



### *Message from Chairman*

Dear Friends

IEEE movement in India is in upswing. Student community is seeing it as an avenue to network, to be in touch with the emerging trends in technology, understand rudiments of professional management etc. A most welcome trend! Students and Young Professionals in India are also joining hands to explore possibility of growing together and learning together. All India Student and Young Professionals Congress is scheduled on 7-9 August 2015 at Kochi. Enthusiasm of students and young professionals are exemplary. Visit [www.aisyc.in](http://www.aisyc.in).

Among the others, there are 154 life members in all the 11 Sections in India, who are active in their own ways. Already there are two LM affinity groups - Mumbai and Kerala. We need to focus on this group who have knowledge and experience and could be potential mentors, educators and instrumental in providing sustainable growth of IEEE in India.

In between these two categories of members, there is a huge volunteer potential in the middle level, which if fully exploited, IEEE India would be scaling greater heights, positioning itself among the top countries. Responsibility to integrate within various member grades lies with us - all members.

Regards

**Deepak Mathur**  
Chair, IEEE India Council



**NT Nair, Editor, writes from Nussbaumen, Switzerland...**



## **IEEE Collabratec™ - New Pathbreaking Initiative**

Very often, institutions come out with new initiatives which might empower most stakeholders to conduct their affairs more elegantly, efficiently, and in a less taxing way. **IEEE Collabratec™** is one such offering from IEEE stable.

### **Here are some highlights, in general:**

- **IEEE Collabratec™** is an integrated online community where technology professionals can network, collaborate, and create - all in one central hub.
- It offers a suite of productivity tools and is available to technology professionals around the world *with exclusive features for IEEE members*. Plus sign up is free to everyone.

### **Specifically, IEEE Collabratec™ helps,**

#### **IEEE Members to:**

- *Build a network of technology professionals to enhance career opportunities or expand the peer group*
- *Create or join communities based on IEEE or technical society membership*
- *Enjoy a suite of closely integrated productivity tools and a professional networking community*
- *Get a unique IEEE member grade badge*
- *Connect with global technology professionals by location, technical interests, or career pursuits*
- *Access research and collaborative authoring tools*
- *Establish a professional identity to showcase key accomplishments*
- *Use robust networking, collaborating, and authoring tools dedicated to technology professionals.*

#### **Engineers and Technology Professionals to:**

- *Access online communities and research groups with similar interests*
- *Access event calendars*
- *Extend one's experience even further with seamless Google+ integration.*

#### **Researchers and Authors to:**

- *Tap into a global community of technology professionals to develop new research projects or articles — in real time*
- *Create private virtual research groups*
- *Find new collaborators and new opportunities*
- *Save time by effectively managing documents related to the projects*
- *Enjoy easy collaboration and co-authoring from virtually anywhere with documents that are stored in the cloud*
- *Use tools to manage the references*
- *Enjoy integrated search of IEEE Xplore®, a powerful resource for the discovery of scientific and technical content.*

### **Unquote:**

Most likely, all IEEE Sections in India would have taken note of **Collabratec™** by now and brought it to the attention of its members to reap benefits mentioned above, including the free sign up facility. A case in point is IEEE Delhi Section, it is heard.

Let, we, the Indian IEEE Fraternity, be among the early birds embracing the **IEEE Collabratec™** movement and taking advantage of it. Best wishes.

  
**NT Nair**

# IT in April 2015

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## General

- Government unveils new Foreign Trade Policy on April 1, 2015 and talks of doubling export to \$ 900 billion by 2018-19; unveils 100 Smart Cities project with Rs 100,000 crores funding on April 29, 2015
- Kotak Mahindra Bank and ING Vysya merger is complete on April 7, 2015
- Moody's upgrade India outlook from "stable" to "positive" on April 9, 2015
- International community's talks with Iran see a breakthrough on April 1, 2015
- Nepal earthquake on April 24, 2015 kills nearly 10,000 people, wounds many more and causes misery to hundreds of thousands; Indonesia executes seven persons on April 28, 2015 in spite of international opposition

## Technology

- Intel announces 'compute stick' – an ultra-compact form factor PC that resembles a large-sized Flash memory stick with Intel Atom processor, 2 GB RAM, HD graphics, 32 GB hard disk, Wi-Fi and Windows 8.1 - at \$ 150 in April 2015
- Japanese train reaches another world record of 603 KMPH speed on April 21, 2015
- Chinese company erects 57 story building in 19 days in April 2015

## Products

- Apple Watch finally went on sale on April 24, 2015
- Microsoft launches Lumia 640 in India on April 10, 2015
- Facebook Messenger starts offering VoIP calling services in USA on April 28, 2015

## Markets

- April 2015 saw multiple big-ticket mergers & acquisitions
  - o US parcel delivery giant **FedEx** announces its decision to buy Dutch rival **TNT Express** in the year 2016 for \$ 4.8 billion on April 8, 2015
  - o **Nokia** set to buy **Alcatel-Lucent** for \$ 16.6 billion on April 15, 2015, leading to consolidation in telecom equipment market with 40% market share for Ericsson, 35% for Nokia-Alcatel-Lucent and 20% for Huawei
  - o French IT services major **CapGemini** (with 144,000 employees and \$ 10.6 billion turnover) buys NASDAQ-listed Indian mid-size IT services company **iGate** (with 33,000 employees and \$ 1.2 Billion turnover) on April 27, 2015 for \$ 4.04 billion
- There were a number of smaller acquisitions too, in this month
  - o **Grofers** (on-demand local delivery service) buys "**My Green Box**" (App-based grocery delivery) on April 9, 2015 (Both in Delhi area)

- o **Microsoft** buys Canadian mobile business intelligence company **DataZen** on April 15, 2015
- o Taxi aggregator **Carzonrent** buys **Ridingo** (Bangalore-based ride share company) on April 16, 2015
- o Healthcare start-up **Practo** acquires fitness app company **FitHo** on April 23, 2015
- o **Infosys** buys **Kallidus** (US-based mobile commerce company) for \$ 120 million on April 25, 2015
- o E-Commerce major **Flipkart** buys mobile marketing automation company **Appiterate** on April 29, 2015
- In the IPO space
  - o **REC** (Rural Electrification Corporation) share-sale was subscribed more than 5.5 times, giving Rs 1,550 Crores to the government and a good start to government's disinvestment plans for 2015-16
  - o **VRL Logistics** IPO oversubscribed on April 16, 2015
  - o **Videocon d2h** lists on NASDAQ on April 7, 2015
- **Apple** reports excellent quarterly results on April 27, 2015 with quarterly sales of \$ 58 billion and profits of \$ 13.6 billion with sales of 58.2 million iPhones in the January – March 2015 quarter
- BSE index **Sensex** dives to 3-month low at 27,438 on April 24, 2015

### Indian IT Companies

- Indian IT services leader **TCS** gives ₹ 2,628 Crores bonus to employees on the 10<sup>th</sup> Anniversary of NYSE Listing on April 16, 2015
- **Tech Mahindra** signs \$ 150 million deal with telecom services major **ComVerse** on April 15, 2015
- **Videocon** lists on NASDAQ on April 7, 2015
- **Infosys** buys **Kallidus** (US-based mobile commerce company) for \$ 120 million on April 25, 2015
- Ashok Soota founded **Happiest Minds** cross \$ 50 million run rate in April 2015

### MNC IT Companies in India

- **Analog Devices** talk of 20% growth in 2015-16 in India; celebrates 20 years in India
- **vmWare** opens new campus in Bangalore on April 14, 2015 with investment of \$ 120 million
- **Brocade** to invest \$ 300 million in India to grow Bangalore center's headcount by 20% (has 25% of its global workforce in India)
- **Morgan-Stanley** inaugurated its new 1,84,000 square feet facility in Bangalore to accommodate 1,400 people on April 15, 2015
- Global 3-D printing major **Stratasys** starts India operations in Bangalore on April 23, 2015
- **Amazon** set to start its 2,80,000 square feet warehouse in the outskirts of Hyderabad in May (said to be the largest in India, of the nine such facilities)
- French IT services major **CapGemini** (with 144,000 employees and \$ 10.6 billion turnover) buys NASDAQ-listed Indian mid-size IT services company **iGate** (with 33,000 employees and \$ 1.2 Billion turnover) on April 27, 2015 for \$ 4.04 billion; **CapGemini** India to hire 4,000 plus in 2015 in Data Analytics

- **Swiss Re** to hire 300 professionals in Bangalore
- **Rolls Royce** to hire 500 engineers in India by 2017
- **GE Healthcare India**-designed and built CT systems launched on April 1, 2015
- **Abbott India** launches glucose monitoring system on April 1, 2015
- Chinese handset manufacturer **Gionee** to invest Rs 300 Crores in India
- **Xiaomi Mi4i** launched in India (the first for a Chinese company) on April 23, 2015; sells 40,000 units in 15 seconds!
- **NCR** takes Kalpana software (cloud-based ATM Management software) technology developed in India to power low footprint device to global markets in April 2015
- **Hitachi** launches manufacturing facility near Chennai on April 16, 2015
- **Nuance Transcription Services** plans \$ 7.5 million investment and hire 3,000 home-based employees during 2015-16

## People

- Afghan President Ghani visits India in April 2015
- Pepsi CEO **Indira Nooyi** in India; gives Convocation Address at IIMB; inaugurates new plant in AP
- Satyam founder Ramalinga **Raju** gets 7-year imprisonment on April 9, 2015
- **Dr Nazim Zaidi** becomes the 20<sup>th</sup> **Chief Election Commissioner** on April 19, 2015
- **Hillary Clinton** announces her candidature for 2016 Presidential Election on April 12, 2016
- India-born **Vivek Murthy** becomes the first **US Surgeon General** on April 23, 2015

