer and worker choice; Device distribution channels; Platform ecosystems; Technology advances; and Economic development in BRIC. More at http://goo.gl/1X9fr

RobotsLab Wants to Put a Box of Robots in Every Classroom: This is the RobotsLab Box. It's a giant box, and it's full of robots. As if that wasn't enough, it's also full of a tablet which is full of a complete STEM (science, technology, engineering, and math) curriculum that uses the robots as tools

to show things like math and physics in action. The Box is designed to make it easy and affordable for teachers to drop a bunch of awesome robots right into the classroom, and even though I'm not a teacher or a student, I want one. Read the full post at http://goo.gl/wTQLG

Rationalizing the software development lifecycle in systems engineering: Software is not only changing the nature of products, but also the nature of systems engineering. Across many product industry sectors, software is arguably accounting for the lion's share of innovation. Embedded software provides the intelligence in today's smart products. However, it also adds more design interdependencies, thereby increasing product complexity. The challenge in overcoming complexity is that most product organizations are highly silo'ed by engineering discipline and tool adoption. The systems engineering discipline helps to overcome these silos by focusing on the big picture, ensuring that the design is properly supported through the lifecycle of the project. Yet all too often, silo'ed engineering workflows, reinforced by the proliferation of disconnected software tooling, compounds the challenge that systems engineers face. For many product engineering organizations, the growth of software content is raising the urgency to ingrain systems engineering mentality and practice across all engineering teams. Download this whitepaper from http://goo.gl/D4d3u

10 Platforms for Obtaining Customer Feedback: To keep an e-commerce store running at peak-performance, merchants need to pay attention not only to analytics, but also to customer feedback. While analytics are a good starting point for figuring out which site elements need to be revamped or tested, customer feedback gets straight to the point by telling merchants exactly what a site visitor liked or disliked about their shopping experience. This type of insight can be used to quickly implement adjustments to a Web store in order to optimize the user experience. There are many ways that merchants can obtain feedback from their customers, from social media to surveys and forums, which is why Website Magazine has compiled a list of platforms that merchants can leverage to gain insights into their customers' shopping experiences. More at http://goo.gl/s18uX

What Is Crowdfunding And How Does It Benefit The Economy: With the passing of President Obama's JOBS Act this past April, the word of the day seems to be crowdfunding. While this concept has arguably been around for centuries, it is still formally recognized as a new industry to many consumers, particularly those outside the United States. Crowdfunding is by definition, "the practice of funding a project or venture by raising many small amounts of money from a large number of people, typically via the Internet." For details on the post and video to get a clearer idea of the step by step process of crowdfunding, visit http://goo.gl/8SXin

Scientists use 3-D printing to help grow an ear: Printing out body parts? Cornell University researchers showed it's possible by creating a replacement ear using a 3-D printer and injections of living cells. Read the story at http://goo.gl/KgCj3

MEMS project pushes for technological revolution: The design of micro-electromechanical systems (MEMS) is about to undergo a technological revolution: Experts from research institutions and industry are investigating entirely new methods for developing MEMS. They are working together in the research project known as "Circuit Diagram-Based Design of MEMS for Applications in Optics and Robotics" or MEMS2015 for short. This project is funded by the Federal Ministry of Education and Research (BMBF) and coordinated by Robert Bosch GmbH. The aim is to develop the first ever universal design methodology for MEMS to plug the gaps between electronics and mechanics design, manufacturing, and subsequent integration into products. Read the full article at http://goo.gl/BmAq5

Book: Intellectual Property Law for Engineers and Scientists: An excellent text for clients to read before meeting with attorneys so they'll understand the fundamentals of patent, copyright, trade secret, trademark, mask work, and unfair competition laws. This is not a "do-it-yourself" manual but rather a ready reference tool for inventors or creators that will generate maximum efficiencies in obtaining, preserving and enforcing their intellectual property rights. It explains why they need to secure the services of IPR attorneys. Coverage includes employment contracts, including the ability of engineers to take confidential and secret knowledge to a new job, shop rights and information to help an entrepreneur establish a nonconflicting enterprise when leaving their prior employment. Sample forms of contracts, contract clauses, and points to consider before signing employment agreements are included. Coverage of copyright, software protection, and the Digital Millennium Copyright Act (DMCA) as well as the procedural variances in international intellectual property laws and procedures. IEEE members can access this book free at http://goo.gl/O3bJn

