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Message from Chairman

Dear Members,

I am happy to inform you that the F2F meeting of the EC, IC, held on 24th May in Madras, sponsored by Madras Section was well attended by over 16 Members. Important decisions were taken in the meeting. It was decided that the India Council shall have its permanent office in Bengaluru in the office premises of GIEEE with



a permanent address. The GIEEE will provide space and Secretarial assistance for the functioning of the IEEE India Council. Mr.Harish Mysore, Director, GIEEE volunteered to work with Mr.T S Rangarajan, Secretary-cum Treasurer of IC to solve the issues related to the appointment of auditor, auditing of accounts, L50 report generation through Netsuite, PANcard application, registration of IC under societies act and IT returns filing, etc. It was also decided that the GIEEE Director will be included as a regular special invited Member in the EC, IC to participate in the meetings of the Execom of IC.

It was confirmed that as per the IC Byelaws the Chairs of the Society Chapters under the India Council shall be included as Ex-Officio Members in the EC, IC. They are encouraged to attend the EC meetings of IC and share their views for serving the IEEE Community in India better. Their travel to the place of the meeting should be met with the Society Chapter funds and their stay and local hospitalities will be taken care of by the Section, sponsoring the meeting.

It was decided to maintain a separate Listserv IDs covering all members and all student members of India Council to facilitate direct contact and avoid e-notice process. It was also decided that all funds for the society chapters from IEEE will be routed through India Council by GIEEE. To promote the activities of the Society Chapters it was decided to organize one-to-one meeting with Society Chapter Chapter States by the IC.

As you are probably aware, IEEE TryComputing.org website encourages pre-university computing education courses to engage pre-university students, their teachers, school counselors, and parents about computing and associated careers which will help the school students to explore how computing careers can make a difference. As I have been communicating to the Members in different meetings, IT-SUITS, the newly proposed Computer Skill based program for School children features a variety of lesson plans on computing topics as well as tools and opportunities to support and encourage School students in computing in the same lines as that listed in the IEEE TryComputing.org website.

As you all know, I have been discussing with Mr.Douglas, MD, EAB, IEEE EAB and with his team members about the Program IT-SUITS and for offering it to the School children with IEEE Certification under the Pre-University Education of IEEE. After detailed discussions and exchange of data, Mr.Douglas gave his consent stating as "I think working with the Section is the path that should be explored. I do hope the local IEEE Section will agree to issuing the certificate of attendance to the students". Accordingly, as I already wrote in the last issue of our News Letter, this item was discussed as an agenda item in the EC meeting of the India Council, held on 24th May. After a detailed discussion in the meeting, it was decided that such programs shall be promoted by the IEEE Student Branches through their student members at the schools identified by them and that IEEE Madras Section will explore this initiative as a pilot project to start with through the Student Branches of Madras Section before taking the next steps of action with other Sections. This activity will keep the IEEE Student Members active and it will help penetrating the awareness of IEEE in the young minds of future professionals. In my considered opinion this activity will also create interest in the minds of the IEEE Student Members and will help for the retention of their membership throughout the period of their study and even beyond.

As you all are aware, the vision Statement of IEEE reads as "IEEE will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions". The current status of Indian Engineering Graduates is that only 25% are employable for want of Engineering and Technological skill sets. About 85% of the +2 pass outs from the School are not going for higher Education and they have not acquired enough skills needed for employment through their school education. As a professional Society is it not the responsibility of the IEEE units to offer solutions to such problems. In this connection the IEEE Societies and Chapters, with the help of their Industrial partners could work with the Academic Institutions in their locality to offer skill based curriculum to the college students. To empower the school children with employable skills, the Sections through their IEEE Student volunteers can offer skill based courses to explore their career interests and to prepare for an exciting career in engineering or technology, by selecting certain types of middle and high school course work, like IT-SUITS and making them to participate in programs and projects which can guide and prepare the students for choosing their career opportunities under the IEEE Pre-University Education program.

I strongly believe that all of you will extend your support to the IEEE India Council with involvement to work for the benefit of IEEE Community in India. Looking forward for your support and inputs in future.

With kind Regards,

M.Ponnavaikko. Chair, IEEE India Council

Words of Wisdom

Those who are lifting the world upward and onward are those who encourage more than criticize.

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- Elizabeth Harrison

N T Nair, Editor, writes,

Right from the very beginning of my association with IEEE dating back to early 70s, IEEE Code of Ethics has attracted my attention as an important aspect, well beyond others supposed to make the membership meaningful. IEEE members, an engineering community always in touch with the society in every part of the world, are the doyens of technologies surfacing from time to time, with its deep influence in the societal functioning. That said, it brings upon us a tremendous responsibility to deliver engineering services to the society, in the most ethical way. While each one of the ten points in Code of Ethics (Given elsewhere



In this too, the last part, *potential consequences*, is often not probed at length or consciously kept under wraps, by the technical community for various reasons. Radiation from mobiles, mounting e-waste etc. are some examples of apathy towards this aspect, the consequences of which the people are destined to bear. The ecological imbalance created by such actions needs to be viewed with all the seriousness it deserves, even if it is an unpleasant act on the part of the R&D personnel responsible for the new technologies. Of course, devoting more time to research on possible consequences of new innovations may not be that rewarding or attracting accolades like when a new technology is showcased fast, in an appealing way.

In short, in the interests of our children destined to inherit the world from us to live their life, it is our responsibility to devote more attention to the *consequence* part and ensure that our new technology offerings are Mother Earth friendly and sustainable.

With best wishes to you for professionally and personally rewarding times ahead.

N T Nair

IEEE Code of Ethics

We, the members of the IEEE, in recognition of the importance of our technologies in affecting the quality of life throughout the world, and in accepting a personal obligation to our profession, its members and the communities we serve, do hereby commit ourselves to the highest ethical and professional conduct and agree:

- 1. to accept responsibility in making decisions consistent with the safety, health, and welfare of the public, and to disclose promptly factors that might endanger the public or the environment;
- 2. to avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist;
- 3. to be honest and realistic in stating claims or estimates based on available data;
- 4. to reject bribery in all its forms;
- 5. to improve the understanding of technology; its appropriate application, and potential consequences;
- 6. to maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations;
- 7. to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others;
- 8. to treat fairly all persons and to not engage in acts of discrimination based on race, religion, gender, disability, age, national origin, sexual orientation, gender identity, or gender expression;
- 9. to avoid injuring others, their property, reputation, or employment by false or malicious action;
- 10. to assist colleagues and co-workers in their professional development and to support them in following this code of ethics.