## Telecom

- Chinese handset manufacturer **Gionee** to invest Rs 300 Crores in India
- **Xiaomi Mi4i** launched in India (the first for a Chinese company) on April 23, 2015; sells 40,000 units in 15 seconds!
- Telecom companies cut mobile roaming rates on April 30, 2015

## Infrastructure

- Rourkela steel plant expansion from 2 million to 4.5 million tons/year with investment of Rs 12,000 crores starts on April 1, 2015
- BHEL commissions its 2,400 MW Jindal Power plant in Chhattisgarh on April 15, 2015
- Alamatti canal top Solar project with 1 MW capacity got commissioned on April 9, 2015
- Bangalore Chinnaswamy Cricket Stadium gets 400 KW solar panels
- Bangalore-based low-cost Airline **Air Pegasus** starts commercial operation with its maiden flight from Bangalore to Hubli on April 12, 2015
- Air India starts Bangalore Puduchery flight on April 14, 2015

## Mobile Apps

- **Uber** launches **Autorickshaw** service in New Delhi on April 9, 2015
- **HDFC Bank** launches Apple Watch App on April 12, 2015
- Indian Railways launch **utsonmobile** App for buying unreserved tickets on April 22, 2015

## Interesting Applications

- **Google** adds preference to mobile friendly sites on April 21, 2015
- **PayTM** (mobile Wallet) available for train ticket booking on IRCTC from April 28, 2015
- **HDFC** starts using algorithms to decide loan sanction

## Startup scene

- The four hugely successful startups in India today **Flipkart, Ola, Snapdeal and PayTM** are at ₹ 68,700, 15,100, 11,500 and 9,400 Crores market value on April 15, 2015!
- **Ola Cab** gets ₹ 2,500 Crores capital infusion; sees value at \$ 2.5 Billion on April 16, 2015; plans to be in 200 Indian cities by 2015 end
- **Robosoft** (Rohit Bhat founded Udupi-based Mobile Apps pioneer) gets ₹ 74 Crores investment
- **Grofers** (on-demand local delivery service) buys "My Green Box" (App-based grocery delivery) on April 9, 2015 (Both in Delhi area)
- Taxi aggregator **Carzonrent** buys **Ridingo** (Bangalore-based ride share company) on April 16, 2015
- Healthcare start-up **Practo** acquires fitness app company **FitHo** on April 23, 2015

## Interesting Applications

- Postal Department re-invents itself - starts Core banking, ATM and delivery services for e-commerce companies on April 2, 2015
- Traditional money order gives way to eMO from April 1, 2015 (the way telegram gave way to email)
- Flipkart ties up with Dabbawalas on April 9, 2015
- EPFO updates 155 million accounts on April 1, 2015
- ICICI Bank and Bangalore Metro launch Metro travel cum credit card on April 16, 2015

## Interesting numbers

- Telecom subscriber base on March 31, 2015 stood at 996.49 million with 969.88 million mobile subscribers and 26.59 million wire-line subscribers (with net addition of 9.31 million mobile subscribers and net reduction of 0.13 million wire-line subscribers in March 2015); of the 996.49 phone subscribers 577.18 were in urban area, while 419.31 were from rural area (TRAI Press Release No. 34/2015 dated May 12, 2015)
- India's Foreign Exchange on March 27, 2015 was at \$ 352 billion (RBI)
- Indian Rupee stood at 63.42 against USD on March 31, 2015 (RBI)
- On April 30, 2015 BSE Sensex and NSE NIFTY 50 (Indian stock market indices) were at 27,011 and 8,182 respectively (Reuters)
- EPFO (Employees Provident Fund Office) updates 155 million accounts on April 1, 2015
- Maruti plans to sell 1.3 million cars in 2015-16!
- India got \$ 70 billion in remittance in 2014-15
- Online hotel booking in India to touch \$1.8 billion in 2015-16
- WhatsApp user base crosses 800 million in April 2015
- On May 1, 2015 India's foreign exchange reserves crossed \$ 350 Billion, the first time ever
- Xiaomi sells 40,000 units of Mi4i in 40 seconds on April 30, 2015



# Information Resources

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**Moore's Law Milestones:** Moore's Law has been called the greatest winning streak in industrial history. Here we look back at some of the key milestones, developments, and turning points that have kept the streak alive for a half century. <http://goo.gl/sOgxFn>

**Six Paths to Longer Battery Life:** The boom in mobile devices and data centers has circuit designers racing to find new ways to slash power consumption. At this year's International Solid-State Circuits Conference, in San Francisco, six power-saving technologies took center stage. Some will emerge in products this year, while others are just beginning to catch the interest of major chipmakers. <http://goo.gl/IaWmVh>

**Egg-Freezing Kerfuffle Puts Apple and Facebook in the Hot Seat:** Calm down, people. Yes, we all love to comment about the latest perks Silicon Valley companies are throwing at their engineers in the arms race to get and keep tech talent—particularly, female talent—but this week's firestorm over a relatively new employee benefit has been over the top. National TV networks, The New York Times, The Wall Street Journal, and Time Magazine...the story has been everywhere and often framed in outrage. <http://goo.gl/Nf6IRF>

**Madame Tussauds Wax Museum Seeks Silicon Valley Icon:** Madame Tussauds Wax Museum is known for its eerily lifelike wax replicas of celebrities. The San Francisco branch of Madame Tussauds began honoring nearby Silicon Valley in 2012, with a wax replica of Steve Jobs. The museum added Facebook's Mark Zuckerberg in 2014. And now they're looking for a third "Bay Area Tech Innovator" to be immortalized in wax (and made available for selfies). And they are crowdsourcing the final selection through online voting. <http://goo.gl/cCoj8v>

**Robot Taxis Will Reshape Urban Landscapes:** IEEE Spectrum has already reported on the race to build the first robot taxis. We noted in a February article that Google has a working prototype, Uber has begun working on robocars with Carnegie Mellon University, and Nissan has announced plans to work with NASA to "demonstrate proof-of-concept remote operation of autonomous vehicles for the transport of . . . goods . . . and people." <http://goo.gl/NAQQ14>

**2015's Top Ten Tech Cars:** This year's cars are super fuel efficient. But with today's gas prices, will anyone care? For the auto industry, predictions have been as reliable as a moth-eaten Yugo: Global oil prices are at a five-year low, sales of pickup trucks and SUVs are booming, and purchases of gas-electric hybrids have fallen. Yet automakers still face a monumental challenge to boost fleetwide fuel economy: In the United States, they must reach 4.3 liters per 100 kilometers (54.5 miles per gallon) by 2025, from approximately 7.6 L/100 km today. In the European Union, meanwhile, automakers face other headwinds, flowing from a requirement to cut carbon emissions and fuel consumption, even as sales remain mired in a vicious slump. <http://goo.gl/nQ0YSw>

**Engineering Heroes 2015:** Turns out, there are plenty of extraordinary engineers. You just need to look for them. Last July, IEEE Spectrum challenged readers to identify today's unsung engineering heroes—those worthy engineers who are making a difference in the world and yet have not received the recognition they deserve. As author G. Pascal Zachary noted, engineering suffers an unusual lack of such heroes. The hero deficit is "bad for engineering," he added, "because it diminishes the enterprise in the eyes of the public, and it constricts the flow of talent into the field." We were therefore delighted with the outpouring of reader suggestions, and here we profile eight of them. Each of these exceptional people saw a glaring need, whether it be with public health or education or the environment, and then applied his or her considerable skills and expertise to engineer a solution. <http://goo.gl/Hf00fB>

**Mind Reading to Predict the Success of Online Games:** Engineers devise a way to predict an online game's success by gamers' initial emotional response. On a first date, couples scrutinize each other's facial expressions for a clue as to whether the date will turn into a long-term relationship. Game publishers and designers might start doing the same thing. By analyzing the movements of gamers' smile and frown muscles in the first 45 minutes of play, Taiwanese researchers have found a way to predict a game's addictiveness. <http://goo.gl/JwtNd0>

**Video: Savioke's Robot Butler Brings You Room Service:** In a six-month trial run, this robot made over 1,000 deliveries in busy hotel. In August of last year, Savioke came out of stealth mode and introduced SaviOne, a hotel delivery robot. SaviOne is able to autonomously navigate through lobbies, up elevators, down hallways, and around obstacles to deliver small items like snacks to any room in a hotel. We checked in on SaviOne over the course of several months of its real-world testing at a hotel in Cupertino, Calif., and CEO Steve Cousins talked to us about how the robot is learning how to deal with some of the unique challenges of operating in a partially unstructured environment. In March, Savioke announced the successful conclusion of its pilot program with SaviOne, along with a new delivery robot called Relay. <http://goo.gl/1ELYvg>

**Ashok Jhunjhunwala: Reengineering Rural India:** The TeNet group cofounder creates telecom, banking, and electricity systems to lift up underserved communities. The first time Ashok Jhunjhunwala and his team helped install an ATM in rural South India, around 2005, the villagers didn't like what they saw: They knew that the new bank notes it issued would be suspected as counterfeit, in contrast to soiled notes, considered authentic because they'd been in circulation. <http://goo.gl/f5xaGS>

