



# BEACON



IEEE

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

IEEE

IEEE DELHI SECTION NEWSLETTER

Vol. 23 NO.2

DECEMBER 2003

## From the Desk of Chairman



I am very happy for the publication of the December 2003 Issue of BEACON (2<sup>nd</sup> issue) in this year with the active support from all EXECOM members to the Publication Committee. Recent Membership statistics for the Delhi Section have

although shown increasing trend, our endeavor should be to become 2500 plus membership within a span of 2 years. I solicit the contribution from all our members to enhance the membership and contribution towards the IEEE activities.

The sad demise of one of our senior colleagues Pradeep Madan is a great loss to IEEE India Council and Sections. He was an active member of DELHI SECTION EXECOM. He will be remembered as one of the outstanding volunteers. We pay tribute to his departed soul. EMS Chapter –DELHI Section proposes to organize a memorial Workshop in his honour sometime in January/February 2004.

I am very happy to note that the members are taking interest to enhance membership and a few student branches have been opened in this year due to active efforts from Student Activities Committee. I will like to acknowledge the contribution of Dr. Mini Thomas.

I had an opportunity to participate in the recent REGION 10 Committee meeting. Consideration for Fellowship towards contribution to the Industrial Sector, reduction of Membership Subscription, additional benefits to Student Members, Hard copy of Spectrum without any Charge to Life Members were deliberated during the above meeting.

*Continued on page 3...*

## Congratulations Harbans Bajaj !!



Mr. Harbans L. Bajaj, one of our distinguished members and a foremost IEEE leader in India has been elected as Fellow of IEEE this year. Mr Bajaj in past, has been Chairman, Delhi Section, Chairman, India Council and Director Asia Pacific Region 10, besides holding a number of portfolios at Regional and Headquarter levels. His contribution to the IEEE in various capacities has been significant and well recognized, particularly in Indian context.

Mr. Bajaj is presently Chairman, Central Electricity Authority, Govt. of India. Prior to this, he was Director (Commercial) in NTPC and also held important positions in BHEL and Haryana State Electricity Board. His contribution in Power sector is also well recognized.

BEACON congratulates Mr. Bajaj on this achievement.

## Possibility Thinking

*Daman Dev Sood*

*TCS*

It started with a thought one day in March this year that I had been spending less time with our kids (our son Divij and his cousins Megha and Saumya). Actually, I reached home at around 10 pm that night to find Megha waiting up for me, as she wanted to get a few doubts clarified before her English examination the next morning. I helped her till midnight and had the good feeling of having achieved something special at the end of the day. My wife and I discussed helping other children as well.

When we raised this idea with the Residents' Welfare Association, they discouraged us (for some odd reasons) and the idea died out. A couple of months passed and we did not do anything. Then in June, we discussed it once again and decided that we would conduct English Classes for kids in the neighbourhood, and we would not charge anything. One of the principles of Possibility Thinking says: Go ahead with the idea, if it's going to benefit others. This brought in commitment\*. Then we announced the classes by putting up some posters on the society notice boards. We were then bound by our words\*.

We faced the problems of what to do and how to do it. While these were resolved by our commitment, each resolution gave rise to another possibility (the word possibility is more positive than challenge/problem). We already had three kids in the family and if two or three more were to join, the room wouldn't be large enough to accommodate everyone.

So we visited the managing committee of the temple in our society. There was some initial raising of the eyebrows when they learnt that we wanted to use the temple hall for conducting tuitions. But they were happy to know that we would be doing this for free, and hence allowed us to use the hall freely. This proved that it is good to talk\*.

We started the classes on weekend mornings. The next challenge that we faced was that the parents of the kids from the neighbourhood were not interested or enthusiastic, and the response to our classes was not good. We had the feeling that many more could benefit from our efforts. But, the number of students dropped to five or six with the schools re-opening after the summer vacations, and we thought of giving up.

Our only encouragement was three students from a nearby lower middle class society who did not give up. And we decided that as long as those three students kept coming, we would continue with our free English classes at the temple. One would find one good reason to accept something if he/she is willing to\* or ten reasons to reject/discard it if he/she is not willing to.

During the classes, we noticed that one of the students, from that inspirational group of three, had some problems seeing the board. We offered to get his eyes checked and spectacles made if his parents did not mind. They had no objection and so we got his eyesight tested and spectacles made. The student's excited reaction, "Sir, I can see everything clearly now", and the smile on his face, gave us our ROI (Return on Investment).

Encouraged by this, we wanted to spread the word around so that more students would join. We once again held discussions with the printer who publishes the Cable TV magazine in our area. Upon learning that we were running these classes for free, he agreed to publish the notice in his magazine without charging us.