IT in May 2014

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<u>General</u>

- General Elections 2014 saw highest ever poll percentage of 66.38 during April
 -May 2014; it is truly an Election where Social Media (Facebook, Twitter, Blog) and Electronic Communication (e-Mail, SMS, WhatsApp, 3D Holographic projection) played a decisive role. BJP gets absolute majority on May 17, 2014 with 282 seats; NDA gets 333 seats. President appoints Narendra Modi as Prime Minister of India on May 19, 2014; the new PM takes charge in May 26, 2014
- Odisha State elects Naveen Patnaik as Chief a Minister for the fourth time
- Thai Prime Minister gets ousted by Thailand Constitution Court on May 7, 2014 leading to further instability in the country followed by military coup on May 20, 2014
- Indian car brand **Ambassador** becomes history on May 31, 2014 with **Hindustan Motors**deciding to stop production from June 2014
- Airbus 380 service starts in India with the first flight from Singapore landing in Delhi on May 30, 2014 **Technology**
- Airbus-made electric plane E-Fan takes flight on May 12, 2014

<u>Markets</u>

- New Jersey based **Kirusa** takes over Bangalore-based Messaging App company **Cooltok** on May 11, 2014
- AT&T decides to buy DirecTV for \$48.5 billion on May 18, 2014
- Apple buys Beats Audio and Beats Electronics in a \$ 3 billion deal on May 28, 2014

Products

- Sony launches Xperia Z2 smartphone at a price of Rs 49,000 on May 8, 2014
- **Motorola** launches **Moto** E phone priced at Rs 5,999 on May 13, 2014; it was an instant success with 100,000 units ordered on Flipkart (exclusive channel) within 24 hours and bringing Flipkart site down due to excessive hits!
- Microsoft launches NokiaLumia 630/635 Low cost Windows Phone in India priced Rs 9,999 on May 12, 2014; launches Surface Pro 3, globally on May 20, 2014

<u>Indian IT companies</u>

- Coastal small town in Karnataka's Udupi based **Robosoft** subsidy **99Games Online** creates game for Disney Movie "Million Dollar Arm" on May 6, 2014 (10 days before the movie release); earlier, Robosoft game Dhoom 3 (based on Bollywood movie) had 11 million downloads
- Mohan Reddy founded 20-year old Hyderabad-based IT services company **Infotech Enterprises** becomes **Cyeint** (combining client, science and InfoTech Enterprises) in May 2014
- TechMahindra opens Mexico office in May 2014 and plans to create 500 jobs in the next 24 months
- HCL Tech wins 6-year long \$ 490 million IT outsourcing (Infra and Applications) contract from-Norway's DNB Bank on May 7, 2014, \$ 500 million PepsiCo deal on May 20, 2014
- **Infosys** hives off products & platforms business into **EdgeServe** on May 12, 2014 (though Finacle continues to be part of Infosys Main); gets \$ 50 million AT&T contract on May 22, 2014

- Indian e-com major Flipkart takes over fashion goods e-Com player Myntraon May 23, 2014 in a \$ 300 million deal
- Wipro gets IT outsourcing contract from glass and specialty materials majorCorning on a May 23, 2014

MNC companies in India

• SAP announces its decision to offer its software in Hindi and five Indian languages by 2015

People

- M N Vidyashankar, IAS (Retd.), former Additional Secretary of Government of Karnataka takes over as IESA (Indian Electronics and Semiconductor Association) President on May 5, 2014; with R Chandrashekar, IAS (Retd.), former Secretary, Telecom & IT of Government of India taking over as President, NASSCOM earlier in the year, the country has amazing people to drive hardware and software businesses in the country
- Vadodara, India born Dr. Vishal Sikka, Executive Board Member of the \$17 Billion IT major from Germany, SAP, resigns suddenly on May 5, 2014
- IBM CEO Virgina Mary "Ginni" Rometty visits Bangalore during May 6-7, 2014
- Shyam Saran Negi (97) the first ever voter of Independent India from Himachal Pradesh voted on May 7, 2014, perhaps for the last time
- Narendra Modiwith his humble beginnings creates history on May 17, 2014 by becoming India's 15th Prime Minister
- Gujarat gets its first woman Chief Minister Anandiben Patelon May 22, 2014
- AAP Leader Aravind Kejriwal gets into jail on May 20, 2014 in the defamation case
- InfosysPresident BG Srinivas quits on May 28, 2014 and joins PCCW in Hong Kong Education & Research
- Prof Manu Prakash (IIT Kanpur Alum) of Stanford University creates Foldscope a very low cost (\$1) microscope to take science teaching for the masses
- IIT JEE Main entrance examination results out on May 2, 2014

Interesting applications

• Pizza gets air delivered thru **Drone** in Mumbai on May 23, 2014 by Francesco's Pizzeria in Lower Parel to a customer in Worli, just a kilometer away

Interesting numbers

- **Telecom subscriber** base on March 31, 2014 stood at 933.00 million with 904.51 million mobile subscribers and 28.49 million wire-line subscribers (with net addition of 1.15 million mobile subscribers and net reduction of 0.11 million wire-line subscribers in March2014) (TRAI Press Release No. 25/2014 dated May 12, 2014)
- India's Foreign Exchange on May 30, 2014 was at \$ 312.38 billion (RBI)
- Indian Rupee stood at 59.20 against USD on May 31, 2014 (RBI)
- On May 31, 2014 **BSE Sensex** and **NSE NIFTY 50** (Indian stock market indices) were at 24,217 and 7,229 respectively (Reuters)
- Apple'ssix month revenue crosses\$ 100 billion (\$ 103.4 billion) for the first time (Oct 2013 March 2014), a first for any IT company
- Gmail App on Android is the first App to cross one billion mark on GooglePlay Store on May 16, 2014
- India's low-cost carrier GoIndigo wins Airbus Award for Worldwide Operational Excellence with best on-time arrivals among 311 Airlines

Information Resources

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How 'Solar Roadways' plans to create smart roads to produce clean energy and save lives and money: A smart grid of solar roads could reduce pollution, improve the economy, and have the potential to produce three times the amount of power the US currently uses. About an hour south of the Canadian border, in Sandpoint, Idaho, a visionary couple came up with a ridiculous plan. They decided we should replace all the asphalt roadways with solar panels, which would drastically reduce our greenhouse gas emissions and generate clean, renewable energy. Turns out, this project is actually far more practical than it sounds. Full story at http://goo.gl/jqWMQv

10 foods that technology has transformed: As a society, we are getting more curious about our food -- where it comes from, how it's made, where it goes, how it affects our world, and how technology is changing it. Of course, technology has been changing our food for decades, beginning with modern agriculture tools and genetically engineered produce. But it affects our food in more ways than we realize. Research shows about 70% of our calories come from processed food -- and it makes sense when you try to pronounce half of the ingredients on the back of most any grocery store item. Technology has changed food for the better, though, as well. Not only does it give us a chance to feed our population that's growing closer to 9 billion people, but it also offers new ways to grow food as we face a future of a changing climate. Hydroponics, aeroponics, vertical and urban farming, and lab-grown foods are all driving big changes. To read the 10 common foods that have been powerfully altered by technology pl. visit <u>http://tek.io/1jfSND5</u>