**Liquid 3-D Printing:** Giant leaps have been made in recent years with 3-D printing. Though most 3-D printed items are made of plastic, more exotic ingredients have included sugar, mashed potatoes, and living cells. A 3-D printer commonly works by depositing a layer of material much like an ordinary printer and then printing out another layer once the material below has solidified. This procedure has a built-in problem: Even small objects take way too long to produce. <http://goo.gl/WkN5Cv>

**How to Crowdfund Your Hardware Start-up:** Sites like Kickstarter can boost a start-up—or expose critical flaws. Crowdfunding—collecting money from a bunch of people to fund a project—has in the last few years gone from “doable but tough” to “so easy we can't remember how we lived before,” thanks to sites like Kickstarter and Indiegogo. Particular beneficiaries of the new era are those wanting to make physical devices, who have often struggled for funding because of the higher risk and capital requirements of hardware development over software. “Crowdfunding validates the product-market fit early in the development cycle, before you've spent millions of dollars creating something nobody wants,” says Scott Miller, CEO and cofounder of Dragon Innovation, in Cambridge, Mass., which offers certification and manufacturing expertise. “It provides the capital essential for buying the tools and inventory. And it's the most efficient form of marketing: It creates an informed community who then evangelizes,” says Miller. <http://goo.gl/XBvvzC>

**Project Ara: Google Wants Your Phone to Go to Pieces:** Google's modular smartphone will let users swap parts like screens and cameras on the fly. <http://goo.gl/BELXEM>

**Question Authority: Make Your Own “Top Tech 2015” Predictions:** Careful readers will note that the online versions of six articles from IEEE Spectrum's January “Top Tech 2015” prediction issue offer them a chance to make their own technology forecasts. At the ends of these articles you'll find boxes with links to questions on robotics, solar power, the Google Lunar XPrize, exascale computers, drones, and smart cars. These lead to SciCast, the prediction market project co-founded by Charles Twardy, Kathryn Laskey, and Robin Hanson at George Mason University. <http://goo.gl/mrR1XI>

**Mapheads and Roadgeeks: The New Cartography:** As maps go from paper to digital, a surprising number of amateur cartographers have arisen. When google launched its Maps service in early 2005, it didn't include an application programming interface (API), but that didn't stop Paul Rademacher from figuring out how to use Maps to display markers indicating available apartments in the San Francisco Bay Area. This was not only the first mashup (information created by combining data from multiple sources) but also the unofficial beginning of neogeography and neocartography. <http://goo.gl/l9oBWS>

**Ashok Gadgil: The Humanitarian Inventor:** His work on water purification, cookstoves, and arsenic removal has helped tens of millions of people worldwide. <http://goo.gl/04UH9N>

**How to Save Your Smartphone From the Brink of Watery Death:** It's happened again. You were trying to answer a call while washing dishes, and your phone takes a dive straight into the sink. Getting water inside your phone is one of the most devastating ways to watch your mobile device bite the dust, but fear not, all is not lost just yet. As smartphones become increasingly indispensable fixtures in our lives it's only natural to both want to take them where water... Personally, I know about this subject a little too well after dropping countless phones in toilets, sending them through the wash in a pair of pants, and getting drinks spilled on them while on a night out on the town. But, by following these steps right after the device gets dunked, you can minimize your chance of sustaining any serious damage, and have your phone back up and working again within just three days. <http://goo.gl/248ajK>

**Email mishaps: 12 tales of mistaken identity:** It seems Alex Hern isn't the only one accidentally stealing people's identities online. Here are your tales of mistaken identity via email. <http://goo.gl/qiHq1K>

**How we sold our souls – and more – to the internet giants:** From TVs that listen in on us to a doll that records your child's questions, data collection has become both dangerously intrusive and highly profitable. Is it time for governments to act to curb online surveillance?. <http://goo.gl/puwHFN>

**Carl Icahn: Apple shares 'dramatically undervalued' and should trade at \$240:** Activist investor says Apple shares should be trading at nearly double their current price, making the iPhone maker worth about \$1.5tn. <http://goo.gl/2JC951>

**How Google "Translates" Pictures into Words Using Vector Space Mathematics:** Google engineers have trained a machine-learning algorithm to write picture captions using the same techniques it developed for language translation. Clearly, this is yet another task for which the days of human supremacy over machines are numbered. <http://goo.gl/sqJBtG>

**24 everyday things made obsolete by modern technology:** Technology is making a lot of familiar things disappear. The last decade has brought about a slew of new devices and gadgets. That means we have also said goodbye to many things that were once staples in our lives. Let's take a look at things that have become obsolete now. <http://goo.gl/evn2ku>

**Net neutrality in India: Here's why India shouldn't jump the gun on net neutrality:** March 2015 was a historic month in the history of independent India in the context of Information Technology, where significant events happened which have a profound long-term impact upon various stakeholders. On 24 March, 2015, the Hon'ble Supreme Court of India, in the landmark case of "Shreya Singhal v/s Union of India" struck down Section 66A of the Information Technology Act, 2000 as being constitutionally invalid. The said judgment hailed the sacrosanct nature of the freedom of speech and expression on the Internet and found Section 66A of the Information Technology Act, 2000 violating the parameters enumerated under Article 19 (2) of the Constitution of India. The said judgment also upheld the issue pertaining to intermediaries' liability in India. The said judgment generated huge response from all stakeholders, because the Internet freedom was being hailed upon. On 27 March 2015, the Telecom Regulatory Authority of India (TRAI) put up on its website a consultation paper in a quiet unannounced manner. The said consultation paper is titled "Consultation Paper On Regulatory Framework for Over-the-top (OTT) services". The said consultation paper was drafted in a manner wherein lot of questions was sought to be asked from specific perspectives. The said paper has since now been known in the public domain as Net Neutrality Consultation Paper of TRAI. <http://goo.gl/wcVdLN>

**How ICT innovations can help farmers:** Empowering growers with the right information at the right time can improve yield. Public and private actors are looking for effective solutions to address challenges in agriculture, including how to address the abundant information needs of farmers and make agriculture profitable for them. Farmers need updated information to empower themselves in taking research to land, avail timely and adequate credit, seek and act on market intelligence reports and access market and negotiate prices. This critical information may increase farmer's productivity, income as well as protect their food security and livelihoods. Using Information and Communication Technology (ICT) in innovative ways through ICT-enabled services helps in disseminating timely information on agricultural

advisories, financial services and agricultural marketing and risk transfer to the farmer to improve their capacity and mitigate risks. <http://goo.gl/dToUC7>

**From \$36 parking to \$36 million in funding: ZIRX wants to make city driving stress-free:** ZIRX founder and CEO Sean Behr had an annoying problem with driving. He often had to drive between downtown San Francisco and the Peninsula, the southern part of the Bay Area where lots of tech companies are located. Every time he had a meeting in the city, he would leave his car in a parking garage that would cost him well over \$36 for a quick three hour meeting. Worse, parking was hard to find and the payment process wasn't as simple as other on-demand services like Uber. "I started thinking: 'How do we UberX this process?'" Behr told Business Insider. He quickly set up a team and came up with the first version of ZIRX within 10 weeks. <http://goo.gl/t8tQxi>

**24 LinkedIn Rules You Might Be Breaking:** Back in the day, etiquette rules were fairly simple. Always send a thank-you card. Don't put your elbows on the table. Hold the door open for other people. However, social networks have made matters much more complicated, and Emily Post isn't much help when it comes to online etiquette. That's why we've compiled the ultimate list of LinkedIn dos and don'ts. (Thank-you card not required. <http://goo.gl/PT7UBS>)

**Caffeine: The Silent Killer of Success:** Your daily cup of joe is hurting your performance far more than it's helping it. This tip for improving your performance is the most simple and straightforward method I've provided thus far. For many people, this tip has the potential to have a bigger impact than any other single action. The catch? You have to cut down on caffeine, and as any caffeine drinker can attest, this is easier said than done. For those who aren't aware, the ability to manage your emotions and remain calm under pressure has a direct link to your performance. TalentSmart has conducted research with more than a million people, and we've found that 90 percent of top performers are high in emotional intelligence. These individuals are skilled at managing their emotions (even in times of high stress) in order to remain calm and in control. <http://goo.gl/CxR4B6>

**11 Must-Have Soft Skills for Tech Professionals:** In a recent feature, we presented 10 IT certifications that result in top-paying technology jobs. Earning one of these certifications, however, doesn't necessarily guarantee a lucrative, long-term career. To build on success over decades, tech employees must also develop soft skills—interpersonal qualities such as leadership and the ability to work well with others. Clearly, they're not to be taken lightly: Ninety-three percent of employers consider a job candidate's demonstrated soft skills as being more important than their undergraduate major, according to research. Your personality and people skills—along with your ability to communicate, negotiate and lead—will dictate 85 percent of your financial success. In addition, one in five employers cite soft skills as a top reason for not hiring someone, and two-thirds of HR managers indicate they'd hire applicants with strong soft skills even if their technology skills were lacking. Have we convinced you? If so, then you'll want to take a look at the following list of 11 crucial soft skills for tech professionals. They demonstrate that soft skills are a direct reflection of your ability to shine as a team member and leader. Our list was adapted from a number of online resources, including BeMyCareerCoach.com and LiveCareer.com. <http://goo.gl/c5I0NN>

