



## Chairman's Message



Dear Fellow Members,

Although late, I take the liberty of wishing you and your families a very Happy New Year 2006 and wish it brings all round Happiness, Health and Prosperity. Some of you may be wondering why you have not been receiving the Council Newsletter for the last couple of months. I want to tell you that we have to stop it after the April 2005 issue, due to some technical problems/issues. I also wish to inform you that the Newsletter Editor & Executive Vice Chairman, Shri Nair has been working hard since then for re-registration of the Newsletter and as a result of his untiring efforts and others, I am happy to inform you that Council Newsletter has been registered, but with a different name – IEEE India Info – and we are pleased to restart the publication of the same. Lot of events have taken place during the intervening period and I would like to briefly apprise you for only most important ones.

Mumbai Section organized a Student Congress at Pune on 21<sup>st</sup> & 22<sup>nd</sup> August 2005. Section Congress 2005 was held at Tampa, Florida, USA from 14<sup>th</sup> to 17<sup>th</sup> October 2005.

India Council's Annual event, a World class Technical Conference "INDICON 2005" was organized at Chennai from 11<sup>th</sup> to 13<sup>th</sup> December 2005 in a very professional manner and proceedings were really world class, meeting IEEE's most stringent standards. The theme of the Conference was "Emerging Trends in Electrical, Electronics and Information Technologies". Congrats to Shri Suresh Chander Pal and his team of dedicated Volunteers.

As far as Student branches are concerned, IIT, Delhi was the First student branch of India Council in 1973, Dr. MGR., Madras was the 100th in 1994, K. K. Wagh, Nashik was the 200<sup>th</sup> Branch in 2003 and now in just 2 years time, Vag Devi College of Engineering at Warangal, Hyderabad is the 300th Branch. During the year 2005, 51 new Student branches have been approved in Region 10. Out of this 44 are in India and balance 7 in rest of the Region 10. Again, Region 10 Web contest Top Honors have gone to India – Vivekanand Education Society's Institute of Technology, Bombay bagged First Prize and Thadomal Sahani Engineering College, Bombay 2<sup>nd</sup> Prize. M V Chauhan Student Paper Contest 2005 is over and winners were Nitin Dua, NSIT, New Delhi (1<sup>st</sup>), Samudra Dasgupta, IIT, Kharagpur (2<sup>nd</sup>) and Rahul Ghosh & Aritra Das, Jadavpur University, Kolkata (3<sup>rd</sup>). The first 2 winners presented their papers during INDICON 2005 at Chennai.

(Contd. on pg. 4)

### Words of Wisdom

'If the same man deceives you twice, then maybe you deserve it.'  
- Carlos Martinez Vazquez

## Editor Writes....

Friends...

Welcome back to the world of IEEE newsletter after a gap of a few months. It is very important that there should be a vibrant link among the members of any professional society and IEEE is no exception. We are re-establishing the link now.

The challenges faced by professionals forming part of IEEE entity are intense than ever before and need to be addressed through innovative ways. IEEE is always way ahead in empowering the members with the latest knowledge and upholding that tradition, we should also structure this newsletter to be a model for others. It is here that the joint efforts of IEEE volunteers are needed to pool the ideas, which would help the editorial team to come up with the right content every month, meeting the professional needs of the majority of our members. There are, of course, a number of sources - both print and electronic - which provide such inputs. But there are still gaps, felt by many among us and such a newsletter should aim to fill these voids.

In the coming months, it would be the endeavour of the editorial team, consisting of Prof. V K Damodaran, and Mr J Muraleemohan Lal, both former chairs of IEEE Kerala section, in addition to the Editor, to bring out this monthly newsletter in alignment with the current trends in industry, academia and business, to empower our members to play their roles effectively from time to time. We solicit support from all of you, by way of suggestions, and news and views that would be helpful to the members.

The editorial team, jointly with the IEEE India Council wish an exceptionally fruitful New Year for the IEEE fraternity in India.



**N.T. Nair**  
Editor

Trivandrum  
01 Feb '06

e-mail: ntnair@gmail.com

## IEEE NEWS & EVENTS



### International Conference on Industrial Technology (ICIT2006) 15-17 Dec. 2006

Renaissance Mumbai Hotel and Convention Centre, Mumbai

International Conference on Industrial Technology (ICIT 2006) will be held at Mumbai, India sponsored by IEEE IES and technically co-sponsored by IIT - Kharagpur, IIT - Bombay and SICE, Japan.