How recycled plastic for 3D printing will drive sustainability and improve social consciousness: Durable, shiny, new plastic -- it's what makes most 3D printers run. And as 3D printing grows in popularity and we begin to scale projects in every industry, the world is going to use a lot more of it. If the industry goal is to have 3D printers in most homes and businesses with lots of other 3D printers running constantly in manufacturing centers, we'll naturally add even more to the 33.6 million tons of plastic Americans toss each year, only 6.5% of which is recycled. It's estimated that 100 million tons of plastic is floating in the world's oceans. Each piece can take anywhere from 500 to 1,000 years to decompose. Deep within those piles of plastic waste lies an opportunity for the expanding 3D printing industry. Instead of melting new plastic to create these products, some companies are seizing the chance to build more sustainable, cost-effective, socially conscious ways of dealing with the looming demand for raw plastic. Using recycled plastic in 3D printers can help create jobs, open new markets, and even change the cycle of poverty in some cases. Full story at <u>http://tek.io/1mxllcg</u>

Google's end-to-end Gmail encryption: Email security is a concern for many consumers, but it is a crucial issue for the enterprise. Most email clients offer a base level of encryption, but it is worthless if the opposing party (sender or receiver) does not offer a similar level of protection. End-to-end encryption is considered a stronger, more secure option; but it is often difficult to orchestrate. In a recent Google blog post by Brandon Long, the tech lead for the Gmail Delivery Team, Google announced the availability of the source code for a Chrome extension called End-to-End. The extension, which is currently in testing, will provide an easier way for two independent providers to maintain end-to-end encryption of emails. More at http://tek.io/SHKfOJ

Glossary: Startup and Venture Capital terms you should know: The startup world operates on a lot

of lingo. This guide at <u>http://tek.io/1pw4VEX</u> will give you a better context to understand the language of startups, venture capitalists, angel investors, and incubators.

Iconic Microphone Is Named an IEEE Milestone: It was the microphone of choice for Frank Sinatra and Elvis Presley, and it has been used by politicians around the world, including every U.S. president since Lyndon B. Johnson. The Shure Unidyne was recently named an IEEE Milestone in Electrical Engineering and Computing. Full story at<u>http://bit.ly/1kKNpME</u>

The inside story of the open source PC, and how it could stop you being a slave to your hardware: Hardware engineer Andrew 'bunnie' Huang on how his path to building an open source computer started with a childhood fascination with the Apple II and why we need to rediscover open hardware. Full story at <u>http://tek.io/TAmKaQ</u>

10 things you should know about Bitcoin and digital currencies: Bitcoin has injected itself into a lot of conversations about the future of technology, economics, and the internet. The future of digital currencies remains a controversial topic. After reading these 10 things to know about the confusing world of digital currencies, you'll feel confident joining the conversation. More at <u>http://tek.io/110NYwU</u>

10 apps to take your IT job search mobile: The job hunt is going mobile. Read about 10 apps to help you land a technology gig from your phone at <u>http://tek.io/1pw0ASb</u>

Video resumes: The good, the bad, and the ridiculous: Job hunters are turning to video resumes to stand out from the crowd. Read some tips on how to use a video resume to land a job, and avoid becoming an office joke at<u>http://tek.io/1nuirZd</u>

10 digital tools to help you learn foreign languages: <u>http://goo.gl/ke8P9w</u>

10 charities harnessing the power of the digital age: <u>http://goo.gl/pn9gbX</u>

10 apps for taking notes: <u>http://tek.io/loNwybf</u>

Tech history in photos: Social media founders: <u>http://tek.io/1oNwiZS</u>

15 maps apps that take you beyond Google and Apple: http://goo.gl/uSdtle

From agribusiness to subsistence: high-tech tools now available to all: Devised for industrialised farms, precision agriculture now has the potential to increase the yields of smallholder farmers. Full story at <u>http://bit.ly/1pw8HOF</u>

The Future We Deserve: We Will End Disability by Becoming Cyborgs: As a teen, Hugh Herr lost both legs to frostbite during a mountaineering outing. Today, as the head of the biomechatronics group at the MIT Media Lab and the developer of the advanced prostheses that he himself uses, Herr says that our most common health problems will be solved by plug-ins. He and his MIT colleagues are just one of several groups of engineers focused on improving man-machine interfaces so that artificial limbs can respond to the brain's commands like the flesh-and-blood members they replace. Other technologists are furthering the development of "brain pacemakers" that send pulses of electricity to certain brain regions to cure conditions such as Parkinson's disease, depression, and post-traumatic stress disorder. Someday, says Herr, there will be an app or a kit to fix whatever ails you. More at http://bit.ly/1pcW0L8

World Hunger Day: can Twitter end world hunger?: Harnessing social media effectively can make a real difference, but how do NGOs get beyond collecting "likes"? More at <u>http://bit.ly/1xyyA52</u>

Six innovations for ending violence against girls: Together for Girls crowdsourced a list of six strategies that are making progress towards ending gender-based violence. More at <u>http://bit.ly/1n2eVn2</u> 15 ways to fund drugs for development: From making research openly available to tackling counterfeits, our panellists reflect on how to develop high-quality drugs for diseases of poverty without breaking the bank More at<u>http://bit.ly/1ke8ytQ</u>

Special Report: The Self-Driving Car: To know all the tech tricks and politics that will make driverless cars common place, pl. visit <u>http://bit.ly/1liAjpJ</u>

Special Report: The Future We Deserve: We don't know precisely what the next 50 years will bring. But we have an excellent idea of what will be possible, and we know what we hope will happen. So here are scenarios for eight of the most promising of today's technologies. If they develop along the lines we describe, we'll get the future we deserve. More at <u>http://bit.ly/1n2hHbX</u>

Eight Easy Ways to Green Your Business: Greening your business has short-term effects that will save you money, let employees breathe better, and maybe even help land you a few more customers. These tips, sites, and kits can help your business go green. More at <u>http://bit.ly/1115m4P</u>

Sound the Alarm: A History of Disaster Detection and Warning Technologies: Electrical and computing technologies have greatly enhanced the ability to warn of impending natural disasters. Before electrical communications, a severe storm simply traveled faster than observers could warn of its formation. Read the full story at <u>http://goo.gl/HdT1uC</u>

Phonebloks – A Stunning Innovation (Phone Idea): Now a phone that comes apart like a lego toys. Phonebloks designed by Dutch designer Dave Hakkens, aims to negate the way people currently buy and dispose electronics. Hakkens is of the view that current consumer behaviors are inherently wasteful. Whenever new devices comes out, old ones are tossed into the garbage or put on the shelf to collect dust. Hakkens wants to change this with a Lego-like device where parts of the phone only (not the entire device), can be replaced. More at <u>http://goo.gl/nKOQHY</u>

11 reasons encryption is (almost) dead: Everyone who has studied mathematics at the movie theater knows that encryption is pretty boss. Practically every spy in every spy movie looks at an encrypted file with fear and dread. Alas, this theorem of encryption security may be accepted as proven by math geniuses at Hollywood U., but reality is a bit murkier. Encryption isn't always perfect, and even when the core algorithms are truly solid, many other links in the chain can go kablooie. There are hundreds of steps and millions of lines of code protecting our secrets. If any one of them fails, the data can be as easy to read as the face of a five-year-old playing Go Fish. Encryption is under assault more than ever -- and from more directions than previously thought. This doesn't mean you should forgo securing sensitive data, but forewarned is forearmed. It's impossible to secure the entire stack and chain. This post at<u>http://goo.gl/u7TcR9</u> lists 11 reasons encryption is no longer all it's cracked up to be.