**How to Avoid Professional Networking Mistakes:** To get the most out of your professional networking efforts, you need to do more than simply sign up for a LinkedIn group: You have to emerge as a high-profile, helpful and gracious member of your networking communities. However, findings reveal that many professionals make a number of classic mistakes in their networking efforts, according to a recent survey from OfficeTeam. These range from age-old basics such as poor manners (not saying "thanks") to the less obvious (failing to ask for help). It's also important not to limit networking to social media and other online outlets because you can often make a better impression at in-person meetings and business events. "Although networking online can be an effective way to establish professional relationships and keep in touch, the value of in-person activities like meeting for lunch or attending industry events can't be overlooked," says Robert Hosking, executive director of OfficeTeam. "Whether you're looking to land a new job or build your visibility, every connection counts. These gatherings allow you to put a face to a name." More than 300 U.S. senior managers took part in the research. <http://goo.gl/vJnnWj>

**Top Qualities of High-Performing Employees:** Have you ever wondered whether you have what it takes to be one of your company's top-performers? Then consider the following checklist of must-have qualities of indispensable professionals, so you can perform a self-assessment. Sure, opinions will vary, but there are a number of core characteristics that employers and HR experts frequently cite. They include traits related to motivation, resourcefulness, knowledge base, time management and a team focus. Few workers can honestly claim to score "10s" on every quality highlighted here, but everyone can identify where on this list they shine and where they need to improve. Our top-performer qualities were adapted from a number of online postings, including those contributed by Laura Stack, author of *Execution IS the Strategy* (Berrett-Koehler/available now), and (through LinkedIn.com) Kevin Daum, an entrepreneur and marketing consultant. "It takes a lot to recruit and maintain top talent," Daum writes. "As an employer, I have always been grateful for those special employees who come along and just get it. They understand the power of cause and effect, drive the company forward, and know exactly what they need to do for advancement and rewards." <http://goo.gl/HtYsEs>

**11 Real-Life Lessons for Entrepreneurs -- and Intrapreneurs:** As some may know, last week was National Small Business Week in the U.S., a time to recognize and celebrate the role small business plays in our economy. Two years ago or so, I kicked off a virtual listening tour with female founders and business owners across the country to better understand the journey of an entrepreneur and, quite frankly, help build my own "intrapreneur" chops. That tour continues and, in the spirit of paying it forward to aspiring entrepreneurs of all ages, below is an edited recap of what my "focus group" would tell their younger entrepreneurial self. <https://goo.gl/RL6pSe>

**15 Personal Safety Apps For Women:** A friend need not walk you home at night. Since the Nirbhaya gang rape in December 2012, many mobile applications for personal safety have become available and new ones are entering app stores every month. The basics of most apps are similar — a user-decided list of emergency contacts to alert, and transmission of GPS-determined location — but the newer ones are easier to use, almost intuitive. Where the early apps required the user to punch a few buttons to raise an alarm, new ones make full use of phone hardware, and can be set to trigger with a scream or a vigorous shake. Some apps even ring a fake incoming call to unsettle an assailant while others activate the phone camera to record photos/videos and transmit these with the alerts. Here are some personal safety apps and the claims they make. <http://goo.gl/couWPR>

**Book: Integrated Marketing Communication: Pentacom:** This book focuses on five major categories of communications (B-to-C, B-to-B, internal, financial and corporate communication). It also enables readers to understand and implement communication strategies targeted at five major targets, such as consumers, business customers and clients, employees, shareholders, and public authorities. Finally it has been tailored for five potential types of players, such as consumer goods manufacturers, industrial goods companies, local authorities, public administration and services, as well as non-governmental and non-profit organizations. This book, while designed for students in business schools and universities pursuing courses in management and mass media or communication, its application-oriented approach, allows the book to serve as a very useful guide for practicing managers who desire to make their communications with different targets in different contexts more effective. The book also has a companion site meant for both students and faculty. Author(s): Philippe Malaval, Marie-Hélène Abbo, Muneesh Kumar & Jean-Marc Décaudin. Price: INR 495/= Pages: 504. Published by: Pearson Education.

**Book: Cases Studies in Corporate Strategy:** The book traces the stories of ten Indian Companies (Mastek, Karuturi Global Ltd, Essel Propack, JSW, Glenmark, Emami Ltd, Suzlon Energy Ltd, Rasna, Shree Renuka Sugars Ltd and Marico) which started out as small ventures and have grown into large corporations. They cover a wide spectrum of industry including steel, pharmaceuticals, alternate energy (engineering), information technology, FMCG, packaging, sugar, cut flower and, Food and Beverages. These companies cater to domestic as well as international markets and have resorted to exciting strategies to reach their pre-eminent positions. Moreover, the ten companies have faced difficult obstacles including global slowdowns and come out victorious. Author(s): Dileep Saptarshi & Jairaj Kochavara. Price: INR 295/= Pages: 168. Published by: Pearson Education.



# IEEE India Council Executive Committee 2015

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# Lift Technology Updates

Due to the number of stairs that needed to be climbed to reach the top, buildings of over six stories were a rarity till 19th century. Today, number and height of skyscrapers are key benchmarks of a modern city. Lifts and elevators are the back bone of high rise structures and one would be spell bound just by thinking of a situation without lift technology. Of late, the layout and design of lifts have become aesthetically important to architects.

When we think about lift technology, three aspects are important: maximum height it can operate, capacity and speed.

The maximum vertical run that the traditional steel lifting cables can go is 500 m or 1640 ft. Above 500 m run, the weight of the cables becomes prohibitive for further enhancement of vertical run. Passengers have to transfer from one elevator to another in buildings of more than 500 m height. This is a serious limitation for the elevators in high rise buildings.

This design challenge is successfully tackled by Kone, Finnish elevator company, which has developed Ultra Rope, which is composed of a carbon fiber core, covered in a high-friction plastic coating and is more ribbon- or tape-like in form instead of having the same cross-sectional shape as cable to replace the steel cables. An individual elevator car is lifted and lowered by multiple reels of UltraRope, that run into a hoisting machine at the top of the shaft. This lightweight material twice stronger than steel enables elevators to travel up to one kilometer (3,281 ft) continuously. These cables do not require any lubrication and is less sensitive to building sway, increasing its reliability.

However, the total cost of installation of elevator with UltraRope is yet to be announced commercially.

As skyscrapers continue to reach ever higher, elevators are required to carry more people further and faster. Elevators capable of carrying even 80 people are available now, thanks to Mitsubishi. They have also successfully developed high speed elevators with a speed of 60km/h.

The salient features that Mitsubishi employs in their technology are:

- Regenerative braking employed in the converter that drives the motor, reducing the power consumption by 30%
- The clamp-type disk brakes are hydraulic driven
- Reduction in cable weight - encasing a wider diameter steel core in a lightweight sheath material
- Vibration from guide rails and strong wind is reduced by the use of a new active roller guide
- The car cover is aerodynamically designed with extra sound proof arrangement
- Fine ceramic material is used for safety gear shoes to provide high resistance to heat, abrasion and shock and stability even when the safety gear is activated
- The effect of sudden changes in atmospheric pressure is minimized with air pressure control mechanism



# IEEE Events Calendar

## June - December 2015

### Jun 11-20

#### [2015 10th Iberian Conference on Information Systems and Technologies \(CISTI\)](#)

Full Paper Submission deadline: 14 Feb 2015  
 Final submission deadline: 11 Apr 2015  
 Notification of acceptance date: 28 Mar 2015

[17 Jun - 20 Jun 2015](#) [Universidade de Aveiro](#)  
[Portugal](#)

#### [2015 7th International Conference on Recent Advances in Space Technologies \(RAST\)](#)

Final submission deadline: 22 Mar 2015  
 Notification of acceptance date: 08 Mar 2015

[16 Jun - 19 Jun 2015](#) [Harbiye Military Museum and Cultural Center](#)  
[Harbiye Sisli](#)  
[Istanbul, Turkey](#)

### Jun 21- 30

#### [2015 IEEE International Workshop on Advanced Robotics and its Social Impacts \(ARSO\)](#)

#### [2015 IEEE Eindhoven PowerTech](#)

Abstract submission deadline: 15 Nov 2014  
 Final submission deadline: 15 Mar 2015  
 Notification of acceptance date: 01 Jan 2015

[29 Jun - 02 Jul 2015](#)

[30 Jun - 02 Jul 2015](#) [Cité - Centre des congrès](#)  
[50 quai Charles de Gaulle](#)  
[Lyon, France](#)

[Eindhoven University of Technology](#)  
[Auditorium](#)  
[Den Dolech 2](#)  
[Eindhoven, Netherlands](#)

### Jul 1-10

#### [2015 IEEE Technological Innovation in ICT for Agriculture and Rural Development \(TIAR\)](#)

Abstract submission deadline: 30 Jan 2015  
 Final submission deadline: 15 May 2015  
 Notification of acceptance date: 30 Apr 2015

[10 Jul - 12 Jul 2015](#) [Easwari Engineering College](#)  
[Bharathi Salai](#)  
[Ramapuram](#)  
[Chennai](#)  
[Chennai, India](#)

#### [2015 38th International Conference on Telecommunications and Signal Processing \(TSP\)](#)

Full Paper Submission deadline: 05 Feb 2015  
 Final submission deadline: 24 Apr 2015  
 Notification of acceptance date: 10 Apr 2015

[09 Jul - 11 Jul 2015](#) [Clarion Congress Hotel](#)  
[Prague\\*\\*\\*\\*](#)  
[Freyova 33](#)  
[Prague 9 – Vysocany](#)  
[Prague, Czech Republic](#)

**Jul 11-20**[2015 IEEE International Conference on the Properties and Applications of Dielectric Materials \(ICPADM\)](#)

