

IEEE India Bulletin Vol. 12 No. 10 October 2002**INDEX****Features**

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CHAIRMAN'S MESSAGE

Dear Fellow Member,

While on one hand we are growing in student membership opening new student branches in practically all the sections, on the other hand some of the student branches are also getting closed because of lack of membership, not meeting the minimum number criteria. We should try to arrest this. Mr. H Kalyanasundaram, our ageless energetic REP Coordinator has already sent the data on this to all the section chairs giving the details of the closed student branches. I would like to request all the section chairs and the Branch Counsellors to please ensure that the closed branches are revived and in future no branch be allowed to close. I know there are some demotivating factors like enhanced membership dues from 2003 but we may still try to retain the branches. For this we have to motivate the students by encouraging them to organize more activities and giving adequate financial support from the sections.

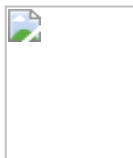
One of the events which is organized every year by the India Council to encourage the students is the M.V.Chauhan Student Paper Contest (in the memory of Late Shri M.V. Chauhan, Director Region 10 in 1989-90). We invite all the students to participate in it and give cash rewards to the First, Second and Third Prize Winners. These winners are also invited with all expenses paid to present their papers in the Annual Convention & Exhibition (ACE) which this year will be held at Kolkata in December 2002. Circular for MVC Student Paper Contest has already been sent to all the sections and their student branches. You may also give publicity so that more and more students could participate. For more details, Dr. S.C.Gupta, Vice Chair (Student Activities) India Council may be contacted at s.c.gupta@ieee.org.

I would again like to remind you for your support to ACE 2002 to be held in Kolkata in Dec. 2002. So far there has been a good response and the West Bengal Governor is likely to inaugurate it. For more information, you may contact Prof. Nirmalendu Chatterjee, Chairman, Calcutta Section at nirmalendu@ieee.org. The details of ACE 2002 are being published in this newsletter also regularly.

With best wishes,

Noida
1 Oct. '02

Promod K.
Srivastava
Chairman
India Council, IEEE



E-mail : pks@ieee.org

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Quotation

'Let advertisers spend the same amount of money improving their product that they do on advertising and they wouldn't have to advertise it.'

-Will Rogers

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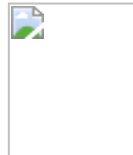
EDITOR'S DESK

'You have not had thirty years' experience. You have had one year's experience thirty times''

These words from the English novelist, J.L.Carr point to a new thinking in the corporate world, where experience has so far been counted by the number of years one has spent on the job. In the present, ever changing techno-managerial scenario, such claims on long years of routine experience will not make much sense. What is relevant today is exposure to the latest technologies and their applications. Often the working environment may not provide the right opportunities to learn the emerging trends and therefore will require other means to acquire the new knowledge. Professional societies like IEEE and the workshops, seminars etc organized by them could be the input sources for such learning. Practicing engineers, if they have to remain employable all the time, will have to come out of the 'one year's experience thirty times' syndrome through a continuous learning process. Information Technology is making in-roads into all facets of industrial and business activities, giving them the benefit of its capabilities to improve efficiency and productivity. Being new technologies, it is very unlikely that the existing contingent of engineers with long years of association with the organization would feel at home in the modernized set up. The only way to survive in such situations is to embark on a quick learning exercise as otherwise the younger genera-tion with the latest know-how would easily displace them.

Trivandrum
1 Oct. '02

N. T. Nair
Trivandrum Editor
[email: del@vsnl.com](mailto:del@vsnl.com)



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by

IEEE UP SECTION

**IEEE INDIA COUNCIL
M.V. CHAUHAN STUDENTS PAPER CONTEST 2002
OPEN TO: - STUDENT MEMBERS OF IEEE
TOPIC: - ANY SUBJECT IN THE AREA OF INTEREST TO IEEE
LAST DATE: - 18TH OCTOBER 2002**

**PRIZES: -
FIRST : - Rs. 6000
SECOND : - Rs. 4000
THIRD : - Rs. 3000**

- IN ADDITION, CERTIFICATES WILL BE AWARDED TO THE AUTHORS OF THE SELECTED PAPERS.
- FIRST AUTHOR OF THE THREE PAPERS WILL BE INVITED FOR PRESENTATION AT ACE 2002 TO BE HELD IN KOLKATA ON DEC. 20TH AND 21ST.

