

## Message from Chairman



Dear Members,

At the outset I would like to thank the members for having given me the opportunity to serve the IEEE community in India through IEEE India Council (IC) as its Chair for a second term. I congratulate all other members renominated and the newly elected members of the Executive Committee of IC for the year 2014.

As all of you are aware, IEEE is a knowledge resource for the Circuit Branch Professionals in the world. It serves its members through IEEE Regions, Councils, Sections, Student Branches, Chapters, Societies and Affinity Groups. IEEE Regions are formed to plan and implement programs in consonance with the IEEE mission, in support of the local organizational units in meeting the needs of the members of the Region. Councils are formed through an agreement of a Group of contiguous Sections in a Region and they exist at the pleasure of the Sections. A Section is the basic operating organizational unit of IEEE constituted by a minimum of 50 members other than Students, established to serve by activities that meet the needs of the members and further the mission of IEEE. Volunteerism is the motto of IEEE and thus, the IEEE Members serve as volunteers to meet the needs of the IEEE community within the frame works of IEEE Regulations to achieve the Goals and Objectives of IEEE. Having said this I would like to emphasize that team spirit and unity are essential to fulfill the vision and mission of IEEE.

In India Council we have Vice-Chairs for various activities. Except a few Vice-Chairs, others have not contributed anything to their assigned domain of activities during last year. Most of them have not even participated in the EC meetings of IC conducted through teleconferences and face to face meetings. I would like appeal to all the inactive Vice-Chairs to be active and to contribute. Some Vice-Chairs have reported to have financial constraints to participate in the Face to Face meetings. I request the Section Chairs to extend financial support to the Vice-Chairs to participate in the EC meetings, since providing financial support to IC is a part of the responsibilities of the Sections as per IC Bye-laws.

I, on behalf of the India Council, would like to appreciate and put on record the excellent contributions made by the past Execom of IC during 2013, as reported by the past Secretary. I request the members continuing in the EC this year and the new elected members to extend their fullest cooperation to achieve the mission of IC.

Today there is a big challenge before the India Council to address urgently. The proud aspect is that the total membership strength in the IC as of December 31<sup>st</sup> 2013 is 49521 which is 44.17% of the membership strength in R-10 and the Student Membership strength in India council is 29649 which is 60% of the total membership

strength of IC. But the sad aspect is that there is no consistency in the membership strength on continual basis. The student members who join IEEE during the first year do not continue till the end of their study period. Also most of the full Members do not continue for long. The professionals in the Industries do not prefer to join IEEE. These issues were discussed in the IEEE R-10 Annual meeting held in Kuching, Malaysia in March 2014. How to overcome these issues? These are the challenges before us today. Kindly try to assess the reasons and try to explore the possibilities to solve these problems.

I am happy to inform the members that with the help of Mr. Harish Mysore, Director IEEE India operations, we could solve the year long pending problem of getting the balance amount of Rupees over two lakhs held in his proprietary account opened by the past IEEE India Council Chair in the name of IEEE India Council in the HDFC Bank, Faridabad branch, transferred to the current account of IEEE India Council, with great difficulty. On behalf of the IC Members I profusely thank Mr. Harish Mysore for the same.

As all of you are aware Mr. N.T. Nair has taken over as the News Letter Editor. He has appealed to all the Section Chairs to send brief reports, with photographs of their activities, to reach him before 20th of every month so that they could be included in next month's Newsletter. I also request you all to send your expert views, ideas, and suggestions about the preferred contents of the newsletter, its length etc. to make the News letter more purposeful.

As you are probably aware, IEEE Region 10 (R10) has invited Proposals for 2014 IEEE Region 10 Fund for Technical Seminars and Distinguished Lecture Programs to be held in R10 Sections. The Last date for receiving proposals by IEEE R-10 is 10th June 2014. I appeal to all Sections, Chapters and Societies to avail this opportunity.

IEEE Awards Board has called for new volunteers to serve on its award selection committees and Awards Board standing committees to assist with managing the recipient nomination and selection process for IEEE Medals, Technical Field Awards, and Recognitions, the highest awards IEEE presents on behalf of the IEEE Board of Directors. I would like to suggest that senior members from India should volunteer themselves for such IEEE Committee Positions to have maximum representation in the IEEE organizational committees. visit [the IEEE Awards Board Nominations and Appointments Web page](#) for details.

Each year, the [MGA Outstanding Section Awards](#) are presented to one large Section, one medium Section and one small Section (across all Regions), to recognize their excellent work and successful efforts in fulfilling the educational and scientific goals of IEEE for the benefit of the public. To nominate your Section for the MGA Outstanding Large, Medium, or Small Section Award, please go to <http://mga-awards-section.fluidreview.com>. Follow the links provided to review the selection criteria and submittal instructions. The deadline for submissions is 15 May 2014. To apply to serve on an award selection committee or as a member of one of the following Awards Board's (AB) committees, visit [the IEEE Awards Board Nominations and Appointments Web page](#).

IEEE R10 WIE committee invites Sections to submit project proposals to bid for 2014 WIE support fund. The proposal form (2014\_R10WIEFund\_proposal\_form.xlsx) must be completed and submitted by the Section. Proposal Deadline is May 9<sup>th</sup> 2014. IEEE Women in Engineering (WIE) Affinity Groups in the IEEE Sections in India should avail this opportunity without fail.

I thank you all for your kind support to the IEEE activities in the past and look forward for your support and inputs in future.

With kind Regards,

**M. Ponnaikko**  
Chair, IEEE India Council



## **N T Nair, Editor, writes,**



Dear Friends,

Greetings to all members of IEEE family in India, on this occasion of my taking over as the Editor of *IEEE India Info* newsletter.

Let me quote from the last issue of the printed version of the *IEEE India Info* newsletter of December 2009:

***In our country, a good number of IEEE members are centered around the HQs of the Sections and Sub-sections. The plight of the remaining members, not insignificant to be ignored, but thinly spread in other regions away from the active centres, is not anything to be proud of. They just get the Spectrum and the notices of the IEEE meetings that are to be held in far away city centres. The real connecting link among all such members for all these years has been the IEEE Newsletter, reaching every member with clockwork precision each month, without fail for the past two decades. It informs every member about the happenings in IEEE forums in India, in a simple and effective way, also acting as the unique thread linking all the members.***

*Unquote:*

Of course, IEEE movement has gained tremendous momentum in India in recent years, thanks to the efforts of volunteers, especially, of the energetic young lot, who deserve to be congratulated. However, the situation of the aforesaid *Islandism* has not entirely changed.

And it is essential that the entire IEEE community act as a single entity in India, fostering friendship beyond the borders of one's own Section. It is true that during national or international events, some of us meet and establish linkages, but the numbers are too small. It is in this context that the role of IEEE Councils becomes meaningful to interconnect members formally from all Sections in a country, with this medium of newsletter playing a key role, among other methods. Informally, the simple practice of using IEEE stickers in travel bags, laptops, tablets etc. has enabled many IEEE members to come forward and establish contact, on seeing IEEE label.

Now back to business...