Book: Essential Communication Strategies: For Scientists, Engineers, and Technology Professionals: Learn the tricksof-the-trade of becoming a great technical communicator Remember when you were an undergraduate and freshman composition seemed so irrelevant to your life? After all, you were going to conquer the world with technological know-how. Your spellcheck software would handle the details. Now that you're a professional - pitching an idea, vying for a contract or grant, or presenting at a meeting - getting your point across effectively suddenly seems pretty essential for success, doesn't it? Fear not. This light-hearted text, brimming with proven techniques, good advice, and real-world examples that you can easily apply to your own case, will turn you into an adept communicator. Written expressly for technologists, this is a simple, concise, and practical guide to the communication dynamics of writing, presentation delivery, and meeting interaction. Herbert Hirsch, in-demand consultant who developed these techniques for his own prolific engineering career, teaches you how to use "scripting" to plan for communication events. More than a mere outline or storyboard, scripting is a powerful technique that assists you in getting the right structure and content, in the proper order. Using scripting, you will master the fundamental principles of communicating:

How to grab the reader's or audience's attention from the start; How to maintain the connection while proceeding smoothly from topic to topic; How to provide the substantiation for the points you made; How to communicate with people from other groups, such as marketers, investors, users, and others; and How to overcome such obstacles as fear, boredom, and aversion to your material Distilling the art of communication to its essence, Essential Communication Strategies empower s you to communicate with confidence and authority in every situation, to every audience. IEEE members can access this book free at http://goo.gl/Zi4uv

Taking baby' steps: Every year lakhs of engineering students are in a state of dilemma regarding what to do for a final-year engineering project and finally end up doing mediocre projects of no relevance, affecting their employability and career opportunities. It is important to understand that doing a good engineering project requires a different mindset or attitude. Doing a final-year project is different from studying and passing a subject in a particular semester. A project work requires exploring or finding something new in the field of specialisation or branch one is pursuing. It involves looking at known things in a different way or creating new knowledge or use of existing knowledge in a new and creative way so as to generate new concepts, methodologies and understanding. Read the full article at http://goo.gl/NZcnz

Khera's formula for success: With positive thinking, commitment to values, and a vision, you can reach great heights. Your attitude, your values and your vision form the blue print of your success. Anything is possible to achieve by psyching oneself with positive thinking. These were the words of wisdom by motivational speaker and author Shiv Khera who was in Chennai recently. Positive thinking alone cannot guarantee success. "It is a supplement, not a substitute for your action plan. Your positive action combined with positive thinking results in success." Read the article at http://goo.gl/Gqipc

Access to Books from the publisher Knovel: Knovel, a leading publisher of text, reference books & conf. proceeding in engineering, technology and advanced science areas, offers registered users, free access to 10 premier handbooks and databases and every week free access to two of the selected books. Know more about this at http://goo.gl/Q6Ybe

COMSOL Conference User Presentations: Over 1,000 users of COMSOL Multiphysics (a simulation environment which facilitates the steps in the modeling process such as defining your geometry, meshing, specifying your physics, solving, and then visualizing your results and also serves as a platform for the application specific modules) have shared their achievements in the most cutting edge fields of engineering. The collection at http://goo.gl/9Uiyn includes user presentations, keynotes presented at conferences held in Boston, Milan, and Bangalore in the fall of 2012 and covers the following topics: AC/DC Electromagnetics; Acoustics and Vibrations; Batteries, Fuel Cells, and Electrolytic Processes; Bioscience and Bioengineering; Chemical Reaction Engineering; Computational Fluid Dynamics; Electromagnetic Heating; Geophysics and Geomechanics;

Heat Transfer and Phase Change; MEMS and Nanotechnology; Microfluidics; Multiphysics; Optics, Photonics and Semiconductors; Optimization and Inverse Methods; Particle Tracing; Piezoelectric Devices; Plasma Physics; RF and Microwave Engineering; Simulation Methods and Teaching; Structural Mechanics and Thermal Stresses; Subsurface and Porous Media Flow; and Transport Phenomena. The collection contains 382 technical papers; 254 presentations; 231 posters and 13 animations and movies.

The Laws of Simplicity

Author: John Maeda. Published by The MIT Press

Ten Laws

- REDUCE. The simplest way to achieve simplicity is through thoughtful reduction.
- ORGANIZE. Organization makes a system of many appear fewer.
- TIME. Savings in time feel like simplicity.
- LEARN. Knowledge makes everything simpler.
- DIFFERENCES. Simplicity and complexity need each other.
- CONTEXT. What lies in the periphery of simplicity is definitely not peripheral.
- EMOTION. More emotions are better than less.
- TRUST. In simplicity we trust.
- FAILURE. Some things can never be made simple.
- THE ONE. Simplicity is about subtracting the obvious, and adding the meaningful.