Did You Know? Edison Coined the Term "Bug": Ask someone to identify the first computer bug, and he or she might mention computer programmer Grace Hopper and the dead moth found in a relay of Harvard University's Mark II electromechanical computer in 1947. After a technician found the moth, Hopper and her staff used the word "bug" to describe the issues that complicated the input of data and the writing, loading, and processing of programs in their Mark I and II computers. But Hopper's bug was not a new term or simply a variant of a "fly in the ointment." The use of "bug" to describe a flaw in the design or operation of a technical system dates back to Thomas Edison. He coined the phrase 140 years ago to describe technical problems during the process of innovation. More at<u>http://bit.ly/1kXssPD</u>

TechQuiz-2014-06

- 1. Provide the answer: Not Found : 404 = Found : -----
- 2. Name the world's first commercial portable cellular phone launched in 1983.
- 3. Find the odd man: Omnibook, Facebook, Toughbook, Joybook
- 4. What is common to all these: Mouse, GUI, Ethernet, Laser printing
- 5. Name the IT executive who has written the book "Go Kiss The World: Life Lessons For The Young Professional"

Email your answers by 5th Jul 2014 to <u>ieee.techquizz@gmail.com</u> with subject "techquiz-2014-06". Please provide your full address and contact phone numbrs after the answers. Randomly selected two who have answered correctly will receive a prize of Rs. 250/= each from IEEE CS Madras Section.

Answers to TechQuiz-2014-05: Nasscom, Seattle, Nibble, Green Destiny, Google

IEEE Quo Vadis?

Arup Dasgupta SM IEEE http://in.linkedin.com/in/arupdasgupta

My association with IEEE dates back to 1965-70 when I was an undergrad and later Post grad student of Communications Engineering at the Indian Institute of Science. We did not have a Student Branch but our professors guided us to IEEE and IRE proceedings early on. During my PG years the Transactions on Broadcast and Television Engineering (BTE) were essential reading as I was specialising in Television Engineering. I joined my first (and only) job in late 1970 and joined IEEE and BTE in 1971. My salary was all of US\$1200 a year but I could afford the membership including subscription to the Proceedings of IEEE, thanks to the minimum income discount. By 1975 I had switched to Remote Sensing and left BTE for Geosciences and Remote Sensing Society. However by 1980 increasing IEEE costs, high tax burden in India and family responsibilities made my membership unaffordable. Around 1991 I was reintroduced to IEEE through a very active Senior Member who had started the Gujarat Section. I rejoined IEEE and later became an active volunteer in Gujarat Section and later India Council.

I have given this brief account of my association with IEEE in order to put my following comments in perspective. In summary I believe that IEEE has become too bureaucratic and is not providing value to its members commensurate with the cost of membership. This is shared by many members as posted in the Official IEEE Group in LinkedIn under the discussion "Why are fewer IEEE members joining Societies?"

IEEE is changing but too slowly. What is needed is something disruptive. The Internet could have done it but I think IEEE missed the bus. IEEE is trying out incremental solutions which fall short of what should be a disruptive solution. A few sops here and a few freebies there do not add up to a value proposition. As an example of the problem I would like to quote from our interaction with Dr Lightner, VP IEEE EAB in November last year. These are some of his suggestions:

- Some engineering education is needed in the modern world
- Migration from STEM to STEAM (STEM + Arts) gaining popularity
- Princeton University has a program on Engineering for non-engineers, similarly Arts for Engineers
- IEEE membership promotes networking amongst professionals through communities
- Certain activities can be done in the first year of college (at college or inter-college level)
- Hackathons
- Programming contests
- Maker Faires & IEEE
- Use of 3D printers for IEEE student members
- Arduino and Rasberry PI
- Robotics
- Student level conferences for developing their technical writing skill. This should be refereed research papers authored only by students.

- Young faculty level seminars and workshop such as the one organized by Gujarat Section in 2009, i.e., Two-day Workshop on Emerging Research Topics in Engineering. This will boost the post grad research directions.
- Expo of final year projects
- Use of engineering projects for community (Peru and South Africa examples under EPICS)
- Drexel university built and deployed air quality monitoring system
- Student community evaluates and executes projects
- Create Google Hangout for IEEE members
- Use IEEE Communities question forum

My question is 'what is in these that makes it unique to IEEE?' So why should students and faculty join IEEE?

What is needed is something like the IBM Skunk Works which illustrates that disruptive changes have to come from the peripheries. The Skunk Works developed the floppy disc which, in its time was a truly disruptive technology. The IBM PC was also a disruptive technology. That IBM couldn't capitalise on it was precisely the problem of overbearing bureaucracy. My case for IEEE is that it has to allow the regions and sections to improvise. One way is to cater to local institutions and local issues without using a 'one size fits all' solution or tweaking it marginally.

IEEE needs to become more democratic in that it should fit into different regional models rather than imposing a single model on all regions. This fitting should embrace all aspects from membership models to membership benefits and beyond. For example, 'My IEEE' should be different for different regions and even sub-regions. I have felt very strongly about the commodification of information, particularly in my field of work. IEEE is using information for wealth creation, making information a commodity - publications and standards are examples. It needs to move to a position where information becomes wealth. Information unused is not wealth but trash. Information must be in use, shared, modified and enhanced. The present IEEE Explore needs to be engineered afresh to align to this changed paradigm.

National Societies are doing much better in India than IEEE even though we have had an India Council and several Sections. Now we have a Global IEEE in Bangalore but the benefits are yet to be seen. We can now pay our dues in Rupees which is not such a big deal as the Rupee is now freely exchangeable. At the current rate of exchange which has gone up by 20% I do not see a huge gain in membership because of this 'benefit'. On the flip side GIEEE has stopped all payments to the Sections pending audited accounts as of March 13. All these are results of the bureaucratic, centralised approach.

It is not working. If IEEE has to become a true transnational it has to play by the rules of each region and not by the rules which work well only in the country of its inception. The trouble is IEEE is trying to resolve this incrementally. We have an India office. That is a good start but is this office listening to the issues? So far all that it has done is dry up the funding of activities of all Indian Sections and Chapters by stopping advances and resorting to reimbursement of expenses post facto. This means that these Geographical Units have to find funds to finance their activities pre facto. I have some experience in raising funds from Government and Industry. It is not easy. A lot depends on your personal credibility with the persons responsible for sanctioning funds. Imagine the situation where now every geographical unit of IEEE India approached the same set of agencies for funds. Pretty soon they will want to know how many IEEE units are there and what would be the possibility of consolidating these requests. I have been there, I know. The question is does IEEE know?