This issue of IEEE India Council newsletter reaches after a gap of 3 months and our apologies.

It is our earnest wish that the volunteer effort being put in by the India Council team in bringing out this newsletter will help IEEE fraternity in India to become better connected. A reciprocating volunteerism is solicited from every office bearer and member.

My special thanks to Mr. H.R. Mohan, former Editor, for the help rendered to me in bringing out this newsletter.

With best wishes,

**N T Nair**



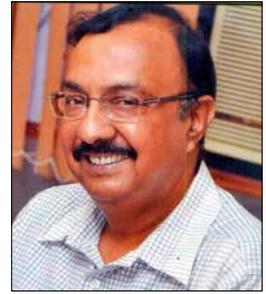
### *Words of Wisdom*

*Whatever you do, do it with all your might. Work at it, early and late,  
in season and out of season, not leaving a stone unturned, and  
never deferring for a single hour that which can be done just as well now.*

**- P. T. Barnum (1810 - 1891)**

*American showman, businessman and founder of Barnum & Bailey Circus*

## From Secretary and Treasurer



Dear India Council Members,

Thank you for your overwhelming support for my election to this position! I am deeply honored by your trust and promise to do my best to serve you well during this tenure.

I have attended most of the conference calls, face to face meetings and the AGM of IC which was held at IIT Bombay during Indicon 2013 – Dec 14, 2013. I believe I have a fair idea of the issues facing IC. Having said that, however, I will seek your guidance and support to try and address these issues to the best of my ability.

I was also part of MGA's SDEA (Strategy Development and Environmental Assessment) Task force led by Prof Lawrence Wong – Immediate Past R10 Director - which has given me an idea of how IEEE perceives India as a strategic growth market for IEEE and what it intends to do to develop IEEE India presence and activities.

I believe that while we can schedule conference calls and face to face meetings to discuss our issues and challenges, we can always communicate with each other continuously without waiting for these calls and meetings.

I intend to be constantly engaged with all of you to accomplish our shared vision to take IC to greater heights.

Till next time,

Yours voluntarily

**TS Rangarajan**

Secretary and Treasurer IC 2014

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### *Words of Wisdom*

*The major value in life is not what you get.*

*The major value in life is what you become.*

**- Jim Rohn**

\* \* \* \* \*

*I believe that one defines oneself by reinvention. To  
not be like your parents. To not be like your friends.*

*To be yourself. To cut yourself out of stone.*

**- Henry Rollins**

# IT in March 2014

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



## General

- *Lok Sabha* (Indian Parliament) Elections announced on March 5, 2014
- Supreme Court asks UIDAI (UID Authority of India) to withdraw the order making AADHAR (Universal ID) mandatory on March 25, 2014
- Russian President Putin signs the Ascension of Crimea to Russia into law on March 21, 2014
- Malaysian plane goes missing on March 8, 2014 for days adding to the mystery everyday

## Markets

- San Francisco-based global music streaming service **Rdio** (founded by Skype co-founder Janus Fris) decides to acquire Indian music start-up **Dhingana** (founded by Snehal & Swapnil Shinde) on March 13, 2014
- Indian stock market index *Sensex* crossed 22,000 for the first time on March 2014
- **Facebook** buys Virtual Reality company **Oculus** for \$ 2 billion on March 26, 2014
- **SAP** to buy Chicago-based **Fieldglass** (cloud-based vendor management software) company on March 26, 2014
- Chinese major **Alibaba** buys minority stake for \$ 215 million (on a \$ 1.1 billion valuation) in US-based start-up **Tango** (Chat App) on March 29, 2014

## Products

- **Yahoo** launches new Website in India on March 8, 2014
- **Nokia X** Android phone launched in India on March 10, 2014
- **Moto X** launch in India on March 19, 2014 at Rs 23,999
- **Apple** replaces **iPad 4 with Retina display** as replacement for iPad 2 on March 21, 2014
- **Microsoft** launches **Office for iPad** in March 27, 2014
- **Samsung** launches **Galaxy 5S** smartphone at Rs 53,000 in India on March 27, 2014

## Indian IT companies

- **Flipkart** makes history by crossing \$ 1 Billion turnover on March 6, 2014 (78 months compared to 95 months for Amazon to reach the Billion Dollar status)
- **TCS** rated No 1 employer in Europe (Top Employers Institute) for the second time in a row, signs deal with Garuda Airlines in March 2014; TCS to manage much of Thomson Reuters operations in India from April 2014
- Chennai-based **TNQ** to power science-publishing major Elsevier "Proof Central" (connecting authors and publishers)
- Indian mobile handset major **Karbonn** expects Rs 8,000 crores business 2014-15

## MNC Companies in India

- **IBM** opens a new Lab with \$ 100 million investment in Bangalore in March 2014
- **Cisco** talks of India's contribution to Cisco sales to touch 5% in 2014-15; to invest \$ 1 billion in India on cloud infrastructure in 2014-2015

- **AmEx** decides to use Bangalore-based **EzTap** (Sanjay Swami founded startup) on March 20, 2014
- Japanese telecom major **NTT** commissions its Tier 3 data center with 1,00,000 sq. ft. space (Net Magic Data Center) in Bangalore on March 26, 2014
- German chemicals major **BASF** set to start its R & D center in Thane, Mumbai in the year 2014
- **CA Tech** expands India operations in Bangalore
- **Panasonic** decides to make India regional hub in 2014
- **Starbucks** talks of fastest growth in India in its history (40 stores in 17 months - Oct 2012 to Feb 2014 - with 1,000 employees)
- **Nokia** Chennai plant dispute delays Nokia merger into Microsoft; gets another Rs 2,400 crores tax call from State Government (an earlier Tax dispute of even larger value pending with Central Government)

### Telecom

- **Airtel** launches 4G /LTE services on iPhone 5S on March 2, 2014 (at 3G prices)

### Education & Research

- **Prof. Anurag Kumar** to take over as **Director of IISc** (Indian Institute of Science) in August 2014 from Prof P Balaram
- Russian mathematician **Prof. G Sinai** is the **Abel Prize** (Mathematics Nobel) winner of 2014

### Infrastructure

- Bangalore **Namma Metro** launch of Reach 3 & 3A (Sampige Road to Peenya Industrial Estate) starts operations in March 1, 2014

### Applications

- IMT (Instant Money Transfer) linking ATM to mobile phone started by Bank of India on March 24, 2014

### People

- Infosys founder & former CEO **Nandan Nilekani** (Congress candidate) and former CFO **V Bala** (AAP candidate) take plunge into politics and contest in Parliament Elections in Bangalore on April 17, 2014
- Infosys Enterprise Head Chandrashekar Kakal to joins L&T Infotech as COO
- RBI Deputy Governor KC Chakrabarty announces his decision to quit 3 months early (April instead of June)