Soon the number of students grew to about 12 and some parents even offered to buy grammar books for our students. However, one of our respected, aged neighbours scolded us for conducting free classes, "Daman, I have been a teacher all my life and took tuitions till my retirement. The biggest mistake is that you are doing it for free, hence

people are not valuing it. Start charging and then donate everything to some charity if you want." This was kind of discouraging, but we said to ourselves, "We respect your feelings uncle, but we have decided to conduct the classes free."

The next challenge was to do something for the temple too, because it was still under construction and the management committee was looking forward to funds. Once again, we held discussions with the Lions Club, Delhi East, and they agreed to support our classes by means of a donation to the temple.

Now the number of students has grown to 17. The temple committee celebrates Durga Puja every year and there are cultural events in the evenings. We presented an English skit, "What Can I Do?" with our students. This spread the message of responsibility towards our environment and that every little helps\*.

If we look back to June-July, we didn't have any resources, but we generated resources by means of managing the possibilities (positive of challenges/problems) in the Possibility Thinking way. So far, we have contributed more than 400 hours in our attempt to 'return something back to the society'.

All these achievements have been at a very small scale and at a personal level. For the workplace, my wife and I developed course material for a day-long workshop on Possibility Thinking. It was a month's rigorous effort, which would not have seen the light of day had we not started developing it in the first place. All it takes to succeed is to have guts and get started\*. The first workshop on Possibility Thinking that we conducted together at TCS was well appreciated and we hope to conduct many more.

Today, we strongly believe that an idea can change one's life and that we need to treat the ideas like newborn babies\*.

### **Possibility Thinking helps you**

- To inspire people with your cheerful attitude while you are going through difficult times; and to choose the noble and positive outlook

- To take action to make a bold and daring move
- To make a creative transition
- To recognising an era has come to an end
- To understand that "The cup might have fallen and broken - The time is for you to absorb the spills and develop new skills"

### **And finally to**

- Get Started On The Path Of Success Once Again, with your worn out batteries re-charged !
- Principle of Possibility Thinking
- These principles have originally been formulated by Dr. Robert H Schuller

*Continued from page 1...*

It is a great pleasure to note that Mr. H.L.Bajaj has been elevated to Fellow IEEE. Our hearty congratulations to him.

I got feedback on TENCON 2003 held successfully at Bangalore and IEEE Bangalore Section has been awarded for student activities. It is our objective also to receive such award for our student activities. I congratulate on my personal behalf and on behalf of EXECOM members Dr. S. Mukhopadhyay for his excellent achievement in getting Outstanding Chapter award.

I wish all the success for the continued efforts in bringing out BEACON by Editorial Board.

With regards,

NewDelhi  
Date:  
1stDecember2003

**R.K. Vir**  
Chairman  
IEEE Delhi Section

### **Shri R. K. Vir**

We congratulate Mr.R.K.VIR our Section Chair who has received a Certificate of Appreciation from IEEE HQ for his contribution to the advancement of IEEE and ENGINEERING Profession as A Chair of EMS CHAPTER from 1998 to 2002.

Editor



## First call for papers

### Organizing Coirtmittee:

#### ■ General

**Kraisi Karnasuta**  
EGCI, Thailand  
SK Telecom, Korea

#### ■ Technical Program

**Akinori Nishihara**  
Tokyo Tech, Japan  
**Ekachai Leelarasmee**  
Chulalongnarn U., Thailand

#### ■ Publication

**Vidhya Rugpong**  
EGAT, Thailand

#### ■ Publicity

**Jitkasame Ngarrunil**  
Mahanakorn U. T., Thailand

#### ■ Finance

**Vuthichai Pungprasert**  
EGAT, Thailand

#### ■ Exhibition

**Chakchai Chandarasupsang**  
PEA Thailand  
**Wunchal Sinaroj**  
MEA, Thailand

#### ■ Local Arrangement

**Akachai Sang-In**  
Chiang Mat U., Thailand  
**Ratchai Saeng-Udom**  
NCC Thailand

#### ■ Secretariat

**Surapol Dumronggittigule**  
NCC THunlud

#### ■ Steering

**Marzuki Khalid**, UTM, Malaysia  
**Lawrence Wong**, NUS, Singapore  
**Mark Lauby**, EPRIww, USA.  
**Peter Wills**, Telstra Res., Australia  
**R. Guevara**, U. of Philippines  
**Danny Sutanto**, HK. Polytechnic U.  
**Tor S. Lande**, U of Oslo, Norway  
**M. Lightner**, U. of Colorado, USA  
**Jyno-Min Shyu**, ERSO, Taiwan  
**S. Mukhopadhyay**, CEA, India  
**Wahidin Wahob**, UI Indonesia  
**Y. Nakamura**, Kyoto U., Japan

**TENCON 2004** is an international technical conference sponsored by IEEE Region 10. Its goal is to provide a prestigious forum for specialist presentations and interactions in a comfortable venue with relaxing environments. All new theories and applications related to either analog or digital worlds are invited.