#### Areas

- Power Electronics
- Industrial Drives and Electric Vehicles
- Signal Processing, System Control and Mechatronics
- Industrial Information Technology
- Computational Intelligence and its applications

The details of the conference are available at  
[www.iitkgp.ac.in/icit2006/](http://www.iitkgp.ac.in/icit2006/)

#### Contact person:

Dr. Chandan Chakraborty, Senior Member, IEEE ,  
 Associate Professor, Dept. of Electrical Engineering  
 Indian Institute of Technology, Kharagpur, Kharagpur 721 302, INDIA ,  
 Email: [chakraborty@ieee.org](mailto:chakraborty@ieee.org) Phone: +91-3222-283096 (Off)  
 +91-3222-283097 (Res) Fax: +91-3222-282262

### IEEE MEMBERSHIP DIGEST - 2005

All India total membership as of 31 Dec. 2005 stood at 22134, a drop of 2917 in last 12 months. Bombay retains its top position with 6000 strength, followed by Madras with 3733. It is heartening to see Hyderabad and Bangalore Sections growing fast with 3284 and 2747 strengths.

Delhi is the 5th largest Section with 1816, followed by Kerala 1644 (this Section had 9.53% growth last year), Calcutta was 7th with 1271; next is U P with 1010, followed by Gujarat 489 and Kharagpur 140.

All India Student strength at 13101 recorded an increase of 1529 over 2004. Bombay with its strength of 4131 students leads all other Sections in the world in any Section's student strength.

A record number of 53 Student Branches were established in 2005- Hyderabad and Kerala took the lead forming 14 branches each, Madras with 11, Bangalore, Bombay & Delhi each with 4, and Calcutta with 2 new Branches. In the world-wide total of 1444 branches, our Region is in the top with 441 Branches. India leads with 328 branches - Madras-105, Bombay-74, Hyderabad-44, Kerala-33, Bangalore-32, Delhi-19, Calcutta-9, UP-6, Gujarat-5 and Kharagpur-1. A serious problem we have is that about 130 branches are in the 'sick list' ie. each with less than 10 student members.

In our Higher Grade member strength of 9033, we have nearly 2105 as Associate Members. Most of them are recent Graduates from Institutions not in REP list or members who did not have adequate professional experience when they applied for membership and so on. Bombay Section is taking certain effective steps to get at their AMs and assist in their elevation to M grade before June of current year.

Compiled by: **H Kalyanasundaram**  
 REP Coordinator - IEEE India Council

### IEEE Region 10 Outstanding Volunteer Awards 2005

*K.G.Satheesh Kumar (Right) of Kerala Section being congratulated in AGM by EE Rajakumar (Left) former Chair, Kerala Section*



The 2005 R10 Outstanding Volunteer Awards are being presented to four outstanding volunteers - Mr. Antony Lobo (Bombay Section) Mr. Muhammad Mubashir Husain (Islamabad), Mr. Raj Kumar Vir (Delhi Section) and Mr. KG Satheesh Kumar (Kerala Section) Mr. Satheesh Kumar will be sponsored by R10 to received the Award in Chiangmai R10 Meeting.

**'Always forgive your enemies – nothing annoys them so much.'**  
 – Oscar Wilde

## IEEE NEWS & EVENTS



*Prof. Stefano Bregni conducting the tutorial on 'Synchronization in Digital Telecommunication Networks' at Trivandrum on 31<sup>st</sup> January 2006, organized by IEEE Communication Society, Kerala Chapter*

### *Some Auto-Facts*

- ❖ Most important item in car – Passengers
- ❖ Most dangerous item in car – Driver
- ❖ Driver induced accidents – major reasons:
  - Alcohol
  - Following too closely
  - Driver inattention
  - Mobile phone use
  - Over speed

## TECHNOLOGY SNIPPETS

### Energy Harvesters

This is the era of portable devices, many with wireless communication capabilities also. Powering them using energy harvesters is emerging as the trend today. Energy harvesters are small devices which convert the freely available energy inherent in most operating environments into electric power, which could be conditioned for use in portable devices. The most common energy harvesters are based on solar cells or electromagnetic devices that convert mechanical vibrations into power. In a typical case of low-powered networks of industrial sensors and devices, a system has been rolled out that uses no batteries — just “energy harvesters” that can convert the vibrations of machinery and air-conditioning systems into enough electricity to transmit small bursts of data.

Batteries are the current choice for such applications, for freeing the systems from the maize of power cords. But their service life is short, may be only a couple of years.

Tiny solar cells are the most common energy harvesters. In addition, piezo-electric and thermal gradient technologies are the other options.

One of the limitations of harvested energy systems is that it has capacity to deliver only ultra-low power, say in the range of mW.