### Some interesting numbers

- Apple, Amazon, Google in No. 1, No. 2 and No. 3 “Most Admired companies” 2014 list (Fortune)
- IRCTC sells a record 5,80,000 tickets in a single day on March 20, 2014
- Indian online retail has 1 million traders and \$ 12.6 billion sales today (IAMAI); **Amazon India** stocks 1.5 crore items and surpasses Indian e-commerce majors **Flipkart** and **Snapdeal**
- English word "ok" completes 175 years (first appeared in “Boston Morning Post”)
- **Telecom subscriber** base on January 31, 2014 stood at 922.04 million with 893.31 million mobile subscribers and 28.73 million wire-line subscribers (with net addition of 7.02 million mobile subscribers and net reduction of 0.17 million wire-line subscribers in January 2014) (TRAI Press Release No. 13/2014 dated March 12, 2014)
- **India’s Foreign Exchange** on March 31, 2014 was at \$ 303.67 billion (RBI)
- **Indian Rupee** stood at 59.88 against USD on March 31, 2014 (RBI)
- On March 31, 2014 **BSE Sensex** and **NSE NIFTY 50** (Indian stock market indices) were at 22,386 and 6,704 respectively (Reuters)



# Cryptocurrencies: Here to stay?

*The runaway success of Bitcoin, the first successful cryptocurrency, has spawned widespread interest around the world as well as numerous copycat currencies*

Satish Babu, Member, MGAB, IEEE Computer Society



## Background

With the mainstreaming of e-commerce in the last decade, millions of consumers have turned to purchasing goods and services electronically. Most technologies that are required for e-commerce are already available, and their deployment has resulted in highly flexible web applications as exemplified by Amazon and eBay.



Despite the 21st Century features of these sites that consumers have come to love, there is still one aspect of e-commerce in particular—and electronic payments in general—that still remains in the realm of the last century: payment instruments. The early payment instruments—credit and debit cards—are still the most popular, although later developments such as payment services like Paypal and PaisaPay, as well as net banking payment gateways are now available.

All these payment mechanisms have a few limitations: none of them provide anonymity (as cash does in real life), and all of them require the services of an intermediary (such as a bank or credit card company). The existence of an intermediary implies that they have the power to stop transactions between two parties, even when the parties themselves are willing.

While these do not impede many types of online payments, there are numerous situations where anonymity could be an added advantage. Today, when many people are concerned about the breach of privacy by both State and non-State actors, there is perhaps renewed interest in truly anonymous payment mechanisms. This is based on the worry that all purchase behavior—even while buying mundane day-to-day things—is getting stored at the banker or credit card gateway. A potential solution to the problem of ensuring anonymity for online payments is that of Cryptocurrencies.

## What are cryptocurrencies ?

Cryptocurrencies are digital currencies that are completely independent from the conventional financial system (or “fiat currency”, i.e., currency declared as legal tender by Governments), and provide anonymity. Cryptocurrencies are built on a foundation of the Internet, cryptography & mathematics, and operate in a decentralized, secure, peer-to-peer manner. The decentralized & distributed nature of cryptocurrencies (i.e., its peer-to-peer or network character) prevents the currency from being manipulated, regulated or controlled by any agency such as central banks or national governments (except that Governments can declare such currency to be illegal in their jurisdiction, in which case the citizens of the particular nation will not be able to access it).

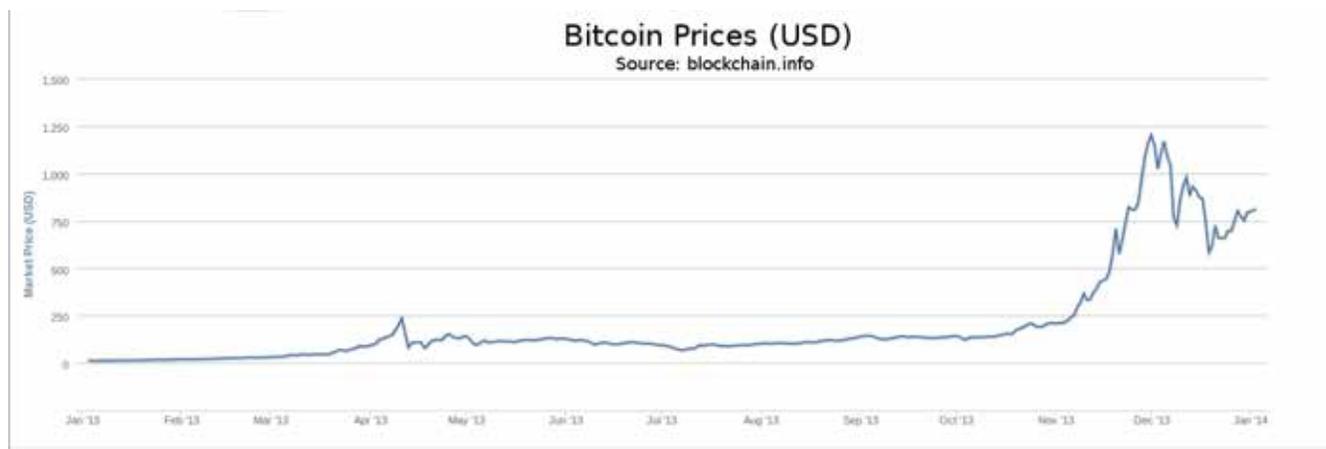
In general, cryptocurrency transactions take place directly between the two parties, without any intervening entities such as banks. The cryptocurrency network itself provides the payment guarantee that banks used to provide in the conventional financial system. The network also provides a mechanism for the two parties to be located anonymously, as well as in providing the appropriate ledger entries. The network is also sufficiently resilient that it doesn't require participating entities to be trusted, provided no single actor has computing power that far exceeds the combined computing power of the entire network.

In any currency system, new currency needs to be added to the supply to ensure liquidity. In the case of cryptocurrency, the network associated with the currency produces new currency in a strictly controlled, decentralized fashion through solving computationally complex problems. The rate at which new currency is added is usually fixed *a-priori* by the currency. In most cases, the total volume of currency in circulation is capped at a fixed amount, which eventually leads to an increase in the value of the currency provided sufficient demand exists.

Another problem is authenticating a transaction while ensuring that there is no case of multiple use of the same currency. A transaction in a cryptocurrency does not involve exchange of digital notes or tokens, but involves updating a master transaction log of all the currency. This master list, called a *blockchain*, is updated by their maintainers on the request of the buyer each time when a quantum of currency (usually a fractional quantity such as 0.0001485 units) is received. Blockchain copies are maintained for public use by several independent individuals or groups (called ‘miners’) who are rewarded for their efforts through a small transaction fee. Each transaction is broadcast globally, and is considered valid after receiving confirmation from sufficient number of miners (usually 3 to 6 confirmations are sufficient) who ascertain that the currency is indeed valid for the transaction, and update their blockchains. There are computational and cryptographic safeguards that eliminate the possibility of any miner from manipulating the blockchain on their own.

## Bitcoin

While there are numerous specifications for cryptocurrencies, the first and most popular cryptocurrency is Bitcoin, designed by Satoshi Nakamoto in 2008 and released in 2009. Nakamoto also developed the initial version of the software which is currently being maintained as Open Source by a community of developers. The identity of Nakamoto, however, has not been established until now, despite much effort. It is not even known Nakamoto is an individual or a group of people. His work, however, is considered pathbreaking, and the fact that the bitcoin as a currency has managed to sustain itself despite numerous efforts to compromise its cryptographic base, is a tribute to the rigour of the work of Nakamoto (the original paper, “Bitcoin: A Peer-to-Peer Electronic Cash System” by Satoshi Nakamoto, is available at [www.bitcoin.org](http://www.bitcoin.org)).