RULES AND GUIDELINES

- THE CONTEST IS OPEN TO ALL STUDENT MEMBERS OF IEEE IN INDIA
- PAPERS IN ANY SUBJECT OF INTEREST TO IEEE MAY BE SUBMITTED
- THE NO. OF AUTHORS OF ANY PAPER SHOULD NOT EXCEED THREE.
- A STUDENT CAN BE AN AUTHOR IN MORE THAN 1 PAPER
- PAPERS SHOULD BE NEATLY TYPED ON BOND QUALITY PAPER IN 1.5 SPACING.
- LENGTH OF THE PAPER SHOULD NOT EXCEED 10 TYPEWRITTEN PAGES.
- EACH ENTRY SHOULD HAVE A TITLE PAGE GIVING THE AFFILIATION OF THE AUTHOR(S), HIS/HER IEEE MEMBERSHIP NO. AND AN ABSTRACT NOT EXCEEDING 200 WORDS.
- PLEASE MENTION YOUR FULL ADDRESS, CONTACT TELEPHONE NO. AND E-MAIL ADDRESS ON THE COVER PAGE OF THE PAPER.
- EACH ENTRY SHOULD BE ACCOMPANIED WITH A DECLARATION BY THE AUTHORS THAT THE WORK PRESENTED HIS/HER OWN.
- A DECLARATION FROM THE BRANCH COUNSELER SHOULD ACCOMPANY EACH ENTRY IN THE FOLOWING MANNER

- IT IS CERTIFIED THAT THE AUTHORSARE IEEE MEMBERS AND THE PAPER SUBMITTED ENTITLED.....IS THE AUTHOR'S OWN WORK AND ELIGIBLE FOR CONSIDERATION IN THE M.V.CHAUHAN STUDENT PAPER CONTEST 2002, IEEE INDIA COUNCIL.
- IN CASE THE INSTITUTION DOES NOT HAVE A STUDENT BRANCH, THIS DECLARATION SHOULD BE SIGNED BY A FACULTY MEMBER WHO IS AN IEEE MEMBER OR THE PRINCIPAL.
- IN ADDITION TO THE HARDCOPY OF THE PAPER, ELECTRONIC SUBMISSIONS THROUGH E-MAIL ATTACHEMENTS ARE ENCOURAGED.
- TRAVEL ASSISTANCE WILL BE PROVIDED TO THE FIRST AUTHOR OF THE THREE PRIZE WINNING PAPERS FOR PRESENTATION AT ACE 2002.

SUBMIT YOUR ENTRIES TO: -
PROF. SURESH C.GUPTA,
(CHAIRMAN, STUDENTS ACTIVITIES COMMITTEE)
DEPARTMENT OF ELECTRICAL ENGINEERING,
INSTITUTE OF TECHNOLOGY,
BANARAS HINDU UNIVERSITY,
VARANASI -221005. E-Mail:- mvc_2002@indiatimes.com

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News - Scan

3-Point Seat Belt

It wasn't the Crash Test Dummies who convinced a skeptical American public that the 3-point lap/shoulder safety belt was the safest way to go in automobiles. It was a video of a "crash cart" with an egg strapped in that made the case to the U S Consumer Safety Commission for Nils Bohlin, safety engineer for Volvo in Gottenberg, Sweden. For Bohlin knew when he came to America in 1968 to present his work that creating acceptance for his belt and, more importantly, for wearing it was as important as the design for the device itself.

Ten years before the egg cart demonstration, in 1958, Bohlin was recruited to Volvo by its then-president, Gunnar Engellau, with a mandate to make safety a principal selling point in the company's cars. Coming from the aerospace industry, Bohlin had seen the stresses that a human body undergoes in high-speed crash situations, and he understood the limitations of restraint devices, particularly that were cumbersome, uncomfortable and difficult to use. Following a year of extensive testing and re-engineering, his breakthrough came with the realization that both the upper and lower body must be held securely in place with one strap across the chest and one across the hips, with the joint for the two belts located just next to the occupant's hip. It was an elegant solution, so simple that a person could buckle up with just one hand and be comfortable in the process.

The 3-point seat belt has now been added to the Hall of Fame.

Longest Traffic Jam

The longest traffic jam, ever recorded, occurred on the French Motorway between Lyon and Paris on 16 February, 1980. It tailed back for 176 km (109 miles).

Angry ?

Help is finally on the way to try and reduce the common and considerable anger people have with call centres, from having to fight through voice menus to being played music before being able to talk to anyone. Now, one US firm, Mitel Knowledge, has been given a patent for a special "mood analyser" that will detect such things as angry tones, swearing or how hard a caller is pounding on a telephone keypad. The "anger management" system will then route particularly irate customers off to specially trained and soothing operators.