Abstract submission deadline: 20 Sep 2014

Final submission deadline: 20 Feb 2015

Notification of acceptance date: 20 Oct 2014

TBD  
20 Jul - 22  
Jul 2015  
Sydney,  
Australia

[2015 USNC-URSI Radio Science Meeting \(Joint with AP-S Symposium\)](#)

Abstract submission deadline: 12 Jan 2015

Notification of acceptance date: 06 Apr 2015

17 Jul - 25 Jul  
2015  
TBD  
Vancouver, BC, Canada

**Jul 21 -30**[2015 Argentine School of Micro-Nanoelectronics, Technology and Applications \(EAMTA\)](#)

Full Paper Submission deadline: 24 Mar 2015

Final submission deadline: 07 Jun 2015

Notification of acceptance date: 16 May 2015

30 Jul - 31  
Jul 2015  
Universidad Tecnológica, Facultad  
Regional Villa María  
Av. Universidad 450  
Villa María, Argentina

[2015 34th Chinese Control Conference \(CCC\)](#)

Full Paper Submission deadline: 15 Dec 2014

Final submission deadline: 30 Apr 2015

Notification of acceptance date: 01 Apr 2015

28 Jul - 30 Jul 2015  
TBD  
Hangzhou, China

**Aug 1-10**[2015 IEEE Signal Processing and Signal Processing Education Workshop \(SP/SPE\)](#)

Abstract submission deadline: 24 Apr 2015

Full Paper Submission deadline: 24 Apr 2015

Final submission deadline: 24 Apr 2015

Notification of acceptance date: 26 Jun 2015

09 Aug - 12  
Aug 2015  
Snowbird Resort & Conference Center  
9385 S. Snowbird Center Drive  
Business Office: 3165 E. Millrock Drive  
#150, SLC UT 84121  
Snowbird, UT, USA

[2015 IEEE International Conference on Fuzzy Systems \(FUZZ-IEEE\)](#)

Abstract submission deadline: 23 Jan 2015

Final submission deadline: 23 Jan 2015

Notification of acceptance date: 26 Mar 2015

02 Aug - 05 Aug  
2015  
KADIR HAS UNIVERSITY  
KADIR HAS CAD.  
CIBALI  
ISTANBUL, Turkey

**Aug 11-20**[2015 Joint IEEE International Conference on Development and Learning and Epigenetic Robotics \(ICDL-EpiRob\)](#)

Abstract submission deadline: 09 Mar 2015

Full Paper Submission deadline: 09 Mar 2015

Final submission deadline: 01 Jul 2015

Notification of acceptance date: 15 May 2015

13 Aug - 16  
Aug 2015  
Brown University  
69 Brown Street  
Providence, RI, USA

[2015 IEEE International Conference on Smart Energy Grid Engineering \(SEGE\)](#)

Abstract submission deadline: 01 Dec 2014  
Full Paper Submission deadline: 01 Mar 2015  
Final submission deadline: 01 May 2015  
Notification of acceptance date: 01 Mar 2015

[17 Aug - 19 Aug 2015](#)

[Hossam A.Gabbar](#)  
[2000 Simcoe Street North](#)  
[UOIT](#)  
[2000 Simcoe Street North](#)  
[Oshawa, ON, Canada](#)

**Aug 21 – 30**

[2015 IEEE International Transportation Electrification Conference \(ITEC\)](#)

Abstract submission deadline: 01 Dec 2014  
Final submission deadline: 01 Jun 2015  
Notification of acceptance date: 01 Mar 2015

[27 Aug - 29 Nov 2015](#)

[TBD](#)  
[Chennai,](#)  
[India](#)

[2015 Colour and Visual Computing Symposium \(CVCS\)](#)

Abstract submission deadline: 15 Mar 2015  
Final submission deadline: 15 Jun 2015  
Notification of acceptance date: 15 May 2015

[25 Aug - 26 Aug 2015](#)

[Gjøvik University](#)  
[College](#)  
[Teknologiveien 22](#)  
[Gjøvik, Norway](#)

**Sep 1 – 10**

[2015 International Conference on Open Source Software Computing \(OSSCOM\)](#)

Abstract submission deadline: 01 Apr 2015  
Final submission deadline: 15 Jun 2015  
Notification of acceptance date: 01 Jun 2015

[10 Sep - 13 Sep 2015](#)

[German Jordan](#)  
[University](#)  
[Amman,](#)

[2015 Sensor Signal Processing for Defence \(SSPD\)](#)

Abstract submission deadline: 16 Apr 2015  
Final submission deadline: 08 Jul 2015  
Notification of acceptance date: 11 Jun 2015

[09 Sep - 10 Sep 2015](#)

[Royal College of](#)  
[Physicians](#)  
[9 Queen Street](#)  
[Edinburgh, United](#)  
[Kingdom](#)

**Sep 11 – 20**

[2015 IEEE High Performance Extreme Computing Conference \(HPEC\)](#)

Full Paper Submission deadline: 12 May 2015  
Notification of acceptance date: 12 Jun 2015

[15 Sep - 17 Sep 2015](#)

[Westin Hotel](#)  
[70 Third Avenue](#)  
[Waltham, MA,](#)  
[USA](#)

[2015 7th International Conference on Games and Virtual Worlds for Serious Applications \(VS-Games\)](#)

Abstract submission deadline: 20 Mar 2015  
Final submission deadline: 17 Apr 2015  
Notification of acceptance date: 05 Jun 2015

[16 Sep - 18 Sep 2015](#)

[University of](#)  
[Skövde](#)  
[Högskolevägen](#)  
[P.O. Box 408](#)  
[Skövde, Sweden](#)

**Sep 21-30**[2015 IEEE International Symposium on Dynamic Spectrum Access Networks \(DySPAN\)](#)

Abstract submission deadline: 15 Apr 2015  
 Final submission deadline: 15 Aug 2015  
 Notification of acceptance date: 01 Jun 2015

[28 Sep - 02 Oct 2015](#)

[Clarion Hotel Stockholm Ringvägen 98 Stockholm, Sweden](#)

[2015 Formal Methods in Computer-Aided Design \(FMCAD\)](#)

Abstract submission deadline: 17 Apr 2015  
 Full Paper Submission deadline: 24 Apr 2015  
 Final submission deadline: 31 Jul 2015  
 Notification of acceptance date: 30 Jun 2015

[27 Sep - 30 Sep 2015](#)

[University of Texas at Austin Austin, TX, USA](#)

**Oct 1 – 10**[2015 IEEE SOI-3D-Subthreshold Microelectronics Technology Unified Conference \(S3S\)](#)

[05 Oct - 08 Oct 2015](#)

[DoubleTree by Hilton Sonoma Wine Country One DoubleTree Drive Rohnert Park, CA, USA](#)

[2015 IEEE International Conference on Ubiquitous Wireless Broadband \(ICUWB\)](#)

Abstract submission deadline: 27 Mar 2015  
 Final submission deadline: 19 Jun 2015  
 Notification of acceptance date: 15 May 2015

[04 Oct - 07 Oct 2015](#)

[Omni Hôtel 1050, Sherbrooke Street West Montreal, QC, Canada](#)

**Oct 11 – 20**[2015 IEEE 56th Annual Symposium on Foundations of Computer Science \(FOCS\)](#)

[17 Oct - 20 Oct 2015](#)

[DoubleTree by Hilton Berkeley Marina 200 Marina Blvd, Berkeley, CA, USA](#)

[INTELEC 2015 - 2015 IEEE International Telecommunications Energy Conference](#)

Abstract submission deadline: 20 Feb 2015  
 Final submission deadline: 20 Jul 2015  
 Notification of acceptance date: 20 May 2015

[18 Oct - 22 Oct 2015](#) [Swissotel Nankai Osaka 5-1-60 Namba Chuo-ku Osaka 542-0076 Osaka, Japan](#)

**Oct 21 – 31**[2015 International Conference on Computing Systems and Telematics \(ICCSAT\)](#)

Full Paper Submission deadline: 19 Jun 2015  
 Final submission deadline: 28 Aug 2015  
 Notification of acceptance date: 24 Jul 2015

[28 Oct - 30 Oct 2015](#)

[TBD TBD Xalapa, Mexico](#)

[2015 IEEE 40th Conference on Local Computer Networks \(LCN 2015\)](#)

Full Paper Submission deadline: 11 Apr 2015

Final submission deadline: 30 Jul 2015

Notification of acceptance date: 06 Jul 2015

[26 Oct - 29 Oct 2015](#)

[Sheraton Sand Key Resort](#)  
[1160 Gulf Blvd.](#)  
[Clearwater Beach, FL, USA](#)

**Nov 1 – 10**

[2015 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies \(AEECT\)](#)

Abstract submission deadline: 25 Jun 2015

Final submission deadline: 08 Oct 2015

Notification of acceptance date: 10 Sep 2015

[03 Nov - 05 Nov 2015](#)

[Princess Sumaya University for Technology](#)  
[P. O. BOX 1438](#)  
[Amman, Jordan](#)

[2015 7th Asia-Pacific Conference on Environmental Electromagnetics \(CEEM\)](#)

[04 Nov - 07 Nov 2015](#)

[TBD](#)  
[TBD](#)  
[Hangzhou, China](#)

**Nov 11-20**

[2015 SC - International Conference for High Performance Computing, Networking, Storage and Analysis](#)

[15 Nov - 20 Nov 2015](#)

[Austin Convention Center](#)  
[TX, USA](#)

[2015 IEEE Global Electromagnetic Compatibility Conference \(GEMCCON\)](#)