**Theme:** Analog and Digital Techniques in Electrical Engineering

#### Scopes:

- Energy and Power System
- Telecommunication
- Information Technology
- Bioelectromcs
- Signal Processing
- Microwave Technology
- Microelectronics
- Mechatronics and Control
- Power Electronics
- Optoelectronics
- Computerized Techniques

**Paper Submission:** A full paper of not more than 4 pages including abstract in standard IEEE double column format is requested. Papers must be submitted electronically in PDF format via [www.v.tencon2004.com](http://www.v.tencon2004.com). All papers will be peer reviewed. At least one author of each accepted paper must register for the conference for the paper to be included in the program.

**Tutorial:** Proposal for a half day tutorial on 21 November 2004 should be solicited via [www.tencon2004.com](http://www.tencon2004.com)

#### Important due dates:

- Paper submission **30 April 2004**
- Tutorial proposal **15 July 2004**
- Notification of Acceptance **81 July 2004**
- Camera Ready Paper **31 August 2004**
- Author Registration **30 September 2004**

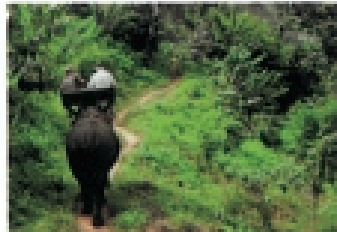
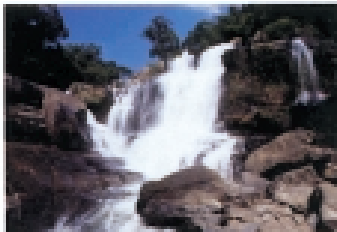
**Venue:** Chiang Mai is well known as the Rose of North Thailand and a prime tourist attraction in Asia. About 700 km north of Bangkok, it has a convenient airport that serves both international and domestic flights. Its temperature in November is between 20 - 25 Celsius. Surrounded by mountains and forests, Chiang Mai is rich of traditional sites, historical temples and natural beauties, all within a short distance from the conference venue.

**Organizer:** IEEE Thailand Section

**Sponsor:** IEEE Region 10

**In co-operation:** Chulalongkorn University, Chiang Mai University, North Chiangmai College, Mahanakorn University of Technology, Tourism Authority of Thailand, Thai Airways International, Thailand Incentive and Convention Assialion (TICA)

[www.encon2004.com](http://www.encon2004.com)