## Bitcoin: The current status

Bitcoin (BTC) gathered momentum during 2012, becoming a reasonably popular in many ecommerce sites as well as brick-and-mortar establishments. It also emerged as the only payment instrument for several ‘Darknet’ web sites (which often dealt with ‘grey’ and ‘black’ goods). By the second half of 2013, BTC had become sufficiently popular to inspire experiences such as ‘Live on BTC for a week’ (<http://onforb.es/1esqqjt>).

As BTC became well-known its demand began rising and consequently, its value also began to appreciate rapidly, over and above the theoretically predicted rate of increase. This was perhaps on account of increasing demand from the market. From a few dollars prior to 2012, Bitcoin touched about USD 1100 in late 2013, leading to speculation about the causes. The exchange rate fell sharply shortly thereafter, presumably after a few large e-commerce sites in China were forbidden by the Chinese Government to accept bitcoins.

## Using Bitcoins

In order to use (BTC) for individual users (as opposed to Bitcoin miners), one needs to download the Open Source client software, which is available for Linux, Windows and Mac. Once installed, the next step is to download a local copy of the blockchain (only required once), *which can take very long (up to a day), depending on the bandwidth.*

Once the blockchain copy is downloaded, the user can create a bitcoin wallet and one or more addresses in the client software for receiving BTCs from other sources. Some users prefer multiple addresses to receive BTCs, so as to categorize transactions (each address is a long alphanumeric string). Once the wallet and receiving addresses are created, the user is ready to receive BTCs, for which remaining connected to the Internet is essential.

BTCs can be obtained by several ways: buying it from a BTC exchange against cash; getting paid in BTCs for goods and services (including offline services such as a restaurant or hotel); and mining new bitcoins (requires professional hardware and software, and is often done by groups of experts).

Any bitcoins that are sent to the user's account end up within a few minutes in his wallet. The wallet needs to be backed up periodically—if it is lost or destroyed, the bitcoins are irretrievably lost. Usually owners back up the wallet.dat file available in the home directory (not the blockchain itself, which may be very large). Bitcoins can be stolen physically or electronically, and once lost, there is usually no way to get the money back.

Sending bitcoins from a users wallet to another site or user is also straightforward: all that is required is the recipient's BTC address. For non-trivial quantities, sending BTCs may require a small transaction fee (around 0.0001 BTC or less). The client software also maintains the log of all transactions of the user and provides other utilities.

One of the most important aspects of BTC transaction, beyond the fact that the two parties remain anonymous vis-a-vis each other and to the BTC network, is that once a transaction is made, there is no way to reverse it. If a buyer pays a fraudulent service provider and later discovers his mistake, there is no way to get the money back. Since this may dissuade customers in entering into BTC transactions, many sites provide escrow services to protect the buyer. It is recommended that new users who are paying for services with BTC use these services for protection.

Because of this, any party that accepts *only* BTC (as opposed to accepting BTCs as one option amongst others) should be approached with caution, as a fair proportion of these parties carry the risk of not being honest in their dealings.

### **BTCs in India**

In India, as in most other countries, Bitcoins operate in a grey area as governments around the world grapple with the problem of how to handle this new development. The Reserve Bank of India has cautioned users in the risks of using bitcoins, on account of inherent risks of anonymity as well as because of its rapidly-fluctuating exchange rate.

Until late 2013, there were no local exchanges in India which could accept Rupee payments and provide bitcoins. There are now a few services (such as **buysellbitco.in**) which were providing buy-and-sell services for bitcoins and litecoins during Nov-Dec 2013. However, subsequent to the RBI circular in December 2013, all these services have suspended operations temporarily.

There are several other cryptocurrencies (see [http://en.wikipedia.org/wiki/List\\_of\\_cryptocurrencies](http://en.wikipedia.org/wiki/List_of_cryptocurrencies)), of which litecoin seems to be one of the more prominent ones.

### **Conclusion**

Cryptocurrencies are a new development in cyberspace that combines economics, cryptography, and peer-to-peer computing to create a powerful, self-regulating, self-validating currency that is independent of national regulators. Bitcoin, the first of these to become a truly global currency, has demonstrated the power of the concept. Many more cryptocurrencies are waiting in the wings. It is clear that cryptocurrencies will remain a part of the New Economy.

It is important to demystify all aspects of these virtual currencies so that both the policy makers—such as RBI as well as the Government—as well as the general public can take informed decisions on the use of these currencies, considering their significant power as well as formidable risks associated with their use.



# Sunlight Lowers Blood Pressure

## *May Reduce Heart Attack Risk*



Exposing skin to sunlight may help to reduce blood pressure and thus cut the risk of heart attack and stroke, as per research carried out at the Universities of Southampton and Edinburgh. Sunlight alters levels of the small messenger molecule, nitric oxide in the skin dilating blood vessels and thus easing hypertension.

Martin Feelisch, Professor of Experimental Medicine and Integrative Biology at the University of Southampton, says: “Nitric oxide (NO) along with its breakdown products, known to be abundant in skin, is involved in the regulation of blood pressure. When exposed to sunlight, small amounts of NO are transferred from the skin to the circulation, lowering blood vessel tone; as blood pressure drops, so does the risk of heart attack and stroke.”

While limiting sunlight exposure is important to prevent skin cancer, the authors of the study suggest that minimising exposure may be disadvantageous by increasing the risk of prevalent conditions related to cardiovascular disease.

Cardiovascular disease, often associated with high blood pressure, accounts for 30 per cent of deaths globally each year. Blood pressure and cardiovascular disease are known to vary according to season and latitude, with higher levels observed in winter and in countries further from the equator, where ultraviolet radiation from the sun is lower.

During this study by British researchers, the skin of 24 healthy individuals was exposed to ultraviolet (UVA) light from tanning lamps for two sessions of 20 minutes each. In one session, the volunteers were exposed to both the UVA rays and the heat of the lamps. In another, the UV rays were blocked so that only the heat of the lamps affected the skin.

The results suggest that UVA exposure dilates blood vessels, significantly lowers blood pressure, and alters NO metabolite levels in the circulation, without changing vitamin D levels. Further experiments indicate that pre-formed stores of NO in the upper skin layers are involved in mediating these effects. The data are consistent with the seasonal variation of blood pressure and cardiovascular risk at temperate latitudes.

“These results are significant to the ongoing debate about potential health benefits of sunlight and the role of Vitamin D in this process,” Prof Feelisch said.

*For details:* <http://www.southampton.ac.uk>



# A Health Check for the Heart

## *Some Tips*

**Dr Jyotsna Codaty**, Sr Consultant in Transfusion Medicine and Family Practice, Chennai

We pretty much take our heart for granted. In fact, the heart is a wonderful pump that beats approximately 70- 80 times a minute from birth to death, without any interruption, downtime for maintenance etc whatsoever.