Watch the 16 minutes TED Talks video by the author John Maeda on Designing for simplicity at http://goo.gl/MuOqY

Also visit the blog by the author at http://lawsofsimplicity.com/

50 Life Hacks to Simplify your World: Life hacks are little ways to make our lives easier. These low-budget tips and trick can help you organize and de-clutter space; prolong and preserve your products; or teach you something (e.g., tie a full Windsor) that you simply did not know before. See them at http://goo.gl/8SZAC

The Most Important Words of Personal Responsibility

- The 10 most important words: I won't wait for others to take the first step.
- The 9 most important words: If it is to be, it's up to me.
- The 8 most important words: If not me, who? If not now, when?
- The 7 most important words: Let me take a shot at it.
- The 6 most important words: I will not pass the buck.
- The 5 most important words: You can count on me.
- The 4 most important words: It IS my job!
- The 3 most important words: Just do it!
- The 2 most important words: I will.
- The most important word: Me

Books



Harnessing Green IT: Principles and Practices

Edited by: San Murugesan & G. R. Gangadharan. Published by: John Wiley & Sons, Inc.

Hardcover. Pages: 432.

Price: Rs. 499/=

This book presents a comprehensive coverage of key topics of importance and practical relevance - green technologies, design, standards, maturity models, strategies & adoption and also presents a clear approach to greening IT encompassing green use, green disposal, green design, and green manufacturing. It illustrates how to strategically apply green IT in practice in several areas. It examines various ways of making computing and information systems greener environmentally sustainable -, as well as several means of using Information Technology (IT) as a tool and an enabler to improve the environmental sustainability. The book focuses on both greening of IT and greening by IT complimentary approaches to attaining environmental sustainability. The highlights of the book include: Discussion on several useful approaches to embracing green IT in several areas; Chapters written by accomplished experts from industry and academia who have first-hand knowledge and expertise in specific areas of green IT; Set of review and discussion questions at the end of each chapter that will help the readers to examine and explore the green IT domain further; Inclusion of a companion website providing resources for further information and presentation slides. This book will be an excellent resource for IT Professionals, academics, students, researchers, project leaders/managers, IT business executives, CIOs, CTOs and anyone interested in Green IT and harnessing it to enhance our environment. For more details and a pdf extract of the 1st chapter on "Green IT: An Overview" visit http://goo.gl/iaBb7 (This book is being given as a prize to the TechQuiz Winners)



Engineering Optimization - A Modern Approach

Author: Ranjan Ganguli.

Published by: Universities Press.

Pages: 269.

Price: Rs. 350/=

The deployment of optimization techniques at the conceptual design stage of complex technical systems is today no longer a desirable trait but an absolute necessity. This book aims to make the optimization technique pervasive in engineering design by moving the problem from an academic setting to an industrial platform. It provides a thorough understanding of the concepts of optimization necessary for a robust design of technical systems. The approach is from a modern perspectiveit dwells on surrogate modelling and non-gradient-

based algorithms and at the same time emphasizes classical methods for pedagogical reasons. Nonlinear optimization, response-surface method and genetic-algorithm approaches have been focussed upon to bridge the gap between nonlinear programming and engineering optimization techniques. The best way to learn optimization methods is undoubtedly by solving problems and following it up with exercises in computer programming. To enable this experience, the book has several solved examples, some of them non-trivial, besides many unsolved problems for the student to work out. In seven chapters, the text covers: Basic Concepts; Direct One-Dimensional Search; Gradient-Based Methods; Newtonian Methods; Constrained Optimization Methods; Response Surface Method; and Genetic Algorithmed More details at: http://goo.gl/nLrPa (This book is being given as a prize to the TechQuiz Winners)

TechQuiz 2013-03

(Two Prizes to win. Books reviewed will be presented to the winners)

- 1. Expand: WEEE.
- 2. Who coined the term "electricity"
- 3. The energy efficiency of a computer is expressed as -----.
- 4. What is the name of the IEEE's highest award, which recognizes an individual for an exceptional contribution or extraordinary career in the IEEE fields of interest.
- 5. ----- is a robot-seal therapeutic pet, being used in assisting people with Alzheimer's disease, dementia and autism.

Email your answers by 10th Apr 2013 to <u>ieee.techquiz@gmail.com</u> with subject "techquiz-2013-03". Please provide your name, designation, company/institution, full postal address (to send the prize) and the contact phone nos. after the answers.

There are TWO prizes to win. Two prizes will be in the form of books which are briefly reviewed in this edition of the newsletter. They are being offered by Wiley India Pvt. Ltd (www.wileyindia.com) and Universities Press (www.universitiespress.com). Answers along with the winners' info will be published in the next issue.

Answers & Winners of TechQuiz-2013-02

China, Tetsuro Mori, HEVC -- High Efficiency Video Coding / H.265, Advancing technology for Humanity, Sir Issac Asimov

"Signals and Systems" from Wiley India to Arshia Sharma (Chandigarh)

"Paths of Innovators (Volume 2)" from Universities Press to J. Jerald Inico (Chennai)

News from Sections

Madras Section

Sri Shakthi Institute of Engineering and Technology: International Conference on Computer Communication and Informatics



The Third International Conference on Computer Communication and Informatics was held during 4-6, Jan 2013. The conf. attracted 160 papers.

