IEEE DELHI SECTION NEWSLETTER

Beacon

VOL 25 NO. 1
JUNE 2005
email : ieeedelhi@ieee.org
URL : http://www.ewh.ieee.org/r10/delhi

IEEE THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEER, INC.

INDO-PAK CONFERENCE

INTRODUCTION

During R 10 Meeting at Adelaide in April 2004, Section Chair from Delhi (Raj Kumar Vir) and Vice-Chair of Karachi (Shahid Suleman Jan) Sections interacted and Concept of a joint conference emerged and the subject was reviewed in the respective Excoms of Delhi and of the 3 Sections of Pakistan. Delhi Section took initiative to hold first of such conferences. India council supported the propo-sal whole-heartedly. President IEEE also appreciated the idea and provided financial support from the headquarters. Various public and private sector organisations sponsored the event. The theme chosen for the confer-ence was: -

Souvenir being released to mark the inauguration of the Conference


A view of participants in the Conference at Gulmohar Hall of India Habitat Center

" Impact of Infrastructure Reforms on Development

It was mutually decided to have different sessions for the following subjects: -

Contd. on Page 2

IEEE PRESIDENT VISITS DELHI SECTION

IEEE President W.C. Anderson visited India in mid January 2005 and was also at Delhi. His trip to India so soon after taking over as IEEE President w.e.f. 1st January 2005 shows how much importance he is giving to India in his scheme of things for growth of IEEE. During his stay at Delhi he addressed student members at Delhi College of Engineering explaining the importance of IEEEmembership and how it is relevant for the career growth of young students. He also stressed an motivation to students for retaining the membership.


Mr. & Mrs. Anderson at Delhi Section Meeting


Mr. Anderson at DCE

Contd. on Page 3

IEEE PRESIDENT MET PRESIDENT OF INDIA

During his visit to Delhi, President W.C. Anderson got an opportunity to call on Hon'ble President of India APJ Abdul Kalam an 21st January 2005. This is the first time when an IEEE President could have a meeting with the Indian Head of State. President Abdul Kalam, being himself a renowned scientist & technocrat, showed keen interest in the IEEE activities.

Shri Harbans L. Bajaj, Fellow IEEE, Past Region 10 Director and Chairman, Central Electricity Authority, Govt. of India accompanied Mr. Anderson for this meeting.

1. Power and Energy
2. IT and Communication Technologies
3. Transportation

The process started with identifying guest speakers. It is heartening to point out that we were able to get willingness of top most specialists in their respective fields to present papers at the conference.

Probably very few are aware of the travel restrictions existing in both the countries to each others' citizens The very possibility of having such a conference at one stage entirely rested on grant of visas by Indian High Commission to the intending participants from Pakistan. At one stage it just became touch and go. Thank God the visas were just given at the eleventh hour for the participants to reach just in time. Patience of Delegates from Pakistan needs to be commended.

Conference was held at Gulmohar Hall of India Habitat Center, New Delhi, India on February 19 & 20, 2005. 114 participants (38 Members and 76 others) registered for the conference. 9 came from the three Sections of Lahore, Karachi and Islamabad in Pakistan. Besides the inaugural session, there were three technical sessions on 'Power & Energy', 'Information & Communication Technologies', and 'Transportation'.

In his welcome address Conference Convenor from India mentioned that both India and Pakistan were the two giants of the sub continent involved in improving the standards of living of their peoples and are faced with the common challenges in face of expanding economy at a fast pace. Both the countries have bullock cart culture along with Nuclear power. He highlighted the following projects of common interest for electrical and electronic engineers, which could spur development in both countries

1. Railway Electrification

At present Railways of both the countries have adopted 25 kV for their electrification schemes. Electrified lines exist up to Amritsar in India and Lahore in Pakistan. The line could be electrified at 25 kV. In the time to come the line could be used for freight movement or for passenger train destinations other than Lahore and Amritsar as well; say Lahore to Ajmer, Islamabad to Lucknow and Karachi to Agra.

2. Power Grid Interconnection

From Pakistan, depending on mutual convenience, possibility lied with interconnection from the developed Sind River Valley Projects to Northern Regions of India. For power transfer up to 500 MW could be through 220 kV links from Lahore to Patti near Amritsar. Erstwhile route of 132 kV line, from Joginder Nagar to Lahore via Patti, could be adopted.

For more power, 400kV links to Moga (Punjab, India) and Sirohi (Rajasthan, India) could be built Again distant future may also see joint tidal power development in the Gulf of Kutch. Peak Demands in both countries do not occur at the same time Intertransfer of power will mean better load factor at the power plants of both the countries.

3. Projects for IT and Communication Services that call for common approach, say to the following projects:-

a) New technological solutions for physically handicapped for their development and advancement

b) Better citizen delivery of government and public services

c) Experience and knowledge sharing for reaching the unknown frontiers.

The inaugural session was addressed by distinguished personalities, like Ram Vinay Shahi (Secretary - Power, Govt. of India), Harbans Lal Bajaj (Fellow of IEEE & a former Director Region R10 and Chairman, Central Electricity Authority of Govt. of India), Faqir Chand Kohli (A fellow of IEEE and also a former Director Region R 10 and ex-Chairman, Tata Consultancy Services), besides leader of delegation from Pakistan, Mr. Shaikh Imranul Haque

Session - I on 'Power & Energy' in progress during the Conference

(Karachi Section Chair and a co-convener of the conference), and IEEE Delhi Section Chair, Mr. Prakash V Ekande. In their addresses each one of the speakers appreciated the initiative in holding such a Conference, particularly due to similarity of problems and issues being faced by both the countries in the process of development in the changing scenario of Globalization, Privatization and Liberalization. It was hoped that under IEEE many more conferences of this type might be focusing on a particular area each time would be held in future in both the countries.

Three Sessions dealing with " Power & Energy ", IT and Communication Technologies " and " Transportation" were convened. The leading authorities in their respective fields presented the papers. In the session on 'Power & Energy' as many as four papers were presented. The papers dealt

with financing of power projects, the development of generation and transmission systems, the opening of power sector to private entrepreneurs in nineties and finally in presentation on possible opportunities in power trading not only amongst various regions of the country, but also with the neighboring countries. Presenters were respectively from Power Finance Corporation, National Thermal Power Corporation, Power Grid Corporation and Power Trading Corporation. Giving background of power development of the country since independence while success stories were narrated, actions being taken to provide electricity for all by the year 2012 were highlighted. In the process prioritization of investment in power sector, regulatory mechanism, augmenting capacity through new addition as well as renovation and modernization and also development of renewable energy were touched. Achievement of economy in fuel consumption, reduction of commercial losses with the goal of enhancing efficiency, quality of services, attracting investment with proper balancing in risk and asset management were the issues addressed. In this context use was made of the buzzwords

We made it - Delegates from Pakistan along with IEEE Delhi Section Volunteers

for the actions, like, Liberalization, Globalization and Privatization (LPG) to reduce political interference, monopoly, etc. leading to competitive market. Confidence was expressed on the fact that enabling provisions under Electricity Act 2003 (India) would be in a position to achieve the reform in a full-fledged manner. While dealing on transmission system it was stated that with shortage and surplus scenario prevailing at the same time region-wise lead to the necessity of inter-regional power flow through the National Power Grid, which would be completed by 2012. Integrated development, environmental problems, resource crunch, joint sector as well as private sector route of investment under reform were the other issues talked about for the transmission development. The trading issues related to power and energy on day-to-day as well as seasonal basis, comparison of growth in GDP in India with

MOU BETWEEN IEEE & IETE

Mr. WC Anderson (Left) and Lt. Gen D.P. Sehgal, President IETE (Right) Signing the MOU.

The Memorandum of understanding (MOU) signed first time in 1995 between IEEE and IETE for mutual cooperation in various technical and professional activities has been further extended by 3 years. The document was signed on 21st January 2005 during the visit of President IEEE W.C. Anderson.

Contd. from Page 1

On 21st January, Mr. Anderson also met the members of Delhi Section Executive Committee and made a presentation an advantages of IEEE membership and what benefits an IEEE member can derive from IEEE. He also discussed over the problems which members are facing and took note of them. He was happy to note that India is showing the largest growth in IEEE membership as well as in number of student branches and still has a big potential for growth. In the evening, Delhi Section hosted a Dinner for Mr. & Mr. Anderson.

SPECIAL ANNUAL GENERAL MEETING

Chairman, Delhi Section has called for a special Annual General Meeting of the section on 30th July 2005 (Saturday) at 4.00 P.M. at India International Centre Annexe, Lodhi Estate, New Delhi to consider the proposed amendments in the Section Bylaws. Any other items can also be discussed with permission of the chair. Member are requested to participate in it in large number.

Secretary
IEEE Delhi Section

developed countries, synergy of pooling to meet growing demand not only within India, but also considering present scenario in neighboring countries were discussed mentioning steps to be taken.

In the session on 'Information & Communication Technologies' there were five presentations from Pakistan and India. With IT Policy and Telecom Policy coming into existence in 2000 and 2003 respectively in Pakistan. Focused deployment of technology had a multiplier effect. With the creation of host of regulatory authorities, IT enabled growth depended upon four pillars of communication, HRD, market creation (domestic and international), rules and regulations. With open-ended licensing regime, for 150 Million people, Tele-penetration reached 2.97 Million while on mobile front 10 Million would be the figure by 2006. Cost of Internet logging drastically reduced and Pakistan Education and Research Network was established with 155 Mb/s optical fiber backbone making it possible to establish virtual university too. Relevant laws had already been enacted. Opportunities were said to be existing between India and Pakistan on equipment, IT enabled services and Telecom Operators. Presentation from EMC2 under information life cycle management, gave an overview of technologies, standards and solutions stressing the need of facing challenge of managing information having about 93 per cent in digital form, mismatch between information growth and resources availability. Microsoft's paper on building robust IT infrastructure highlighted critical dependence of society on IT with the growth and development of computer hardware, software and services. Technical revolution on computing power, connectivity, device proliferation and standards, with trustworthy computing under security, privacy, reliability and business integrity had built an important segment of infrastructure. In the Indian context, under policy regulations and technologies, evolution of technologies, value addition, IP based services, multi-agency system, convergence of facilities with licensing objective enabling entrepreneur to push bright idea without any limitations were the key issues addressed. In the paper on tech-legal synergization for national development, complete overhauling of laws was said to be the need of hour. It should be commensurate with technical advances and knowledge economy. Therefore mere transportation of information would not be enough. Amplification, analysis, filtering, etc. of the same would also be required.