When does a person go in for a Heart checkup or discover that he has a heart related problem? Most often this happens 'by chance' when he undergoes a health check up for insurance or for employment purposes, a master health check up, or when he has any symptoms that he feels might be connected with his heart. He then either visits a doctor who asks for some tests; subsequently, he is in the clear or his heart needs further attention.

Some of the basics on a check list for the maintenance of your heart are your weight, blood pressure, blood sugar levels (are you a diabetic and if so, is your blood sugar under control?) and your lipid profile. The Lipid profile includes your total cholesterol, tri-glycerides and your HDL and LDL (the good and the bad cholesterols). These are the visible parameters. The hidden ones are your stress levels; your personality traits. Are you a constant worrier? A brooder? And do you lead a totally sedentary life style or are active? Clinical statistics have shown that stress and sedentary lifestyle play a large part in the progression of heart disease.

The simplest test that is done to observe the hearts performance is the ECG or the Electrocardiogram. One often hears the remark, "I get my ECG done every year at my master health check up and it was fine. Why do I need another one now?" The ECG shows the heart function at the point when you have had the ECG done or in today's techno speak does NOT show in real time. It will also show any problems that the heart may have suffered in the past (like a previous heart attack). A normal ECG of even 15 days back is not guarantee that one will not have a heart attack in the near future, particularly is he is overweight, smokes, has diabetes, does not exercise etc. Hence an ECG is repeatedly asked whenever there is a symptom pertaining to the heart. This is a painless test that takes a few minutes.

Another test for the heart is the ECHO cardiogram. This shows the pumping capacity of the heart- as the heart is primarily a pump and needs to pump blood to all parts of the body. This test is a sort of ultrasound test, is painless test and you might need an appointment as usually a doctor gives you this test.

We now need to check out how the heart holds up under conditions of exercise, meaning simple tasks like walking, at first slowly, then with increasing speed and up a small incline. In my earlier days in the Armed Forces, our patients would be made to do the 'double master test' wherein they would climb up and down two steps, BP cuff on his arm, under the eagle eyed count of a drill sergeant! In today's world, the next test is the Tread Mill test, sometimes simply called the Stress test. This test measures the capacity of your heart to withstand 'exertion' like walking at a reasonable speed and walking up a gradient. This is literally a challenge given to your heart to see if it copes! Your pulse and Blood pressure is measured continuously and the speed and gradient are increased based on your age, weight etc. The tread mill test is a good indicator of how much exertion your heart can comfortably withstand. It is also the first alarm bell that your heart might need to be further examined. This test should always be done under supervision, in a place that can handle emergencies (in the event that a person becomes uncomfortable

on exercise and requires further management) and is best done in a hospital. Some persons tend to take this test at labs which is better avoided, even if emergencies are really rare.

Whenever the tread mill test shows that something is off the mark. The individual may not be able to complete the test and begin sweating or panting or his pulse and BP go unnaturally high, some are not able to complete the test for other simple reasons like a catch in the calf muscle because they are unused to exercise. The next test to go onto is the Angiogram. The angiogram is an invasive test (meaning that 'something' is introduced into your body). It can diagnose a problem but CANNOT cure anything. The test is sometimes done as a day care case or may require a day's admission. A slim, flexible catheter is introduced into the vein either in your thigh or forearm and this goes right up to your heart. You are conscious all the time and this procedure will not hurt you. A radioactive dye is introduced that seeps into all the blood vessels of your heart and shows up in a series of pictures. This test will show up the exact location of blocks in your heart blood vessels and will also indicate the extent of the block. It is the gold standard to absolutely know if there is a block (you are likely to get an inkling in the changes when a person does a treadmill test), the location and the extent of the block. Treatment depends on all these factors.

There are the newer types of angiograms called the CT angiograms that are non invasive; but these will require authentication with a conventional angiogram if any problem is perceived. LTD's tip: Ask for an angiogram - the conventional one- only if you have had episodes of chest pain (small or big) or your Treadmill test shows up some exercise based changes.

Whenever a person has a complaint, it is also required that he/she do some blood tests which will determine the status of the heart muscle. Primarily, when one has a heart attack, his heart muscle is starved of blood due to a blockage in his blood vessels. Whenever any part of the body is deprived of blood, it hurts and manifests as a severe pain. When the blood supply is not resumed, the heart muscle dies and this is called an INFARCTION. These blood tests show if the heart muscle is injured. Rising levels in these numbers also indicate if the heart muscle has had a cramp like situation or has been severely starved of blood. These blood tests are often done in a hospital when a person goes with chest pain.

*This is a brief introduction to the tests that a person is advised to when he either wants to get his heart checked out or has had a few episodes of chest discomfort. It is NOT a conclusive guide to all tests and procedures. Please consult your doctor for further tests or write in to [www.letstalkdoc.com](http://www.letstalkdoc.com)*



### *Words of Wisdom*

*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**

\* \* \* \* \*

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

**- Mark Amend**



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**Welcome to IEEE INDICON 2014.**

INDICON has been the most prestigious conference conceptualized by IEEE India Council in the field of Computer Science and Engineering, Electrical Engineering & Electronics and Communication Engineering, in general. This has been a metamorphic version of Annual Convention and Exhibitions (ACE) which was the annual meeting of IEEE India Council. During ACE2003 it was decided to completely restructure it in form of a conference where India Council would formally meet also. It was renamed as INDICON and the first INDICON was organized by IEEE Kharagpur Section at IIT Kharagpur during 20-22 Dec, 2004. Subsequent INDICON were organized by IEEE Madras Section (11-13 Dec, 2005), IEEE Delhi Section (15-17 Sep, 2006), Bangalore Section (6-8 Sep, 2007), IEEE UP Section (11-13 Dec, 2008), IEEE Gujarat Section (18-20 Dec, 2009), IEEE Calcutta Section (17-19 Dec, 2010), IEEE Hyderabad Section (16-18 Dec, 2011), IEEE Kerala Section (7-9 Dec, 2012) and IEEE Bombay Section (12-14 Dec, 2013). Over the past few years, INDICON emerged as a well recognized and an eagerly anticipated event in the country because of its high quality technical sessions and for the networking opportunities it provides. INDICON 2014, which is being organized by the IEEE Pune Section is expected to attract over 500 delegates from all over the country and abroad and will consist of very high quality technical sessions and tutorials.

IEEE Pune Section (R01 20) was established on June 26, 2010 with terrestrial boundaries confined to Pune Metropolitan City (Postal Code: 411001 to 411999). The Section falls under the jurisdiction of Asia Pacific Region (R-10) of IEEE. Prior to that it was a subsection of IEEE Bombay Section since June 20, 2003 till its formation. At present, the Pune Section has more than 300 professional members and over 1100 other members, including student members. There are 19 IEEE Student Branches in different Engineering Colleges in and around Pune City.

The Pune Section interfaces with the industries and academia through various technical and humanitarian activities. Section organizes various activities throughout the year, which are helpful to the professional members as well as for student's community for their skill set upgradation. This year, INDICON 2014 is being organized by IEEE Pune Section, at YASHDA, Pune.