My stand is that addressing regional differences is a necessary but not sufficient condition. My ideas arise from my experiences of handling national societies and chapters and IEEE Council, Section and Chapter. IEEE has many good features and I have often tried to use these to refresh the activities of National societies with patchy success, I might add. The patchiness comes from the differences in the socio-economic environment in which we work and the socio-economic environment that IEEE understands. For that matter I have had better success in bringing in best practices from one Indian Society to another. My contention is that a Big Old Hierarchical Bureaucracy has to give way to something more flexible and agile and this can only happen if the regional and national differences are factored in and the reins are passed on to smaller bureaucracies which can be flexible and agile as they have to work in a socio-economic environment they understand. I am not for a laissez faire approach.

IEEE's problems are not unique. At a rather stormy meeting of another trans-national society with which I have some association, the younger members flayed the leadership, dominated by conservative older members, for lack of imagination and willingness to change with the times. The key for any society is to be flexible and to be open to rapid change.

I would say IEEE needs to move from a culture of bureaucracy to a culture of flexibility which will foster innovation. Take remote sensing as an example. For long it was the preserve of scientists and experts. Administrators did their bit by decreeing that such data should not be freely available as it would pose danger to National security. The UN Committee for Peaceful Uses of Outer Space debated at length on the matter and came out with a long winded document on Principles of Remote Sensing laying down suggestions for sensing of one country by another country and making that data available to a third country. These principles are observed more in the breach, example Google Earth and its clones. The disruption started by Google revolutionised remote sensing and made it accessible to the common person on their desktops and now smart phones. We need disruptive initiative in IEEE to breakdown the concrete cast of bureaucracy that has the IEEE in its grip.

What is this the goal of the Sections Congress? Clearly it should take in to account the regional and national goals and aspirations while stating the overall strategy. Local leaders have to take a global outlook and the global leaders must respect local issues. Unfortunately, IEEE traditionally follows a top down approach; I would prefer to reverse the process and take a bottom-up approach. Instead of top leadership identifying areas of action and then asking volunteers to step up to the plate it might be a better idea to ask volunteers what bothers them and then look for solutions. Solutions must be tailored to the unique environments in which the volunteers work. I feel this is an important point that IEEE top management seems to be missing. IEEE has to decentralise and give greater autonomy to Regions and Sections. It is only this way that we can achieve a lean (if not mean) organisation which can respond rapidly the changing needs of Regions and Sections.

I came to know something that upset me. I didn't know - that IEEE has 'deals' for corporate and academia. I never knew this, nor was this ever hinted at any of the meetings I have had with visiting IEEE honchos. I feel that as a volunteer I am being had by IEEE management. Why can't such deals be more open and accessible to Regions and Sections? Instead of all this talk of networking and "making contacts that help you solve problems, as a catalyst to innovation and providing your career future" which is not unique to IEEE, it would be better if Regions and Sections had the freedom to be creative in the matter of special benefits. Local professional societies fill the need for networking, etc, much better because they are clued in to the local conditions. So what is IEEE's USP as far as non-US countries are concerned?

In order to reinvent itself IEEE needs to think out of the box. The focus needs to be on three major issues in the order of their importance:

1. Value for money

3. Engage Academia

Value for money:

Post after post brings this up as one single reason for not renewing, or cutting down on Societies. My take on this is:

- Basic membership should be electronic and include one Society membership.
- Membership fee must be fixed by regions based on Purchasing Power Parity
- Membership of Societies should include TOC and abstract access for ALL publications of the society including conferences sponsored by the Society.
- Member should be allowed to customise their personal Society magazine by selecting 10 articles/papers per month and downloading this customised magazine.
- Members desiring paper copy can print this out on personal printers or IEEE can have designated printing houses in each country that can do the printing and binding for a fee.
- Spectrum is a magazine universally desired by a majority of members. Printing of Spectrum can be distributed as above. This will save printing and postage costs.
- Cost of print magazines should not be included in the membership cost but charged separately
- All IEEE sponsored conferences should be webcast or at least made available on the web for future reference by members

Engage Industry

What does industry look for in a professional society? Future trends, networking with potential customers and suppliers, opportunities, impact of regulatory issues, new markets, scope of new products, big projects, etc. What can IEEE do?

- IEEE Standards is one very useful contribution to industry
- Conferences provide a good opportunity for industry professionals to meet on common issues. The question is how many conferences address industry issues?
- Most industries have their own associations. IEEE could open (if not already done) channels with such associations and co-sponsor industry oriented events.
- Most industry associations lobby the government for specific regulatory matters. IEEE can provide a very good technical support to such lobbying efforts
- Most IEEE Conferences need financial support from industry. IEEE could assist Geographical units in availing such support.
- IEEE can act as a bridge between Industry and Academia by helping Academia to tailor courses to Industry needs and helping Industry to avail of R&D services in academia. This is particularly true for SMEs.

Engage Academia

This is one area where IEEE is doing well in India. Student Branches are thriving and the control of Sections is firmly in the hands of academes. The last bullet in the previous section is an area where it can gain additional value. Technical co-sponsorship of conferences is enabling academia to come up with quality publications. The control of the IEEE Master Brand has been a move in the right direction. The DLP is a very useful facility which should be pro-active in arranging lectures for different events.

In Conclusion

The above discussion is intended more as a start to a process for initiating change. These are not the only solutions. I hope that this article may foster discussion and lead to improvements in a great organisation that is IEEE.

IEEE India Info

Computational Photography *Digital Cameras Compute Pictures*

A classic example of *Disruptive Technology (Courtesy: Prof. Clayton M. Christensen of Harvard BSchool)* is the digital camera which sent into oblivion a number of products and services ruling the photographic scene for several decades. With the arrival of digital cameras the film based photography had to recede and almost vanish from the scene.

A digital camera has a silicon sensor in the place of the film and a small display screen on the back. However, the lens, shutter, the rest of the optical components and most of the controls work as in the film cameras. The images that come out of the camera also look much the same. Now, the combination of digital cameras and computer processing provides major opportunities to enhance and manipulate digital images. This is the new field called *computational photography*, which is at the intersection of image processing, computer vision, and computer graphics. The research objective of computational photography is to allow everyday users to capture better pictures, and to give them the ability to easily and creatively manipulate and enhance their pictures.

Computational Photography refers broadly to sensing strategies and algorithmic techniques that enhance the capabilities of digital photography. The output of these techniques looks like an ordinary photograph, but one that could not have been taken by a traditional camera. The basic premise is to use multiple exposures, and even multiple lenses, to capture information from which a photograph is created. These data containing a host of potential pictures are converted by specialized software into what looks like a conventional photo.