**‘God has not promised skies always blue,  
Flower-strewn pathways all our life through;  
God has not promised sun without rain,  
Joy without sorrow, Peace without pain.’**

*- Annie Johnson Flint*

**‘Don’t say everything you think, but think about  
everything you say.’ - Carlos Martinez Vazquez**

### Inhaled Insulin – Easy Way for Regulating Blood Sugar

US Food and Drug Administration (FDA) has approved Exubera, the first inhaled insulin, for treatment of adults with type 1 or type 2 - diabetes. It is a fast-acting, dry powder form of human insulin that’s inhaled into the lungs using a hand-held inhaler to regulate (lower) the blood sugar level in diabetics. Thus, a new painless alternative to traditional insulin injections is in vicinity.

Clinical studies have shown that Exubera reaches a peak insulin concentration in the blood more quickly than does injected regular insulin. In type 1 diabetes, inhaled insulin may be used along with injected longer acting insulin to replace short-acting insulin taken with meals. In type 2 diabetes, inhaled insulin may be used alone, with oral (non-insulin) pills that control blood sugar or with longer acting insulin.

If used as directed, Exubera may be an effective, more convenient medication for managing the blood sugar level. However, it should be used as part of a comprehensive diabetes management plan.

Low blood sugar (hypoglycemia) is a potential side effect of insulin, including Exubera, and the people using it should carefully monitor their blood sugar levels. The side-effects associated with Exubera therapy include cough, shortness of breath, sore throat and dry mouth.

Smokers are advised to stay away from this, even if they have quit smoking less than six months ago. Exubera is not recommended for people with pulmonary diseases, such as asthma, bronchitis or emphysema.

Studies are planned to assess the long-term safety of Exubera and to further examine risks and effectiveness of the drug in people with lung disease. Exubera is currently not recommended for children under 18 years of age or women who are pregnant.



(Chairman's Message Contd.)

Achievements of individual Members are still more laudable. Between May and November 2005, 48 Members have been elevated to Senior Members. During the Year 2005, (1) Dr. Vijay Bhatkar, IIT, Pune (2) Prof. Arindam Ghosh, IIT, Kanpur (3) Dr. Raghu Krishnapuram, IBM Research, New Delhi (4) Prof Anurag Kumar of IISC, Bangalore and (5) Dr. Janardan Nanda, IIT, Delhi have been elected IEEE Fellows - A rare Honor. Congratulations to all of them for their well deserved Elevation as IEEE Fellow. During 2005 (1) Anthony Lobo, Bombay (2) Satheesh Kumar, Kerala Section and (3) Raj Kumar Vir, Delhi Section have been awarded Region 10 Outstanding Volunteer Award. Shri Satheesh is invited to Region 10 Meeting at Chiang mai to receive the Award in person. Congratulations to all of them. Lastly, IEEE Volunteers Mr. S. Ramadorai, FIEEE, Past Vice Chair, Bombay Section and K. P. P. Nambiar, Past Chair, Kerala Section have been awarded The Padma Bhushan by Government of India. Heartiest Congratulations to both of them.

Region 10, 2004 Distinguish Large Section Award has been won by Kerala Section and Small Section Award by Gujarat Sections. Congratulations to Kerala & Gujarat Sections.

All Sections unanimously decided to nominate Shri R. Muralidharan, Past India Council Chair for Region 10 Director Elect 2007-08 from India, which has been accepted by Region 10 Nomination Committee. All Sections are requested to continue extending their support to him for successfully contesting the elections.

I wish to inform that India Council began the New Year with formation of a new Chapter under it, namely "Education Society Chapter" and Dr. R. Devanathan is the Protem Chairman. Lastly, National Society Agreement between Institution of Engineers (India) and IEEE has been renewed w.e.f. 1st January 2006 and is valid up to 2008.

Should you have any suggestions, please write to me.

With warm regards,

Delhi  
01 Feb '06

**Rajendra K. Asthana**  
Chairman - IEEE India Council  
asthana@ieee.org

## NEWS SNIPPETS

- ❖ Apple sold 100 iPods a minute in the fourth quarter of 2005; its iTunes Music Store garnered 10% of all music sales in US during the year.
- ❖ A typical office worker is interrupted every three minutes by a phone call, e-mail, SMS or other distraction, it is estimated. About eight uninterrupted minutes are needed for our brains to get back to the creative state again. Are we to blame the digital communication systems we have created over the years for this state of affairs?
- ❖ Vacuum cleaner, a 1902 invention, was nicknamed 'Noisy Serpent'.
- ❖ 'Operations Research' used by managers for decision making today, was the brainchild of Robert Watson Watt, who used the technique to optimise a network of antennae set up throughout England during World War II to detect German aircraft.
- ❖ India's first general election was held in 1952 and the ballot boxes were made by Godrej.

### 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)

PRINTED MATTER

To

**IEEE India Info**  
**FEBRUARY 2006**

Rs.4/-

From

**N.T.Nair, Knowledge House, Mathrubhumi Road, Trivandrum 695 035, India.**