At the inaugural session, Dr. S. Thangavelu, Chairman, SSIET welcomed the gathering and advised the students to pursue higher studies in their respective domains and focus on inventions & research. Shri.T.S.Rangarajan Chairman, IEEE Madras Section, in his address, spoke about the quality of the papers being presented and pointed that every research paper should have 90% uniqueness and software is available for screening the quality of papers. He opinioned that India is rich in problems, opportunities, talents and solutions and the world can learn from India.

The Chief Guest Shri. K. Ganesan, Vice President, HR, TCS, Chennai released the conference proceedings and delivered the inaugural address highlighting the technological development that is happening in India and the need for doing more research. In this context, he added, to promote research, TCS is committed to extend aid to around 500 Indian Ph.D scholars in next four years without any commitment in return. He said that "Invention and Innovation are the back bone of major IT firms, where innovation leads to propagation which leads to deployment and back to innovation". He also added that students should cultivate the habit of Interrogation.

The Guest of Honor Dr. K. Sivakumar, presented the special address emphasizing the importance of research oriented learning.

The conf. had sessions in which Dr. T. Thyagarajan, Professor, MIT, Chennai, Dr. Mohammad. S. Alam, Chairman, Dept. of EE and CS, University of South Alabama, USA, and Dr. Siddharth Suryanarayanan, Colorado State University USA addressed the participants.

Following the inaugural function, the delegates presented papers on Image Processing, Data Mining and Network Security, Cloud Computing, Soft Computing, Feedback Control, Wireless Communication and Embedded Systems.

Dr. Mylswamy Annadurai, Programme Director, Satellite Centre ISRO, Bangalore was the chief guest at the Valedictory on 6th. Shri Thanga Jawahar Kalidoss, Global Head-Functional Unit, TCS was the special guest.

Dr. Mylswamy Annadurai, in an invited talk on Satellite Communication said that, Engineering and Science go hand in hand. Scientist investigates which exists, whereas an Engineer creates a thing that has never been. To illustrate, the Moon which already exists and Chandrayaan is an invention of an Engineer. He made a special mention on the India's achievement in Space and Technology which to a greater extend aids in achieving the basic needs of Indians. Currently there are about 10 operational satellites which are in operations, like INSAT. He also explained about the various applications of satellites in Agriculture, Land, Weather & Climate, Ocean, Forest, Environment and Water. He linked how computers and communication are useful in satellites. He gave a glimpse on Mar's Orbiter Mission, which he is currently focusing on and the competitions which India is facing in implementing the Mars Mission. He added that it costs 25000\$ to send 1kg of material in a satellite to space. He highlighted the role of VLSI and Embedded systems in miniaturization. Apart from these, Renewable Energy Sources, Power Electronics & Drives, Video Conferencing, Computer & Wireless Sensor Network, Neural Network and Fuzzy Logic, Robotics is also vital in satellite communication.

In the valedictory speech, Dr. Mylswamy Annadurai conveyed that, successful engineer must be able to communicate well. He added that to flourish, one must understand the circumstances, adapt oneself to innovate, communicate and comprehend the ideas. The tenacious attitude to excel everyday could mould a person as a successful engineer. Beyond classrooms, stands the podium of conferences that add colors to future. He advised them to aim more than what they are capable of and try to work out something more than what they have achieved and insisted the students to grab the opportunities to reach the zenith of success.

Publication chair Mr. R. Ashok highlighted the outcomes of the conference. Vote of thanks was delivered by Organizing Chair, Prof. S. Palanikumar, HoD/EEE. The certificates were distributed to the participants at the end of the conference.

Report by: Prof. S. Palanikumar

Sathyabama University: FDP on New Millennial Expectations - Role of a Teacher



The IEEE SB organized a one day Faculty Development Programme on "New Millennial Expectations -Role of a Teacher on 25th Jan 2013. Mr. P. A. Manoharan, Chairman of RAS, Madras Chapter and Dr. S. S. Rao, Registrar of Sathyabama University has graced the occasion. Besides them,

the speakers for the occasion were Mr. Ganesh Natarajan, HR, BEML, Bangalore and Dr. T. Kalaiselvan, Centre for University-Industry Collaboration, Anna University, Chennai.

Dr. G Sundari SB coordinator welcomed the gathering and briefed about the activities of IEEE SB and highlighted the importance of conducting a FDP. Mr. P. A. Manoharan elaborated the benefits of becoming IEEE member and also the various activities of IEEE Madras Section. About 50 participants from various colleges in Tamil Nadu and other states participated in the FDP which had two sessions which were interactive.