**Call for Paper**

Topics of interest for submission include, but are not limited to:

- Software and Database System
- Cloud and Ubiquitous Computing
- Big data and Data mining
- High Performance Computing
- Information and network security
- Power and Energy
- Emerging trends in Engineering

**Software and Database System**

Applications of Expert Systems and Decision Support Systems, Data and Information Modeling, Integration, Data Structures and Data Management Algorithms, Database and Information System Architecture and Performance, Data Mining Systems and Algorithms, Data Warehousing, OLAP, Distributed, Parallel, P2P, and Grid Databases, Expert Systems and Decision Support Systems, Information Retrieval and Database Systems, Knowledge Acquisition & Management, Multi-databases and Database Federation, Object, Object Relational, and Deductive Databases, Pervasive Data and Information, Semantic Web and Ontologies, Statistical and Scientific Databases, User Interfaces to Databases and Information Systems, Web Services, Operating system, Multimedia Engineering, Human Computer Interaction.

**Cloud and Ubiquitous Computing**

Cloud infrastructure, Cloud computing applications, Cloud resource virtualization, Cloud resource management and scheduling, Cloud networking, Cloud storage systems, Cloud security, Cloud application development, Identity management, Cloud application, social, mobile cloud, Cloud migration, Cloud federation, Cloud programming models, Cloud Economic, business, Cloud monitoring, Cloud provisioning, Ad hoc networks for ubiquitous communications, Communication architectures for ubiquitous computing, Context modelling and reasoning, Data management for ubiquitous computing, Energy-efficient and green ubiquitous computing, Green Computing and Power-Aware Middleware, Innovative ubiquitous computing applications, Intelligent Transport Systems (ITS), Internet of Things and Social Web of Things, Middleware for ubiquitous services and applications, Wireless Sensor Networks (WSNs), Multimodal sensing and context for ubiquitous applications.

**Big data and Data mining**

Big Data Science: Theories, models, algorithms, benchmarking, curation, and methods for understanding big data, Big Data Computing: Infrastructures, tools, programming, architectures, benchmarking, and testing of big data systems using Map/Reduce, Hadoop and others, Big Data Mining: Acquisition, representation, indexing, storage, management, processing, pre-processing and post-processing of big data, Big Data Analytics: Metrics, frameworks, evaluation, tools, analysis, visualization of big data, Big Data Understanding: learning, knowledge discovery, business and consumer intelligence, user behavior, community discovery, Big Data Applications: Industrial and scientific applications of big data such as search, recommendations, business intelligence, marketing, social media, healthcare, good practices and reproducibility, Big Data Privacy and Security: Data privacy enhancing technologies, privacy-preserving computing, risk analysis, modeling, and management

**High Performance Computing**

High-Performance Computing, Parallel and Distributed Algorithms/Systems, Parallel Languages and Programming Environments, Hybrid Parallel Programming with GPUs and Accelerators, Load Balancing, Scheduling and Resource Management, Resilient/Fault-Tolerant Algorithms and Systems, Scientific/Engineering/Commercial Applications and Workloads, Emerging Applications such as Biotechnology and Nanotechnology, Cluster, Cloud, and Grid Computing, Heterogeneous Computing, Interconnection Networks and Architectures, Scalable Servers and Systems, High Performance/Scalable Storage Systems, Power-Efficient and Reconfigurable Architectures, Compiler Technologies for High-Performance Computing, Software Support and Advanced Micro-architecture Techniques, Intelligence and optimization between clouds and CPS, Languages and Compilers for High Performance Computing, Parallel and Distributed Software Technologies, Embedded Systems, Peer-to-peer Computing, Web Services and Internet Computing, Utility Computing, Performance Evaluation and Measurement, Tools and Environments for Software Development, Distributed Systems and Applications, High-performance Scientific and Engineering Computing, Database Applications and Data Mining, Biological/Molecular Computing, Collaborative and Cooperative Environments, Mobile Computing and Wireless Communications, Pervasive/Ubiquitous Computing and Intelligence, Autonomic, Reliability and Fault-tolerance, Multilingual computing.

**Information and network security**

Intrusion detection and prevention, Smart grid security, Mobile security, Web Security, Cloud security, Biometrics, Malware analysis and prevention, Cyber forensics, Honeypot technologies, Privacy and privacy preserving algorithms

**Power and Energy**

Electrical machines, power electronics, power systems, control and testing techniques, renewable energy systems (fuel cells, PV, wind, small hydro etc), smart grid, microgrid, energy storage, wide area monitoring, protocols for industrial systems, Energy efficient algorithms.

**Emerging trends in Engineering**

Robotics, Image Processing, Embedded Systems, Mobile Computing, Data Mining & Data Warehousing, Software Engineering & Testing, Operating System, Analysis & Design of Algorithm, Computer Architecture, Computer Networks, Artificial Intelligence, Grid Computing, Hybrid Databases, Multimedia Applications, Neural Network, Virtual Reality, Web Crawlers, Wireless/Mobile Communications, Electrical and hybrid vehicle, Engineering innovation for healthcare system, Technology to Bridge Rural and Urban Divide, IOT and other Physical System

**Paper Submission Format** : Papers for both oral and poster presentations should conform to the IEEE format and specifications. All submissions must be in English only. Authors are invited to submit full paper (Maximum 6 pages, double-column A4) as PDF using the IEEE templates. The IEEE paper template can be downloaded from the link given below. [http://www.ieee.org/conferences\\_events/conferences/publishing/templates.html](http://www.ieee.org/conferences_events/conferences/publishing/templates.html)

**Paper Submission Details:** Authors are invited to submit papers in electronic format through Easy Chair.

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# IEEE COMSOC Pune Chapter, Pune Section

## *A Brief Report*

1. **IEEE COMSOC PUNE CHAPTER** has organised a First Technical talk of Dr Ashok Gaikwad- Professor, (Department of Instrumentation) Cummins College of Engineering, Pune, India. The details of the lecture are given below:

- Topic : Optical Fiber Based Chemical Sensor
- Date and Time: Tuesday 12th Nov 2013 at 5 PM
- Duration : 1 Hr
- Venue : Cummins College, Karvenagar
- Audience presented were Researchers, Academicians, Industry delegates and students.

2. IEEE COMSOC PUNE CHAPTER has also organised a Second Technical talk of Prof. Vivek S. Deshpande, Associate Professor (Department of Information Technology), MIT College of Engineering, Pune, India .The details of the lecture are given below:

- Topic : Design Challenges for QoS in WSN
- Venue : VI I T , Kondhwa
- Date/time : Jan 30,2014 at 17.00 Hrs
- Duration : 1 Hr
- Audience presented were Researchers, Academicians, Industry delegates and UG, PG & Ph.D. students.

3. IEEE Communication society chapter has organised a **Communications Project Competition** for Final Year Engineering students, under IEEE Communication Society Chapter, Pune section. With the emerging field of Communications, there is requirement for an effective interaction among the students, academicians and professionals working in the field. The aim of this competition is to foster scientific problem solving and applicative skills, coupled with competitive spirit and thereby to create an atmosphere, conducive for triggering new ideas among the budding engineers. This competition will provide final year students, a forum to display their talent and exchange their views exclusively in the field of communications.