The best known example of computational photography is high-dynamic-range (HDR) imaging, which combines multiple photos shot in rapid succession, and at different exposures, into one picture of superior quality. So, where a single snap may miss out on detail in the lightest and darkest areas, an HDR image of the same scene looks well lit. HDR, once a specialised technique employed mostly by professionals, changed when Apple added it as an option in its iPhone 4. HDR is just one way to splice together different images of the same subject, says Marc Levoy of Stanford University, who kick started the field in 1996. Since then, aspects of computational photography have moved from academia into commercial products.

Focusing images well has been difficult since the beginnings of photography in 1839. Three challenges faced by photo-enthusiasts are: the difficulty in having to choose what to focus on before clicking the shutter, the awkward coupling between aperture size and depth of field, and the high optical complexity of lenses required to produce aberration-free images.

These problems arise because conventional cameras record only the sum of all light rays striking each pixel on the image plane. The unified solution proposed to the above problems by researchers is to record the light field inside the camera: not just the position but also the direction of light rays striking the image plane. The basic idea is to use an array of microlenses in front of the photosensor in a regular digital camera. The extra ray directional information enables unprecedented capabilities after exposure. For example, it is possible to compute final photographs that are refocused at different depths, or that have extended depth of field, by re-sorting the recorded light rays appropriately. Theory predicts, and experiments corroborate, that blur due to incorrect focus can be reduced by a factor approximately equal to the directional resolution of the recorded light rays. Similarly, digital correction of lens aberrations re-sorts aberrant light rays to where they should ideally have converged, improving image contrast and resolution. Future cameras based on these principles will be physically simpler, capture light more quickly, and provide greater flexibility in finishing photographs.

[For details: <u>http://www.americanscientist.org</u>, <u>http://graphics.stanford.edu</u>, <u>http://graphics.</u> <u>cs.cmu.edu</u>, <u>http://cgg.unibe.ch</u>]

June 2014

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IEEE NEWS From Around India

IEEE Kerala Section

Congratulations!!!

Dr. Suresh Nair, Founder, Innobreeze Technologies and Chair, IEEE Kochi Sub-Section on being listed topper in the DST Lockheed martin Innovation award for its innovation on "Noninvasive Oral cancer detection device". The competition had over 3000 entries and after rigorous selection processes, top 50 innovators were selected and given training by faculty from Standford University Business School. Finally, top 30 were selected based on their presentations before an eminent jury. Dr.Suresh Nair is also invited to visit Silicon Valley to discuss with venture funders, and University of Texas, Austin will support Innobreeze Technologies in business development.



Dr.K.R.Suresh Nair receiving the award from Dr.Ray O. Johnson, CTO, Lockheed martin, where Prof. Vijayraghavan, Secretary, Department of Science and Technology handed over the certificate.

IEEE SSCS Distinguished Lecture by Dr. Jacob Baker

The SSCS Distinguished Lecture on "Ultra-Small Memory Module Design" by Dr. Jacob Baker was conducted on 11th April, 2014 at SAINTGITS college of Engineering by the SaintgitsSSCS Student Branch Chapter in association with IEEE Kerala section.

The DLP was flagged off with a colorful inaugural session which began with invoking the blessings of the almighty. Ms. Jisha M Nair, Secretary, SSCS SB Chapter, readthe IEEE Code of Ethics and Dr. M C Philipose, Principal Saintgits College of Engineering welcomed the gathering. Mr. Thomas T John, Director, Saintgits Group of Institutions delivered presidential address. Mr. Sabarinath G Pillai, SecretaryIEEE Kerala Section introduced the chief guest, Dr R. Jacob Baker, Professor, University of Nevada, USA whom later inaugurated the DLP by lighting the ceremonial lamp, signifying truth and knowledge.Rtd Lt. Col. John

Jacob, Chief Operating Officer presented memento to chief guest. Mr. Paul Ansel, Student Activities Chair, IEEE Kochi Subsection thanked the gathering. The inaugural ceremony ended with national anthem.

Dr. Prof. R. Jacob Baker delivered a lecture on "Nano memory Modules".Dr Prof. R. Jacob Baker threw light on main memories limitation and the various power handling problems. He explained the limitations of DRAM design and introduced the new technology of nanomemory modules and hybrid memory cubes. He gave a feel about the projects in which he was involved earlier which was interesting blend of domains were indeed. He presented a logical way of designing the memories for high bandwidth interconnects.

Post lunch, an interactive session with Dr Baker gave Design Engineers from various Industries, faculties and students from different colleges to have a one to one interaction, giving them opportunity to get advice on their designs and projects.

The DLP had 150 participants, mostly Post Graduate Scholars, Faculties and Engineers from various local VLSI industries.

A membership recruitment and retention stall on the sidelines of the DLP also saw great enthusiasm among participants to know more on IEEE Membership and its benefits.





Dr. Baker inaugurating the DLP

Participants of the DLP on Ultra-Small Memory Module

IEEE COMSOC Distinguished Lecture Series by Dr. R Chandramouli

IEEE Kerala Section and COMSOC Chapter jointly organized a Distinguished Lecture Series, at three different locations for the benefit of IEEE members and especially COMSOC members of the state. Dr. R. Chandramouli, Thomas Hattrick Chair Professor of Information Systems, Department of Electrical and Computer Engineering (ECE), Stevens Institute of Technology delivered the lecture series.

Dr. R. Chandramouli, Thomas Hattrick Chair Professor of Information Systems, Department of Electrical and Computer Engineering (ECE), Stevens Institute of Technology, NJ, visited the Indian Institute of Space Science and Technology (IIST), Trivandrum on 12th March 2014 and delivered the first distinguished lecture on "**Big Data Problems in Social Media Analytics**." The audience included faculty, undergraduate and graduate students of IIST. The IEEE IIST Student Branch coordinated local arrangements. Dr. B. S. Manoj, Chair, IEEE ComSoc Kerala presided over the function and Prof.KurienIssac presented the memento to the distinguished speaker. The talk emphasized on problems associated with Big data handling in social media network and it attracted a wide acceptance among students and academicians of IIST.

Following the lecture, Dr.Mouli had an interaction session with faculty and graduate students of IIST where possible informal and formal research collaboration models were discussed for future interactions with Dr.Mouli's research group at Stevens Institute.



A view of Distinguished lecture by Dr.Chandramouli

On 13th March 2014, **Prof. R. Chandramouli** visited the Centre for Development of Advanced Computing (C-DAC), Trivandrum in the forenoon and met with the scientists and researchers at C-DAC and interacted with them on the current state of research at C-DAC. Dr.Mouli reviewed various Dynamic Spectrum Access related activities currently under taken by C-DAC.

In the afternoon, Dr.Chandramouli delivered the ComSoc distinguished lecture titled **"Dynamic Spectrum Access Wireless Networking"** which was attended by scientists, researchers, and students of C-DAC, Trivanrdum.



Dr.Chandramouli delivers ComSoc Distinguished Lecture at C-DAC Trivandrum on 13th March 2014.