## Technical, Educational & Professional Activities from June to November 2003

|                   |  |
|-------------------|--|
| July 05           | Talk on 'India: E-Readiness Assessment' by Mr. S. Ramakrishnan, Dept. of Information Technology, New Delhi at India Habitat Center (IHC), New Delhi (organized by ComSoc Chapter)  |
| August 08         | Talk on 'A Novel Technology for Power Generation Using Small Hydro Potential - A Success Story' by Prof. Srinivas S. Murthy, Elect. Engg. Dept., IIT, New Delhi at IIT, New Delhi (along with PES-IAS Chapter, IEE Delhi Branch & EE Dept. of IIT)   |
| August 29         | Talk on 'Software Project Management' by Mr. N.N. Ramanathan at IIC, New Delhi (along with Computer Society Chapter)   |
| September 04      | Talk on 'Reducing cost of test in digital and mixed-signal VLSI' by Mr. Rajat Gupta, Cypress Semiconductors, Bangalore at IIT, New Delhi (organized by CAS-CS Chapter & EE Dept. of IIT)   |
| September 26      | Talk on 'IT As A Tool For Enhanced Productivity' by Mr. Daman Dev Sood, Tata Consultancy Services, Gurgaon at IIC, New Delhi (organized by Computer Society Chapter)   |
| September 26 - 27 | Two-day Workshop on 'Recent Advances in Power Electronics and Sensorless Control of Drives' with IAS DL Prof. Alfio Consoli of University of Catania, Italy as main resource person and coordinated by Prof. B.P. Singh and Prof. Bhim Singh of EE Dept., IIT Delhi at IIT, New Delhi (organized along with PES-IAS Chapter & EE Dept. of IIT) |
| September 27      | Talk on 'Advanced Control Techniques in Modern Electrical Drives' by IAS DL Prof. Alfio Consoli of University of Catania, Italy at IIT, New Delhi (organized by PES-IAS Chapter as its 7th Thomas Alva Edison Memorial Lecture)  |
| October 07        | Half-a-day Tutorial on "Recent Developments in Electric Power Transmission Technology" by PES DL Dr. Kalyan K. Sen of Electro-Mechanical Division, Curtisswright, PA, USA at Jamia Millia Islamia (JMI) (organized by PES-IAS Delhi Chapter, Delhi Section and EE Dept. of JMI)  |
| October 18        | Talk on 'Infotech to Knowledge Management Road Ahead' by Mr. C.S. Arora, Office of RGI, New Delhi at India Habitat Center (IHC), New Delhi (organized by ComSoc Chapter along with AE-LEO-COM Societies India Chapter & IEDP)  |
| October 30        | Talk on 'Learning From Labeled and Unlabeled Data' by Dr. Ravi Kothari, IBM India Research Laboratory, IIT Campus, New Delhi at IIT, New Delhi (organized by CAS-CS Societies Chapter along with EE Dept. of IIT Delhi)  |
| November 20       | Talk on 'Global Standards-IEC (Information, Communication & Entertainment) Technologies' by Dr. K. Subramanian, Dy. Director General - NIC/AIT Advisor to CAG at Auditorium BIS New Delhi. (organised by EMS Chapter SEI/BIS).   |

## Student Activities

Greetings! We have grown from 13 to 15 student branches, by adding two more branches in Delhi. Prof. R. Balasubramanian inaugurated the student branch at GGSIP University School of Information Technology on 17th November 2003. The 15th student branch at Indira Gandhi Institute of Technology, Delhi will be soon inaugurated.

This year, we initiated the Biannual student meet of the student branches of Delhi section, with the first meeting held on 22nd February at Jamia Millia Islamia. This is becoming very popular, as it was aimed at an active interaction and a better networking between IEEE student members under Delhi Section. We had the second biannual student meet at MNIT Jaipur on 24th August 2003, with ten student branches taking active part. Representatives from nine student branches were sent to Jaipur by a special bus and the students really enjoyed the meet and I am sure, this has improved the ties between the student branches. Now we want to plan a big event, jointly organised by the Delhi section student branches. I would specially like to thank the MNIT student branch and also Mr R.K. Vir, Mr. R.K. Asthana and Mr. D.D. Sood, who traveled to Jaipur to attend the event.

The J.K. Pal memorial best volunteer award was instituted in the 2002 and only 3 student branches availed of this opportunity. I have already sent the application forms to the student branches, I hope that this year more student branches will nominate candidates for this award.

The student branch at Jamia had the annual all India Technical Fest ENCOMIUM 03 on Oct 21-22nd 2003. The Amity student branch along with IBM organised an on demand learning road show on 20th November, in which they displayed the software development done by the IEEE student members using IBM products.

This is renewal time for the student membership and kindly see that all members renew the membership.

**Prof. Mini S. Thomas,**  
*Chair*  
*Student and Educational Activities*

### Larry K. Wilson Award 2002

Mr. Mustafa Turra, Chairman of the IEEE Jamia Millia student branch for the year 2002, won the prestigious Larry K. Wilson award for IEEE Region 10 (Asia Pacific) for the year 2002. He won this award for the contributions made to IEEE Jamia Student branch along with the hard work of the branch counselor Prof. Mini S. Thomas and the members of the IEEE JMI, Student Branch Mr. Turra feels that the guidance and support received from the IEEE Delhi section and India council helped him in getting this coveted award.

## The Matrix Evolution: Interfacing with the Artificial World

*Dr. Jayadeva*

Department of Electrical Engineering  
Indian Institute of Technology  
Hauz Khas, New Delhi - 110016

The recent box-office success of the Matrix trilogy perhaps indicates a widespread fascination with and inclination to enhance the range of our sensory perception, beyond what nature has to offer. Today's world increasingly makes us dependent on gadgets that enhance our capacities - starting perhaps with the calculator, which adds to our arithmetic abilities, the digital diary and palmtops - to help organize and remember, the cellular phone, to enable us to be in touch at all times, are but a few innovations that have already become a necessity for many in a highly industrialized world.