IEEE Communication society chapter has conducted Phase-I evaluation of Communication based project competition of 64 project groups held at 4 centre's (RSCOE, PVGCOE, Cummins COE and AISSMS COE) participated from in and around Pune engineering colleges on March 24, 2014.

Out of which 15 project groups got selected and will participate in Phase-II to be held at Sinhgad College of Engineering, Pune in First week of June.

Dr. A.S.Tavildar, Prof. Mandar Khurjekar, Dr. Ashok Gaikwad, Prof.Vivek Deshpande, Prof. M.M.Jadhav, Prof, Radhika Purandhare and Prof. Milind Patil worked as a External Judges from IEEE ComSoc Chapter, Pune Section.

Dr P.M.Mukherjee, Prof. D.G.Bhalke, Prof. Mrs K J Kulkarni, Prof. Dhonde, Prof. Shedge, Prof Mrs Sarade, Prof. Shethe and Dr. P. B. Mane worked as a Internal Judges at above RSCOE, PVG COE, Cummins COE and AISSMS COE centres.

**Prof. M.M. Jadhav**

Secretary - IEEE ComSoc Chapter, Pune Section

**Prof. Vivek Deshpande**

Chairman - IEEE ComSoc Chapter, Pune Section



## IEEE Uttar Pradesh Section

### 2014 International Conference on Information Systems and Computer Networks (ISCON 2014)



*Inaugural Function (Left to Right): Convener-Prof Charul Bhatnagar, Pro-Vice Chancellor- Prof A M Agrawal, Chief Guest- Mr. Sanjeev Nikore, Guest of Honour - Prof. Rajeev Tripathi, General Chair- Prof Krishna Kant, Head of Deptt.-Prof A S Jalal*

An International Conference on “Information Systems and Computer Networks: ISCON-2014” was organized in GLA University, Mathura, on 1-2 March 2014 in technical collaboration with IEEE Uttar Pradesh Section and CSI Mathura Chapter, Division: I & IV & Region-1 . The theme of the Conference was aptly chosen keeping in conformance with the industry demands and proliferation in the fields of Information System and Computer Networks.

The Conference was inaugurated on 1<sup>st</sup> March by Chief Guest of the conference Mr. Sanjeev Nikore, President - Consumer, Manufacturing and Public Services, HCL Technologies Ltd, and Guest of Honour Prof. Rajeev Tripathi, MNNIT Allahabad. The day took off with a scintillating Inauguration ceremony thronged by the glitterati of the academia who were extended a warm welcome message by the Convener of the Conference, Prof. Charul Bhatnagar.

The Pro-Vice Chancellor, Prof. A. M. Agrawal, welcomed the gathering and addressed them with a motivational words that such types of International Conferences would benefit not only the members present here, but to the industry, academics and researchers as a whole. He also congratulated the organizers and thanked them on behalf of the Vice-Chancellor, Prof. D. S. Chauhan, and the Management of GLA University.

The General Chair, Prof. Krishna Kant introduced the theme of the Conference. In his address, he emphasized the importance of Information Systems, which consists of components of collecting, storing and processing data and for delivering information, knowledge and digital products. Apart from various organizations, Individuals, too rely on Information Systems for conducting much of their personal lives, like online shopping, banking, entertainment, etc. Also, Computer Networks are used to transmit information in which connections between

different computing devices is established using wired or wireless media. He also added that some of the recent advancements in this field are Computer Clusters, Peer to Peer Systems, Grid Computing, Cloud Computing, to name a few. Interoperability is one of the challenges in today's distributed environment and is necessary to connect at runtime previously independently developed and deployed. He concluded that the conference would provide a platform to the researchers to delve on different domains on Information Systems and Computer Networks.

In his inaugural address, Mr. Sanjeev Nikore addressed the employee relationship management which has focused on the set up of a do-it-yourself knowledge exploration; the target is to avoid the risk that employees refuse any IT solution in which combining information from multiple spread sheets and databases is tedious and manual. He also focused on the key idea – that a good management of the relationship with employees has a great value for the company and is a driver of performance improvement both in individual and in teams. The programme was wound up with a Vote of Thanks delivered by the Head, Department of Computer Engineering and Applications, Prof. Anand Singh Jalal, who expressed his sincere gratitude to the esteemed delegates for spending their invaluable time for the occasion.

The Conference witnessed technical session for paper presentation on various sub-themes during these two days. Prof. Rajeev Tripathi one of the keynote speaker focused on Adaptive modulation and coding schemes mentioning these as promising technique to support the demands for high data rates and wideband proposed for 4G mobile communication system standards. The spectrally efficient modulation schemes are the dominant trend in mobile communication system after 3G mobile system and the adaptive modulation system is suggested to be the best solution for bandwidth efficient system. Also, Mobile IP has been developed to enable computers to maintain Internet connectivity while moving from one Internet attachment point to another.

Prof. Nishchal Verma, IIT Kanpur, delivered a key note on Intelligent Informatics. This deals with interdisciplinary research on artificial intelligence, cognitive science, knowledge engineering, information technology and engineering management. Intelligent engineering informatics can be seen as an emerging science supporting engineering management activities using intelligent information processing and knowledge reasoning techniques. This also highlights new techniques and systems using the cognitive and intelligent paradigms mentioned above, with application to engineering management activities. It will therefore particularly emphasize intelligence and knowledge as well as engineering applications.

Prof. Ekram Khan, AMU Aligarh, delivered a key note on designing wireless video communication system describing it to be a challenging task due to high error rates of wireless channels, limited and dynamically varying bandwidth availability, and low energy and complexity requirements of portable multimedia devices. Scalable video coders having excellent rate-distortion performance are most suited to cope with time varying bandwidth of wireless networks, but encoded bits are extremely sensitive to channel errors. The discussion mainly focused on wavelet coded video, but it is applicable to other embedded bit streams as well. Video communication over wireless networks is envisioned for a vast range of applications, such as video telephony, videoconferencing, telemedicine, surveillance, security monitoring, disaster rescue, environment monitoring, gaming, and entertainment, wildlife activity monitoring, and multimedia systems in consumer electronics. This session was co-chaired by Dr. Dilip Kumar Sharma from the Department of Computer Engineering and Applications, GLA University, Mathura.

ISCON 2014, papers were classified in two tracks: Track 1: Information System & Track 2: Computer Networks. The organizers received 196 research papers in all from various academicians and industry people from India and abroad. Out of which there were 185 valid submissions. 75 research papers were of track 1 and 110 papers were of track 2. All submitted papers underwent a rigorous process of two level blind reviews. First, the papers were matched with the relevance of the conference, and then checked for plagiarism. After this level of review, 106

papers were shortlisted and each paper was sent to two esteemed external reviewers from institutions of repute. After second level of review, 71 papers were selected out of which 29 papers were of track 1 and 42 papers were of track 2. There were 29 registrations against these 71 accepted papers and out of which 28 papers were presented in six sessions. In each session, the best paper was selected for award sponsored by McGraw Hill Education.