Abstract submission deadline: 10 Jun 2015

Full Paper Submission deadline: 10 Jul 2015

Final submission deadline: 09 Oct 2015

Notification of acceptance date: 28 Aug 2014

[10 Nov - 12 Nov 2015](#)

[The Lakes Resort Hotel](#)  
[141 Brebner Drive](#)  
[West Lakes, Austral](#)

**Nov 21-30**

[2015 IEEE International Conference on Control System, Computing and Engineering \(ICCSCE\)](#)

Full Paper Submission deadline: 24 Aug 2015

Final submission deadline: 19 Oct 2015

Notification of acceptance date: 28 Sep 2015

[27 Nov - 29 Nov 2015](#)

[Batu Ferringhi](#)  
[Penang, Malaysia](#)

[2015 IEEE International Transportation Electrification Conference \(ITEC\)](#)

Abstract submission deadline: 01 Dec 2014

Final submission deadline: 01 Jun 2015

Notification of acceptance date: 01 Mar 2015

[27 Aug - 29 Nov 2015](#)

[TBD](#)  
[Chennai, India](#)

## Dec 1 – 10

### [2015 Asia-Pacific Microwave Conference \(APMC\)](#)

Abstract submission deadline: 31 May 2015

Final submission deadline: 31 Aug 2013

Notification of acceptance date: 15 Aug 2015

[06 Dec - 09 Dec 2015](#) [Jinling Hotel](#)  
[Hanzhong Road 2#](#)  
[Nanjing, China](#)

### [2015 13th International Conference on Emerging eLearning Technologies and Applications \(ICETA\)](#)

Full Paper Submission deadline: 05 Nov 2014

Final submission deadline: 20 Nov 2014

Notification of acceptance date: 10 Nov 2014

[04 Dec -](#)  
[05 Dec 2015](#) [Grandhotel Starý](#)  
[Smokovec](#)  
[Starý Smokovec](#)  
[High Tatras](#)  
[Starý Smokovec, Slovakia](#)

### [2015 Asia-Pacific Microwave Conference \(APMC\)](#)

Abstract submission deadline: 31 May 2015

Final submission deadline: 31 Aug 2013

Notification of acceptance date: 15 Aug 2015

[06 Dec - 09](#)  
[Dec 2015](#) [Jinling Hotel](#)  
[Hanzhong Road 2#](#)  
[Nanjing, China](#)

## Dec 11-20

### [2015 IEEE Global Conference on Signal and Information Processing \(GlobalSIP\)](#)

Abstract submission deadline: 15 May 2015

Full Paper Submission deadline: 15 May 2015

Final submission deadline: 01 Aug 2015

Notification of acceptance date: 30 Jun 2015

[14 Dec -](#)  
[17 Dec 2015](#) [Hilton Orlando Lake Buena](#)  
[Vista](#)  
[Orlando, FL, USA](#)

### [2015 TRON Symposium \(TRONSHOW\)](#)

Abstract submission deadline: 15 Jul 2015

Full Paper Submission deadline: 02 Sep 2015

Final submission deadline: 04 Nov 2015

Notification of acceptance date: 07 Oct 2015

[09 Dec - 11 Dec](#)  
[2015](#) [Tokyo Midtown \(TBD: 99% sure\)](#)  
[9-7-1, Akasaka, Minato](#)  
[Tokyo, Japan](#)

## Dec 21 – 31

### [2015 12th IEEE International Conference on Control and Automation \(ICCA\)](#)

Abstract submission deadline: 15 May 2015

Final submission deadline: 15 Sep 2015

Notification of acceptance date: 31 Jul 2015

[21 Dec -](#)  
[23 Dec 2015](#) [TBD](#)  
[TBD](#)  
[Kathmandu, Nepal](#)

# IEEE NEWS

## From Around India



**GLA**  
UNIVERSITY  
MATHURA



**IEEE**  
UP SECTION (INDIA)



### Call for Papers CCIS 2015

2015 International Conference on

## Communication Control & Intelligent Systems

(Technically sponsored by IEEE Uttar Pradesh Section)

(Sat-Sun) November 07-08, 2015

(Conference id-36597)

[www.gla.ac.in/ccis2015](http://www.gla.ac.in/ccis2015)

Organized by: Department of Electronics & Communication Engineering

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Mr. Suneel Kumar, GLA University, Mathura, India

#### Tutorial Committee Chair:

Dr. V. K. Tomar, GLA University, Mathura, India

Mr. Paresch Chandra Sau, GLA University, Mathura, India

#### Introduction:

The first international conference and 10<sup>th</sup> conference in sequence, Communication Control and Intelligent Systems (CCIS 2015) will be held on November 07 & 08 2015. CCIS 2015 is an international conference where theory, practice and applications of communication systems, control systems, intelligent systems and related topics are presented and discussed.

#### About GLA University:

GLA University runs courses as B.Tech (CE, CS, EE, EN, EC, ME), Diploma in Engineering, B.Pharm, D.Pharm., BBA, BBA(Family Business), BCA, B.Sc.(Hons.), B.Com (Hons.), B.Ed., M.Tech (CE, CS, EC, ME, EE), M.Pharm (Pharmacology, Pharmaceutical Chemistry), MBA, MCA, M.Sc.(Bio-Technology, Microbiology & Immunology) & PhD. The university campus is spread over more than 120 acres of lush green pollution free grounds and is located on Delhi-Mathura National Highway No.-02.

#### Conference Theme:

Technical paper Submissions are invited under the following topics, but are not limited to:-

#### Track-1

Wireless and Wired Networks, Multimedia Communications, computer Networks, Optical networks, Networking & Applications, Next Generation Services

#### Track-2

Control Systems, Nonlinear Signals and Systems, Embedded systems and software, intelligent systems, neural networks and fuzzy Logic, Robotics and applications, Machine learning and soft computing, System identification and control, Algorithms and Computing.

#### Track-3

VLSI Technology, Design & Testing, Signal processing, Bio-Medical Processing, Speech image and video processing, Analog and Mixed Signal Processing, Hardware Implementation for Signal Processing, Text processing, Database and data mining

#### Track-4

Monolithic and hybrid integrated (active and passive) components and circuits, Antennas and phased arrays, RF packaging and package modeling, RF MEMS and Microsystems, EMI/EMC

#### Track-5

Adhoc Networks, ubiquitous and Cloud computing, Distributed and parallel systems, Security and information systems, Network security

#### Submission

Prospective authors are encouraged to submit their paper through easy chair. The link is available on the conference website. Submissions must be plagiarism free and not more than 5 pages in IEEE format. Use the following link to submit your papers.

<https://www.easychair.org/conferences/?conf=ccis2015>

#### Proceedings Publication

All Accepted and presented papers of the conference by duly registered author(s), will be submitted to IEEE Xplore digital library for possible publication.

#### Important Dates/Deadlines

June 11, 2015	Submission of regular paper
August 22, 2015	Paper acceptance notification to authors
September 22, 2015	Last Date of registration
September 29, 2015	Last Date of Camera Ready Copy Submission
September 29, 2015	Last Date of Copyright form Submission

#### Registration Details

All delegates are required to register for the conference as per the following details:

Corporate executive and professional	Rs 12,000 /-
Academics IEEE/ICEIT/CSI/IETE Members	Rs 8,000 /-
Academics Non Member	Rs 10,000 /-
Students IEEE/ICEIT/CSI/IETE Members	Rs 5,000 /-
Student Non Members	Rs 6,000 /-
Academics from abroad	US\$300

For any inquiry please Contact: [ccis@gla.ac.in](mailto:ccis@gla.ac.in)

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## Special Sessions

### Microelectronics Education

### Women in Engineering



# PrimeAsia 2015

**2015 IEEE Asia Pacific Conference on Post Graduate Research in  
Microelectronics and Electronics  
27<sup>th</sup> to 29<sup>th</sup> November 2015, Hyderabad, India**

### About the Conference:

The Asia Pacific Conference on Postgraduate Research in Microelectronics & Electronics (PrimeAsia) is a recent initiative of the IEEE Circuits and Systems Society for engaging students. It aims to provide opportunity for postgraduate students (Masters and PhD) to present their research work and to interact with scientists /engineers in the research community and industry. PrimeAsia 2015 will be held during November 27 to 29, 2015 at Vasavi engineering College, Hyderabad, Telangana State, India.

Papers in PrimeAsia 2015 will be presented by postgraduate students. However, experienced researchers from academia and industry are warmly invited to attend, in order to create a stimulating environment for exchange of ideas and mentoring of young researchers.

The conference is expected to:

- Provide visibility to Masters/Ph.D. students in the early stage of their career
- Benchmark Masters/Ph. D. research in a friendly and cooperative environment
- Connect Ph. D. students with academic/research institutions and the industry

### Scope:

PrimeAsia 2015 covers a wide range of topics including, but not limited to, the following:

- Analog, Digital and Mixed Signal Circuits
- Bio-Medical Circuits and Systems
- Programmable Analog and Digital Systems
- RF, Microwave and Millimeter Wave Circuits
- Power Electronic Circuits
- Computer Aided Design
- Green Circuits and Systems
- Analog and Digital Signal Processing
- Nano Electronics and Giga Scale Systems
- VLSI Circuits and Systems, SoC and NoC
- MEMS and NEMS

### Important Dates:

Submission of Papers	:	July 30, 2015
Notification of Acceptance	:	September 30, 2015
Camera Ready Papers	:	October 25, 2015
Conference	:	November 27-29, 2015

Accepted papers will be submitted to IEEE Explore for publication. The papers will be rated based on review scores. Papers with students as the first authors will qualify for one of the following awards:

GOLD LEAF Certificate -Top 10% papers  
SILVER LEAF Certificate -Top 10-20% papers  
BRONZE LEAF Certificate -Top 20-30% papers

For any queries, contact: 'info@primeasia2015.org'

PrimeAsia 2015 is technically sponsored by IEEE Circuits and Systems Society and is organized by CAS/EDS Joint Chapter of IEEE Hyderabad Section. .