PSNA College of Engineering and Technology: International Conference on Power Energy and Control



The 1st International conference on power energy and control ICPEC 2013 was organized during 6th to 8th of Feb 2013. At the inaugural on 6th, Dr. Lalit Kumar Goel Professor, Nanyang Technological University Singapore was the chief guest and delivered his valuable address on "Scope of Futuristic Energy". Dr. Joachim HOLTZ, Professor, Wuppertal University, Germany who was the guest of honour, later presented a talk on "Medium Voltage Drives "at the plenary session explaining the reasons why multilevel inverters are preferred topologies for medium voltage applications.

The inaugural function was decked with the presence of Mr. T. S. Rengarajan Chairman IEEE Madras Section, Mr. K. V. Rupchand Chairman Power and Energy Society Madras Chapter, Dr. D. P. Kothari, Director General, J. P. Group of Institutions Hyderabad and Dr. R. S. K. Lakshamana Prabu and Mr. R. S. K. Sugumaran, Directors of the PSNA CET.

In the afternoon, Dr. Gopichand Bopparaju, Manager Grid Systems, Research & Develpement, ABB, Chennai introduced the concept of Voltage Source Converter based HVDC transmission, an alternative technology for power transmission and narrated the advantages of it over conventional HVDC transmission.

The technical session on "Solar photovoltaic devices and systems" focused on how to exploit the ample quantity of freely available solar power for the generation of electricity and discussed various issues associated with them.

Parallel tracks on "Power Generation, Transmission and Distribution" and "Flexible AC Transmission Systems" addressed on issues those warrant the proper design and placement of FACTS devices for reactive power compensation, line outage contingency, Critical Loading Margin Enhancement, Power System Dynamics, Loadability Improvement in Wind Integrated Power System etc.

The conf. had the following plenary talks.

- Dr. M. Chidambaram, Professor of IIT Madras, Chennai on "Model Identification and Control of Multivariable Systems".
- Dr. Lalit Kumar Goel, Professor, NTU, Singapore on "Power System Reliability and Cost/Benefit Assessment".
- Dr. D.P. Kothari, a well known personality, with more than 700 publications and 27 books, on "Energy & Environmental Problems Facing the Third World countries and their probable solutions".

The paper presentation sessions had topics those included Renewable Energy, Storage Devices and Systems, Smart Grids, Distributed Generation, Wind Energy Conversion Systems, Power Quality and Power System Reliability. Storage Systems.

Dr. Joachim HOLTZ of Wuppertal University, Germany and Dr. M. Chidambaram of IIT Madras participated in the valedictory function and delivered the addresses. Dr. M. Madeshwaran, Chairman, IEEE India Electron Devices Society felicitated. Dr. K. Mahadevan, Professor, Dept. of EEE, PSNACET presented the summary of the three days conference. Dr. V. Rajasekaran Prof. & HOD/EEE proposed the vote of thanks.

Report by: M. Kaliamoorthy, kaliasgoldmedal@ieee.org

Jeppiaar Engineering College: SPAC "Make an Impact with IEEE"



Jeppiaar Engineering College organised a Section Level - Student Professional Awareness Conference themed "Make an Impact with IEEE" on February 8, 2013. The conference deliberations aimed at creating an insight on volunteer activities, and opportunities for students in personal growth and technical development especially with IEEE. There were four sessions as detailed below:

 Mr. Prasanna, Co-founder, amgonna.com, Voting Member & MGA Representative-IEEE Educational Activities Board drew his experience to give a bird's eye view of immense opportunities around and how young volunteers can choose specific volunteering path to generate maximum impact.

- Mr. Arjun, Co-founder & Chief Executive Officer, Profoundis Labs Pvt. Ltd., Network Coordinator- Asia Pacific Student Activities Committee, Member Asia Pacific Humanitarian Technology Committee emphasized the importance of networking with the Engineering community, which not only provides us an open platform for the establishment and progression of individual ideas, enhancing the 'out-of box thinking' capability within us but also provides a wide raged recognition among our peer mates, making us an even better and efficient engineer capable to produce and innovate new technologies.
- Mr. Barnabas, Mentor- IEEE Madras Section Student Network, Executive Committee Member-IEEE GOLD AG Madras Section elucidated on Career based skills, Information and Leadership which can be enhanced only through associating with a professional organization like IEEE. He explained the present scenario of the multinational companies and also the key role of a corporate leader in development of the economic progression of a country, worldwide, in improving their standards and providing a global recognition. He concluded with an interesting quiz session.
- Mr. Anand, Vice Chairman-Student Branch Networking-IEEE R10 SAC India, Student Network Coordinator-IEEE Madras Section, Chairman, IEEE Madras Section SIGHT focused on the developments of technology and its impact on the national and global economy, which would provide every individual, a huge jumpstart to their dream career which should be utilized properly to climb up the ladder.