In the last technical session on 'Transportation', essentially three papers were presented from Indian Railways and their associated organizations. While dealing in the context of rapid mass transportation system in metropolitan areas, vivid account of necessity, development, challenges faced and solutions evolved were given on behalf of Delhi Metro Rail Corporation. Experiences gained were unique and could be used for the execution of similar projects in other big cities, not only in India but also in the neighboring countries. Railway Electrification was another area that was highlighted in another paper terming it as a boom for Indian railways for carrying goods as well as passengers from every part of the country. Progressive development with modernization, essentially based on evolution of communication technologies, had made transportation of information to and fro possible through Internet as well as bi-directional communication while traveling in train. Accordingly Indian Railways Telecom System had been geared up to install equipment and devices to extend such facilities to passengers in phases.

Impressions of Dr. Ashraf Iqbal (Delegate from Lahore Section)

The Pakistan delegation was late by half an hour but surprisingly the inaugural session was delayed for us. We were certainly given a grand reception and every one was so welcoming but I was too tired, sleepy, or perhaps too skeptical to pay any serious attention. I was almost forced to pay attention when a senior IEEE fellow started talking about the challenges faced in converting more than a dozen second rate universities into world class IIT's or

IIS's like institutes. Almost every sentence that he has uttered reflected a sincere effort and above all a fifty years experience in solving real problems of engineering education with the help of senior engineers, professional organizations, and government departments. I had to cancel my plans to visit a number of historical places during conference hours.

By the time we had tea break, we had realized that this would no longer be a purposeless conference. It has in fact started unfolding itself into something where we, for the first time, got the glimpse of the wisdom gained by senior engineers as well as academicians when they plan, execute, and monitor mega projects using local and sometimes crude technology. It has reminded me the incident described by Dr. Mubashir Hassan in his book: while refusing to entertain the President of the World Bank in 1975. He narrates how civil engineering design relying on imported technology and materials escalates the costs and how World Bank dictates third world economies. India is one of the few countries where the philosophy of self-reliance is perhaps the major driving force in the design of all mega projects.

Report by RK Vir (Convenor) with
inputs from
Dr. Subrata Mukhopadhaya, P V Ekande,
Imran ul Haque, Dr. Ashraf Iqbal and Dr. Durrani

FROM THE DESK OF CHAIRMAN

Dear Member,

I am conscious of the honour given to me by nominating as the Chair of Delhi Section for the year 2005 by the Nomination Committee of IEEE Delhi Section and endorsing the same by all esteemed members in the AGM held in Jan'2005. At the outset, I congratulate all the EXECOM members and Chapter Chairs of the IEEE Delhi Section for having elected for 2005. I extend my special congratulations to Dr.S.Mukhopadhyay and Dr.R.G.Gupta having nominated in the governing council of Power Engineering Society and AES Society. We extend our hearty congratulations to Prof. C.S.Rao for getting Out-standing Power Engineer Award for the year 2004. All of you are aware that a number of events took place at the beginning of the year itself particularly the Visit of Mr.W.C.Anderson-President IEEE, Indo-Pak Conference and International Conference-ICPWC-2005. Mr.Anderson had very meaningful meeting with all the members and addressed the Students at Delhi College of Engineering. The MOU between IEEE and IETE was also extended during his visit. It is a matter of pride that with consistent efforts of Mr.R.K.Vir, Past-Chairman, the Indo-Pak Conference was organised first time after independence by the two neighboring countries. With the support from Mr.H.L.Bajaj, FIEEE & Chairman, CEA, the patron, Mr. S Imran ul Haque from Pakistan and the members of organising committee, it was only possible to make the conference successful which I desire to place on record. I would also like to inform that I attended Region - 10 Section Congress held at Singapore on 30th & 31st March, 2005. In his Presidential address Mr.W.C.Anderson, President IEEE specifically stated words of his appreciation for the contribution made by India in IEEE activities and wonderful experience during his visit to Delhi. Dr.Mukhopadhyay and Dr.Mini S.Thomas were honoured for their OUT - STANDING Contributions in the meeting at special function. On my personal behalf and on behalf of all of you I extend hearty congratulations to them and solicit their continued support and contributions to our activities.

When we have made Delhi Section as one of the prominent sections not only in India but also in the Region and International activities, it is necessary to improve upon our strength and activities. In this context I would like to refer to the message given by the Region - 10 Director Professor S.Takeuchi that we have to continuously remain in progress both in terms of membership in numbers and its quality by way of Senior & Fellow membership as well as by way of activities. Our main focus should be to provide greater specification to our membership. While taking stalk of the situation our membership of 1800+ is comparatively low when it is seen with Mumbai and Chennai Sections which have 7500+ & 4400+. Our aim should be that we should touch 2500 plus membership by the end of this year and 3000 plus by next year. It has been seen that membership is not renewed by many members. Only about 1250 members have renewed their membership by March 2005. I request all these members to take the help of online renewal of the membership through internet. It is possible for the members to renew membership through credit card also. The main benefit of IEEE membership is to provide various Forums and Networking with the people of professional interest besides other numerous benefits. I appeal all members to introduce more & more new members; of course you will get benefit of US$5 by Scheme Member-to get-Member.

As you are aware we have also initiated formation of three Affinity groups viz. Women in Engineering (WIE), GOLD (Graduate of last decade) and Consultant Network. I look forward for more strength and activities from these affinity groups. I highly admire the student members for their activities synergy and support given to IEEE Forums. As a matter of fact the students are Leaders of future. The observation made in various forums is that there is discontinuity in membership when students are completing their courses. I am sure; it will be beneficial to all the student members to continue membership as a GOLD member subsequently.

We highly appreciate the contribution made by student branches of the institutes in particular Jamia Millia Islamia University, Delhi College of Engineering, NSIT, Indira Gandhi Institute of Technology Delhi, Malviya National Institute of Technology Jaipur and JMIT, Radaur (Haryana).

We are also introducing a Young Engineer Award of Rs.10, 000/- every year starting from 2005 and young members should participate in the scheme which will not only bring more professional and competitive culture but one can be the winner. The Educational activities are being provided with substantial support from Regional funds and our endeavor should be to avail maximum benefits of these funds. We are also making attempt to open more Sub- sections. In this context, already proposal for Chandigarh Sub-Section has been submitted which is in the process of approval. I congratulate Prof. C. S. Rao for this effort. We will also be submitting the proposal for opening sub section at Jaipur.We are also seeking approval of Region-10 for Region Student Congress & TENCON -2010.

I solicit your active participation & co-operation all time.

With kind regards,

PRAKASH V.EKANDE
CHAIRMAN IEEE DELHI SECTION

REGION 10 COMMITTEE MEETING AT SINGAPORE

Region 10 Committee Meeting is held regularly every year in one of the countries under Region 10 and accordingly **the Meeting for 2005 was held on 30 - 31st March, 2005 at SINGAPORE**. From Delhi Section, Mr.P.V.Ekande, Chairman IEEE Delhi Section and Shri R.K.Asthana, Chairman IEEE India Council attended the meeting as members. Dr.S.Mukhopadhyay and Dr.(Mrs) Mini S.Thomas were invited to be honoured with Awards. In a special function Dr.S.Mukhopadhyay was given **RAB Achievement Award** for Outstanding contribution in Electronic Communications and Dr. Mini S.Thomas received Regional **Outstanding Volunteer Award**. It is a matter of great pride that two of our members were honoured with such coveted IEEE Awards in the same year.

In his welcome address Prof. S. Takeuchi, Region - 10 Director gave details on the achievements of 2004 and objectives / plans for 2005. He emphasized that although R-10 reached highest Membership; it should sustain the position and progress. He expressed opinion for quality improvement in terms of membership Grade i.e. Senior / Fellow Memberships and programmes, publications.

Mr.W.C.Anderson, President IEEE, Marc T. Apter VP-Region Activities, Ms. Leah Jamieson VP-Publication Services & products and Dr. J.U. Seo Past-Region Director also addressed the participants.

Mr.Anderson in his presidential speech, highly appreciated the contributions from all sections of India and in particular referred to his recent visit to Delhi. He gave his advice on various aspects of adding values to the Membership and vision for future functioning. He gave maximum importance for the Volunteer's work.

The concern was expressed by all on reduction in membership in the Students category after completion of education and enhancing activities by **GOLD** Membership was felt necessary.

Dr.J.U.Seo - Past Region - 10 Director presented on strategic planning for continuous growth. It was desired that each Section should have the strategic planning and interaction with R-10 Head Quarter for achieving the objectives.

During the meeting, a presentation on Indo - Pak Conference was also made jointly by Mr.P.V.Ekande, Chairman IEEE Delhi Section and Mr. S. Imran ul Haque, Chairman, IEEE Karachi Section. The delegates were highly impressed on the initiative taken by Delhi & Pakistan Sections especially when no event took place between the two neighboring countries so far.

The meeting was concluded with the remarks from President IEEE and Director Region - 10. Vice-President Regional Activities Mr. Marc T.Apter also made announcement for Section Congress 2005 being held in the month of October, 2005 at Tampa, Florida, USA and desired participation by all Section Chairs. The Section Chairs Meet of Region - 10 would also be held during this period at Tampa.

PRAKASH V.EKANDE
CHAIRMAN IEEE DELHI SECTION

IPMA World Congress

International Project Management Association (IPMA) is holding their World Congress at New Delhi from November 13 to 16, 2005. The theme of the Congress is "Vision to Reality - The project management way." This World Congress is being organised outside Europe for the first time and about 1500 delegates / speakers from 80 countries are likely to participate in this Congress. IEEE delegates will be given 10% discount in the Registration Fees. For more details, please contact IPMA C/o Project Management Associates, A-48 Sector 5 Noida-201301 Tel. : 91 120 2420444, 2421757, E-mail : pmai@vsnl.com

our achievers

IEEE Awards To Dr. Mini S. Thomas and Dr. S. Mukhopadhyay

Dr. Mini S. Thomas, the Secretary of IEEE Delhi Section received two awards from IEEE. She was invited to the recently concluded R10 meeting in Singapore to accept these awards in person. Dr. Mini won the Outstanding Branch Counselor award for her contributions as the branch counselor of the Jamia Millia Islamia student branch in Delhi which is one of the most active student branches now. This award is given by the Regional and Technical Activities Boards of the IEEE to approximately five outstanding Counselors throughout the world to recognize the unusual and dedicated efforts of Branch Counselors. Dr. Mini through her work at Jamia and also as the Student activities chair of Delhi section exemplified the IEEE's commitment to the educational, professional, and technical development of students in IEEE related fields of interest. The IEEE President 2005 W.C. Anderson presented the award to her.

Dr. Mini also won the Outstanding Volunteer award for Region 10 (Asia-Pacific) for the year 2004. This award is in recognition of her outstanding contributions in enhancing the IEEE cause under the Delhi section. New ideas and projects which Dr. Mini undertook include, the Women in Engineering affinity group formation in 2004, the Biannual student meet started in 2003, the J.K. Pal memorial student award etc which significantly benefited the section.