Please visit [www.primeasia2015.org](http://www.primeasia2015.org) for further details.

## Conference Organizers Workshop 2015

3rd Edition of Conference organizers workshop was organized on 25th April 2015 at TCS Deccan Park Office in Hyderabad by IEEE India Council in Collaboration with IEEE Hyderabad Section. This event has been one of its kind and a very special in India and Region 10. The event marked another history by attracting attendees from most of the Indian geography and created a forum of discussion and knowledge gathering on Conference Best Practices. The event was supported by IEEE MCM Team of IEEE Headquarters. This workshop was very well attended; it received positive feedbacks, encouraging responses and comments after the programme, around 70 participants attended this programme. Apart from the nominations from several leading academics like IITs, NITs we received participation from top Industries like TCS, Oracle etc. Most of IEEE Indian Sections came forward to support this workshop financially and nominated their members to participate in this timely event. It seemed most of the attendees were infact waiting for a workshop like this. The event was managed professionally, it started and finished dot on time.

This workshop was designed to serve the needs of the IEEE conference organizer, for them to know "Best Practices", through education, discussion, and access to experts. It is a forum that enables a voice for the organizer community, to learn about and discuss conference issues with industry experts, and the peers. This event is similar to the Panel of Conference organizers (POCO) workshop organized annually by MCM of IEEE.

This event was comprised of talks from experienced IEEE Conference Organizers and panel discussions with focused sessions and opportunity for participants to exchange ideas, success stories and challenges with other trained and experience IEEE Conference organizers. The program was designed to foster a sense of community and create a global support network. It dealt with dynamic issues associated with conference organizing with current topics and themes selected to meet changing needs and advancements in technologies. The workshop discussed the most important issues for the conferences in the changing world. Issues like ethical practices, Publications in IEEE Conferences and Journals, Conference best practices etc was discussed.



# IEEE India Council

## M V Chauhan All India Student Paper Contest 2015

The M V Chauhan All India Student Paper Contest is the biggest opportunity for IEEE students members to come together and discuss about the latest advancements and future directions in the areas of technology within IEEE. The contest welcomes full paper submissions from undergraduate and postgraduate students in all areas of interest to IEEE in the Engineering, Technology and Science.

### Rules and Guidelines

1. The contest is open to all student members of IEEE in India under UG and PG
2. Only original & work actually performed by the students should be submitted
3. Papers in any subject of interest to IEEE may be submitted
4. The number of authors for any paper should not exceed three
5. A student can be an author in more than one paper
6. Paper should be prepared in the standard IEEE double column A4 format that can be obtained from IEEE website.
7. Length of the paper preferably should be of four pages and should not exceed six pages in the standard double column IEEE format.
8. Each entry should have a title of the paper, name of the authors, the affiliation of the author(s) as in IEEE format
9. Its branch councilor's responsibility to check that the paper does not have any plagiarism
10. Declaration from the branch counselor should accompany each entry in the following manner:

"It is certified that the author..... is an IEEE student member. The paper entitled .....is his/her own work and and eligible for the M.V. Chauhan all India student paper contest 2015"

In case the institution does not have an IEEE student branch, this declaration should be signed either by a faculty member who is an IEEE member, or by the principal.

The paper and scanned copies of supporting documents should be submitted electronically through email and to be uploaded on <https://easychair.org/conferences/?conf=mvpc2015>

**Dr. Preeti Bajaj**

[preetibajaj@ieee.org](mailto:preetibajaj@ieee.org)

Vice Chair (Student Activities),  
IEEE India Council

### Important Dates:

Last date of Full paper submission: 1<sup>st</sup> July 2015

Review Process: 1<sup>st</sup> July to 15<sup>th</sup> July 2015

**Prizes: First: Rs. 12000; Second: Rs. 8000; Third: Rs. 5000 in UG and PG each category**

Travel allowances (limited) in addition to local economical stay will be given to the final shortlisted presenters (first authors only)

The first authors of the top five papers in each category shall be invited for presentation during AISYC 15 to be held in Kerla during August. After the presentation of all papers, the final prizes will be awarded given during **AISYC 2015.**



# Evolution of Information Technology

## From Raw Data to Big Data

History of Information Technology is incredible!!! **Information Technology** or **IT** refers to the technology which store, retrieve, process, protect and transmit data. This management of data is done by computers, softwares, hardwares etc. There weren't computers in ancient times, so how did things get done? This forces us to explore and allow us to go deeper into how things change along with computers.

### History of Information Technology

**Raw data** or **primary data** refers to the data collected from a *source*. It's a data without any processing or any other manipulation. Before Computers!!!

It was an era before "Information Technology Era" with tools such as carbon papers, pencils, typewriters, radio, papers, pencils etc. That era was also known as "Electronic Age". Invention- The First High-Speed, General-Purpose Computer *Using Vacuum Tubes*: Electronic Numerical Integrator and Computer (ENIAC (February 14, 1946)figure-1) by Eckert and Mauchly (funded by U.S. Army). The *purpose* of the vecume tubes was to do calculations, so ENIAC was known as *Electronic Computer*.



Figure 1 Rear View (Electronic Numerical Integrator and Computer (ENIAC))

### From Data Base, Data Mining, Business Intelligence (BI) to Big Data

#### Database

In the 1960s, as vendors began marketing computerized logistics technologies for manufacturing and wider laboratory use, we saw the advent of database management systems

(DBMS). DBMSs, or the modern database, allowed users to organize vast amount of data. In first generation computer, punch cards were used as a prerequisite. The evolution of Database is described in following table:

#### Data Mining

Though the term data mining was introduced in 1990s, the concept of data mining has its roots since many years. Main step in data mining is to deal with data warehouses which were in introduced in 1990s. Data

Warehouse provides multiple levels of heterogeneous data in an aggregated and consolidated way. *Data Warehouse provides the enterprise with a memory. Data Mining provides the enterprise intelligence.*

## Business Intelligence

Actually definition of BI was stated in 1958 by IBM Researcher Hans Peter Lunh. That definition says that-"*The ability to apprehend the interrelationships of presented facts in such a way as to guide action towards desired goals*".

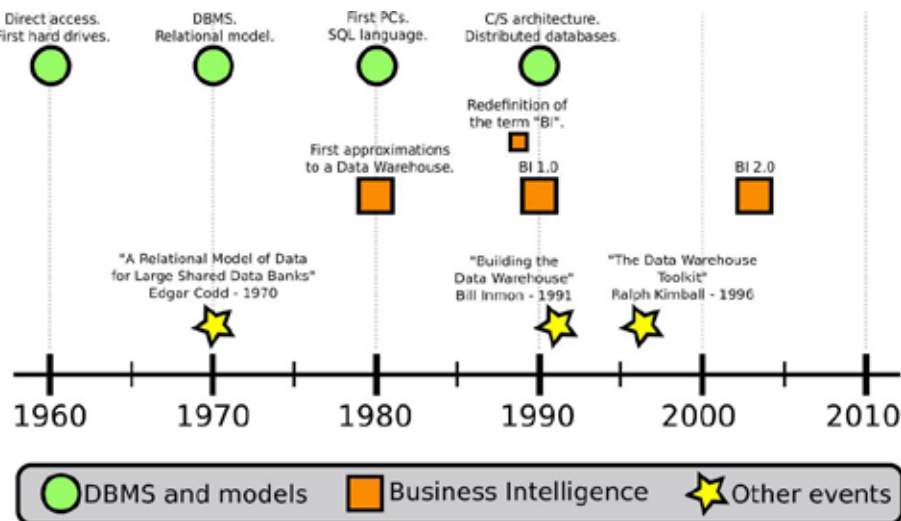


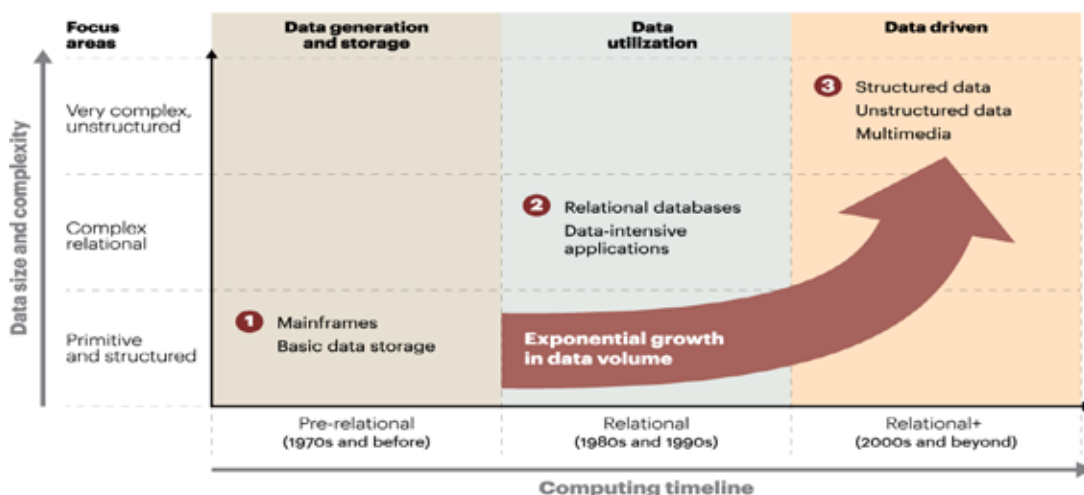
Figure 2 Historic evolution of usability in BI

In above figure other events refer to the changes related to different versions of BIs i.e. BI 1.0, BI 2.0 etc.