These gadgets, however, must depend on our sensory abilities in order to interface, and most use our motor and somatosensory capabilities - our skills with our limbs and fingers, and our sense of touch. Considerable effort is being put into making this link more personal and less inanimate, by other forms of interfacing. A number of successes in laboratories worldwide should translate into products in the next few years, and many hinge on developments in signal processing and neural engineering.

Automatic Speech Recognition (ASR) and Text to Speech Synthesis (TTS) are widely visible in products available on desktops and in cars, washing machines, refrigerators and of course, automated answering systems. The ASR problem is beset with variability - different people speak differently, and the same person never repeats the same waveform when speaking the same thing. Among the most successful ASR techniques are those which treat the task as that of finding a black box or transformation that replicates the desired result. Most ASRs are based on speech coding theory, and first use some form of spectral transformation, followed by Hidden Markov Models (HMMs) for recognition. HMMs ignore long range correlations, and are augmented

by common language models which use a time window a few words long.

Many interfaces now employ multimodal inputs, for example, visual cues such as movements of the lips and eyes, facial expression and gesture, to improve recognition accuracy. The use of lip reading can improve word recognition accuracy by as much as the equivalent of 10dB SNR. However, next generation systems may go further, by using hand and body gestures to provide truly multimodal interfaces. Dynamic Bayesian Networks have turned out to be a good framework for multimodal fusion. There is ongoing work on emotion recognition, such as happiness, anger or surprise, and the estimation of cognitive states, such as boredom. The other side of the interface is improving too, with lifelike computer characters that not only speak, but convey emotion with gestures and expressions. There is already a synthetic newsreader, named Ananova, and synthesians (synthetic actors) are round the corner.

But perhaps the most exciting interfaces are even more radical. The silicon cochlea was intended as an implant to replace the inner ear, and the silicon retina was the next step. Both of course, are intended for those who lack the natural interface, and these are remedies which offer a limited, albeit remarkable, cure. The electronic cochlea interfaces with the auditory nerve, and the first generation of silicon retinae interface with the optic one. But why restrict interface to the primary pathway? The second generation silicon retina interfaces with the visual cortex itself, through an electrode running under the skin to the back of the head where the visual cortex is located.

Equally interesting are brain implantable prostheses under development, which perform or assist a cognitive function such as pattern recognition,

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## FROM THE EDITOR



I am very glad to publish the Second Issue of BEACON, December-2003 in this year. The theme topic is Communication and networking as there is a consistent emphasis being received to IT fields. I am extremely thankful for the cooperation extended by all concerned members of IEEE Delhi Section for this purpose.

I had an opportunity to participate in TENCON 2003 held at Bangalore. IEEE Bangalore Section had put all their efforts to make the Conference a grand success. I congratulate the Bangalore Section for their achievement. It was very encouraging to notice that around 800+ papers were contributed to the TENCON 2003. About 40 per cent of the papers were contributed by students and the Conference was also attended largely by academicians, students, & professionals. During the Conference, Director- REGION 10 announced the special award of US \$ 1000 for the achievement of student activities of Bangalore Section. I also look forward for such opportunities for IEEE Delhi Section.

I, in TENCON 2003, also happened to meet and talk to Mr. Pradeep Madan, who unfortunately passed away recently. Mr. Madan was an active IEEE volunteer of Delhi Section before moving to Bangalore a few years back. I personally and on behalf of IEEE Delhi Section pay our heart-felt condolence to the departed soul.

I appeal for the active participation and support from the student members and Young Engineers to the Guest Lecture-Programs & other various activities being organized by our Technical, educational and professional activity committee, as they are the future contributors to the society.

I am happy to inform that this year Mr.H.L.Bajaj, Chairman CEA, Dr.S. Rama Dorai, TCS Dr. Surendra Pal & Prof. P. Jalote have become Fellow of IEEE from India. Our Hearty Congratulations to them for their achievement. Our hearty congratulations also to Dr. S. Mukhopadhyay for the Outstanding PES Chapter Award.

With regards,

**P.V. EKANDE**

Chairman  
Publication & Public Relation Standing Committee

Date: 1st December '03,

*Continued from page 8...*

that can effectively replace some functionality of hippocampal cells, and provide bidirectional communication with living tissue. The interface with living tissue could be through multi-electrode arrays, or through cultured probe devices, in which neural cultures are grown to interface with planar multi-electrode arrays. These implants have the potential to offer radical treatments for conditions such as epilepsy, neural and psychiatric disorders, and severe nerve damage.