There were around 400 participants and the conference was wholly, a huge boost up and created a wide-ranged awareness among the students of the engineering front.

Report by: R.Anusha, anusha.ark@gmail.com

SMK Fomra Institute of Technology: National Conference on Recent Trends in Electrical & Communication Engineering



A two day National Conference on Recent Trends in Electrical & Communication Engineering was conducted on Feb 8-9, 2013. Mr. Prakash Kumar, Deputy General Manager, North Chennai Thermal Power Station was the Chief Guest. Dr R. Raja, principal, in his address stressed the need for shared knowledge platform. Dr. A. Suresh, vice principal presented in

detail about the profile of the department and laid emphasis on the research dynamics culture. Mr. Prakash Kumar, briefed about the job creation sectors in oil and gas industries. Prof Chinniah, HOD/ECE enumerated the professionals role by presenting new ideas on the common platform. In the afternoon session, a talk on 'k-connected networks' was given by Dr. S. K. Srivatsa, the former professor, MIT, Chennai.

On the second day, out of 415 papers received from various engineering colleges and industries, 100 were selected for presentation. While the EEE papers were presented in a session chaired by Dr. L. Premlatha, HOD/EEE, Anand Institute of Higher Technology, Chennai the ECE papers were presented in the session chaired by Dr. S. Sholaimanohar, Prof, Anand Institute of Higher Technology, Chennai.

SRM University: Symposium: Symposium on Recent Advancements in Telecommunication Technologies



Atwo days symposium - TELETECH'13, on "Recent Advancements in Telecommunication Technologies" was organized during 11-12, Feb 2013 by the Dept. of Telecommunication Engineering (TCE) in association with IEEE COMSOC SB and the Telecommunication Engineers Association (TEA) with sponsorship from DRDO, Govt. of India.

At the inaugural, Dr. C. Muthamizhchelvan, Director of E&T, SRM University, in his presidential address spoke about the past, present and future of telecommunication sector and provided many instances of how the industry played a key role in developing the social and economic level for progress of the country & the world.

Prof. D. Narayana Rao, the Director of Research, SRM University, emphasized on the digital aspect of today's technology in his special address. Dr. T. Rama Rao, HOD/TCE introduced the chief guest, Dr. Surendra Pal, President, IETE who presented the inaugural address on "Perspective in communication Indian Space Paradigm". With his very informative and enlightening words, he said that a radical change has taken place in the communication arena of India and the world.

The afternoon session had an invited talk by Mr. Sobhan Babu, VP, Tata Communications on "Managing Telecom Networks", a guest lecture by Mr. Swapnil Kulkarni on "3D EM software FEKO - dealt with the real world E-M problems on field electromagnetic computation and a lecture by Dr. S.S. Karthikeyan, IIIT D&M, Kancheepuram on "Product Design for EMC Compliance".

The paper presentation session was beneficial to a large group of faculties and students from various colleges and universities who attended the symposium.

The 2nd day of the events included: an invited talk by Mr. P. Kishore, SC 'D',ISRO, Bangalore on "Challenge for system design in Q/V band" and another invited talk on "Telecommunication Technologies" by Mr. M. Ravindra Kumar, Scientist, DLRL, Hyderabad. The two-day fest also played a host to other technical and non-technical events such as Technoquest, Telepathy, Technolodean, Technoasis, Cross-O-Hola.

Report by: Dr.T. Rama Rao, ramarao@ieee.org

Sona College of Technology: National Conference on Innovations in Power Engineering and Soft Computing



The second national conference on "Innovations in Power Engineering and Soft Computing" was organized on 22nd Feb 2013. At the inaugural session, Dr. S. Padma, Professor, SB Coordinator welcomed the gathering and the SB Counselor Dr. C. Easwarlal, HOD/EEE delivered the presidential address. Dr. S. Balamurugan, Asst. Prof., Dept. of EEE, Amrita School of Engineering, Coimbatore delivered a keynote address on "Restructuring of Electrical Power Systems". 50 papers were presented by the PG students and research scholars in the conference in the areas of Power Systems, Power Electronics and Drives, Embedded Systems and VLSI. Certificates were presented to the participants by Dr. C. Easwarlal and the vote of thanks was given by Dr. M. Senthilkumar, Assoc. Prof./EEE.

Distinguished Lecture Programmes

The IEEE Computer Society Madras Chapter supported ACM Distinguished Lecture Programmes by Dr. V. Lakshmi Narasimhan (Dr. VLN), Professor, Computer Science, East Carolina University, USA were held different IEEE Student Branches as detailed below. Dr. VLN is also selected by the IEEE Computer Society for the Distinguished Visitors Program for the period 2013-2015.

