

IEEE India Bulletin Vol. 14 No. 03 September 2004**INDEX****Features**

[|| Chairman's Message](#) || [Editor's Desk](#) || [IEEE News & Events](#) || [Technology in brief](#) ||
[News-Scan](#) ||

CHAIRMAN'S MESSAGE

Dear fellow members,

The IEEE India Council, like other Councils is at the pleasure of its Sections but unlike other Councils do not get any rebate from the IEEE HQ or Region 10. The other Councils under IEEE get a rebate for each member in the Council and IEEE in turn adds an assessment for the Council to each of the member's annual dues. We in India Council have been resisting this extra assessment for the Council for fear that it would over burden the Indian members. So far we have been carrying on with the support of a few Sections, income from ACEs and advertisements. Over the last few years income from ACEs have dried up and the advertisements for the India Bulletin are also not forthcoming. This has been creating a financial crisis for the Council and we came up with a request to each Section in India to contribute 10% of their rebate (usually gained as Bonus for timely reporting to IEEE HQ) for the functioning of the Council. Unfortunately, most sections have not been responding to this and hence the option left is to request IEEE HQ for a Council assessment of 0.5 dollars. In this regard we would appreciate suggestions from one and all.

The IEEE India Bulletin reaches all members every month for the last 14 years or so and it costs us a good money to print nearly 11,000 copies every month. Like the IEEE Institute and the Region 10 Newsletter, we may have to go Electronic and may be print only two issues in an year. This way we may be able to prune our printing expenses. We have to take a hard decision on this as well and hence I request one and all again for valuable suggestions.

Starting in September 2004, IEEE will only accept membership applications and/or renewals from Students via the web. To accommodate this change, paper application forms and renewal forms for Students will no longer be produced.

This past February, the online Student application was enhanced to improve access and to allow students from any school in the world to join IEEE online.

For additional information on this change, please contact IEEE Student Services (student-services@ieee.org).

Looking forward to your active support and participation in IEEE activities and with best wishes and regards,

Mumbai

1September ♦04

R. MURALIDHARAN

Chairman - IEEE India Council

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EDITOR'S DESK

◆ Taking technologies to rural India ◆
Let us make it happen ◆

A non-descript, middle-aged housewife in a village near Kuppam in AP, is the village photographer today, thanks to the inclusive-community initiative of IT-major, Hewlett Packard. i-community programme aims at transforming the lives of ordinary rural citizens using technology, in appropriate and layman-friendly way. In the village photographer initiative, the selected lady is provided with a specially designed, self-contained photography kit that included a digital camera, portable printer, battery, charger, and a solar panel. She goes around the village clicking photographs of the villagers, and providing printouts on the spot. After paying a monthly rent of Rs 400 to HP for the kit, she earns around Rs 500 to 1000 a month.

In another IT-initiative in Kerala's rural sector, traditional, age-old brick & tile industries are retrofitted with temperature monitoring and alerting systems to make them more efficient, through product quality improvement, energy saving etc, leading to overall improvement in profitability. Latest in Electronics and IT are used in this exercise, which empower the traditional rural workfolk to be more productive and accountable.

Rural India is thirsting for such technology infusions and these examples could act as a guiding spirit for many more HPs to turn their eyes to. Uplifting of rural citizens will catapult India into the league of developed nations, the way China is showing the lead.

IEEE can play the catalyst's role, as our members are spread throughout the country.

rivandrum

1 September '04

N.T.Nair

Editor

e-mail: del@vsnl.com

IEEE NEWS & EVENTS

S-PAC at National Institute of Technology, Warangal, AP

[Formerly known as Regional Engineering College, Warangal, India]

The IEEE Student branch at NIT Warangal proposes to conduct a Regional Student Professional Awareness Congress (Regional S-PAC) for the student community in and around Warangal (more specifically students from Telangana Region) on 9th and 10th of October '04, in association with IEEE-Hyderabad Section and NIT Warangal,

IEEE-NITW Regional S-PAC Objectives:

- ◆ To provide a forum for students of various fields of engineering to come together and listen to some of the most prominent personalities in the technology industry and academia today.
- ◆ To help students in and around Warangal to associate with current technical trends and bleeding edge technology.
- ◆ To help students to equip themselves for facing the industrial world in a more confident way through a set of personality development activities.
- ◆ To spread awareness among students about the activities of IEEE and the benefits of the student membership.

A Humble Request:

Success in such endeavors can only be achieved through generous cooperation and support from professional bodies of national and international repute, Industrial community, Academia, Alumni and visionaries of several professional education institutes who wish to provide value-added opportunities for their budding professionals. IEEE-NITW Student Branch requests an early response towards sponsorships, contributions and logistic support.

Looking forward to a positive and encouraging reply,

Dr.G.Vijaya

Assistant Professor and

Counsellor, IEEE Student Branch
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 e-mail : ieesb@nitw.ernet.in

**IEEE INTERNATIONAL CONFERENCE ON PERSONAL
 WIRELESS COMMUNICATIONS (ICPWC-2005)**

January 23-25, 2005, New Delhi, INDIA

CALL FOR PAPERS

Sponsored by : IEEE AES/COM/LEOS India Council Chapter
In cooperation : IEEE Communication Society, IEEE Region 10,
 with IEEE India Council, IETE(India), IEEE Delhi Section
 Ministry of Communications & Information Technology
 Govt .of India
 The Asia Electronics & Info-Communications Union

Conference website:
<http://www.elitexindia.com/icpwc2005/index.asp>

Contact person:

Mr. Vijay Madan, ED, C-DOT Mandigaon Road, Opp.New Mangla Puri, Chatterpur, Mehrauli, New Delhi-
 110 030

madanvijay@yahoo.com

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**CONFERENCE ON
 ♦ENABLING TECHNOLOGIES FOR SMART APPLIANCES♦ - ETSA 2005**

Hyderabad, India, January 12-15, 2005

Website: www.smartappliances.org

<http://ewh.ieee.org/r10/Hyderabad>

Second Call for Papers

Papers describing original unpublished work in areas listed (but not limited to) below, are invited :

- n Software/Middleware for Smart Appliances
- n Networks and Communication Infrastructure
- n Hardware and Embedded Devices in Smart Appliances
- n Security and Privacy Aspects
- n Intelligent Behaviour
- n Applications

Important Dates

*Paper Submission: **October 01, 2004***

*Author Notification: **November 01, 2004***

*Final Manuscript Due: **December 01, 2004***

General Chair: J.A. Chowdary

Conference Secretariat:

Aruna Prashant

Plot No. 249, Prashasan Nagar, Road No. 72,

Jubilee Hills, Hyderabad - 34, India.

e-mail: etsa@pinexe.com, Fax: +91-40-23542931

Phone:+91-40-23542926

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PSG TECH STUDENTS WIN DESIGN PRIZE

Congratulations to the PSG College of Technology, Coimbatore (in Madras Section) students R.Janarthanan, M.Sundar Raghavan, R. Nirmal Kumar and A.Rajasekar, all BE (EEE Sandwich) of 2004 batch for winning the First Prize from IEEE MyronZucker Under Graduate students Design Contest 2004 for their final year BE project Guided by Prof. S Suresh Kumar of PSG Tech.

IEEE WORKSHOP on POWER SYSTEMS OF THE 21ST CENTURY - VARIOUS ISSUES & POSSIBLE SOLUTIONS

NOVEMBER 6-7, 2004

*Organized by*IEEE Delhi Section, IEEE PES-IAS Delhi Chapter and
Dept. of Electrical Engineering, IIT Delhi)Committee Room, EE Department, IIT Delhi
New Delhi-110016(URL: <http://www.ewh.ieee.org/r10/delhi/psscws.pdf>)

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IEEE IAS Technically Sponsored**2004 PCI INDIA CONFERENCE, NOVEMBER 9-10, 2004****(Organized by IEEE Delhi Section and IEEE PES-IAS Delhi Chapter)**

Jacaranda, India Habitat Center, New Delhi-110003

(URL: <http://www.ewh.ieee.org/r10/delhi/pci-india.pdf>)**NEW SENIOR MEMBERS**

IEEE India Council congratulates the following distinguished 15 new Senior Members elevated this month from India.

For information on how your Section or Society can earn cash rewards for nominating Senior Member candidates, see Nominate a Senior Member Initiative at

<http://www.ieee.org/ra/md/sminitiative.html>

Delhi	Komal C. Agrawal		
Delhi	Vinay Gupta	Uttar Pradesh	Pramod K. Kushwaha
Delhi	Ram Singh	Uttar Pradesh	A. K. Saxena
Hyderabad	C.G. Balaji	Calcutta	Prasanta K. Basu
Hyderabad Mishra	Madhavi Kannelur	Calcutta	Pramod K.
Kerala	Prem Kumar	Bombay	Arun G. Bahulkar
Madras	K Ananth Krishnan	Bombay	Kamla Prasan Ray
Uttar Pradesh	Vinod Kumar	Bangalore	Anbarasu Ramasamy

With best regards,

R.Muralidharan

Chair - IEEE India Council

An appeal for Mr. J A Chowdary, candidate for R10 Director-elect post

Our Region, with a membership of close to 60,000, comprising 4 Councils, 64 Sections, 4 Sub-sections, 211 Chapters and 245 student branches, is not only one of the largest, but also intensely active in the IEEE community. It is also one of the fastest growing regions in IEEE. Apart from the keen interest that manifest in technology, we, in this vast geographic region are also a most interesting group of people, culturally, historically, linguistically and perhaps the most diverse of all IEEE regions. Therefore, it calls for a person with the vision, credentials and capability to reach across people, cultures, languages and all other challenges that we encounter.

It is my honor to put forward the candidacy of **Mr. J.A Chowdary, to be our Director-Elect from Region 10 for the year 2005**. I am sure that Mr. Chowdary needs no introduction. We will recall his yeoman service in working closely with the government of India, Industry champions, academia, overseas investors, and heads of multi-national corps, in promoting the IT industry in India. As the founder Director of STPI Bangalore, Hyderabad and Chennai he helped in creating the necessary infrastructure for the software export industry. He is avidly known for ◆getting things done◆, under the most challenging of circumstances, and for bringing the professional IT sector in Hyderabad to come together with a common resolve to collectively succeed. Be it heading Pinexe Systems Private limited, or heading HYSEA, or being the chairperson of TIE, Hyderabad chapter, or, being the Chairman of AMCHAM, Hyderabad region, he has always found time to devote his energies to the common cause

of advancement of new technology in a synergetic way. He has been an outstanding spokesman, for the IT fraternity in Andhra Pradesh, in general, and, Hyderabad in Particular.

Mr. Chowdary is currently the Chairman of the IEEE Hyderabad section. He has been continuing his vigorous campaign to make the Hyderabad Section, one of the most vibrant. His services to this Section are well known to each of its members.

During the time that Mr. Chowdary has been Chairman, he strove to promote strong industry-academia relationships. In an age when rapid changes in technology is common place, time to design and deliver is shrinking, Costs being driven down, the chasm between need and availability of requisite skill ever growing, I firmly believe that a proactive, strong and inter-dependant relation between the two segments is a dire need. In fact it is the only way we can better manage technology, products and cost. Mr. Chowdary has focused on this particular aspect in this section, and it would be a dream come true to see this extended to the entire region. I see enormous potential, in the IEEE community that can be tapped effectively through a strong industry-academia interaction. For this to happen, I find in the person of Mr. Chowdary, a visionary, a statesman and a person with a firm resolve to bridge this gap. I am sure he can extend his capabilities to the entire region.

I would like to appeal to each of you to cast your vote in favor of Mr. J.A.Chowdary to be the Director ◆ Elect for Region 10. I am sure that he has the necessary qualifications, experience, credentials and above all our faith and trust in him to deliver on issues that will have a significant impact on the whole region,

1. *Creating avenues for Industry and Academia associations, Student and professional relationships, cutting across geography*
2. *Encourage Sponsorships and work out Positive relationships via these sponsorships.*
3. *Starting of Specific Interest Groups (SIG) for the common cause of the region*
4. *Broaden spectrum of workshops, conferences and seminars to promote interaction between the sections and members, cutting across cultures, languages and geographies.*
5. *Voice ideas, thoughts and plans of the region across IEEE*
6. *Increase membership in the region by reaching out to non-members*

Your vote is precious. Let us get Mr. J.A.Chowdary elected.

Dr.M. Vidyasagar, Fellow of IEEE, Hyderabad.

Technology in brief

HUMAN BODY AS A COMPUTER BUS

Microsoft has succeeded in patenting the human body as a computer network. US Patent 6,754,472, issued to the company on June 22nd, is for a ◆method and apparatus for transmitting power and data using the human body◆.

At the moment, experts who want to create a so-called personal area network (PAN) have to link their personal electronic devices◆mobile phones, pagers, PDAs and so on◆using infra-red or radio signals. What Microsoft is proposing is to use the skin◆s own conductive properties to transmit the data needed to create such a network. And the firm does not stop at people. A ◆wide variety of living animals◆, it says, could be used to create computer buses, as they are known technically, in this manner.

Many people today carry a range of portable electronic devices, each with its own keypad, speaker, display, processing unit and power supply. The idea behind the patent is to get rid of some of these items. If such gizmos were networked, it would be possible to have, say, just one keypad for a mobile phone, an MP3 music player and a PDA. The keypad might even be a person◆s forearm. As the patent puts it, ◆The physical resistance offered by the human body can be used in implementing a keypad or other input device as well as estimating distances between devices and device locations. In accordance with the present invention, by varying the distance on the skin between the contacts corresponding to different keys, different signal values can be generated representing different inputs.◆ In other words you can, in theory, type on your skin.

Microsoft suggests using the body to generate power for the network, too. A ◆kinetic power converter◆ in the wearer◆s shoe or wristwatch would produce electricity in the same way thatn old-fashioned self-winding watch extracted energy from its owner◆s normal movements.

The patent points out that networked portable devices which employ infra-red or radio-frequency communication have limitations. Radio devices use a lot of power, and are prone to interference from others operating on similar frequencies. There are also fears that people might be able to hack into them or, at the least, listen in. Infra-red communication suffers the same problems, but has the additional limitation of requiring a direct line of sight between objects◆as anyone who has tried to operate a television remote control with someone else standing between him and the television will know. Microsoft claims that its approach of ◆near field intrabody communication◆ does not suffer from these problems, and provides a secure way to transfer data between devices.

It all sounds very revolutionary, but Microsoft is not (as is often the case with the firm◆s ◆innovations◆) actually the pioneer in the field. The Massachusetts Institute of Technology◆s Media Laboratory and IBM jointly developed the idea of using the human body as a personal network nearly a decade ago. The first prototype PAN, which was demonstrated at the Comdex trade show in 1996, showed how two people could transmit business-card details to each other electronically, via a

handshake. Little has been done since then to take the technology forward, and most people seem satisfied with the capabilities provided by radio-frequency PANs such as Bluetooth.

Microsoft is keeping its cards close to its chest, and has declined to comment on how, exactly, it intends to develop its patent into something that people will actually want to buy. Some of the features of Microsoft's PAN would put off even the most avid technophile—the most obvious being the problem of how the electronic devices it links up are themselves to be attached to the body. The patent suggests a pair of electrodes, attached to the skin, for each device. The trade-off between eliminating redundant input/output devices and the inconvenience of having to attach dozens of electrodes to your skin does not obviously favour the latter. Still, you have to admire them for trying.

SENSECAM TO STORE TRILLION BYTES

"In a keynote speech to the recent World Wide Web conference in New York, Microsoft's head of research Rick Rashid described what consumers might do with a terabyte of data storage that costs around \$1,000, and is capable of holding more than 1 trillion bytes of computer data.

'You can store every conversation you have ever had, from the time you are born to the time you die,' Rashid said.

A person could have a snap picture with a 180-degree fish-eye view of one's surroundings for every minute of every day for the rest of one's life.

Microsoft researchers in the United Kingdom have built prototypes of such a life-recording device called SenseCam. They are gearing up for a second generation of photo capture systems no bigger than a necklace pendant, Rashid said.

Editorial Board

Er. N.T. Nair Editor

Prof. V.K. Damodaran Member

Er. J. Muraleemohan Lal Member

IEEE India Bulletin Website:

[http:// www.ewh.ieee.org/r10/india_council](http://www.ewh.ieee.org/r10/india_council)

News - Scan

BUSINESS DOWNTIME & SECURITY THREATS

There's bad news on the information-security front. Hackers are gaining ground again. Despite more spending on security technology, attacks are up for the first time in three years and downtime has increased. Business-technology and security managers are growing increasingly frustrated as attacks become more sophisticated in nature — moving from the more basic data and network layers, to targeting transport and application layers. Security breaches and malicious code are more of a threat this year than last year, according to 81% of the 7,000 business-technology and security professionals from more than 40 countries who participated in the InformationWeek Research 2004 Global Information Security Survey. The costs are high. Research firm Computer Economics calculates that viruses and worms cost \$12.5 billion worldwide in 2003. The U.S. Department of Commerce's National Institute of Standards and Technology says software flaws each year cost the U.S. economy \$59.6 billion, including the cost of attacks on flawed code. As a result of the growing number of attacks, downtime is up. The number of companies worldwide that report downtime of four to eight hours because of attacks increased from 18% to 22% year over year. Those experiencing eight to 24 hours of downtime also rose from 18% to 22%. And the number of companies that say their systems were down for one to three days because of attacks increased from 7% in 2003 to 16% in 2004. More businesses are suffering. In 1998, 50% of those surveyed reported no attack-related downtime. This year, only 6% make such acclaim. The problem is getting worse as the bad guys find more ways to infiltrate business-technology systems. As more businesses deploy peer-to-peer networks, instant messaging, wireless local area networks, and extended supply chains and provide an increasingly dispersed workforce with more mobile devices and ways to access systems remotely, there are more avenues than ever for hackers, worms, and viruses to penetrate computer systems and networks.

"We, the members of the IEEE do hereby agree to be honest and realistic in stating claims or estimates based on available data" - IEEE Code of Ethics

Administrivia:

This page last modified on: 08-10-2004

Send your comments about this page, to : s.gopakumar@ieee.org

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