Our imagination is possibly inadequate to immediately realize the potential for such

technologies. Could we enhance our visual and auditory abilities - to see into the UV and IR spectra, like parrots or snakes can do, without needing any special goggles? Listen to infrasound and ultrasound? Be able to sense thousands of more smells and tastes? Interface to a disk to store our daily engagements and remind us of things to do? Suddenly, some of these abilities will be within reach, and difficult ethical questions will need to be answered. Nevertheless, there is little doubt that our sensory world is likely to soon expand and change in ways that we may not be able to imagine today.



## ENCOMIUM'03 - All India Technical Fest

Encomium was born in the year 2001 out of fulfillment of a dream seen by the IEEE Student branch at Jamia Millia Islamia. It started off gradually and kept growing steadily and was a grand success in 2002. This year it spread its wings even further & continued to enchant everybody for yet another year. It is slowly becoming a tradition for this IEEE student branch.

This 2 day tech fest aims at bringing together budding technocrats from all round the country, who are also the key holders of India's digital future, to share their new and innovative ideas. Every aspect of this tech. fest exemplifies exquisite team work & coordination. This has given the students a wonderful opportunity to nurture their capabilities and also a much needed exposure to event management, planning and interaction with the corporate etc.

This year, Mr. Roy Paul, Secretary, Ministry of Civil Aviation & Chairman, Air India inaugurated Encomium'03 and Dr. K. Subramanian, DDG, National Informatics Centre & IT Advisor to CAG delivered the keynote address. There was a great response to this fest this year with over 350 students from 37 different Engineering colleges from all over the country participating in various events.

The core events of Encomium were somewhat the same. Rationale is the Paper Presentation Contest in which 87 papers from all over India were received. Out of these, 15 papers were short-



listed for the final presentation under 2 categories - Electrical and Electronics & Computers. Eniac-I is the Pre designed Software contest for which about 20 entries were received and the best 10 were selected for presentation. Eminent personalities from the academia & the industry were requested to judge these events. Finally there was a highly qualified panel of judges from places like IIT, ABB, IBM etc. Corprovision is the Student Corporate interaction in which IBM solutions & TATA power were invited this year. Enigma - the quiz which was one of the most popular events last year got a good response this year too. About 120 teams from Jamia appeared for the intra college prelims & many more came for the inter college prelims. This year a new event i.e. an on-the-spot programming contest, was included, that was named ENIAC-II and also many interesting informal events like Echo, Graffiti, Cryptomania were there.

This year Encomium was even a greater success than last year and hope that it continues to be so in the years to come.

## IEEE DELHI SECTION MEMBERSHIP STATISTICS AT A GLANCE

(as in end-October 2003)

Total : 1684

| Grade   | Strength | Student Branch   | Strength |
|---|----------|--|----------|
| Honorary Member   | 2        | 2591901: DCE, Delhi  | 125      |
| Fellow  | 2        | 2590001: IIT, New Delhi  | 39       |
| Life Fellow   | 1        | 2534811: NSIT, New Delhi   | 60       |
| Senior Member   | 132      | 2534861: JMI, New Delhi  | 61       |
| Life Senior Member  | 9        | 41511929: Amity, New Delhi   | 51       |
| Member  | 599      | 41375814: GGSIP<br>University School of Information<br>Technology, Delhi | 14       |
| Life Member   | 2        | 41447849: IG Institute of<br>Technology, Delhi                           | 8        |
| Student   | 568      | 2503861: BITS, Pilani  | 4        |
| Others (Associate, Affiliate, Pending)  | 369      | 2591103: MBM Engg. College, Jodhpur                                      | 0        |
| Chapter   | Strength | 2518473: Engg. College, Ajmer  | 7        |
| CAS004: Circuits &<br>Systems Society – CS023:<br>Control Systems Society       | 44       | 2531463: MR Engg. College (NIT),<br>Jaipur                               | 5        |
| C016: Computer Society<br>PE031: Power Engineering<br>Society – IA034: Industry | 210      | 2510361: REC (NIT), Kurukshetra  | 0        |
| Applications Society  | 120      | 40336430: SJPLIET, Radaur  | 0        |
| COM019: Communications Society  | 199      | 41427869: CR State College of Engg.,<br>Murthal                          | 13       |
| EM014: Engineering<br>Management Society  | 27       | 2518443: PEC, Chandigarh   | 64       |