- Velammal Engineering College (VEC), Chennai on 8th Jan 2013 organized a DSP on "An Overview of Issues in Nano Computing"
- The IEEE SB of Excel College of Technology organized a DSP Lecture on "Trends and Issues in Data Mining and their Unusual Applications" on 24th Jan 2013.
- Sri Ramakrishna Engineering College, Coimbatore had organized the DSP on 30th Jan 2013 on "Embedded Computing Systems".
- On 1st Feb 2013, a DSP on "Cloud Computing" for the benefit of the students was organized at National Engineering College.

Forthcoming Events

NSATSE-13: National Seminar on Architectural Thinking for Software Engineers. March 4-5, 2013 at SRM University, Chennai. Contact: nsatse2013@gmail.com

NCACTA-2013: National Conference on Advance Computing Technologies and Applications. March 8, 2013 at Sri Muthukumaran Institute of Technology, Chennai. Contact: Dr. S.K.Muthusundar, ncacta2013@gmail.com Ph: +91 94449809746. Webiste: http://www.ncactasmit.com/

National Seminar on Recent Trends in Renewable Energy Sources. March 9, 2013 at Sudhanandhan Hall, M P Nachimuthu M Jaganathan Engineering College, Chennimalai, Erode. http://www.mpnmjec.ac.in/eee%2009.03.jpg

NCSSP 2013: National Conference on Networking, Communication Systems and Signal Processing. March 13, 2013at Karpaga Vinayaga College of Engineering & Technology, Coimbatore. Contact: Mr. A. Manimaran, Ph: 9445713765, Email: ecekvcet@gmail.com Webiste: www.kvcet.in

Workshop on Robotics. March 14 & 15, 2013 at Aarupadai Veedu Institute of Technology, Chennai. Contact: eceavitworkshops@gmail.com

Technopetz: Robotic workshop. March 16 - 17, 2013 at Mohandas College of Engineering & Technology, Anad, Trivandrum. Last date for registration: March 12, 2013. Contact: Mr. Rahul. Phone: 9447797668, Email: rahulkrishnan_1985@yahoo.co.in Website: www.mcetonline.com

Workshop on Video and Image Processing using MATLAB. March 21 & 22, 2013 at Aarupadai Veedu Institute of Technology, Chennai. Contact: eceavitworkshops@gmail.com

NCISE-2013:5th National Conference on Information and Software Engineering. March 22-23, 2013 at Aarupadai Veedu Institute of Technology, Chennai. Contact: Dr. A. Anthony Irudhayaraj, ncise2013@gmail.com Website: www.ieeecsncise.com

INCOS'13: 4th National Conference on "Intelligent Techniques in Control, Optimization and Signal Processing". March 22-23, 2013 at Kalasalingam University, Krishnankoil, Tamilnadu, India. Contact: Dr D. Devaraj, ieee.klu.studentbranch@gmail.com Website: www.kalasalingam.ac.in

Skill Development programme on "Artificial Intelligence Methods in Engineering". March 27-28, 2013 at M P Nachimuthu M Jaganathan Engineering College, Chennimalai, Erode. Contact Dr. N. Kumarappan, kumarappan_n@hotmail.com or Prof. D.Sabapathi, esec74@yahoo.co.in or ieeemas@airtelmail.in / ieeemas@gmail.com

Workshop on PCB Design. March 28, 2013 at Aarupadai Veedu Institute of Technology, Chennai. Contact: eceavitworkshops@gmail.com

NCVESCOM 2013: 6th National Conference on VLSI, Embedded Systems, Signal Processing &

Communication Technologies. April 3, 2013 at Aarupadai Veedu Institute of Technology, Chennai. Last Date for Paper Submission: 23/02/2013. Contact: Prof. D. Vijendra Babu, ncvescom@gmail.com Website: www.avit.ac.in

Workshop on Mobile Cloud Computing. April 4, 2013 at Velammal Engineering College, Chennai. Contact: tifacore.ganesan@velammal.edu.in or tifacore.anithajulian@velammal.edu.in Website: http://tifac.velammal.org/

Texas Instruments India Educators' Conference 2013: Industry-Academia Confluence for Education & Innovation. April 4-6, 2013 at NIMHANS Convention Center, Bangalore. Dr. C.P. Ravikumar, Ph: +91 80 25099727, Email: tiiec2003@list.ti.com Website: http://ieee-cas-bangalore.org/activities/tiiec2013/tiiec2003.html

ICT-2013: IEEE Conf. on Information and Communication Technologies. April 11-12, 2013 at Noorul Islam University, Kumaracoil, Thuckalay, Kanyakumari district, Tamil Nadu, India. Contact: icit2013@gmail.com Website: www.icitt.in

ICCPEIC-2013: International Conference on Computation of Power, Energy, Information and Communication. April 17-18, 2013 at Adhiparasakthi Engineering College, Melmaruvathur, Tamilnadu, India. Website: http://adhiparasakthi.in/sites/eee/iccpeic/