## Big Data

Enormous data sets (xeta and zetabyte of data) are very difficult to process which leads to rise of Big Data (see following figure).

Figure 2  
The evolution of big data



Source: A.T. Kearney analysis

Figure 3 Evolution of Big Data

## Sources of Big Data

Sources of Big Data include *enterprise data (emails, word documents, pdfs, etc)*, *transactions (Walmart, Bank, eBay, Amazon etc.)*, *social media (Facebook, Twitter, Instagram etc.)*, *sensor data ([14] Internet of Things-RFID, Wireless Sensor Networks)*, *public data (energy, world resource, labor statistics etc)*. Other examples for big data are code generated by Airbus 380 and Aadhar card project in India.

Boeing 747s can create half terabyte of data during single journey!

As per IBM, we are generating 2.5 quintillion bytes of data everyday!!!

## Current Challenges of Information Technology

- Security
- Copyright
- Virtualization
- Big data, patterns and analytics
- Green IT



## Words of Wisdom

*What we need is more people  
who specialize in the impossible.*

*- Theodore Roethke*

\*\*\*\*\*

*Health is the greatest possession.  
Contentment is the greatest treasure.  
Confidence is the greatest friend.  
Non-being is the greatest joy.*

*- Lao Tzu*

\*\*\*\*\*

*There is no passion to be found playing small – in settling  
for a life that is less than the one you are capable of living.*

*- Nelson Mandela*

\*\*\*\*\*

*Mediocrity knows nothing higher than itself, but  
talent instantly recognizes genius.*


*- Arthur Conan Doyle, Sr.*

## Missed Call Consumer Innovations!

Missed Call to the uninitiated is a concept where a caller calls the receiver on his mobile phone but disconnects the call before the receiver answers it, resulting in a "**Missed Call**". The details of the caller are displayed on the receiver's phone. This feature, surely is a great innovation. Its primary reason is to save on calling costs. But let us look at the innovative ideas practiced on "missed call".

1. On arrival at a place: For instance, "*I will give you a missed call when I reach there*". This one is a good time-saver.
2. Signalling: Number of quick missed calls can be coded for alphabets, digits or specific messages. Or a missed call around 8 a.m. means that you are leaving to the office, around 7 p.m. means you are back home etc. Some residing abroad can save on ISD costs through Morse Code like signalling.
3. Other variants in signalling include letting the other party know when a task is complete/ has reached a state by giving a missed call. All signalling is agreed upon before hand.
4. Safety: This is similar to the first one, where one gives a missed call to the other party to notify that he/she has reached a place safely. Unlike the first one, this one may not require any follow up on the receiver.
5. There are cab / taxi stands using the missed call very effectively. Give a missed call to the common cell phone of the stand and one of the free vehicles comes to your house.

It is widely used in India where most people use prepaid mobile connections and keen to keep the expense in check. Probably, when mobiles were first introduced, such an extensive use of *missed calls* was not thought of. In fact, it is an innovation by the user community, often to the discomfort of service providers, as there is no revenue reaching them.

According to an interesting study, Indians do more than just make and receive calls on mobile phones. India is the only country to send and receive missed calls, has the lowest usage of multiple SIMs. The study also reports consumer-led innovation like wives using tracking devices on phones to pin cheating husbands or a migrant worker using the local grocer to transfer funds to his family by transferring load (prepaid value) from his mobile phone to the grocer. 

### Words of Wisdom

*People are attracted to you by what they see  
in you; they remain attracted to you by what  
you see in yourself.*

*- Mark Amend*

\*\*\*\*\*

*Action springs not from thought, but from a  
readiness for responsibility.*

*- Dietrich Bonhoeffer*

## The Magic Web

### Master Weaver Sir Tim Berners-Lee

On March 12, 2014, photographers and film crews at the London Science Museum were huddled over what looked like an old-fashioned computer and keyboard. It has recently been shipped from CERN (European Organization for Nuclear Research), Switzerland. How come this antiquated NeXT Cube computer became a celebrity that day? Something happened on this computer 25 years ago to the day; and life has never been the same since. A web spread far and wide from this particular NeXT Cube computer to a global network of computers, laptops, tablets and smartphones, creating a virtual world within a generation.

It is on this computer that Tim Berners-Lee, (now, Sir Timothy John Berners-Lee), a 34-year old Computer Scientist at CERN wrote his proposal on March 12, 1989 for a global hypertext project, to be known as the World Wide Web. Also known as "TimBL", he was born in London on June 08, 1955 and graduated in 1976 from the Queen's College, Oxford University, England. While at college, he had built his first computer with a soldering iron, TTL gates, an M6800 processor and an old television.

TimBL designed his Web to allow people to work together by combining their knowledge in a web of hypertext documents. In his unpretentiously titled "Information Management: A Proposal", TimBL set his goal "to allow a pool of information to develop which could grow and evolve with the organization and the projects it describes". His boss, Mike Sendall, rated the proposal "vague but exciting"! Curiously, TimBL had envisaged it merely as "a universal linked information system" where "generality and portability are more important than fancy graphics techniques and complex extra facilities".

TimBL went on to write the HyperText Transfer Protocol (HTTP), HyperText Markup Language (HTML), and the first ever web browser, WorldWideWeb. Initially called the "Mesh", it was renamed by him as "World Wide Web" in 1990. Later in 1993, when CERN permitted the technology to be freely used by all, it took the world by stormhooking millions of people worldwide to the Web. TimBL, to begin with, had no grand ambition then to emancipate the world through a free flow of information for all. His mundane intention was only to improve communication among thousands of scientists in CERN. The Web has since provided a new, vast space for communication.

There are now more than 600 million websites worldwide, and the Web has changed our lifestyle forever in a manner undreamt by the just previous generation. On this unimaginably vast virtual domain, there are billions of people online, and hundreds of millions of messages and millions of pictures exchanged every single minute. For all its obvious advantages, the Web has a dark side, too, where everything from guns to drugs is openly traded, not to mention numerous other objectionable activities. As with any other human pursuit, technology is double-edged, too!

Sir Tim is now engaged in promoting the principles of the Web through the WWW Consortium, which he founded in 1994. As its Director, he oversees its activities of developing interoperable technologies (specifications, guidelines, software, and tools) to lead the Web to its full potential.

Besides, he plays an advisory role to many agencies.

On the 25th anniversary of the Web, Sir Tim expressed the hope that the landmark occasion "will spark a global conversation about our need to defend principles that have made the Web successful and to unlock the Web's untapped potential". He further stated that "if we want a Web that is truly for everyone, then everyone must play a role in shaping its next 25 years."

Three in five people in the world still do not have access to the Web, but Sir Tim is optimistic that this situation will change. He says, "I believe we can build a Web that truly is for everyone – one that is accessible to all, from any device, and one that empowers all of us to achieve our dignity, rights and potential as humans." Sadly, his dream of a Web which is free and accessible to all is under threat from the forces of both commerce and governments who are aggressively exerting pressure on enforcing privacy and control of data.

Sir Timothy John Berners-Lee will, no doubt, be remembered forever as one of the most impactful game-changers in the recent times.



**P Radhakrishnan**

## Koomey's Law

### Energy Efficiency of Computing

Dr Gordon Moore, a co-founder of Intel, first observed in 1965 that integrated circuits, better known as chips or ICs, seemed to follow a predictable law: *since their invention in 1958, the density of components in every chip had doubled each year, and this trend was likely to continue for at least a decade.* In 1975, Dr Moore modified his prediction, observing that component density was doubling every two years. In practical terms, the result is that the personal computer performance doubles every 18 months, a prediction commonly known as *Moore's law*.

As microcomputers become part of all mobile devices, their users are increasingly concerned about battery life as well as raw performance. Naturally, they welcome a new analysis by Dr Jonathan G. Koomey of Stanford University and his colleagues, which uncovered a new law relating to the energy-efficiency of computers, dating back to the era of vacuum tubes. The researchers found that the electrical efficiency of computing has doubled every 1.57 years since the mid-1940s. In other words, for a fixed amount of computational power, the need for battery capacity will fall by half every 18 months approximately. Some researchers are already building devices that run on “ambient” energy harvested from light, heat, vibration or TV transmitters. As the energy-efficiency of computing continues to improve, this approach will become more widespread. Industry observers are already calling this new finding: “Koomey's law”, describing a long-term trend in the history of computing hardware. The number of computations per joule of energy dissipated has been doubling approximately every 1.57 years. This trend has been remarkably stable since the 1950s and has actually been somewhat faster than Moore's law. Jonathan Koomey articulated the trend as follows:

“at a fixed computing load, the amount of battery you need will fall by a factor of two every year and a half.” As computing devices become smaller and more mobile, this trend may be even more important than improvements in raw processing power for many applications.

Furthermore, as energy costs are becoming an important factor in the economics of data centers, the relevance of Koomey's law will be increasingly felt by the stakeholders.

[For details: <http://leopoldleadership.stanford.edu>]



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