The conference valedictory session was organized at 2.30 p.m. on 2<sup>nd</sup> March. Prof Ekram Khan, AMU graced the occasion as the Chief Guest. Dr. Manas Kumar Mishra gave the crisp summary of the conference followed by the Vote of Thanks by Prof. Ashish Sharma. The delegates have taken significant inputs out of this conference. With efforts from GLA University Management, faculty members and delegates, the conference was a great success in meeting its objectives.



*Group Photo in the Valedictory Session of the Conference*

*Report By: Dr Dilip Kumar Sharma, Joint Secretary- IEEE Uttar Pradesh Section & Steering Committee Chair- ISCON 2014 at GLA University, Mathura, India*



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## IEEE Kerala Section

### International Events hosted

- IEEE Kerala Section and IEEE COMSOC co organized a DLP on **Big Data Problems in Social Media Analytics** by **Prof. R. Chandramouli**, Information Networks and Security (iNFINITY) Lab, Department of Electrical and Computer Engineering, Stevens Institute of Technology, NJ on 12<sup>th</sup> March, 2014.
- IEEE Kerala Section and IEEE SSCS SBC, St. Gits College of Engineering co organized a DLP on **COMS Mixed Design** by **Prof. Dr. Jacob Baker**, University of Nevada, Las Vegas on 11<sup>th</sup> April, 2014

### Other events conducted

- **FOSSMeet** an annual Free and Open Source Software meet was organized at NIT Calicut during 14<sup>th</sup> to 16<sup>th</sup> of February. The meet was inaugurated by Mr.G.Nagarjuna, Chairperson, Free Software Foundation of India. FOSSMeet 2014 was jointly organised by FOSS Cell NITC, **IEEE Malabar Subsection**, Computer Science and Engineering Association (CSEA) NITC, ACM NITC students chapter and CSI NITC students chapter. The following were highlights of the FOSSMeet.

- Python Workshop by Baiju M. – a Python Architect and the founder of SMC, Open Hardware workshop by SPACE Thiruvananthapuram
- Programming in Ruby by Ershad and Drupal by Anoop John – a Drupal contributor and founder of Zyxware Technologies
- Talks by Nigel Babu, Anoop Thomas Mathew – a Python architect and Director of R&D Profoundis, Praveen Arimbrathodiyil – one of the few Debian developers from India
- **Early Career Faculty Development Program [ECFDP] – Series 2:** ECFDP is a series of faculty Development Programs aimed at early career faculty of the section. Three FDPs were proposed at various geographical locations of the state. After the successful conduct of ECFDP 1 at Trissur in 2013, the second edition was held at TKM College of Engineering Kollam. The event, for the early career academicians from engineering colleges from the southern region of the state to boost their technological awareness and IEEE awareness. The IEEE Kerala YP team with the help of IEEE Educational Activities Board has already evolved a program for the Kerala specific needs, which could be useful for the rest of the developing countries as well.



- **Eyes Free Science Camp:** A Science camp for the visually impaired was organized which renewed their confidence in pursuing science and technology for higher studies. The students were motivated in creating a wind mill from scrap material and they succeeded.



- **All Kerala Sight Camp:** IEEE Kerala Section SIGHT, Kerala Section YP SIGHT and Kerala Section WiE joined hands to organize the first All Kerala SIGHT Camp on Friday, March 28, 2014 and Saturday, March 29, 2014 at Vishwajyothi College of Engineering and Technology, Vazhakkulam, Muvattupuzha. The camp had participation from all 10 registered SIGHTs under Kerala Section, WiE branches from different colleges and members from Kerala Section Young Professionals. The camp participants visited a tribal village in Idukki District on the first day to interact with the tribal community for understanding their needs and to conduct a TISP workshop for the children studying in their local school. Second day was at VJCET College for conducting LFA analysis to arrive at some possible actions which can be taken up by IEEE SIGHT groups to address the needs of the tribal communities in Kerala. These activities can possibly lead to SIGHT projects later.

### Sub-Section Events

- **Talk on Embedded Systems & Robotics:** IEEE Kochi Sub-Section organized a technical talk on Embedded Systems and Robotics On 26th March 2014, as part of Kochi Subsection's plans to improve activities at student branches. The talk was hosted at MACE, Kothamangalam, in association with the IEEE student branch of the college. IEEE Kochi Subsection Secretary Shahim Baker handled the session.
- **Entrepreneurship-Myths & Facts:** A Talk on "Entrepreneurship-Myths & Facts" by Mr. Vijay S Paul, Communications Coordinator & Webmaster of IEEE Kochi Sub section was organized on 20th Feb 2014, in association with Girls Day Celebration by IEEE WiE AG Chapter of KMEA Engineering college.
- **Cyber Law & IT Act:** IEEE Kochi Subsection and IEEE CS Kerala Chapter, in association with CSI Cochin Chapter organized a talk on Cyber Laws and IT Act, on 25th March 2014. The speakers Mr. Ameer K M and Ms. Smitha Nair, on their session covered the implications of sections/rules in Cyberlaw applicable to internet users and sections which are relevant in IT Act for regular users and also covered Intellectual Property Rights (IPR) relevant to IT users.
- **Industry –Academia Interaction:** Dr. Suresh Nair, Chair, IEEE Kochi Subsection delivered a talk on "Industry Academia Interaction at Jaibharath College of Management & Engineering Technology on 6th Feb 2014. As the college authorities and the students expressed their interest in forming a student branch, Dr. Suresh Nair also gave an awareness session about IEEE and the benefits for students.

### Forthcoming Events

- **Road Map To Success In Engineering Studies 2014:** A One day Workshop for Engineering Aspirants is scheduled for May 2014. This is an awareness programme being conducted for young students aspiring to join Engineering after completing plus two and writing the entrance examinations. The students will be introduced to different aspects of engineering studies and will be told how to be successful in engineering studies. IEEE MSS is looking for vibrant and proactive volunteers who can contribute towards this noble cause aimed at uploading the goodwill and social responsibility of the IEEE.
- **IEEE Global Humanitarian Technology Conference – South Asia Satellite 2014**

**IEEE GHTC SAS 2014**

**Uday Samudra Leisure Beach Hotel, Trivandrum**

**26-27 Sept 2014**

Papers are invited for the IEEE Global Humanitarian Technology Conference – South Asia Satellite 2014 (IEEE GHTC SAS 2014) 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:** eGovernance, mGovernance, 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: 30 May 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 Uday Samudra 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.

For more details at [www.ghtc-sas.org](http://www.ghtc-sas.org)



Vol. 9 No. 1

April 2014

*For Private Circulation*

*Editor : N.T. Nair*

*Publisher : Dr. M. Ponnaikko*  
for IEEE India Council

email: [ieeeindiainfo@gmail.com](mailto:ieeeindiainfo@gmail.com)

Website: [http://www.ewh.ieee.org/r10/india\\_council/](http://www.ewh.ieee.org/r10/india_council/)