**The International Conference on Agile Manufacturing for Cleaner
Products and Sustainability - Internet Solutions (ICAM-2002)
15-17 December 2002**

Organized by: **The Centre for Agile Manufacturing Research and Development**
Bangalore University, K.R. Circle, Bangalore - 560 001, India
and **World Federation of Engineering Organisation**

For Details: **Dr. M.P. Chowdiah**, UGC Professor & Hon. Director, Centre for Agile
Manufacturing,
Research and Development, Bangalore University, Department of Mechanical Engineering,
UVCE, K.R. Circle,
Bangalore - 560 001, India, Phone: 2275396 (O), 6632397 (R); Fax: 0091-080-2275396;
e-mail: chowdiah@bgl.vsnl.net.in; Website: csic.iisc.ernet.in/ICAM_2002

**The Digital Declaration of
Interdependence**

Al Gore, former Vice President of USA, in his address to the International Telecommunications Union (ITU) on 12 October 1998, posed five great challenges, called the digital declaration of interdependence, that can create a brighter world for us all.

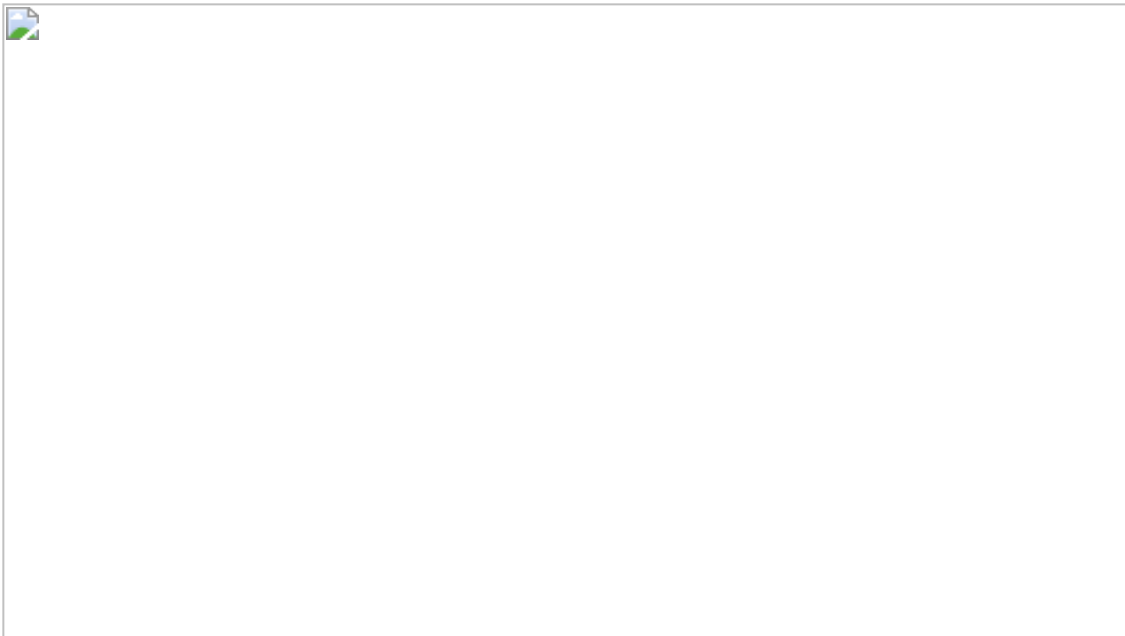
1. We must improve access to technology so every one on the planet is within walking distance of voice and data telecommunications services within the next decade.
2. We must overcome our language barriers and develop technology with real-time digital translation so anyone on the planet can talk to anyone else.
3. We must create a Global Knowledge Network of people who are working to meet our most important challenges in education, healthcare, agricultural resources, sustainable development, and public safety.
4. We must use communications technology to ensure the free flow of ideas and support democracy and free speech.

We must use communications technology to expand economic opportunity to all families and communities around the globe.

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IEEE NEWS & EVENTS

**PES Chapter IEEE Kerala Section
Tutorial on High Reliability Power System Design**



From L to R: Kene M. Matsuda, Dr. Madhu Mangal, N.T. Nair,
Dr. P.S. Chandramohanan Nair and Simon P. Varghese

The Power Engineering Society Chapter of IEEE Kerala Section organized an one-day Tutorial on High Reliability Power System Design at Trivandrum on 24th October '02, under the IEEE Distinguished Lecture Programme with Mr.Keene M. Matsuda as the expert. A senior Electrical Engineer in the Design and Construction group with CH2M HILL, an international consulting company in California, Mr Matsuda has over 20 years of experience in the design of electrical power systems for a wide range of projects like cogeneration power plants, highway and tunnel lighting, mass transit, intelligent transportation systems, wastewater treatment plants, airport runway and taxiway lighting, etc. He is a senior member of IEEE and currently serves on the PES Governing Board as a regional representative for USA and Canada. He is a member of the IEEE/PES Working Group on Distributed Resources Integration.