## IEEE DELHI SECTION EXECUTIVE COMMITTEE FOR THE YEAR 2004

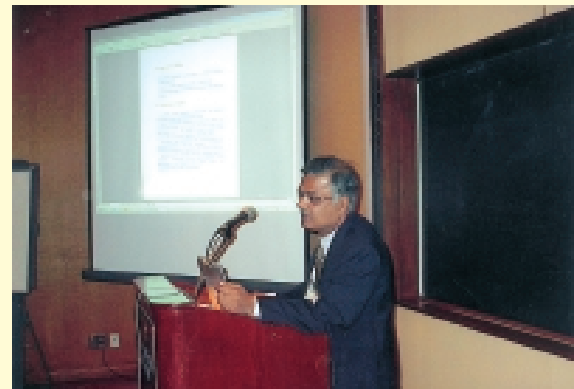
| Sr. No. | Office          | Name                     | Organization |
|---------|-----------------|--------------------------|--------------|
| 1       | Chairman        | Mr. Raj Kumar Vir        | Ex-Railways. |
| 2       | Vice-Chair – I  | Mr. Prakash V. Ekande    | NTPC         |
| 3       | Vice-Chair – II | Dr. Ram Gopal Gupta      | MIT          |
| 4       | Secretary       | Dr. Mini S. Thomas       | JMI          |
| 5       | Joint Secretary | Dr. Ranjan K. Mallik     | IIT          |
| 6       | Treasurer       | Dr. Shankar Prakriya     | IIT          |
| 7       | Past Chair      | Dr. R. Balasubramanian   | IIT          |
| 8       | Member          | Mr. Rajendra K. Asthana  | BHEL         |
| 9       | Member          | Dr. Subrata Mukhopadhyay | CEA          |
| 10      | Member          | Mr. Man Mon S. Puri      | DESEIN       |
| 11      | Member          | Dr. V.R. Singh           | NPL          |
| 12      | Member          | Mr. Promod K. Srivastava | Ex-BHEL      |
| 13      | Member          | Dr. K. Subramanian       | NIC/CAG      |
| 14      | Member          | Mr. Daman D. Sood        | TCS          |
| 15      | Member          | Dr. Ram Nath             | BHEL         |
| 16      | Member          | Dr. Asok Bhattacharyya   | DCE          |



Dr. S. Mukhopadhyay, PES-IAS Delhi Chapter Chair receiving 2002 IEEE RAB Leadership Award from 2004 IEEE President Elect Mr. W. Cleon Anderson in the Region 10 Committee Meeting at Penang, Malaysia.



IEEE PES-IAS Delhi Chapter Chair Dr. Subrata Mukhopadhyay (center) with the banner for 2002 Outstanding (Large) Chapter Award flanked by PES President Mr. John W. Estey (to his left) and PES Vice President (Membership / Chapters Activities) Mr. Barnard M. Speckman



Dr. Mukhopadhyay presenting paper on 'Interconnection of Power Grids in South Asia' in a panel session on "Asian and Australian Electricity Infrastructure" at 2003 PES General Meeting in Toronto, ON, Canada held from July 13 to 17, 2003



Dr. Mukhopadhyay addressing gathering at Award Dinner during IEEE Region 10 Meeting after receiving 2002 RAB Leadership Award from 2004 IEEE President-Elect Mr. W. Cleon Anderson, with Region 10 Awards Chair Dr. Y. W. Liu also seen



IEEE Region Director Dr. Jung-Uck Seo (6<sup>th</sup> from left), Secretary Mr. Yong-Jin Park (4<sup>th</sup> from left), Director-Elect Dr. Seiichi Takeuchi (4<sup>th</sup> from right), Treasurer Prof. Dae Young Kim (extreme right) with some delegates of Region 10 Meeting

# SEMINAR-CUM-EXHIBITION

## ELITEX'2004

**Electronics and Information Technology Exposition'2004  
by DEPARTMENT OF INFORMATION TECHNOLOGY (DIT)  
GOVERNMENT OF INDIA**

26-27 APRIL, 2004

at

India Habitat Centre, Lodi Road, New Delhi

Department of Information Technology (DIT) has been funding research and development projects in the areas of electronics and information technology at various institutions. To disseminate information among the users and the industry on Technologies/Products developed and the services/infrastructure created through DIT support, the Department organizes ELITEXs annually. The industry has very enthusiastically responded and participated in the event with the same zeal.

ELITEX-2004 will be held during April 26-27, 2004 at India Habitat Centre, Lodi Road, New Delhi. The theme of ELITEX-2004 is "Technology Vision : India in 2010".

The Hon'ble Minister for Communications & Information Technology, Shri Arun Shourie has kindly agreed to inaugurate the exposition on April 26, 2004 at 0930 hrs.

The Seminar during ELITEX-2004 will cover the state-of-the-art technologies and will provide special focus on the theme of ELITEX. The scope of the ELITEX-2004 has been enlarged to include official participation from all Countries. The official delegations from these countries will focus on the commercial potential and tie-up possibilities on the technologies/services available from India in a separate session during the seminar. Efforts are made to have all the member countries of Asia Electronics Info-Communications Union (AEIU) participated.

