IEEE India Bulletin Vol. 12 No. 5 May 2002

CHAIRMAN'S MESSAGE

Dear Fellow Member,

I had an oppor-tunity to attend the Region 10 Meeting held on 5th&6th April 2002 at Bangkok, Thailand. From India, all the Section Chairs were present besides those who are in R10 Executive Committee. IEEE President Ray Findlay and IEEE Past President Joel Snyder were the distinguished dignitaries who addressed the meeting.

Besides the usual items like membership growth, technical and educational activities, Sections' problems etc. the highlight of the meeting was discussions on the Strategic Plan which Region 10 Committee is preparing. The framework of this Plan includes strategies to achieve the Desired End Objectives which are:-

* An agile organisation
* Quality membership & quality members
* Vibrant, cohesive and well organised sections/chapters
* Productive and effective volunteers
* Industry relevance and participation
* Integral part of global IEEE

Members views were taken to fix the priorities and short, medium and long term action plans to achieve them. Some of the actions which are to be taken up on short term basis include Comprehensive operations manual, Simplification of rules & reporting, Maximum utilisation of web reporting & e-form, Promoting best practices, Industry outreach, Expansion & emphasis on GOLD Program and Joint conferences & activities with societies.

Whole idea of preparing the Strategic Plan and its implementation is to enhance the value of IEEE to its members and society. This is going to be a good effort by Region 10 for the benefit of members.

Shri K Vishwanathan of Hyderabad Section and Shri K Ramakrishanan of Bangalore Section were the recipients of Outstanding Volunteer Awards who were invited to Bangkok to receive the awards in person. I would like to congratulate them and their Sections. Once again Indian volunteers got the lion's share of awards.

With best wishes

Noida   Promod K. Srivastava
1st May '02   Chairman India Council, IEEE

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Quotation

'Whom the gods want to destroy, they drive him mad (with power) first'

- Ancient Greek Saying

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EDITOR'S DESK

'Anything easy to use will be misused or overused'

One of the path-breaking innovations of recent times is Internet which paved way for e-mail. Over the past few years of its existence, e-mail became the de-facto method of communication among all sectors of human activity, be it an industry, a business enterprise or even individuals. For those who have access to an e-mail facility, sending messages is so easy - both from effort and cost angles.

Now let us look at the case of remote controls used with TVs, music systems and the like- that handy device working on infrared principles. Over a period, have we not developed a habit (bad ?) of continuously changing channels, to see what is in the other one, by a simple flicking of the buttons ? If we were left with the yesteryear's option of changing channels by fiddling with the buttons in the TV itself, we would not have done such frequent shifting of loyalty to TV channels. What really happened was the conversion of most of us to couch potatoes, not wanting to move out of the comfort of a sofa or easy chair.

Same is the situation in the case of e-mails as well. Simply because it is so easy an activity, we all send mails to our friends or business associates, even though it is not at all urgent or important. Such an attitude developed over the years among most of the e-mail users is the reason for our in-boxes getting flooded with mails everyday, most of which are unsolicited / or not warranted or necessary.

Technology while works mostly for improving quality of life, often leads to such not-so-desirable activities also, as an offshoot.

Probably, it is now time for all of us to be aware of this pheno-menon in other areas as well and apply restraint in all of them so that situations like flooding of in-boxes are not repeated.

Trivandrum
1 May '02

N. T. Nair
Trivandrum Editor
email: del@vsnl.com

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IEEE BOMBAY SECTION

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ACE2002

**28th Annual Convention and Exhibition of IEEE India Council
ENTERTAINMENT, POWER, INFORMATION TECHNOLOGY, COMMUNICATION
Announcement and Call for Papers
Organised by: IEEE CALCUTTA SECTION; Date: DECEMBER 20-21, 2002
Venue: SCIENCE CITY, Kolkata-700046**

India is a land of epics like Ramanaya and Mahabharata. The theme of ACE-2002 is also 'EPIC' but a different kind of epic which involves modern state-of-the art developments in the field of Entertainment, Power, Information and Communication.

The present-day epics are being woven around these modern technological achievements which will be brought to focus by the Annual Convention and Exhibition organized by IEEE Calcutta Section under the aegis of IEEE India Council. This 28th Convention will bring together

all involved, viz Scientists, Technologists, Engineers, Researchers and Administrators for fruitful interaction. Hopefully this will lead to concrete ideas and policies for future implementation.

E-ENTERTAINMENT

Multimedia, Sound and Audio Effects, Motion Video, Animation and Special Effects, Image and Graphics, Visual Display Techniques, CD ROM Technology, Authoring Case Study, Virtual Reality, HD TV, DTH, Cable TV, Content Delivery, Computer Games, Mobile Games, Home Networking, Internet Based Entertainment.

P-POWER

Stability and Reliability Analysis, Power System Planning and Education, Unit Commitment, Numerical Protection of Power Systems, Power quality and Harmonics, Real Time Control of Power Plant and Systems, Alternative Generation Technologies, FACTS AND HVDC, Energy Management, Power System Transients, Intelligent Systems Application in Power Engg., Static and Quasi-static Field Analysis Design and Performance of High Voltage Insulation System, Industrial Electronics, GTOs, Light Triggered Thyristors, IGBT Application in Power Electronics.

I-INFORMATION TECHNOLOGY

Mobile Computing, Web-based Design, E-Commerce, Governance and Learning, Data Warehosing, Mining and Farming, Soft-Computing, Security, Distributed and Cluster Computing, Software Technology, Embedded System, VLSI and Fault Tolerant System

C-COMMUNICATION

Networking, WAP / Bluetooth, Personal Communication Systems, Indoor & Mobile Communication Systems, Data Communication, Optical Communication, Satellite Communication, Computer Communication, Wireless Communication, Remote Sensing

SUBMISSION OF PAPER

Three copies of extended abstract of about 1500 words are to be submitted for review, which should present a clear and concise view of the topic. The abstract should contain complete e-mail and snailmail addresses.

DEADLINES

Submission of extended abstract
June 30, 2002
Notification of acceptance
August 14, 2002
Submission of Camera ready paper
October 31, 2002
CONTACT DETAILS

a) General Information and Payments
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b) Submission of Paper
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Star Sponsor	30,000	3
Planet Sponsor	20,000	2

Registration fees for participants :

Category	On or before 31.10.2002 (Rs)	After 31.10.2002(Rs)
Authors	1,000.00	1,200.00
IEEE Members	1,000.00	1,200.00
Non-Members	1,500.00	2,000.00
IEEE Student Members	500.00	500.00
Other Students	1,000.00	1,000.00
Sponsored	5,000.00	5,000.00
Foreign Delegates	US $ 200	US $ 200

All payments to be made by A/c Payee Cheque / Demand Draft payable at Kolkata and drawn in favour of "IEEE ACE -2002"

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FORTHCOMING EVENTS

Submission of papers:
From within India: From outside India:
Prof. Lawrence Jenkins, Prof. S.S. Iyengar,
Dept. of Electrical Engineering, Dept. of Computer Science,
Indian Institute of Science, Louisiana. State University,
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3rd International Conference on Cryptology in India (INDOCRYPT - 2002)
December 16-18, 2002
Organized by: The Institute for Development and Research in Banking Technology , Hyderabad
Co-Sponsored by: IEEE India Council Chapter of Computer Society
General Information:
Original papers on all technical aspects of cryptology are solicited for submission to Indocrypt 2002. Authors are strongly encouraged to submit their papers electronically via e-mail to indocrypt@isical.ac.in. (Deadline: August 7, 2002, 17:00 GMT) Notification of acceptance or rejection will be sent to authors by September 27, 2002. Authors of accepted papers must guarantee that their papers will be presented at the conference. Proceedings will be published in Springer-Verlag's Lecture Notes in Computer Science series and will be available at the conference.

TUTORIALS:
December 14-15, 2002
For details of the submission format, please see
http://www.isical.ac.in/~indocrypt/cfp.html.

Invited Speakers:
1. Dr. Vincent Rijmen
2. Professor Guozhen Xiao

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News-Scan

Digital Terrestrial Transmission

Good news for those who can not afford the frequently hiked monthly bills of a cable operator. With an one time investment of around Rs 3650 for a decoder (set-top-box) and an antenna, it would be possible to receive 12 channels, to be dished out by Doordarshan soon in metros. In addition to DD channels, some private channels are also likely to be offered. No more monthly bills from cable operator! Yet another case of new technologies posing threat to established ones.

IT Scenario

**The number of IT companies in India grew from 8,082 to 16,530 between 1995-2001 and is poised to reach 26,648 as per a study by market research firm IDC. Jobs in IT sector grew from 2,31,647 to 5,61,357 between 1995-2001. It is expected to touch 11, 81,735 by 2005. Revenue of $4.7 billion from IT sector in 2001 is projected to become $12 billion by 2005. Internet users in India is expected to grow from 7.27 million in 2001 to 37.59 million by 2005.
'How many of us have realized that since we were given two ears and one mouth, it might be that we were intended to listen twice as much as we speak'**

WORD WATCH: BEWARE THE ENRONED BLAMESTORMER

**"Enroned" workers may do a lot of "blamestorming," suggests workplace trend watcher John A. Challenger, CEO of the international outplacement firm Challenger, Gray & Christmas. He offers this update to his annual workplace dictionary:
* Enroned: Reputation undermined due to questionable employer.
* Blamestorming: Group discussions on why a project failed.
* Job stalker: Job seeker using aggressive methods to obtain an interview.
* Up-titling: Giving employees a better job title instead of a raise.
* Pink-slip perks: Benefits beyond typical severance package, such as company-paid training or tuition reimbursement.**

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Technology in Brief

Ultra Wide Band - New super-fast data-beaming technology

A new technological revolution called 'Ultra Wide Band'(UWB) is being staged in wireless world, promising to beam data at super-fast pace.

A fireman on a rescue mission could hold up a UWB "flashlight" and peer through walls to locate victims. A camcorder fitted with a UWB chip could beam home movies to a TV set across the room. Home computers on UWB networks could swap data at speeds exceeding anything in today's high-tech offices. And in warehouses, the technology could speed up package location. Applications of UWB like this can go endlessly, limited only by the imagination of the scientists.

UWB technology uses a radically different way of encoding signals. Most wireless technologies impart information by changing the shape of radio waves in a specific frequency band, called a carrier. AM radio, for example, uses amplitude modulation-varying the height of the waves - while FM radio alters the frequency of the waves, squeezing some closer together or stretching others out.

But UWB doesn't use carrier waves at all. It sends pulses-as many as a billion zeros and ones per second, rather like super-fast Morse code. Moreover, these pulses are scattered across a broad sweep of the spectrum. Distributed this way, within any one frequency band, the UWB pulses are so low-power that they seem to be just background noise.

That's also why UWB is inherently secure: Only a receiver that knows the schedule of the transmitter can assemble the apparently random pulses into a coherent message. "It's like sitting in an auditorium, whispering quietly to the person next to you," says Kevin C. Kahn, Intel Corp.'s UWB expert. "It doesn't bother the speaker, but your friend can hear you." This has obvious appeal to the Pentagon, which is testing or developing dozens of UWB systems, including eavesdropper-proof battlefield networks-and military brass would prefer to keep the technology out of the hands of potential enemies and terrorists.

For now, the FCC has restricted commercial UWB jobs largely to the 3.1 to 10.6GHz range reserved for satellite transmissions and experimental applications-above the areas where 96% of airwave transmissions are concentrated

Several high-tech giants are already dipping their toes into UWB's waters, including Sony, Motorola, Intel, and DaimlerChrysler. They're joining such UWB pioneers as Time Domain Corp. in Huntsville, Ala., and XtremeSpectrum Inc. in Vienna, Va. Commercial ultrawideband services may be three to five years down the road, but the potential is just too good to resist. And while big players like Sony Corp. avoid projections about a technology that is still untested in the marketplace, wireless consultant Andrew M. Seybold says the applications associated with UWB could add up to a $10 billion market-though such demand could take another 10 years to materialize.

One chief focus of the big electronics companies is linking consumer devices at very high data rates. UWB can deliver hundreds of megabits per second-enough to make it perhaps the odds-on favourite for transmitting video and audio streams to PCs, TVs, and other gadgets around the house. For comparison, today's Bluetooth technology has a ceiling of only 700 kilobits per second. That's too little for even one digital TV channel, which needs at least 2 megabits per second, using heavy signal compression. And the next generation of the popular 802.11 wireless network technology will handle just 54 megabits a second.

Because of the limits the FCC has placed on transmitting power, UWB signals can carry for only about 30 feet. Bluetooth is even more limited, while 802.11 can reach as far as 100 feet. But even 30 feet could foster a lucrative business in home networking-and conceivably, more powerful UWB systems could rival cell-phone coverage in the future.

So potential applications won't stop with homes. Some analysts believe the killer app may be ultrawideband's location-sensing properties. Its sharply timed pulses can be used to calculate distances within a fraction of an inch-far better than GPS, whose accuracy is measured in feet. That explains why DaimlerChrysler chose UWB for a prototype anti-collision device that regulates a car's speed, keeping it from getting too close to a car or slowing it down when another car cuts in front.

Similarly, UWB's radar capabilities could offer a more precise way of locating things behind walls, underground, and inside the body. Motorola, for example, is exploring see-through-the-wall systems for police, fire-fighters, and other public-safety agencies. Relief agencies, meanwhile, would love to get their hands on tools that could spot buried land mines from helicopters. Some of these new applications could employ a related technology that uses even tinier pulses than UWB-trillions of them per second. Such technology, known as terahertz imaging, is already a hot research topic in the U.S, Europe, and Japan.

And from all indications so far, ultrawideband could be the wireless answer to medieval alchemy-a technology for transmuting the limited spectrum into an endless array of new services.

(Source: Internet)

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Internet Humour

A man approached a beautiful woman in a large supermarket and asked, "You know, I've lost my wife here in the supermarket. Can you talk to me for a couple of minutes?"
"Why?" she asked. "Because every time I talk to a beautiful woman, my wife appears out of nowhere"

"We, the members of the IEEE ... do hereby ... agree to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others"

- IEEE Code of Ethics

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This electronic version of the IEEE India Bulletin is an adaptation of the official, printed newsletter. This adaptation has required some minor modifications and restructuring of the original text, to suit its viewing as a webpage.
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