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/

RIPOC'13: National Conference on Recent Innovations in Power Systems Operation & Control. June 28 29, 2013 at Mohandas College of Engineering & Technology, Anad, Trivandrum. Last date for registration: April 29, 2013. Contact: Mr. Mahesh M, Email: ripoc13@gmail.com Mobile: 09544483250. Website: www.mcetonline.com/ripoc13

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: IEEE Global Humanitarian Technology Conference. August 23-24, 2013 at Technopark, Trivandrum, Kerala, India. Last date for paper submission: March 29, March 2013. Contact: sbabu@ieee.org 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/

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/

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

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

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: 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

ICMIRA-2013: International Conference on Machine Intelligence Research and Advancement. December 21, 2013at Shri Mata Vaishno Devi University, Katra, Jammu and Kashmir. Last date for paper submission: 31st March 2013. Contact: Email: icmira@icmira.com Mobile: +91-9419165834, Website: www.icmira.com

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 by email to ieeeindiainfo@gmail.com

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

Event name

Dates of the event

Place of the event (institute & city)

Deadline for call for papers (if any)

Contact details (name, phone, email)

Website

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

Announcements

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.

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 <u>ieeeindiainfo@gmail.com</u> or before 7th of each month for getting published in the same month issue of the newsletter.

New member orientation webinars

All new higher-grade IEEE members are invited to participate in a New Member Orientation session designed to help members get the most out of their membership. These live webinars, which include a 30-minute formal presentation followed by Q&A, provide an overview of IEEE membership and access instructions for members-only benefits and services. Topics include managing your IEEE Account, setting up a profile on memberNet, logging into myIEEE, networking opportunities, and much more.

Visit the Welcome to IEEE Web page at http://goo.gl/x127X to register for a New Member Orientation, typically held on the fourth Thursday of each month. Webinars are held at both 9:00 AM ET and 3:00 PM ET on each day. Please e-mail Denise Maestri for more information.

IEEE Educational Activities Award Nominations

The 2013 IEEE Educational Activities Award nominations are now being accepted for the following ten (10) prestigious awards on or before 15th May 2013.

- Meritorious Achievement Award in Accreditation Activities
- Meritorious Achievement Award in Continuing Education
- Meritorious Achievement Award in Informal Education
- Major Educational Innovation Award
- Pre-University Educator Award
- Meritorious Service Citation
- Standards Education Award
- Employer Professional Development Award
- Society/Council Professional Development Award
- Section Professional Development Award

Visit EAB Awards Nominations web page at http://www.ieee.org/eab-awards or contact eab-awards@ieee.org

IEEE Computer Society Richard E. Merwin Student Scholarship

IEEE Computer Society is offering US\$40,000 in student scholarships, from US\$1,000 and up, to recognize and reward active student volunteer leaders who show promise in their academic and professional efforts. Graduate students and

undergraduate students in their final two years, enrolled in a program in electrical or computer engineering, computer science, information technology, or a well-defined computer-related field, are eligible. IEEE Computer Society membership is required. Current IEEE students can join IEEE Computer Society. The deadline is 30 April 2013. To apply, pl. visit http://goo.gl/gbMXS

Call for nominations: IEEE Medals and Recognitions

Nominations are due 1 July 2013 for the 2014 IEEE Medals and Recognitions. IEEE Medals are the highest recognition within the IEEE awards hierarchy, with the prestigious IEEE Medal of Honor as the premier award. IEEE Medals embrace broad and significant contributions within the technical fields of interest of IEEE. IEEE Recognitions reward members' individual contributions to IEEE, published papers, and corporate advancements within the IEEE fields of interest. Recipients are recognized at the formal IEEE Honors Ceremony. All IEEE members are encouraged to submit a nomination for a worthy candidate within their technical fields. To nominate, pl. visit http://goo.gl/cBJKT

IEEE Center for Leadership Excellence volunteer training

Start the year off by making volunteering for IEEE easier. Whether you are newly elected to your position in 2013 or are serving an additional term, we encourage you to take 30 minutes to review the training material provided in the IEEE Center for Leadership Excellence (CLE). The CLE provides an easy-to-use quick-start guide for your position and identifies key dates specific to your position so you can plan ahead. The CLE also includes a suite of optional courses through the CLE eLearning Library that provide guidance and tips on how you can be more effective and develop your professional skills to assist you in all facets of your professional life. To learn, pl. visit http://goo.gl/mnknX

IEEE ComSoc Free Article for March 2013

Complimentary article from IEEE Network magazine on "Measuring the Global Domain Name System" Access it at http://www.comsoc.org/sites/default/files/webfm/freearticle/free.pdf

Acknowledgement

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