Dr. Mini S. Thomas (2nd from left) recipient of outstanding Branch Counsellor Award 2002 and Region 10 outstanding Volunteer Award 2004 and Dr. Subrata Mukhopadhyay (3rd from left) recipient of 2004 IEEE RAB Achievement Award in the field of Electronic Communication at various levels of IEEE flanked by IEEE President W. Cleon Anderson (left) and IEEE Vice President, Regional Activities Marc T. Apter (Right) during Award Ceremony & Banquet Dinner on March 30, 2005, IEEE R10 Meeting, Singapore.

As seen in the photograph, Dr. Subrata Mukhopadhyay was also invited to R10 Meeting at Singapore to receive 2004 IEEE RAB achievement award.

Dr. S Mukhopadhyay in PES Governing Body

Dr. Subrata Mukhopadhyay, a distinguished volunteer of IEEE Delhi Section, has taken over the assignment of Regional Representative, Asia Pacific and inducted to the Governing Body of the Power Engineering Society (PES) for the period 2005-06. After attending the first meeting in Tampa, Florida, USA, on Jan. 19-20, 2005, he has initiated formation of PES chapters in Vietnam, Indonesia, Srilanka and Bangalore. With the support of PES Vice President, Membership & Chapter Activities (the area where Subrata still continues to look after the assignment of Secretary) and President-Elect, a proposal has been made by him to hold PES Executive Committee meeting in New Delhi in April 2006 alongwith IEEE Power India Conference 2006 in association with Delhi Section and its PES-IAS Chapter.

Dr. R.G. Gupta in Governing Council of AES Society

Dr. Ram Gopal Gupta, Vice Chairman IEEE Delhi Section and Chairman AES-COM-LEOS Chapter of India Council has been elected as a Governor on the Board of Governors of AES Society for the years 2006-2009. This unique honour to Dr. Gupta is in recognition to the services he was rendered to the AES Society as its Chairman of India Council Chapter.

Lahore Calling .....!

A Student Exchange Program on the behalf of IEEE Delhi Section was organized wherein 40 student delegates and 1 teacher member from India went to attend SOFTEC'05 - 1st All Asia and 10th All Pakistan IT Exhibition and Competition organized by National University Of Computer and Emerging Sciences (NUCES- FAST) Lahore - a premium university in Pakistan in the field of Information Technology. The two day extravaganza which was held on 12 - 13th March, 2005.

Student delegates at Lahore

Student delegates from Nepal and Bangladesh were also a part of the festival which aimed at providing an outlet for the ingenious and innovative brains and a platform to facilitate the exchange of information, ideas and opinions related to the information technology.

The Indian Delegation was comprised of students of 4 colleges of Delhi namely Jamia Millia Islamia , Delhi College Of Engineering , Amity School Of Engineering and Netaji Subash Institute Of Technology.

The two day festival provided a forum for students all over Pakistan and other countries to compete their skills in the Software and Dynamic Programming Competitions. Ideas Xtreme provided a platform for the school going children to exhibit their wild ideas related to computer science.

It was a remarkable experience to visit the neighboring country and interact with the students and faculty members there and especially attend SOFTEC'05. Every member of delegation was overwhelmed and filled with the feelings of immense gratitude for the hospitality shown by lahorians. The trip indeed left all the visitors with several beautiful moments to cherish all through their lives.

Mini S. Thomas., SAC Chair, with inputs from Megha Joshi, JMI

VISIT TO JMIT, RADAUR

Mr. R.K. Vir, M. P.K. Srivastava and Mr. Daman Dev Sood visited JMIT Radaur on 16.04.2005. The occasion was the 'Reactivization of IEEE Students Branch at JMIT Radaur, along with Inter-College Technical Presentation and Poster Competition (QUASAR 2K5)'. While congratulating JMIT student and faculities for reactivating IEEE Students Branch, Daman talked to all students about benefits of IEEE membership and invited all to join. He explained the procedure of setting up a new branch at an institute. He then delivered a highly interactive lecture on 'How to Pass Interviews in Flying Colours'. Mr. Vir and Mr. Srivastava later talked to students about their experiences in IEEE. The three senior members from the IEEE Delhi Section also played the role of judges for the competitions organized by JMIT.

FORMATION OF GOLD AFFINITY GROUP
(COPY OF LETTER OF APPROVAL FROM IEEE HQRS)

04 May 2005

Ms. Shabana Mehfuz
A-536, Sector 19
Gautambudhnagar
Noida, UP 201301
India

Dear Ms. Mehfuz:

Congratulations! On behalf of the IEEE Regional Activities Vice President, Marc T. Apter, it is a pleasure to inform you that the requirements of the RAB Operations Manual have been met, and the IEEE Delhi Section - GOLD Affinity Group has been formed. The effective date of this Affinity Group formation is 03 May 2005.

At this time, we are recording you as the Affinity Group Chair. When an election has been held, please report the name and member number of the new Affinity Group Chair to the IEEE using the online Officer Confirmation form at http://www.ieee.org/scsreports. If we can assist you in any way in the planning of the Affinity Group activities, please let us know.

We extend our best wishes for the successful operation of this Affinity Group.

Sincerely,

Cecelia Jankowski
Managing Director
Regional Activities

MINUTES OF THE ANNUAL GENERAL MEETING 2005

Guest speakers Dr. Vikram Kumar (2nd from left) and Dr. Figueiredo (3rd from left) in AGM

The Annual General Meeting (AGM) of the IEEE Delhi Section was held at 10:30 AM on January 16th 2005 (Sunday) at Indian International Centre, New Delhi. Record 81 members attended it. The meeting was followed by a special felicitation function to Dr. Subrata Mukhopadhyay on receiving the RAB achievement award & to Prof.C.S.Rao on receiving Outstanding Chapter Engineer award of the PES chapter.

Dr. Vikram Kumar. Director, National Physical Laboratory, delivered a special lecture on the occasion and Dr. Rui J. P de Le Figueiredo, University of California at Irwin spoke briefly about the IEEE circuit and systems society.

The deliberations of the AGM are as follows

1. Welcome Address by the Chairman, IEEE Delhi Section

1.1 Mr. R.K. Vir, Chairman, IEEE Delhi Section welcomed the members to the AGM. Before the commencement of the proceedings, a two minutes silence was observed in the memory of the Tsunami victims.

2. The Section Chair began by recollecting the 'failures' during his tenure, before he discussed the achievements. The membership growth was poor and he urged the members who have not paid till now to pay by 31st March and retain the membership. He suggested that to increase the participation of young engineers the Section Bylaws may need to be amended. The formation of the Chandigarh Sub Section was also major achievement, although the failure to form the Rajasthan/Jaipur subsection is disturbing. He also mentioned that Section has also failed to close PEDES 1996 accounts. He hoped the accounts are settled as soon as possible.

3. He expressed happiness over the large number of activities the section had in 2004. Section Chair also mentioned, that due to extraordinary number of professional and technical there could be the possibility of section being adjudged as the outstanding Section in R10 level and even at HQ level. He complimented Dr. Subrata Mukhopadhyay for his contribution in this respect.

4. He also congratulated Dr. Subrata Mukhopadhyay on receiving the RAB achievement award for the year 2004.

5. He requested the member's wholehearted corporation in the organization of the first Indo-Pak meet in February.

2. Confirmation of the minutes of the General Meeting held on January 19th 2004

2.1 The minutes of the last General Meeting as circulated earlier, since no comments were received, were then approved by the house as proposed by Dr. B.P. Singh and seconded by Col. J. C. Anand.

3. Presentation of Activity Report by the Secretary

3.1 Dr. Mini S. Thomas, the Section Secretary presented the report on the activities of the Section during 2004. The section had 77 activities, of which 41 were administrative meetings. The 30 technical activities were primarily expert lectures by people of eminence on current topics. The section also had six professional activities. Student activities grew at a considerable pace this year, and the membership picked up from 584 in November 2003 to 646 in December 2004. We inaugurated IGIT (Indira Gandhi Institute of Technology, Delhi) student branch in Feb 2004 and a student branch, which was inactive for the past 4 years SJPMLIET, Radaur, has been reactivated this year. The biannual student meet started last year is a huge success, which has helped in fostering a greater interaction between various student branches under the Delhi section and has created a feeling of

oneness. The J.K. Pal memorial award instituted in 2003 for the best student volunteer from each student branch is motivating the students to work better; this year we have 7 student volunteers representing 7 student branches for the award. 5 student volunteers represented the Delhi section at the R10 student congress held at Hong Kong in July 2004. One-Day Seminar on "PROJECT MANAGEMENT -LATEST TRENDS" held on 19th March 2004 and International Conference 2004 PCI India was organized by PES-IAS Chapter were organized successfully.

Delhi section brought out 2 issues of the newsletter BEACON in 2004, due to the efforts

Mr. RK Vir, Chairman (Centre) alongwith Dr. Mini Thomas, Secretary and Dr. Shankar Prakriya, Treasurer at AGM.

of the publication sub committees headed by the Section Vice-Chair, Mr. P.V.Ekande. Dr. Subrata Mukhopadhyay, the Electronic communication coordinator regularly circulated the section e-newsletter ieeedelhinews every month, keeping all the members informed of the activities of the section.

3.2 After the discussion, the secretary's report was approved as proposed by Mr. M.M.S. Puri and seconded by Prof. C.S. Rao.

4. Presentation of Financial Report by the Treasurer

4.1 Dr. Shankar Prakriya the section treasurer presented the audited accounts for the year 2004. The one page report covered the various transactions under 'Receipts' and 'Disbursements' along with the corresponding figures for the previous two years, i.e. 2002 and 2003 for the purpose of comparison.

4.2 After discussions the report was approved with Col. J.C. Anand proposing and Mr. M.M.S. Puri seconding.

5. Introduction of the new Executive Committee

1. Since no petition was received, the slate proposed by the Nomination Standing Committee was approved. The Delhi Section slate for 2005 is as follows:

Mr. P.V.Ekande,NTPC (Chair)

Dr. R.G. Gupta,MIT (Vice-Chair)

Dr. Ramnath,BHEL (Vice-Chair)

Dr. Mini S. Thomas, JMI (Secretary)

Dr. R.K.Mallik, IITD (Treasurer)

Mr. Daman D. Sood, TCS (Jt. Secretary)

Mr. R.K. Vir (Ex-Railways) (Past Chair)

Mr. P.K. Srivastava (Ex-BHEL)

Mr. M.M.S. Puri (Desein)

Mr. R.K. Asthana, (BHEL)

Dr. V.R. Singh, NPL

Dr. S. Mukhopadhyay, CEA

Dr. R. Balasubramanian, IITD

Dr. Shankar Prakriya, IITD

Dr.K.Subramanian,NIC

Dr.Alok.K.Mittal,NSIT

The new Executive Committee members were introduced to the House. The new Section Chair, Mr. P.V. Ekande addressed the august meeting congratulating Dr. Mukhopadyay and Prof. Rao. He expressed gratitude for giving this opportunity. He placed on record gratitude for the contribution by out going Chair Mr. R.K.Vir and Past EXECOM Members and briefed about the future plans of the new EXECOM.

6. Any other item

6.1 Dr. Subrata Mukhopadhyay was felicitated for receiving the RAB achievement award. The Outstanding Chapter Engineer award by the IEEE PES Chapter was presented to Prof. C.S. Rao by the Chapter Chair, Dr. Subrata Mukhopadhyay and Mr. R.K. Vir. Prof. P. Kundu presented the J.K. Pal memorial best volunteer award to seven student volunteers.

6.2. Mr. R.K. Vir sought the consent of the members to make Delhi and Lahore sections as sister sections, which were approved by the AGM with Dr. B.P. Singh proposing and Mr. P. K. Srivastava seconding it.

6.3 The AGM came to an end with the vote of thanks proposed by the Section Joint Secretary Mr. Daman D. Sood.

DR. MINI S. THOMAS SECRETARY,
IEEE Delhi Section
February 22, 2005

PROPOSED CHANGES IN SECTION BYLAWS - 2005

In the AGM, it was felt that Section Bylaws may be amended, if required, to induct more young engineers in the Executive Committee. Accordingly a Subcommittee comprising Dr. S. Mukhopadhyay, PK Srivastava and PV Ekande was asked to draft the amendments which were subsequently discussed in the 3rd meeting of Executive Committee. The proposed changes are new being circulated to all members which will be put up for approval by AGM in its meeting to be held on saturday July 30th 2005 at 4.00 p.m. at India International Centre Annexe, Lodhi Estate, New Delhi.

Existing

Article-II: Officers

2.1 The elected officers of the Section shall be Chairperson, two Vice-Chairpersons, Secretary, Joint Secretary and Treasurer.

Article-V : Management

5.1 Management of the Section shall be by the Section Executive Committee which shall consist of the elected officers, nine elected members, immediate past Chairperson, Chairpersons of all Sub-sections and Chairpersons of all Groups / Society Chapters, if located in Delhi as ex-officio Members. More Members not exceeding four may be co-opted by the Section Executive Committee.

5.2 Meeting of the Section Executive Committee will ordinarily be held monthly and will be called by the Section Chairperson or by a written request of any five Members of the Section Executive Committee.

5.3 Majority members of the Section Executive Committee shall constitute a quorum provided elected members are at least one more than the appointeed members and the business shall be conducted by majority vote.

5.4 The financial year of the Section shall be one year with effect from 1 st January.

Proposed

Article-II: Officers

2.1 The elected officers of the Section shall be Chairperson, two Vice-Chairpersons, Secretary, Joint Secretary and Treasurer. One of the Vice Chairpersons shall be designated as Executive Vice Chairperson, who shall take over from the Chairperson for the next term.

Article-V : Management

5.1 Management of the Section shall be by the Section Executive Committee which shall consist of the elected officers, nine elected members, immediate past Chairperson, Chairpersons of all Sub-sections, and Chairpersons of all Groups / Society Chapters / Officers of India Council, if located in Delhi as ex-officio members. More members not exceeding four may be co-opted by the Section Executive Committee. Immediate past Chairperson or in his / her absence / non-availability, past Chairperson prior to him! ! / her shall only be included in the Section Executive Committee. Out of the nine elected members at least two shall be new entrant. The Delhi section student representative, nominated by the section, shall be an invitee in the Executive committee as observer.

5.2 Meeting of the Section Executive Committee will ordinarily be held bi-monthly and will be called by the Section Chairperson or by a written request of any five members of the Section Executive Committee. Executive Committee members are expected to attend at least 50% meetings of the Executive Committee.

5.3 50% members of the Section Executive Committee (excluding the co-opted ones, but including ex-officio ones) shall constitute a quorum and the business shall be conducted by majority vote.

5.4 The financial year of the Section shall be one year with effect from 1st January.

Article-XI: Chapters

11.1 Each Chapter of the Section shall have own bylaws in consonance with bylaws of section and IEEE.

11.2 Chairs of Chapters of Section can have a maximum tenure of four years.

TELEMATICS IN BUS TRANSPORTATION SYSTEMS

KALAGA RAMACHANDRA RAO
Department of Civil Engineering
IIT Delhi, Hauz Khas, New Delhi – 110 016
E-mail: rrkalaga@civil.iitd.ernet.in

INTRODUCTION:

Telematics is a wireless communications system designed for the collection and dissemination of data. Applications include vehicle-based electronic systems: mobile telephony, vehicle tracking and positioning, on-line navigation and information services and emergency assistance. Transportation telematics applications are also known as Intelligent Transportation Systems, which play a vital role in ensuring mobility for all.

Bus Transportation is widely used for commuting in most of the cities of India. Compared to other modes of urban transportation, it is very cost-effective from commuter point of view and less capital intensive from the operator point of view. It is not uncommon that we would have had the experience of waiting at the bus stop without really knowing when our next bus would come. Though this question apparently seems trivial but inherently complex. Analysing this situation and giving a reasonably accurate arrival time needs the use of telematics. We shall try to understand how telematics system will enhance the service quality of bus transportation system.

BUS TRANSPORTATION TELEMATICS :

Bus telematics system provides several functions such as real time passenger information, bus priority at traffic signals and the schedule monitoring. The system solely runs on the wireless communication with radio modems.

The corner stone of the telematics system is the location of the bus. It is determined in three steps:

- GPS-satellite navigation plots the bus roughly on the right bus stop window (a section of the route before and after the bus stop)
- Bus door opening at the bus stop locates the bus exactly on the right position along the route.
- The bus location along the route is based on the odometer counting the accurate distance of the bus from the preceding bus stop

In practice however the following features are essential for incorporating telematics in bus transportation:

- Communication Infrastructure (long-range radio communication, information exchange protocols, short-range communication),
- Traffic Supervision Dispatch Centre,
- Depot Dispatch Stations,
- Mobile Devices installed in buses, repair and traffic supervision vehicles

OPERATIONAL DETAILS:

The following are the operational details of a typical telematics system installed in a bus transportation system:

- Radio communication can be used to enable two-way communication between the Dispatch Centre and Mobile Devices installed in vehicles and Depot Stations. This applies to both automatic data transmission and voice communication.
- The system will co-operate with passenger information systems on-board vehicles and at bus stops, the validation system and the system for enforcing priority for public transport vehicles at road junctions with traffic signalling.
- The driver can contact the Traffic Supervision Centre in the standard, emergency or alarm mode. In the alarm mode, system devices switch automatically to monitor the situation in the driver's cabin.
- The Dispatch Centre will gather information from vehicles. Every vehicle will be able to define its current location, thus enabling the dispatcher to define the bus' compliance with the timetable.
- Vehicle positioning will be possible through the application of the generally accessible GPS satellite navigation system, odometer readings and signals from the door sensor system.
- The system will also enable the Dispatch Centre to continuously monitor the passenger loading level will be registered in Mobile Devices.
- The devices installed in vehicles will operate independently. The driver will have access to information on possible deviations from the timetable even when radio communication with the Dispatch Centre is not available.
- The data concerning vehicle operation will be stored in Mobile Device memory and will be retrieved after return to depot.
- The vehicle will conform to the timetable defined upon departure from depot or will be directly supervised by the Dispatch Centre.
- When approaching street junctions with traffic signalling, buses will have right of way depending on timetable and occupancy level. Passengers waiting

at the bus stop will have access to information on arrival time.

BENEFITS AND OUTLOOK:

The implementation of telematics in the bus passenger transit, has lots of benefits to all the stakeholders in the system (Commuters, Operators, and Government). Some of the benefits of implementation of such a system are:

- Passengers always have a clear idea on when the next bus would come for their desired destinations through real time bus stop information. Also these displays can be made available through Internet and mobile phones.
- The driver would know how fast/slow the bus is covering the schedule through onboard display. The operator at the despatch centre (depot) has complete information on the movement of bus from the time it leaves the depot till its return. This means that there is a proper control on the operation of the bus during its run.
- The two-way communication between depot and bus would facilitate a quick response system for the vehicle breakdown and other emergencies, thus reducing the loss of time.
- There is no need of any extra physical infrastructure such as cabling etc, due to the wireless communications.

Though adopting telematics technology certainly adds on to the overall costs of the system, the benefits accrued over a period of time makes it viable. In India this was implemented in a limited manner at Bangalore Metropolitan Transport Corporation with reasonable success. The on time performance of the buses here has improved substantially. Bus transportation would thus become an attractive alternative for the commuters once the system becomes functional. Its utility has proven to be successful for cities with medium to large route networks and large fleet sizes.

ENGINEER'S WEEK CELEBRATION AT WIE AFFINITY GROUP

The Delhi section WIE affinity group celebrated the E week in a commendable fashion with a plethora of events. The celebration began witht he **awareness program conducted in a school** in Delhi on 20th February. The 'Zoom into Engineering' ballons, pencils, puzzles etc. provided the right ambience and we chose and al girls class to promote engineering to school students. The inquistive nature of the attendees was over whelming and they wanted more of such programs!.

Mrs. Jaya Indiresan (Sitting 2nd from right) wtih WIE members.

The second event was the **visit of a team of Professors from Pakistan** who spent an afternoon ineracting with the faculuty and students of Jamia Millia Islamia which has the WIE student affinity group as well. This ineractive session on 22nd February provided all of us with an opportunity to learn abount the technological, social and cultural status of women in Pakistan. It was an eye opener indeed!

The rand finale of the Eweek was the day long program organized on **26th February as the WIE Day - Conglomerate (Women in Engineering Day)**. The tutorial by Mrs. Jaya Indiresen, an eminent educationist on "**Women in Engineering and Leadership**" was exremely enlightening. She elucidated on the fact that women constitute 50% of human resources and that it is important for women to make optimum use of their skills. She held a lively ineractive session trying to find answers to questions like - why are there few women in top positions! She gave a totally new definition to **MBA-"Move beyond Academics"**. The event was attended by 90 students from six IEEE student branches in Delhi and also by senior members of the section. After a short lunch break, all gathered for a group discussion on "Hyped Engineering". Several informal events like egg drop, web, obstacle race, SMS mania, Jukyard and blind date etc. were also organized as team building activities. The events during the E week has provided an opportunity for the members to learn immensssely and interact with eminent personalities.

EMAIL SECURITY - MADE EASY: PART I

Email security is an ever growing, and complex topic. Here is an attempt to make it easy by defining various terms used in this field. And, the space wouldn't permit to bring all together once, hence this is planned to be published in parts. This is first of many. If readers like this attempt, I request them to write back to the Editor, so that we continue with this attempt.

Accreditation: Procedure in which an email sender may be certified by an accrediting agency. Such an agency will certify that a sender meets certain criteria, and then publishes a list of accredited senders or sending entities with accreditation information.

AES (Advanced Encryption Standard): A cryptographic standard algorithm known in cryptography circles as Rijndael because it uses an algorithm of that name. It was chosen by National Institute of Standards & Technology (NIST) in November, 2000.

ARPA or DARPA (Defense Advanced Research Projects Agency): The organization that sponsored the development of a research-oriented network in the 1960's that was originally called ARPANET. The network has more recently evolved into what is now called the Internet.

ASRG (Anti-Spam Research Group): Part of the Internet Research Task Force (IRTF) that focuses on junk email, more commonly known as SPAM.

ASTA (Anti-Spam Technical Alliance): Part of the largest ISPs, including AOL, Earthlink, Microsoft, and Yahoo!, which coordinate their actions to combat spam email.

AsyncOS™: A software architecture created by IronPort Systems to address concurrency-based communications bottlenecks and the limitations of file- based queuing. The system uses a high-0concurrency threading model that addresses allocation of system resources and AsyncOS TM, an Asynchronous File System optimized for message queuing.

Authentication: Verification of a computer user's identity.

Autoresponse: A message generated automatically by a program, usually an MUA (Mail User Agent) , acting on behalf of an email recipient. Such responses inform senders of an email address change; the fact that the recipient is away and cannot receive the message; a receipt that acknowledges that an email was received; or a message rejection notice.

Bayesian Filter: A filtering system used by some anti-spam tools that analyzes an email message mathematically in order to develop a probability that it is spam. It uses a Bayesian Logic-based method of inference that compares the message content to known spam messages, thereby rating its probability of also being a spam message.

Blacklist: A list of domains, hosts, IP addresses, and email addresses from which email is blocked. Such lists can be maintained locally by each recipient or by an external organization. A blacklist is an early version of an email reputation system.

RBL (Real Time Blacklist) : Blacklist with immediate access available to parties using it through the internet.

DNSBL (DNS Blacklist): IP-address in a blacklist that is maintained centrally and can be checked by the DNS protocol which returns an address within 127.0.0.x if an entry is in the list (where "x" is a code representing the reason the domain is blacklisted).

Bogon IP: Derived from "bogus number" as that term applies to IP addresses, it is used to identify an IP address that should not be used on the public Internet because the address is reserved, in special-purpose IP address blocks or is unallocated. Use of these IPs on the public Internet is most often for malicious purposes or in order to make it more difficult to find the entity responsible for their use. There is no Whois data for such IPs.

Bonded Sender ™: The leading third-party email certification organization Used by companies to validate a sender's email address so that their email isn't mistaken as spam and inadvertently deleted before reaching its intended recipient.

Bot: 1. An abbreviation of the word robot that is used to describe an automated computer system that visits websites or desktops and does tasks on its own. The term is commonly used in reference to Web spiders (for example "Google Bot") which are systems that visit websites to be able to index them and reference them in search engines. It is also used to describe desktop applications that act as agents for the user or for a network administrator (for example, AIMBots). 2. A hacked or otherwise compromised computer being remotely controlled by someone other than its owner. Bots are most often created by virus attack, and are frequently used by spammers to distribute spam or for DDoS (Distributed Denial of Service) attacks. Synonymous with Zombie PC, Hijacked PC and Drone.

Botnet: A large number of BOT PCs controlled by single entity. Spammers and their associates create large Botnets to send emails and for other purposes. Botnets are bought and sold on a black market. Also known as Drone Army or Zombie Army.

Bounce: A Bounce occurs when a message is not delivered and is returned to the original sender or to an agent designated by the sender to receive returned mail. The process of creating a bounce is called bouncing.

Bounce Address: The email address transmitted during the SMTP session when the MAIL FROM command is issued and is the email address to return the message to in the case of delivery failure. The return is usually handled by an MTA (Mail Transfer Agent) or an MDA (Mail Delivery Agent). Bounce Address is also known as "Return-Path", "Envelope From" and "SMTP2821 MAIL FROM".

(.. to be continued…)

DAMAN DEV SOOD
Senior Member, and
Joint Secretary IEEE Delhi Section
(Source: A booklet from John Dickinson)

EARLY WARNING OF EARTHQUAKES USING SATELLITE DATA

RAMESH P. SINGH, PROFESSOR
Department of Civil Engineering, Indian Institute of Technology,
Kanpur - 208 016, India (ramesh@iitk.ac.in)
Presently - Until June 2005, at the Center for Earth Observing and Space Research,
School of Computational Sciences, George Mason University, Fairfax, VA 22031, USA

Numerous satellites are orbiting in space, which over the whole globe. Earthquakes occur on land ocean and effects are felt by the people living on the Earth. The earthquakes occurring on land and ocean give rise to changes in ocean and on the land, and such changes have been observed prior to the earthquakes. Geophysicists have made efforts to monitor land parameters since more than five decades and have made several efforts to predict an earthquake. Such efforts were not successful except one in China and also efforts were criticized since various groups working on earthquake prediction research could not show complementary behavior with other parameters.

The recent idea is that the earthquakes occur as a result of stress due to plate movements and when the rocks are under stress there is emission of electromagnetic waves of broad band frequencies. Depending upon the magnitude of earthquakes, the size of the stress fields varies and there are strong changes in the surface charges which propagates in the atmosphere that link the source and near or far regions through atmosphere and ionosphere. Scientists have recorded changes in atmosphere, ionosphere, land and ocean parameters in recent years.

The remote sensing technology started with the use of pigeon, later on with limited sensors and now the satellites are equipped with hyper-spectral sensors that have capability of monitoring land, ocean, atmosphere and ionosphere during day and night time and also during cloudy and dense fog and haze conditions.

The use of space technology enhanced after the Gujarat earthquake which occurred on January 26, 2001. This earthquake took about 20000 lives and millions of rupees worth properties were damaged. We at the IIT Kanpur took lead in analyzing various types of remote sensing data available through Indian satellites and found significant changes in land, ocean parameters associated with the Gujarat earthquake (http://home.iitk.ac.in/~ramesh). At

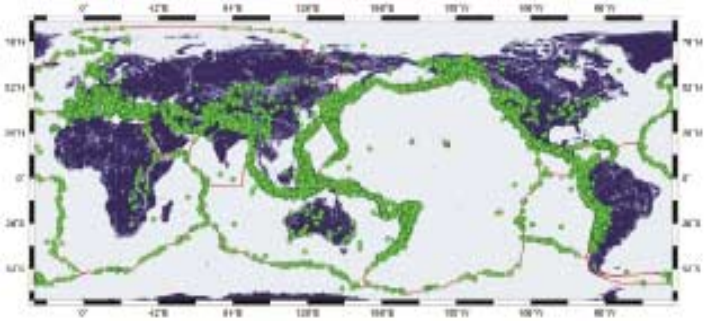

Figure 1. Earthquake observed in the year 2003 (source, CEOSR, GMU)

the same time, the NASA scientists also found changes in Thermal Infrared temperature from MODIS data associated with the Gujarat earthquake (http://www.nasa.gov/centers/ames).

Recently, French scientists found significant changes in the total electron content associated with the Gujarat earthquake of January 26, 2001. While analyzing numerous remote sensing data, anomalous changes in

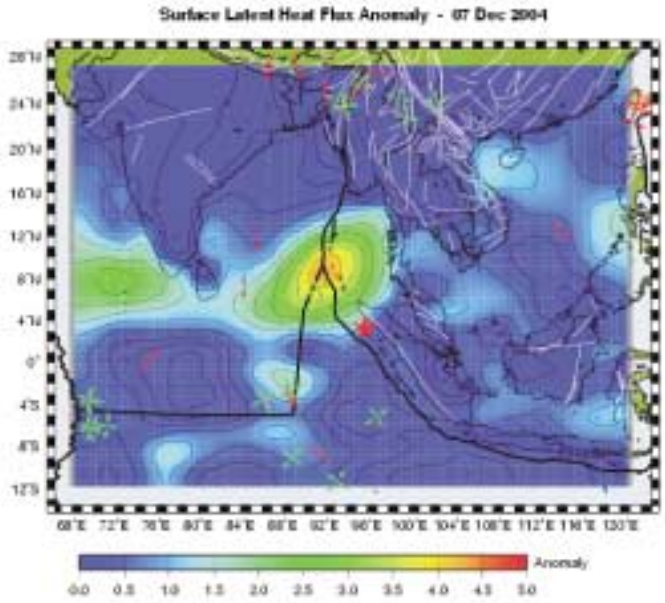

Fig. 2 SLHF anomaly associated with Sumatra earthquake of December 26, 2004
(source: http://ceosr.gmu.edu/Tsunami-04.html)

the Surface Latent Heat Flux (SLHF) was found to be associated four days prior to the Gujarat earthquake. The SLHF parameter is based on the NCEP reanalysis data (http://iridl.ldeo.columbia.edu) which is combined product of satellite and ground observations based on various meteorological parameters. Now we have analyzed SLHF data associated with 800 earthquakes that occurred throughout the globe. Our detailed analysis of SLHF have shown association of strong SLHF anomaly up to 20 days prior to the coastal earthquakes. Such anomalies are found to be associated with the earthquakes occurring in the ocean and also close to the coast. The magnitude of the anomaly is based on the focal depth, in-homogeneity of the location, magnitude of earthquakes, month, season and distance from the coast. As such the SLHF is higher over the ocean and low over the land; such anomalies are found to be associated with the earthquakes of magnitude 5.0 and focal

depth less than 30 km. If the earthquakes occur far away from the coast such anomalies are not seen. The association of SLHF with earthquakes are considered due to strong coupling between the ocean-land-atmosphere-ionosphere; physics of such coupling is a still mystery to the scientists. One can visit http://home.iitk.ac.in/~ramesh to see SLHF anomalies associated with several earthquakes. About more than 90% of the Earth's energy is released through coastal earthquakes. In Figure 1, all the earthquakes occurred in the year 2003 is shown in Figure 1.

In Figure 2, we have shown the SLHF anomaly associated with the Sumatra earthquake and Tsunami of December 26, 2004. A strong anomaly more than five sigma was seen several weeks prior (http://ceosr.gmu.edu/Tsunami-04.html) to the main earthquake of December 26, 2004. Dr. Guido Cervone who recently obtained Ph.D. degree under joint supervision of Dr. Menas Kafatos and myself has, developed a "CQuake" (Center for Earth Observing and Space Research Earthquake Monitoring system) (http://home.iitk.ac.in/~ramesh), the recent Sumatra earthquake (6.9 occurred on May 14, a strong anomaly was noticed two days prior to this earthquake, Dr. Cervone had informed few of us about the SLHF anomaly. From detailed observations of various associated parameters which are being observed from satellite data, scientists are optimistic to get success in getting early information about an impending earthquake. Efforts are being made to bring several groups who are monitoring various parameters associated with earthquakes to show complementary behavior of these parameters so that efforts should be made to deploy systems to monitor these parameters.

Our President Dr. A.P.J. Abdul Kalam has stressed that the Indian scientists should be involved in Earthquake Prediction research. The Indian Space Research has started debating to launch a satellite for monitoring of earthquakes, a recent meeting was held at the Bangalore in February 2005 and I also made my presentation (my talk was presented by the Organizer). If we make serious efforts using satellite data, the day will not too far when will get success in getting an Early Information about an impending earthquake such optimistic statement I am making after seeing Earthquake occurred near Mumbai coast on March 14, 2005, the SHLF signal was found to be anomalous few days prior to this earthquake.

Author thanks Drs. Menas Kafatos and Guido Cervono for their interest in present work and their involvement. The figures were generated by Dr. Guido Cervone.

TECHNICAL, EDUCATIONAL & PROFESSIONAL ACTIVITIES (UP TO MAY 2005)

DATE	PARTICULARS
January 10	Talk on 'The Promise of Open Source in Circuit Simulation' by Dr. Jaijeet Roychowdhury, ECE Department and the Digital Technology Center of the University of Minnesota, MN, USA in the EE Dept., IIT, New Delhi (along with CAS-CS Societies Chapter, EE Dept of IIT Delhi & IEE Delhi International Branch)
January 12	Talk on 'Satellite Communications: Today and Tomorrow' by Dr. Sajjad H. Durrani, Technical Advisor, International Communications and Information Policy Office, U.S. Department of State, USA in the EE Dept., IIT, New Delhi (along with ComSoc Chapter, EE Dept of IIT Delhi & IEE Delhi International Branch)
January 16	Talk on 'Future Electronic Devices' by Prof. Vikram Kumar, Director, National Physical Laboratory, New Delhi at India International Center (IIC), New Delhi
January 17	Talk on 'Neural Network Realizations as Orthogonal Projections in a R K Hilbert Space of Nonlinear Functionals' by Prof. Rui J. P. de Figueiredo, University of California, Irvine, CA, USA in the EE Dept., IIT, New Delhi(along with CAS-CS Societies Chapter, EE Dept of IIT Delhi & IEE Delhi International Branch)
January 21	Talk on 'Finding Career Stability - Students' by Mr. W. Cleon Anderson, IEEE President, USA at Delhi College of Engineering (DCE), Delhi (along with DCE Student Branch)
January 21	Talk on 'Volunteering in IEEE' by Mr. W. Cleon Anderson, IEEE President, USA at IIC, New Delhi

January 23-25	Three-day 2005 IEEE International Conference on Personal Wireless Communication (ICPWC) held in New Delhi, India organized by IEEE-AES-COM-LEOS Society Chapter India, ComSoc Delhi Chapter & others
February 08	Talk on 'Emerging Memories' and 'Startups' by Mr. Sreedhar Natarajan, Emerging Memory Technologies, Canada in the EE Dept., IIT, New Delhi (along with CAS-CS Societies Chapter, EE Dept of IIT Delhi & IEE Delhi International Branch)
February 17	Talk on 'Distribution Substation Automation implementation in NDPL' by Mr. R.N. Kaul, Deputy General Manager, NTPC (under Deputation to NDPL) in the EE Dept., Jamia Millia Islamia (JMI), New Delhi (along with PES-IAS Chapter, WIE Affinity Group, EE Dept of JMI & IEE Delhi International Branch)
February 18	Talk on 'Zoom into engineering' by Ms. Diksha Gera, Chairperson, JMI Student Branch in the Jamia Senior Secondary School, New Delhi (along with WIE Affinity Group)
February 19-20	Two-day IEEE Indo-Pak Conference 2005 on "Impact of Infrastructure Reforms on Development" in the areas of 'Power & Energy', 'IT & Communication Technology' and 'Transportation' at India Habitat Center, New Delhi
February 25	Talk on 'HR Management in IT Industry - TCS' Best Practices' by Mr. Daman D Sood, Tata Consultancy Services, Noida at IIC, New Delhi (along with Computer Society & EMS Chapters and IEE Delhi International Branch)
February 26	Tutorial on "Women in Engineering and Leadership" was conducted by Prof. (Mrs.) Jaya Indiresan, Educationist, New Delhi at Faculty of Engineering & Technology, JMI, New Delhi (along with WIE Affinity Group)
February 28	Talk on 'Static and Dynamic Power Reduction Techniques' by CAS DL Dr. Christian Piguet, CSEM SA, Switzerland in the EE Dept., IIT, New Delhi (along with CAS-CS Societies Chapter & EE Dept of IIT Delhi)
March 01	Panel Discussion on 'Is Small Beautiful?' with Dr. Kiyoo Itoh (Hitachi), Dr. Christian Piguet (CSEM), Prof. G.S. Visweswaran (IIT Delhi), Mr. Deepak Sabharwal (Virage Logic) as Panelists and Dr. Kaushik Saha (ST Microelectronics) as Moderator in the EE Dept., IIT, New Delhi (along with CAS-CS Societies Chapter & EE Dept of IIT Delhi)
March 22	Talk on 'Multi-Parameter Medical Imaging and Image Analysis' by Dr. Atam P. Dhawan, Professor of Electrical & Computer Engineering and Professor of Biomedical Engineering, New Jersey Institute of Technology, NJ, USA in the EE Dept., IIT, New Delhi (along with CAS-CS Societies Chapter & EE Dept of IIT Delhi)
March 29	Two-day (March 29 & 30) IEEE Workshop on "Applications of Power Electronics to electric Utilities and Motor control" organized by IEEE-PES IAS Delhi Chapter and EE Dept, IIT Delhi with Prof. Ned Mohan of University of Minnesota, Minneapolis, USA as the main resource person and Prof. Bhim Singh & Dr. G. Bhuvaneswari of IIT Delhi as Coordinators in the EE Dept., IIT, New Delhi
April 29	Talk on 'Leading the Knowledge Workers' by Dr. V. S. R. Krishnaiah, NIC, New Delhi in IIC, New Delhi (along with EMS Chapter & GOLD Affinity Group)
May 20	Talk on "Diversity in Unity / Introduction to Personality Mapping" by Mr. A.N. Chatterjee, Principal Consultant TCS Noida in IIC, New Delhi (alongwith CS Delhi Chapter, CN Affinity Group & IEE Delhi International Br.)
May 26	Talk on "Value-Added Services for Wireless Networks" By Mr. Hiranmay Ghosh, Tata Infotech Ltd., New Delhi at IIC, New Delhi (alongwith CS Delhi Chapter, CN Affinity Group and IEEE Delhi International Br.)

ENGINEERING THE FUTURE OF INDIAN e-COMMERCE

by K. Subramanian,
Senior Member IEEE & DDG, NIC, Govt. of India

Electronic commerce has the potential to revolutionize business environments, change business-to-business operations, and business-to-consumer operations. Facilitating the creation of harmonized rules to support global electronic commerce is the need of the hour. However, trust and confidence must be established if electronic commerce is to reach its full potential. The reality is that technology is developing rapidly, and laws are outdated. Moreover, the gaps between old laws that worked in the traditional market and the new cyber market are not being addressed in a timely fashion. Most governments are not equipped to understand that solutions for many problems in the market place (i.e. privacy of data and transactions, content controls, consumer fraud prevention, authentication of parties to transactions, etc.) are more likely to be technical than regulatory. The GIIC has worked with a variety of private and public groups in addressing this issue, and plans to move forward in engaging other private sector bodies and multilateral institutions in recommending technological and self-regulatory solutions to establish trust and confidence for electronic commerce. It has become necessary to review various legal and policy issues relating to electronic commerce, taking into account different stages of economic development among nations. Priority issues include: consumer protection; taxation and tariffs; privacy; intellectual property rights; authentication; and the impact of electronic commerce on society. As trade in goods and services becomes increasingly integrated, information and communications technologies have fundamentally altered the nature of global markets, transforming economic and social interactions, redefining work and causing shifts in labor markets. Factors that have spurred these phenomena include falling costs, rapid technological development and convergence between technologies. Technological change is occurring in a far shorter time frame than policies are able to respond, while an increasingly borderless world challenges national sovereignty. In the meantime, information gaps continue to exist between the developed and developing world, with the potential to disenfranchise entire communities who are at the periphery of the information revolution. Electronic commerce is a key application driving the global economy. The Internet, e-mail and Electronic Data Interchange (EDI) are strategic tools that have expanded the scope for enhanced consumer choice and increased management control over applications from procurement to marketing. Currently, the lion's share of current e-commerce revenues is generated from an ever-expanding business to consumer (B2C) rather than business to business (B2B) market. As in the United States. B2C transactions have taken the form of on-line purchases of music, books, discounted airline tickets, and educational resources. In a recent McKinsey-Nasscom report, it was estimated that some 80% of e-commerce in India over the next few years could be B2B if the correct environment were developed. The B2B market is expected to increase following greater investment in the Indian telecommunications infrastructure, and once intellectual property rights and legal protections for commerce over the Net are addressed.

Challenges:

There are still enormous challenges facing e-commerce sites in India. The relatively small credit card population and lack of uniform credit agencies create a variety of payment challenges unknown in the United States. Increased distribution of online purchases could be complicated by India's complex postal system and an uncertain regulatory environment. Nonetheless, everyone from Yahoo, Microsoft, and IBM to local carpet vendors, hotels, and some 300 Indian ISP's are trying to claim a slice of the rapidly emerging Indian e-commerce market. E-commerce—early movers have the faith and the followers need justification. Many CEOs around the world do not know the extent of the e-commerce revolution that lies ahead. Two aspects in which e-commerce in the rest of the world is different from e-commerce in the United States. l).The proliferation of credit cards. In the United States, credit card saturation is nearly 100%. In our study, less than 30% of the people who use the net in India own credit cards. Of the total population, this number is even smaller. In many countries, there is no uniform credit card reporting system. The biggest challenge in India is to find other modes of payment, which could take the form of cash and delivery', debit cards, and interesting hybrids, such as Yahoo's experiment with using 7/11 stores in Japan for payment and pick-up. Combining the ease of ordering at home, but with the payment done in actual specific outlets. 2). E-commerce came to the U.S. after nearly 100 years of retail evolution. In other parts of the world, particularly Asia, you have the bazaar, from which we are leaping to e-commerce. Currently, you have to go to 15 different bazaars to see the range of choices and prices available. There is no K-mart in India. The prediction is that consumer durables will go on the net in India. As we experiment, we may find that e-commerce will have much deeper ramifications in these emerging markets. Once big-ticket items are sold on-line, retailers, to see a challenge for at the present juncture, products move through the bazaar. One of the characteristics of the bazaar is that it is inefficient, deals in very high margins, large inventories, and the whole system is prone to clogging. Consolidation has to come. I think it will come in the form of online ordering combined with offline payment and delivery. E-commerce has to adapt to the marketing systems of

different countries to challenge traditional retailers. Delivery systems exist and are relatively low-cost. Now, consumers must only be given a convenient means of choosing between brands. We are in an industry in a country where Bill Gates has very humbly said I cannot begin to see more than six months into the future. Some of our government planners assume they can see so far into the future. This is what has been holding our country back for so long. We are trying our best to keep the government out of e-commerce. "The future is to localize events for our viewers." —What is valid and interesting for the Indian living in the United States is completely different from what is relevant to the Indian who lives in India. Market options and price parities are different. The offerings over the Net are very contextual. Yahoo is striving valiantly to localize their edition. This is true of shopping and e-mail. Language is a great localization factor. Internet services that have reached some level of popularity needs some degrees of localization either through language, or context or market forces. Until we penetrate few million users, we will not be confronted with language translation issues. The future rate of business-consumer e-commerce growth in India be determined by consumer demand growth (with an expanding user base) and also remain dependent on changes in the technological infrastructure? Without a large number of people on the net, e-commerce and new technology industries are not possible. The technology is not brain surgery. All of it is known. Expanding the number of users is most critical for us. A robust, trustable e-commerce platform is the need of the hour. There is a need for catalyzing and promotion of entrepreneurship and more enterprising amongst them are bound to do it anyway. As trade in goods and services becomes increasingly integrated, information and communications technologies have fundamentally altered the nature of global markets, transforming economic and social interactions, redefining work and causing shifts in labor markets. Factors that have spurred these phenomena include falling costs, rapid technological development and convergence between technologies. Technological change is occurring in a far shorter time frame than policies are able to respond, while an increasingly borderless world challenges national sovereignty. In the meantime, information gaps continue to exist between the developed and developing world, with the potential to disenfranchise entire communities who are at the periphery of the information revolution. Electronic commerce is a key application driving the global economy. The Internet, e-mail and Electronic Data Interchange (EDI) are strategic tools that have expanded the scope for enhanced consumer choice and increased management control over applications from procurement to marketing. The past few years have seen a rise in the number of companies' embracing e-commerce technologies and the Internet in India. Most e-commerce sites have been targeted towards the NRI's with Gift delivery services, books. Audio and videocassettes etc.. Major Indian portal sites have also shifted towards e-commerce instead of depending on advertising revenue. The web communities built around these portal sites with content have been effectively targeted to sell everything from event and movie tickets the grocery and computers. The major in this services being Rediff on the net (www.rediff.com) and India plaza which started a shopping section after their highly successful content site generated WEB visitors. Though with security and encryption being proven technologies for transfer of funds over the Internet, there are some teething problems with 'Digital signatures' and verification processes over the Internet. This combined with RBI norms and regulations has proved to a major handle for e-commerce. In India new and positive attitude towards ICT and the new strategies and tariff policies of the government "the future is very positive in India for doing commerce with a-e." Many would say it is difficult to predict. The forces that determine the web's winners and losers are just taking shape and technological advances could add even more uncertainty. On the downside, some experts predict that it will be increasingly difficult for smaller companies to establish their presence. Public companies and traditional brand name retailers have deep pockets and a name recognition that will make it difficult for smaller sites and mom-and-pop shops to attract customers, thereby forcing them to compete with the big boys. On the Net, it's one big neighborhood. On the upside, nearly all experts believe that overall e-commerce will increase exponentially in coming years. Business to business transactions will represent the largest revenue. Online retailing will also enjoy a drastic growth. Areas expected to go include financial services, travel, entertainment and groceries. And for those considering opening a virtual storefront, forthcoming technology and standards agreements will make it easier to create a site, to protect it against payment fraud, and to share information with suppliers and business partners. Over the next three years, the e-commerce market in India is expected to grow dramatically. Experts have argued that the low cost of personal computers, a growing installed base for internet use, and an increasingly competitive Internet Service Provider (ISP) market will help fuel e-commerce growth in Asia's second most populous nation. Dataquest, an Indian computer magazine, has found that the rise of Indian Internet subscribers will ultimately depend on the proliferation of network computers and Internet cable. Cyber cafes will also continue to provide low-cost access. The B2B market is expected to increase following greater investment in the Indian telecommunications infrastructure, and once intellectual property rights and legal protections for commerce over the Net are addressed. The strengthening of Supply chain management along with better customer-supplier relationship, increasing trust and confidence of the consumers in electronic transactions, the future of e commerce is bright for India, the preferred destination for e-services.

IEEE INDICON 2005

December 11-13, 2005

AN INTERNATIONAL CONFERENCE AND EXHIBITION
UNDER THE AEGIS OF IEEE INDIA COUNCIL

Organized by

IEEE MADRAS SECTION

ORGANIZING COMMITTEE

Patron
Rajendra K. Asthana
Chair
Suresh Chander Pal, P
Members
Gowri Sri
Kamalakkannan, T.V.
Ramanathan, K
Rangarajan, T.S.
Srinivasan, R

PROGRAM COMMITTEE

Chair
Srinivasan, S
Members
Amitava DasGupta
Chandra Sekar, C
Chidambaram, M
David Koilpillai, R
Geetha, T. V
Gonsalves, T. A
Gunasekaran, N
Jagadeesh Kumar, V
Kamakoti, V
Karmalkar, S
Krishna Vasudevan
Harishankar Ramachandran
Muthukrishnan, C. R
Ponnavaikko, M
Rama Subba Reddy, M
Ramakrishna, P. V
Ravindran, G
Salivahanan, S
Sarathi, R
Udaykumar, K
Uma Maheshwari, B
Secretariat
IEEE Madras Section
ISTE Professional Center Gandhi Mandapam Road
Chennai 600 025, India
Ph: 91 44 2442 3939
Mobile: 93823 28776
FAX: 91 44 2442 3939
Email: ieeemas@eth.net
ieeemas@vsnl.net

CALL FOR PAPERS

ABOUT THE CONFERENCE

IEEE India Council has been holding an Annual Conference and Exhibition (ACE) at different locations in India. From 2004, ACE is rechristened as IEEE INDICON. The IEEE Kharagpur Section organized IEEE INDICON 2004. This year, IEEE Madras Section is organizing the IEEE INDICON 2005, an International Conference and Exposition under the aegis of IEEE India Council. The venue of the conference is IIT Madras, Chennai. As in the past, the Conference will provide a forum for scientists, educators and practicing engineers to meet and exchange ideas and explore new avenues of research and cooperation. Apart from the presentation of contributed papers peer reviewed by an international panel of reviewers, INDICON 2005 will also feature tutorials, exhibitions and invited talks by pioneers in the field.

THEME OF THE CONFERENCE

The conference will focus on “Emerging Trends in Electrical, Electronics and Information Technologies”.

CALL FOR PAPERS

Original contributions reporting results of research and development are solicited on topics covered under the broad areas of Power Systems and High Voltage, Power Electronics and Drives, Control and Instrumentation, Microelectronics and VLSI, Fiber Optics and Optical Communication, Wireless Technologies, Biomedical Systems, Communication Systems and Signal Processing, Computer Communication Networks, Pervasive Computing, Computational Intelligence and Robotics, and Software Engineering. Prospective authors are requested to submit their full papers, not exceeding four pages, prepared in the two-column IEEE format, which is available in the conference website. All papers should be submitted “on-line” at the conference website http://www.ewh.ieee.org/r10/madras. Accepted papers will be published in the proceedings of the conference, provided at least one of the authors registers, attends and presents the paper.

IMPORTANT DATES

Receipt of papers		July 15, 2005
Intimation of acceptance		August 15, 2005
Last date for Registration		August 31, 2005
Registration Fees	Indian Delegates	Foreign Delegates
IEEE Members	Rs. 2000	US$ 200
Non-members	Rs. 3000	US$ 300
Students	Rs. 750	US$ 75

For more details visit

http://www.ewh.ieee.org/r10/madras

IEEE DELHI SECTION EXECUTIVE COMMITTEE : 2005

Sl. No.	Name and	Pos	Tel(R)	Tel(O)	Fax	Address and e-mail
1.	Mr. Prakash V. Ekande (NTPC)	Chairman	26315865	01202410239 01202596358	01202410136 01202410137	55B, Pocket A (DDA Flats)Sukhdev Vihar, ND25 pvekande@yahoo.co.uk
2.	Dr. Ram Gopal Gupta (DIT)	Vice Chariman	26255675	24363095	24365404	DIT, Electronics Niketan 6 CGO Complex, Lodhi Rd, ND3 rgupta@mit.gov.in
3.	Dr. Ram Nath (BHEL)	Vice Chariman	26894440	51793230	24365180	BHEL, Integrated Office Complex Lodhi Road, ND3 ramnath@ieee.org
4.	Dr. (Mrs.) Mini S.Thomas (JMI)	Secretary	26680480 26689103	26988847	26988847	C-44, Shivalik Malviya Nagar, ND17 mini@ieee.org
5.	Mr. Daman D. Sood (TCS)	Joint Secretary	22115032 9810401184	-	-	J&K-133B Dilshad Garden, D95 dbdsood@hotmail.com
6.	Dr. Ranjan K Mallik (IIT)	Treasurer	26591572 26581170	26591049	26581606	Elect. Engg. Dept., IIT, ND16 rkmallik@ee.iitd.ac.in
7.	Mr. Raj Kumar Vir (Ex-RLYS.)	Past Chairman	22154214 22161419	24352840	24351112	B-63 Anand Vihar, D92 rajvir@ieee.org
8.	Dr. R. Balasubramanian (IIT)	Member	26562181 26591954	26591246	26581121	Centre for Energy Studies IIT, ND16balu@ieee.org
9.	Mr. Rajendra K. Asthana (BHEL)	Member	30905108	23316373	23318324	C-20 Takshshila Apts.57 I.P. Extension, D92 asthana@ieee.org
10.	Dr. Subrata Mukhopadhyay (CEA)	Member	23383778	26170541	26170541 26197267	DII-62 Pandara Rd, ND3 subrata@ieee.org
11.	Mr. Man Mohan S. Puri(DESEIN)	Member	23271101 22777164	-	26469566	715 Technology Apt. I.P. Extension, D92 mpuri@deseinindure.com
12.	Mr. Promod K. Srivastava (Ex-BHEL)	Member	951202534685	-	-	A-315, Sector 19NOIDA-201301 (U.P.)pks@ieee.org
13.	Dr. V.R. Singh (NPL)	Member	28742954	25734648/ 25742610-12 Extn 2224/2490	25726952 25734648	Instrumentation Div., NPL Dr. K.S.Krishnan Marg, ND12 vrsingh@mail.nplindia.ernet.in
14.	Dr. Shankar Prakriya (IIT)	Member	26596850	26591050	26581606	Elect. Engg. Dept., IIT, ND16 shankar@ee.iitd.ac.in
14.	Dr. K. Suibramanian (NIC)	Member	26104050	23239560	23234014	S-61, Type VB Flats, R.K. Ppuram, Nivedita Kunj, ND22 ksmanian48@gmail.com
16.	Dr. Alok P. Mittal (NSIT)	Member	25079177	-	25099022	Inst & Control Engg Dept. NSIT, Sector 3, Dwarka, ND45 alok@nsit.ac.in
17.	Dr. Jayadeva (IIT)	Ex-Officio Member	26526821	26591087	26581606	Elect. Engg. Dept., IIT ND16 jayadeva@ee.iitd.ac.in
18.	Dr. Bhim Singh	Ex-Officio Member	26516223 26591890	26591045	26581606	Elect. Engg. Dept., IIT ND16 bsingh@ee.iitd.ac.in
19.	Dr. K.S. Chari (DIT)	Ex-Officio Member	24362972	24361464	24363082	DIT, Electronics Niketan 6 CGO Complex, Lodhi Rd, ND3 chariks@hotmail.com
20.	Ms. Shabana Mehfuj (JMI)	Ex-Officio Member	951202527620	26982651	26311261	A-536, Sector 19NOIDA-201301 (U.P.) mehfuz_shabana@yahoo.com
21.	Dr. S. Dharmaraja (IIT)	Coopted	26591556	26597104	26581005	Maths Dept., IIT, ND16 dharmar@maths.iitd.ac.in
22.	Mr. Vijay K. Dutt (Railways)	Coopted	23371348	23387198	-	1 B, Tilak Bridge Rly. Colony, ND1 cee@nr.railnet.gov.in
23.	Ms. Bindoo Srivastava (CMC)	Coopted	26340306	-	-	6th Floor, C-58, 146 Siddhartha Enclave, ND14 bindoorajat@eth.net
24.	Ms. Rajeshwari Pande (IGIT)	Coopted	26968090	-	-	B - 70, Qutub Enclave, Ph-I, ND16 rpdce@rediffmail.com

Chairperson of Chapters of IEEE Delhi Section: 2005
(ex-officio Members of Executive Committee, if not covered otherwise)

Chapter	Chairperson
Circuits and Systems - Control Systems	Dr. M. Jayadeva
Computer	Dr. K. Subramanian
Power Engineering - Industry Applications	Dr. Bhim Singh
Communications	Dr. Ram Gopal Gupta
Engineering Management	Mr. Prakash V. Ekande
Gold Affinity Group	Ms. Shabana Mehfuj
WIE Group	Dr. Mrs. Mini S. Thomas

Chairperson of Chapters of IEEE India Council (located in Delhi): 2005
(ex-officio Members of Executive Committee)

Chapter	Chairperson
Electron Devices - Microwave Theory and Techniques	Dr. K.S.Chari
Aerospace and Electronic Systems - Communications - Lasers and Electro-Optics	Dr. Ram Gopal Gupta

STANDING COMMITTEES OF IEEE DELHI SECTION FOR 2005

Sl. No.	Name of Standing Committee	Chairperson	Members
1.	Membership Development	Mr. Raj Kumar Vir	Mr. Vijay K. Dutt Dr. Mini S. Thomas Mr. Daman D. Sood
2.	Awards and Fellow Nomination	Dr. V. R. Singh	Dr. B. Prasad Singh Mr. Harbans L. Bajaj Mr. Rajendra K. Asthana Mr. Promod K. Srivastava
3.	Student and Educational Activities	Dr. Mini S. Thomas	Dr. S. Dharmaraja Dr. Ram Gopal Gupta Ms. Rajeshwari PandeMs.
4.	Public Relations and Publication	Mr. Promod K. Srivastava	Shabana Mehfuz Dr. S. DharmarajaDr. Mini S. ThomasDr. Ram Nath Dr. Ram Gopal Gupta Mr. Prakash V. EkandeMr. Daman D. Sood
5.	Intersociety Relations	Mr. Prakash V. Ekande	Dr. K. Subramanian Dr. R. Balasubramanian Dr. Ram Gopal Gupta
6.	Section History	Mr. Man Mohan S. Puri	Dr. R. Balasubramanian Mr. Promod K. Srivastava Mr. Rajendra K. Asthana
7.	Finance	Dr. Ranjan K. Mallik	Mr. Raj Kumar Vir
8.	Technical and Professional Activities	Dr. Subrata Mukhopadhyay	Dr. K. Subramanian Dr. Ram Nath Dr. Ram Gopal Gupta
9.	Nomination	Mr. Raj Kumar Vir	Dr. Subrata Mukhopadhyay Mr. Promod K. Srivastava

OTHERS ASSOCIATED FOR 2005

1.	Electronic Communications Coordinator	Dr. Subrata Mukhopadhyay	Dr. K. Subramanian Dr. S. Dharmaraja(with assistance from)
2.	Auditor	Dr. Shankar Prakriya	-

** representation from outside Executive Committee*

YOUNG ENGINEER AWARD : IEEE DELHI SECTIONS

In order to encourage and motivate young engineers, the IEEE Delhi Section announces a YOUNG ENGINEER AWARD which will be given every year starting 2005 to the most promising and deserving young engineer. Accordingly, nominations are invited for the young Engineer Award 2005 and Young Engineer Award 2006.

The eligibility criteria for the nominees shall be as under :-

1. The award carries a cash of Rs. 10,000/- plus a certificate with citation.
2. The age limit for a young engineer is 35 years as on 1.1.2005 (for 2005 award) and 1.1.2006 (for 2006 award)
3. The award is only for a person who is a Member of IEEE Delhi Section.
4. The award is by nomination and not by application. All SM or Fellow members of IEEE-Delhi Section are entitled the make such nomination.
5. The contributions claimed should be preferably part of the work carried out in India.
6. Generally, similar work would have not been submitted earlier for any other award/recognition.
7. The outstanding contributions of previous five years (In India only) of the candidate should be highlighted which will be considered for the award.
8. The nomination may be sent to the Chairman of the Fellowship and Awards Committee or to the Chairman, IEEE-Delhi Section by 30.9.2005 (for 2005 Award) and 30.9.2006 (for 2006 Award)
9. The decision of the Chairman, IEEE Delhi section on the Award winner will be final.

NOMINATION FORM

YOUNG ENGINEER AWARD

1. Name and Designation

   IEEE Membership No. :
2. Date of Birth
3. Address with Telephone No. Fax & E-mail :
   a) Official
   b) Residential
4. Academic Career

Sl. No.	Year	Examination	Division & % of marks	Board University

5. Employment Record

Sl. No.	From	To	Position held and organisation	Nature of work

6. Award/Prizes, if any
7. Membership of Professional / Learned Bodies / Societies
8. Research Publication / Patents (attach lists)
9. IEEE activities, if any
10. Outstanding Contribution (300 words)
11. Other Relevant information

(Nominator)
IEEE Membership No.

NEW CHAPTER UNDER DELHI SECTION

An "Instrumentation and Measurement / Engineering in Medicine and Biology" Joint Societies Chapter has been approved by the IEEE Headquarters as conveyed by Lawren S Leaston, Administrative Assistant, IEEE Regional Activities to Dr. VR Singh, its Protem Chair on 20th May 2005. Members interested in this field may now join it and accelerate the technical activities for their benefit.

BIDDING FOR TENCON AND R10 SC:

Delhi section was one of the 9 bidders for the Region 10 Student Congress 2006, and is one among the four short listed sections. The SAC Chair Dr. Mini Thomas prsented the re drafted proposal according to the additional inputs from R10. The proposal was discussed in the Execom meeting in April 2005 and it was decided that, if awarded, the Delhi section will go ahead with arrangements to host the Student Congress in 2006.

In the same Execom Meeting, Dr. Ramnath presented the proposal for hosting TENCON 2010 by Delhi Section and it was decided that a committee would finalise the proposal, as early as possible.

Both the above Regional Conferences, if allotted to Delhi Section, will be prestigious events and the section volunteers will have to work hard to make them a success.

Dr. Mini S. Thomas
Secretary, IEEE Delhi Section

CONSULTANTS NETWORK AFFINITY GROUP

A consultants Network Affinity Group has been initiated under protem chairmanship of Dr. Subrata Mukhopadhyay in March 2005. The approval from IEEE is awaited soon. The group will provide good opportunity for interaction amongst consultants.

FROM THE EDITOR

Dear Fellow Member,

After two years break, I am again back as Editor of this news letter. I had to respect the wishes of the Delhi Section Chair and the Execom Members who wanted to bring me back as the Editor. I am happy to accept this responsibility and will do my best to bring it out regularly and in intereting and informative mode.

The year 2005 has begun very well for Delhi Section with some of the major events like IEEE President visit, Indo-Pak Conference, formation of Gold and Consultants Network Afinity Group, new student branches. A number of awards of international level have been won by our volunteers. Two of our active volunteers have been put on the governing bodies of the societies and both of them are bringing laurels for Delhi Section. It all augurs well for our section. Let us all make efforts to keep the tempo up, even strive to achieve much more. You will know more details of the above in this newsletter. Our Section has announced a Young Engineer Award of Rs. 10,000 from this year which will be given every year to a promising young engineer. You will find the details of this award, the eligibility criteria etc. in this issue. Let us receive as many nominations as possible so that only a well deserving engineer gets selected.

Only concern for all of us is in depletion of membership. We have to make efforts to increase it which will be possible only by organising as many technical activities as possible and that too, preferably at places away from Delhi. This may attract more and more engineers to join IEEE for thier own betterment.

Any suggestions to improve the contents of the newsletter will be welcome. Readers may also express their views on any issue through this newsletter.

With regards

PROMOD K. SRIVASTAVA
Editor & Chair,
Publication & Public Relations
Standing Committee