Reliability of Power System is an essential requirement for normal life in the modern world. Without a high degree of reliability and redundancy, continued operation and safety of personnel and equipment would be at risk. Basic factors for a highly reliable power system design include the following:

- Primary power sources - utility
- Alternate paths of power/ redundancy
- Automatic restoration
- Backup power sources - standby or emergency

In the Tutorial, he discussed each of these concepts as they apply to real-life projects that had requirements for a highly reliable power distribution system. In order to increase reliability, one simplistic approach would be to design added layers of redundancy and alternate paths of power to anticipate for failures. However, haphazardly adding power system components simply drives up the initial cost of building the system. In addition, the number of contingencies (or coincident failures) should be considered early on in the design. For instance, a triple contingency design approach would be to maintain or restore power to all loads during a single utility outage, while a fault occurs on the distribution switchgear bus, all while a distribution transformer is down for maintenance. Generally, an infinite source of money is usually not available and, therefore, prudent engineering application of proper design concepts is required in order to produce a cost-effective and reliable power system. In the brief inaugural programme, Mr. N.T.Nair, Editor, IEEE India Bulletin Dr.P.S.Chandramohanan Nair, Chair, PES Chapter, Dr.Madhu Mangal, Secretary, Kerala Section and Mr.Simon P.Varghese, Secretary, PES Chapter spoke. The other places where Mr. Matsuda held lectures were Delhi and Hyderabad, followed by Bombay.

**4th International Workshop
on Distributed Computing (IWDC)
Dec 28- 31, 2002**

Organized by Dept of Computer Science & Engg, University of Calcutta and Co-sponsored by IEEE Computer Society Chapter of India Council.

This Conference has become a Forum for presenting the latest research findings on the use of distributed/ networked systems for effective computing. The web-site for the Conference (<http://www.iwdc2002.org>) may be accessed for registration as a delegate.

Lifetime Achievement Award

Dr P. N. Choudhry, a Fellow of IEE (UK) and a Senior Member of IEEE was presented Lifetime Achievement Award of IEE (UK) for the year 2001 by The Institution of Electrical Engineers (IEE) (UK). His name was recommended by IEE's Delhi International Centre for his achievements in the field of Telecommunications during his long tenure with the Dept. of Telecommunications, the most important one being countrywide extension of International Subscriber Dialling, which has not only been a boon to telephone users, but has opened up a very wide and attractive self-employment opportunity through Telecom Centres all over the Country. He had also led introduction of Digital Telephony, Optical Fibre Cables and Data Networks.

Dr. Choudhry had earlier been awarded "Third Millennium Medal of IEEE" and a "Certificate of Appreciation for Contributing to the growth of Communication Industry" by the IEEE Communication Society. He was Chairman of AESCOM-LEOS India Chapter.

Do You Know?

- The most commonly used password on computer systems is "password."
- Coca-Cola was originally green
- The state with the highest percentage of people who walk to work: Alaska
- Average number of people airborne over the US any given hour: 61,000
- The San Francisco Cable cars are the only mobile National Monuments
- Half of all Americans live within 50 miles of their birthplace.
- Q. What do bullet proof vests, fire escapes, windshield wipers and laser printers all have in common?
A. All invented by women.
- Honey is the only food that doesn't spoil.

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Technology in brief

Biological Pacemaker

Scientists at the John Hopkins University announced recently that have created the first biological pacemaker for the heart. This paves the way for a genetically-engineered alternative to implanted electronic pacemakers. The technology uses gene therapy to convert a small fraction of guinea pig's heart muscle cells into specialized 'pacing cells' that stimulate the heart to beat. The scientists envision a day when it will be possible to recreate an individual's pacemaker cells or develop hybrid pacemakers -part electronic and part biological. However, clinical applications from the breakthrough are still a few years away. For the latest updates log on to: www.hopkinsmedicine.org

Mobile phone to fit in a tooth

Only a few years ago the ultimate in terms of shrinking the mobile phone was considered being able to reduce it to the size of a pen, with Motorola even patenting a design for one. Now two graduates from London's Royal College of Art have produced a 'concept mock up' of a mobile phone that will fit inside ... a tooth. Claiming that the technology already exists to make it a reality, the designers envisage callers will be heard via a vibrating plate that transmits sound along the jawbone to the ear.

"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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Thank you for visiting this webpage.**

Administrivia:

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

This page, developed and maintained by : s.gopakumar@ieee.org