Another session will focus on presentations from the States in India. These Governments are requested to exhibit the available/proposed e-governance facilities and the status of IT industry in their respective States. These Governments will also be requested to ensure the dissemination of information generated through the ELITEX-2004 in their respective States.

The exhibition will focus on the technologies/know-how developed at various institutions under DIT. The participating institutions will get an opportunity to highlight their technologies/management services and other activities that can be offered to the industry and public at large.

ELITEX'2004 would provide a unique opportunity

- For industry to pick a product/technology for commercial exploitation
- For R&D institutes and academics to identify industry needs
- Sharing your views and experience with other experts
- Interaction with commercial attaches and delegates of other countries
- a forum for interaction among the technology developers and technology users.
- Electronics industry, R&D and academic institutions and users are invited to participate.

The entry to the exhibition is FREE. Participation in Seminar will be on request.

On-line webcasting of the entire event will be available.

*For further details, and free online registration please visit*

**[www.elitexindia.com](http://www.elitexindia.com)**

or contact

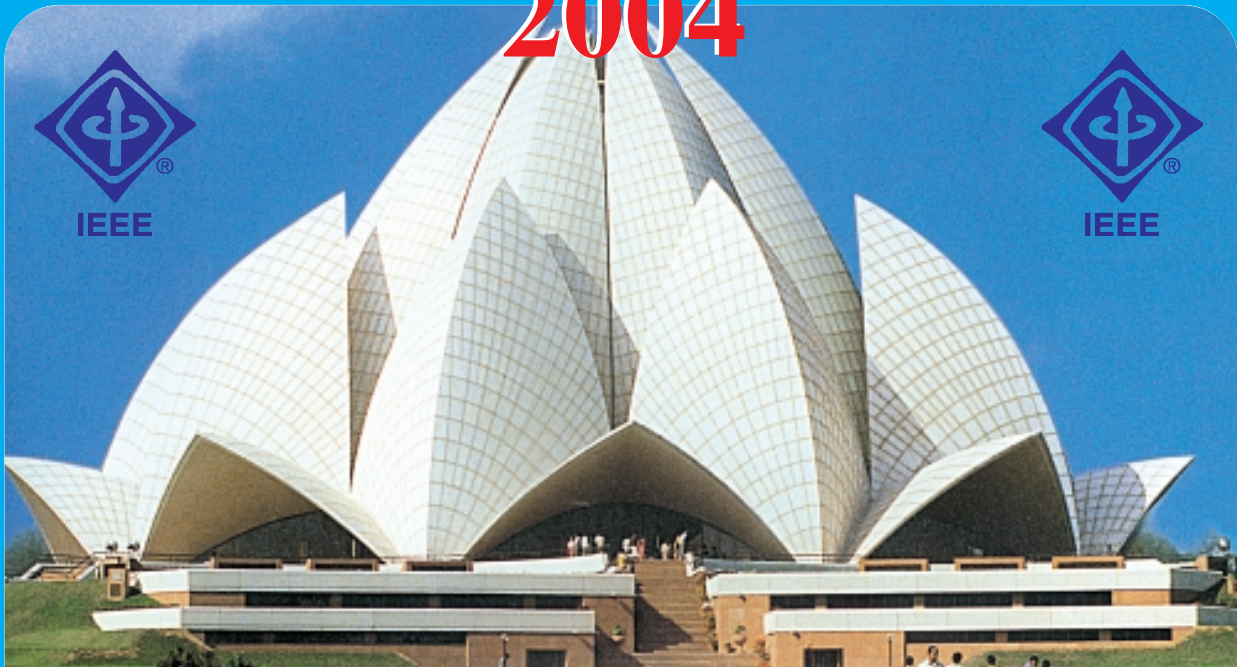
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2004



**JANUARY**

| S  | M  | T  | W  | T  | F  | S  |
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| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

**FEBRUARY**

| S  | M  | T  | W  | T  | F  | S  |
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| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
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**MARCH**

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**APRIL**

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| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
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**MAY**

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**JUNE**

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**JULY**

| S  | M  | T  | W  | T  | F  | S  |
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**AUGUST**

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| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
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**SEPTEMBER**

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| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 |    |    |

**OCTOBER**

| S  | M  | T  | W  | T  | F  | S  |
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**NOVEMBER**

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| 28 | 29 | 30 |    |    |    |    |

**DECEMBER**

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| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |