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CHAIRMAN'S MESSAGE**ACE 2003 in Pune on 12 to 14 Dec 2003 with the theme "Emerging Technology Trends"**

Dear fellow members,

India Council's hearty congratulations to the four distinguished Senior members Mr. H L Bajaj, Mr. S Ramadorai, Dr Surendra Pal and Prof. P Jalote who have been elected to the highest member grade of IEEE Fellow w e f Jan 01, 2004. In this regard the IEEE President states "Recognizing the achievements of its members is an important part of the mission of the IEEE. Each year, following a rigorous evaluation procedure, the IEEE Fellow Committee recommends a select group of recipients for one of the Institute's most prestigious honors, election to IEEE Fellow."

With this, we now have 30 Fellows and 633 Senior members in India. This is too small for our membership and hence I request all of you to come forward with suggestions/actions.

It's possible that by the time you receive this Bulletin by snail mail, ACE 2003 is in progress. The response to Call for Papers was excellent with 80+ quality papers from various parts of India and some from abroad. The MVC SPC has concluded and winners announced. The Bombay Section along with Pune sub section is doing a tremendous task of making ACE 2003 a big success and thus bring in visibility for IEEE in India.

It's customary to call for an India Council AGM during the ACE. Over the years it's been noticed that nobody other than the some of the Council Execom members participate. Considering the fact that it's next to impossible to travel from all over India for an AGM, it's proposed that we will do away with AGMs for the India Council. This might need amendments in the Byelaws of the Council which will be taken up in due course of time. I would appreciate your views on this proposal.

During the IC Execom meet concurrent with the R10 meet in Penang, it was resolved that each Section would financially support the Council and for this the Section would seek approval from the respective Execom and/or AGM. I request you all to take up this issue seriously and come to a proper decision at the earliest possible. The Council is looking forward to a positive step in this matter.

Looking forward to your active participation in ACE 2003,

With best regards,

R. MURALIDHARAN

Chairman - IEEE India Council

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This Section is sponsored by IEEE UP SECTION

Code of ethics:

"We, the members of the IEEE...do hereby... agree to accept responsibility in making engineering decisions consistent with safety, health and welfare of the public, and to disclose promptly factors that might endanger the public or the environment.."

-IEEE Code of Ethics

EDITOR'S DESK

'Pride of Work – Let us Enjoy it'

This incident was narrated by a CEO who travels all around the world. Once he was in a hotel in Brussels and after the usual daily chores he went out for work, leaving the room in total disarray. When he returned to the room in the evening, he found it to be well laid out and spotlessly clean, as is the case in any class hotel. But what he noticed as totally unique this time was a handwritten card prominently displayed on his table. It said something like this 'The room has been done by me and for any short comings, I am solely responsible. I can be contacted in phone no....' But everything was in ship-shape and there was no need to contact her, except to convey his deep appreciation for a job meticulously done.

Once I happened to be in a conference and could not but notice the person serving tea to all the participants. Fully aware of the importance of the high level discussions taking place in that hall, he came in opening the door, taking special care not to make any noise at all. Then he went about placing the tea cups on the table in positions most convenient for each person to handle, without the usual rattling sound of cups and saucers, and with least disturbance to the people in discussions. Probably, I would rate him as one of the best tea-servers. He knows his job well and takes pride in doing that work most efficiently and effectively. Perhaps, he may be honing up his skills in tea serving everyday to improve further.

This could apply equally well in all walks of life – every one striving continuously to improve their performance in the chosen field of activity. Widening the domain knowledge through continuous learning, acquiring new skill sets which will enhance productivity, and such other performance-enhancers could well be in the agenda of daily activities. In the highly competitive job market existing today, those who have an edge over others will easily come out winners. But then, it requires continuous value-addition to oneself.

Trivandrum

1 Dec. '03

N.T.Nair

Editor

e-mail:del@vsnl.com

" The highest intellects, like the tops of the mountains, are the first to catch and reflect the dawn"

-Lord Macaulay, British Historian

IEEE NEWS & EVENTS

IEEE ACE 2003

29th Annual Convention and Exhibition of IEEE India Council

Theme: EMERGING TECHNOLOGY TRENDS
12, 13 and 14 December 2003, Hotel Le Meridien, PUNE
Watch the India Council website for further details:
www.ewh.ieee.org/r10/india_council

IEEE INDIA COUNCIL
M.V. CHAUHAN STUDENTS' PAPER CONTEST 2003

Prof. S.C. Gupta

email: s.c.gupta@ieee

M.E., PhD, SMIEEE

Chairman SAC

IEEE India Council

Phone: 0542-2575177

November 28, 2003

This contest is organized in the memory of Mr. M.V. Chauhan, Past Region 10 Director, who left us on April 10, 1991. He was instrumental in giving a big push forward to Students activities in the IEEE. During his period, both the Madras Section and the Region 10, with **twenty-two** and **one hundred** Student Branches respectively, occupied the **first position** in the World.

The MVC Student Paper Contest is open to IEEE Student members. The first Contest was held in August 1992. In addition to three prizes of Rs. 6000, 4000 and 3000, the top three prize winners are invited to present their papers at the Annual Convention and Exhibition (ACE) of the IEEE India council. ACE - 2003 is scheduled at Pune during December 12-14, 2003.

For the contest this year, **Fifty Seven** papers from **Thirty Three** Institutions were received. Each paper was read and evaluated by four judges. Participants ranged from under-graduate students to research scholars. As many papers of very high quality couldn't be included for prizes, the judges have, in addition, recommended **fifteen** papers for **Merit Certificates**.

The Students' Activities Committee of the IEEE India Council congratulates authors of the prize-winning papers and the winners of Merit Certificates. We thank all the participants for their excellent effort and wish them best in their future endeavors.

The contest could not have succeeded without the efforts and encouragement of various officials of the IEEE. Special thanks are due to the Counselors of the IEEE Students Branches and administrative officials of the participating Institutes.

Results:

First Prize: "Traffic Surveillance and Crime Investigation Using Techniques Inspired from the Nature", Viswanathan V. V. B., Thiagarajar College of Engg. Madurai, balajiviswanathan@yahoo.com

Second Prize: "Music Instrument Recognition: From Isolated Notes to Solo Phrases", Krishna A.G., Indian Institute of Science. Bangalore, krishna@protocol.ece.iisc.ernet.in

Third Prize: "A Novel System for Speaker Independent Isolated Word Recognition", Badhrinarayanan M. V., Janarthanan R. and Mohan C. K., PSG College of Technology, Coimbatore, jana_sundar@yahoo.com

Merit Certificates:

"Single Chip QPSK Demodulator", Mundra A.

A Simulation Study on modeling the MIMO propagation channel using the 3GPP/3GPP2 Spatial Channel Model", Agarwal R.

"Real Time Texture Defect Detection using Sub-Band Domain Feature Extraction", Mohan C. K., Janarthanan R. and Raghavan M. S.

"Robust Digital Image Watermarking using Selective Embedding", Bisla V.

"Adaptive Wavelet LMS Network for Thermocouple Modelling", Archana R., Jyothi K. and Veena V.

"Simplified Peripheral Functional Neurosimulator Design to Restore Partial Functionality to Neurons", Kathirvel B., Pavithra D. and Sugirtham N.

"Analysis of Statistical Tests and Fuzzy Techniques in Diagnosis of Epilepsy from EEG Signals", Bharathi P. A. and Beena V.

"Traffic Control Using Image Processing", Vijeth R.

"Modelling of Charge Dynamics in Single Layer Organic Light Emitting Diodes", Panwar Deepak and Sharma Deepak.

"Trancranial Doppler Device: Validation", Harsha M. S.

"Analysis of Minimum Selection GSC in Rayleigh Fading", Gupta Pranay.

"A Simple, PSPICE Simulation Based, Small Signal Analysis of Resonant Converters", Janarthanan R. and Raghavan M. S.

"Implementation of 2D Wavelet Transform in Digital Signal Processor via Lifting Scheme", Andiappan, R. and Radhakrishnan V.

"Speech Recognition Using Neural Networks", Kumar R. Y., Selvam S. P. and Shanmugam, S.

"Developing Anytime Algorithm", Santhanam Prasanna

OBITUARY

**We report with profound sorrow the untimely demise of one of our active IEEE volunteers,
Shri.PRADEEP MADAN**

May his soul rest in peace

IEEE India Bulletin

The International Engineering Management Conference 2004 **(IEMC2004)**

At Singapore in October 2004. This is organized by IEEE, IEE Professional Management Network (UK) and IEEE EMS Singapore Chapter. First call for papers has been announced. Website: <http://www.iemc2004.org>

Seminar on

"IMPACT OF INDIAN ELECTRICITY ACT 2003"

Organized by India Council's IEEE Power Engineering Society Chapter

At Surya Hotel, Vadodara, Gujarat State

Sunday, 28th December 2003

Inauguration by **Smt. Jayavantiben Mehta**, Hon' able Minister of State for Power, Govt. of India

Keynote Speaker: **Mr. N.K. Singh**, Member, Planning Commission, Govt. of India

Time: 9.30 AM to 4.00 PM

Registration Fee: Rs 250

Contact: Hasmukhbhai Shah

Chairman, India Council's IEEE Power Engineering Society Chapter

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Prof. Ramgopal Rao named Editor

Prof. Ramgopal Rao, a member of IC Execom and Chair of the IEEE AP/ED Bombay Chapter has been appointed an Editor of IEEE Transactions on Electron Devices for the area of CMOS Devices and Technology. This is a signal achievement, as the Transactions is the leading international journal in the area of electron devices and microelectronics.

[Reported by Prof. J. Vasi]

Congratulations !

IEEE India Council

Technology in brief

In lighter vein

Car Vs Computer

At a COMDEX, Bill Gates reportedly compared the computer industry with the auto industry and stated: "If GM had kept up with technology like the computer industry has, we would all be driving twenty-five dollar cars that got 1000 miles to the gallon." In response to Bill's comments, General Motors issued a press release stating: If GM had developed technology like Microsoft, we would all be driving cars with the following characteristics:

1. For no reason whatsoever, your car would crash twice a day.
2. Every time they repainted the lines on the road you would have to buy a new car.
3. Occasionally your car would die on the freeway for no

- reason, and you would just accept this, restart and drive on.
4. Occasionally, executing a maneuver such as a left turn, would cause your car to shut down and refuse to restart, in which case you would have to reinstall the engine.
 5. Only one person at a time could use the car, unless you bought "Car95" or "CarNT." But then you would have to buy more seats.
 6. Macintosh would make a car that was powered by the sun, reliable, five times as fast, and twice as easy to drive, but would only run on five per cent of the roads.
 7. The oil, water temperature and alternator warning lights would be replaced by a single "general car default" warning light.
 8. New seats would force everyone to have the same size butt.
 9. The airbag system would say "Are you sure?" before going off.
 10. Occasionally for no reason whatsoever, your car would lock you out and refuse to let you in until you simultaneously lifted the door handle, turned the key, and grab hold of the radio antenna.
 11. GM would require all car buyers to also purchase a deluxe set of Rand McNally road maps (now a GM subsidiary), even though they neither need them nor want them. Attempting to delete this option would immediately cause the car's performance to diminish by 50% or more. Moreover, GM would become a target for investigation by the Justice Department.
 12. Everytime GM introduced a new model car buyers would have to learn how to drive all over again because none of the controls would operate in the same manner as the old car.
 13. You'd press the "start" button to shut off the engine.

Intel to expand Centrino to mobile devices, consumer electronics

Intel late last week offered a glimpse at the next generation of the company's WiFi chip strategy. Intel first said it plans to expand Centrino to include more mobile devices and other consumer electronics gadgets. The company plans to introduce 'ultra low power' WiFi chips in 2004. These chipsets will extend Centrino WiFi connectivity to smaller devices while helping to extend their battery life. In addition to expanding into smaller devices, Intel also said it will add software to Centrino-equipped notebooks that will allow the devices to act as WiFi Access Points (APs). The new technology will convert Centrino-enabled notebooks into mesh-networked APs. The software is expected to ship on Centrino notebooks starting sometime by the middle of next year. Analysts see Intel's embrace of mesh networking as problematic and potentially disruptive. The move will only add to concerns about WiFi access and security, prompting many security-obsessed enterprises to question (and possibly block) the new feature. The move could also hurt AP vendors, reducing the demand for APs and other WLAN networking gear.

Library Scan

"The Delta Project" – Discovering New Sources of Profitability in a Networked Economy

Book by: **Arnoldo C. Hax and Dean L. Wilde II**

Published by: **PALGRAVE**

The book provides a new organizing framework to develop strategy and manage in the new economy. The rules for success have changed as a result of globalization, deregulation, market fragmentation, the emergence of the Internet infrastructure and the wholesale digitization of information.

New business models and business strategy are required to secure and sustain competitive position. The authors identify three distinct strategic positions that can be used to realign the direction of a business. Introducing new models of 'bonding', 'complementors' and 'customer lock-in',

this book provides a fundamental shift in the way that we think about competitive positioning and is expected to influence the way that companies will solve these questions.

“The Wireless Challenge”

BusinessWeek(Asia Edition) magazine, October 20, 2003 issue

The cover story, ‘The Wireless Challenge’, in this issue looks at the take over by the mobile phones, and the emergence of the Internet telephony as the wave of the future. Other related topics covered include ‘A futuristic Mobile Phone’, ‘Talking Over the Net’, ‘Latin America Cuts the Cord’, and ‘America’s Wireless Evolution’.

“ Shaping India of our Dreams”

Book by: **K.C. Agrawal ***

Published by: Knowledge Books Inc., Noida – 201 303

This book is an attempt to explore ways to strengthen India economically, politically and spiritually and make it one of the most powerful and flourishing nations of the world in the coming decades. It analyses the factors responsible for the ramshackled state of affairs in the country today as a result of many a malaise – misgovernance, dwindling economy, corruption, industrial failure, to name a few.

Giving vital facts and figures garnered through intense research, the book points out how and why India lags behind in rural development, population control, reform of education, water management, disaster management, power generation, tourism, environmental issues, and reform of police, judiciary & defense services, and presents insightful and thought-provoking suggestions on how the situation can be remedied.

* K.C.Agrawal is a member of IEEE

News - Scan

Camera phones are becoming popular

There was a story out of the recent Comdex, reported by [USA Today](#), that said cell phones with cameras are the fastest-growing consumer technology ever.

According to [research group IDC](#), 80 million camera phones have been sold worldwide since their introduction three years ago. IDC estimates that six million camphones have been sold in the U.S., where they were introduced about a year ago. Even more surprising: This year, camphones are expected to outsell digital still cameras, 57 million to 44 million.

By comparison, the previous all-time fastest growing consumer technology was the DVD player, which sold 30 million units in its first three years on the market following its 1997 introduction, according to the Consumer Electronics Association.

To be fair, the comparison between DVD players and camera phones isn't exact. For example, the estimates for DVD sales should include PCs with DVD players. Also they should be measured on a "households" basis: While a given household might have two or more camphones, how many DVD players does any one family need?

Also, DVDs competed directly with another technology--VCRs--that everybody already owned; it wasn't until a critical mass of DVD media appeared that the players seemed worth owning. And people don't replace their video players--cassette or DVD--as often as they buy new cell phones, which seem to have about an 18-month lifespan before they're lost or rendered obsolete by new technologies.

More fundamentally, phones with built-in cameras are one of those technologies that people adopt not because they choose to but because it's hard not to. If the camera functionality is essentially free, why not buy a handset with it, even if you don't really want or need it?

Silver –The Safe Metal

Of late, silver is again back in limelight with medical companies looking at new ways to use silver's bactericidal properties in products like surgical threads, bandages and doctor's coats. Giants like Dow Chemical, Dupont and Smith & Nephew are pouring money into manipulating silver and other agents for use in antibacterial textiles. A small company, Noble Fibre Technologies of Pennsylvania, however, has a head start. Their silver-coated fibres, under the X-Static brand, has been licensed to more than 100 manufacturers. Besides its bactericidal abilities, X-Static acts as an antistatic and as a good thermal regulator, two other notable properties of the metal.

Simply put, silver kills bacteria by strangling the little buggers. In a warm, moist environment, silver ions, which are highly "bioreactive"- meaning that they're itching to combine with other substances - bind with proteins inside and outside bacterial cell membranes. This inhibits cell respiration and reproduction. (Don't worry: Silver ions don't easily penetrate mammalian cell walls) The warmer and moister an environment is, the more effective the reaction, which explains the suitability to workout gear. The U S Army last year bought 5.5 million pairs of socks containing X-Static, after soldiers wear-tested products from six manufacturers. In the 2002 winter Olympics, five teams wore uniforms made with X-Static fibres.

Applications in the medical field are far reaching. Antimicrobial bandages are popular in the global \$2 billion wound-care market: Among other plusses, they make possible less frequent bandage-changing for burn victims. Meantime scientists are developing antibacterial wallpaper, shower curtains, even paper products - useful against anthrax and other infectious diseases.

Some Silver History: No one knows when silver was discovered, but legend has it that even the ancients knew of its purifying power: 2500 years ago Cyrus the Great, king of Persia, commanded that all his troops carry water in silver jugs, since the drinking supply remained cleaner in silver than in any other container. Silver nitrate, prescribed as a medicine during the Roman days, was listed in a pharmacopoeia published in Rome in 69 B.C. It was reported as early as in 78 A.D. that silver has healing properties and is extremely effective in causing wounds to close up.

Wealthy Romans used silver goblets and silver eating utensils, and not only because the metal was a sign of affluence: Upper-class families held silver spoons to their babies' mouths to ward off diseases. " Back then, no one knew exactly how silver worked," says Dr. A. Bart Flick, an orthopedic surgeon and wound-specialist of Georgia, who routinely uses silver as a topical treatment.

In more recent times, silver has been used to prevent eye infections in newborns and treat burns. (Courtesy: Forbes Global)

Engineering – A Definition

Dr. Nicholas Murray Butler

It is the direction of the sources of the power of Nature for the use and convenience of men. It is the link, the bridge between men and Nature; a bridge over which man passes to get into Nature to control it, to guide it, to understand it, and the bridge over which Nature and the forces pass to get into man's field of interest and service.