Dr.Chandramoulialso visited the Indian Institute of Information Technology and Management Kerala (IIITM-K), Trivandrum and delivered the distinguished lecture titled "**Big Data Problems in Social Media Analytics.**" Dr.Chandramouli also interacted with the faculty members towards future research collaborations with IIITM-K.

IEEE SIGHT Camp – Kerala Section, Young Professionals & WIE AGs joining hands to inspire work on local needs and change the world

Deep in the Western Ghats tropical rain forest, is situated a poorly inhabited tribal village **Kuchipara**, headed by a traditional chief **Moopan**. Locally administered by the Forest Department for development and rehabilitation, the tribals have very poor access to mail land, food or proper living conditions. Inhabitants here get meagre primary education, health care facilities, Communications and transportation. A group of young determined engineers, travelled to this part of the village and collected first-hand information on ground to earth reality of living conditions at these locations.



Travel to the location



Single class room for classes 1 - 4; single teacher explaining the situation to IEEE members

The root causes of such poor situations at the village were listed out as (a) Poor Education (b) No means of Transportation (c) Poor Communication (d) Un-aware of the outer world!



The Visit and LFA workshops have brought about a clear picture of the requirements of the population in the tribal village. The next step is to see how best the engineering community can help them and to identify what contributions can be made so as to solve the identified root causes. After project proposals are submitted, a feasibility study in accordance to the climate, financials and social sustainability is to be performed. NGO partnerships and Corporate sponsorships are also being considered for successful rehabilitation of this tribal community.



IEEE SIGHT members with the tribal community of Kuchipara tribal village

IEEE India Info

Detailed report of the SIGHT Camp may be found at http://origin.library.constantcontact.com/ download/get/file/1115763719558-58/KerSIGHT_Camp.pdf

IEEE Global Humanitarian Technology Conference – South Asia Satellite 2014

Paper submission deadline for the IEEE Global Humanitarian Technology Conference - South Asia Satellite 2014 (IEEE GHTC SAS 2014) extended to 9 June.

Papers are invited under the following five tracks:

- 1. Renewable energy solar energy, wind energy, energy from waves, energy harvesting, green technologies, smart grid
- 2. Health care technologies Biomedical instrumentation, biotechnology, bioinformatics, drug design, Health informatics, Hospital information system, Telemedicine
- 3. E-Services for the masses e-Governance, m-Governance, mobile Banking, mobile micro finance, e-education, electronic personal security
- 4. Frugal innovation: Innovation in low cost applications of technology, low cost development, low cost manufacturing, open source hardware and software, crowd sourcing
- 5. Emerging technologies for humanitarian applications ubiquitous computing, ubiquitous communication, Internet of things, wireless sensor networks, 3D printing, Big data, cloud computing

Deadline for Full Paper Submission: 9 June 2014

IEEE Global Humanitarian Technology Conference (IEEE GHTC) started in 2011 in Seattle as a flagship conference series, focusing on applying technology to solve the world's most pressing humanitarian and development challenges. The satellite conference (IEEE GHTC SAS) focus on addressing the humanitarian challenges, issues and technology solutions in South Asia.

IEEE GHTC SAS is jointly organized by IEEE Kerala Section and IEEE Region 6 and supported by IEEE GHTC. The Satellite conference held in Trivandrum, India in August 2013, was a grand success in terms of quality and attendance. The event will be held on 26-27 September 2014 at UdaySamudra Leisure beach hotel & spa, Trivandrum, India.

The Conference Program will include paper sessions, plenary, keynotes and invited talks, poster sessions, tutorials, workshops, NGO meet, student contests and many opportunities for social and professional networking.

Accepted papers presented at the GHTC-SAS Conference, which meet the IEEE Conference Publication Program requirements of IEEE quality review, will be included in IEEE Xplore Digital Library. IEEE reserves the right not to publish any proceedings.

More details at http://www.ghtc-sas.org

Compiled and edited by Sabarinath G, Secretary, IEEE Kerala Section



Report on National Conference on Signal Processing in Engineering and Technology (SPET) IEEE-SB PDM Group of Institutions, April 4, 2014

V.R.Singh

Chair-IEEE-SB-PDMCE

IEEE-Student branch organized 'National Conference on Signal Processing in Engineering and Technology (SPET)' jointly with PDM Group of Institutions at Bahadurgarh on April 4, 2014. Over 260 delegates attended the conference from different colleges, universities and R&D institutes. There were several oral presentation and invited talks on different topics of Signal Processing by researchers, faculty and student participants. All the papers were reviewed by senior professors and 45 papers made it to the conference proceedings.

The conference was inaugurated by Dr. S.C Gupta, former Deputy Director General, NIC, Govt. Of India. Prof (Dr.) Yusuf Mulge welcomed everyone to the conference on behalf of PDMEI. The student branch chairperson introduced the event. Prof.(Dr.) V.R. Singh, Chair, SPET-2014, addressed the audience by highlighting the technical impact of the theme of the conference, signal processing in engineering and technology. Mr Nitin Rajput delivered a talk on mobile signal analysis. Vote of thanks was given by Mr. Rajiv Dahiya, the convener of the conference.

Technical Session A (G4 Hall)	Technical Session B (G3 Hall)
Electronics & Communication Engineering	Image Processing & Computer Engineering
Chairs : Prof. S. S. Bawa, Prof. Biplab Kumar	Chairs : Ms. Kavita Khanna, Prof. J S Brar &
Sarkar & Prof. K.S. Bhamra	Prof. Rajan Vohra
*Invited Talk: Prof. Y. K. Mathur	*Invited Talk: Prof. M. Sivakumar
*Oral Presentations	*Oral Presentations
Technical Session C (G4 Hall)	Technical Session D (G3 Hall)
Bio-Medical & Optical Engineering	Mechanical, Civil & Allied Sciences
Chairs : Dr. N. K. Dua, Prof. S.C. Arora &	Chairs : Prof. C.K. Dutta, Prof D V S Verma &
Mr. Saurav Datta	Prof. Suresh Kumar
*Oral Presentations	*Oral Presentations

The oral paper presentations were divided into four technical sessions, as follows:

Prize distribution ceremony followed the technical program. Prizes were distributed to the best paper presented by student and best paper presented by faculty.

All in all, the conference witnessed a high dosage of inputs from some big names in the industry, some valuable and prudent lessons for life and work and boosted the morale and confidence of the fellow attendees.

App Development Course on Android

Visvesvaraya Industrial & Technological Museum - A Report

The App Development Course on Android was held at Visvesvaraya Industrial & Technological Museum in collaboration with IEEE Bangalore Section for high school students during May 17-19, 2014. Students from Kendriya Vidyalaya, Delhi Public School, Bishop Cotton Boys School, Sri Kumaran Children's Home, Jain PU College etc participated in the course. IEEE volunteers handled the classes. Akash tablets which were used by the students for app development were donated to the museum by Ms.Meghamala Nugehally, Educational Activities, IEEE India Operations. There were six sessions with 2 sessions per day.

Session 1: Introduction to Android by Mr. Satish Patel, Texas Instruments

Session 2: Algorithms, Flowcharts, Programming fundamentals, Data Structures, Loops: By Mr. Aravind M A (Indian Institute of Science)

Introduction to App Inventor followed by Practical session on demo app CAT by putting mustache for Cat: By Mr. Vijay, IBM.

Session 3: Demo of App development on Car using App Inventor followed by Practical session on Car App: By Mr. Aditya Prabhu (Benz)

Session 4: Discussion with students about developing their own app. Student project for developing of following four apps:

1. Music app (Playing music of different instruments)

2. Hand Cricket

3. BBMP APP (Garbage, Pothole, Pipe leakage etc)

4. Jarvis (app based on voice command)

Hands on session on developing apps: By Mr. Aravind M A (Indian Institute of Science)

Session 5: Coding for apps(Eclipse), Google Play store: By Mr. Amit Suarna(Android Group)

Session 6: Development of App & Demo of Student Project: By Mr. Aravind M A (Indian Institute of Science) & Mr. Amit Suarna(Android Group)

It was followed by distribution of certificates & digit magazine with CD(May issue) to students and mementoes for IEEE volunteers. The Digit magazine (May issue) deals with apps, gadgets & Technology. The CD which comes with the magazine has Android KITKAT SDK. The digit magazine was sponsored by Mr. Ravikran, Chairman, IEEE Bangalore Section. Ms.Divya & Mr.Vikram coordinated with all the IEEE volunteers in organizing the course and the preparation of course material. All the IEEE volunteers did an excellent job and the course was well received by the students. The event is covered in Times of India 21st May 2014.

http://timesofindia.indiatimes.com/city/bangalore/This-app-will-alert-BBMP-about-garbage-around/articleshow/35399580.cms

http://epaperbeta.timesofindia.com/index.aspx?eid=31806&dt=20140521

Ms.K A Sadhana

Curator F(Electronics) Visvesvaraya Industrial & Technological Museum Kasturba Road Bangalore-560001

June 2014

Student Transition and Elevation Partnership Program Hyderabad Section

IEEE Young Professionals Hyderabad in association with IEEE VignanaBharathi Institute of Technology (VBIT) student branch conducted the first of STEP series for the year 2014.

The Student Elevation & Transition Partnership program has always been one of the prime platforms to attract the student members and assist them transition as they graduate and become higher grade IEEE members. This session of STEP concentrated primarily on the benefits of IEEE, benefits of volunteering and career development talks from the industry leaders.

The STEP at VBIT was held on March 15th, 2014 within the campus auditorium. The event attracted a total participation of around 165 which makes it one of the largest STEP events to be held in Hyderabad. Majority of the audience (around 90) were non - IEEE members which helped us introduce the opportunities and benefits of IEEE membership and encourage the students take up the membership.

The first topic, "The power of volunteering and how it makes you a leader" is a well thought and chosen topic and none other than Mr.Aditya who has a vast experience in volunteering could have made a better speaker for this topic. Mr.Aditya served as a Chairperson for the IEEE Computer Society chapter Hyderabad Section and is now part of the Membership Development Committee, IEEE CS Chapter. Mr.Aditya in his talk briefed on importance of volunteering and how a volunteer can enhance his/her career by being part of a professional organization like IEEE. He also emphasized on how volunteering helps become a professional and a leader importantly. He used his personal experience as part of this presentation.

The second topic, "Professionalism" was from one of the senior members of IEEE Hyderabad section - Mr.Hari Prasad Devarapalli. Mr.Hari Prasad, from his industry and volunteering experience shared with the students his thoughts about Professionalism. He mentioned that there is a tremendous effort that is required from the individual on a daily basis to develop and sustain it. Being professional at the workplace helps one establish and attain goals, and be in sync with the goals of the company.

After the sessions from the speakers, we moved on to a networking and social activity with the audience. YP HYD team along with the student branch volunteers were divided into teams and given tasks to be completed in a stipulated time. This activity was received quite well by the students and it indeed stood as the highlight that day.

As part of the STEP program, we also recognized few volunteers from IEEE Hyderabad section and appreciated for their outstanding contributions for the section and the IEEE R10 Congress conducted last year.

We wish to thank the volunteers from the student branch for helping us organize such a wonderful and fruitful event. Importantly, we would like to thank Elie Rose from STEP team who has encouraged taking this forward. We are hoping to receive the same support for the next series of STEP. Special thanks to Ms.MounikaMolagara for the amazing leadership as the student branch chair - VBIT and organizing the event flawlessly.

Preeti Kovvali

IEEE Young Professionals Chair Hyderabad Section.

IEEE India Info



June 2014

INDICON 2014 Emerging trends and innovation in Technology

11th-13th December 2014, Yashada, Pune, India



IEEE INDICON 2014 organized by IEEE Pune Section will be held at YASHADA, MDC, Pune, Maharashtra, India from December 11-13, 2014.

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

INDICON 2014 is expected to attract delegates from academia and industry, coming from all over the country and abroad. The theme of the conference this year is "Emerging trends and innovation in Technology". The conference will consist of very high quality technical sessions and tutorials.

We invite you to submit original technical papers for presentation at the conference as well as publication in the proceedings and in IEEE Xplore.

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

- Big data and Data mining
- Cloud and Ubiquitous Computing
- Emerging trends in Engineering
- High Performance Computing

IEEE

une Section

- Information and network security
- Power and Energy
- Software and Database System

The paper submission deadline is June 25, 2014.

For Call for papers, please visit http://www.indicon2014.in/CFP.pdf.

For more details and contact information, please visit http://www.indicon2014.in

Rajesh Ingle, Chair, IEEE Pune Section General Chair INDICON 2014 ingle.rb@gmail.com

June 2014

Bicycle Braking

Wireless Way

Of late, our world has been striving hard to do away with wires and cables to free ourselves from their entanglement in our daily life. In this way, our phones, Internet, and even electricity have become unplugged, as the society is looking towards a faster and untethered life. A group of scientists at the German-based Saarland University set their eyes on our bicycle, with an intention to introduce wireless braking system. And they invented and perfected a wireless bicycle brake which they installed on the front wheel of a cruiser-type bicycle. To activate the brake, the rider simply squeezes a rubber handlebar grip having a pressure sensor underneath it's rubber. This activates a small handlebar-mounted transmitting unit which sends out a radio signal to a receiver mounted on the end of the fork and activates the disc brake. The harder that the grip is squeezed, the more firmly the brake is applied. The system has been perfected to a level that there were just 3 failures during a trillion braking attempts.

(For details: <u>http://www.uni-saarland.de</u>)

Words of Wisdom If you wait to do everything until you're sure it's right, you'll probably never do much of anything. - Win Borden * * * * * Nature, time and patience are three great physicians. - H.G. Bohn * * * * * Aerodynamically, the bumble bee shouldn't be able to fly, but the bumble bee doesn't know it, so it goes on flying anyway. - Mary Kay Ash

