

# BEACON

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

IEEE DELHI SECTION NEWSLETTER

VOL.19 NO. 2

Dec. 2000

## MILLENNIUM FUNCTION INDIA ED-MTT & CHAPTER SILVER JUBILEE



*Millennium Function From L to R: Dr. Toby Eisenstein, Dr. K.S. Chari, Chair India ED-MTT Chapter, Mr. R.K. Asthana, Section Chair, Dr. Bruce Eisenstein, President IEEE, Mr. H.L. Bajaj, Past Region 10 Director*

IEEE Delhi Section organized a get-together of members with IEEE President Prof. Bruce A. Eisenstein at New Delhi on December 19, 2000. President inaugurated the Silver Jubilee celebration of India ED (Electron Devices)-MTT (Microwave Theory and Techniques) Chapter through traditional lighting of lamp and release of momento brought out by the Chapter for the occasion. Chapter Chair Dr. K.S.Chari gave an account of the achievement of the Chapter in the last twenty five years and presented the silver jubilee momento to the President on behalf of ED-MTT Chapter. Prof. Eisenstein then briefly highlighted the scenario about membership growth, role of various societies, targets and projections of the Institute and requested members to present their views. Various office bearers and members participating in the discussion expressed concern on the issues of payment of membership fees in Indian Rupees, availability of Transactions of other Societies to members of a specific Society, continuation of membership by the students, processing of payment by members, specifically for students in bulk, availability of financial advantage program to members in India, etc. However, on these issues though certain suggestions came up, it was felt that most of them



*Millennium Award Winners with IEEE President Dr. Bruce Eisenstein From L to R : Mr. M.M.S. Puri, Dr S. Mukhopadhaya, Mr. H.L. Bajaj, Mr. P.K. Srivastava, Dr. P.N. Choudhary and Mr. A. Velayutham*

being of local origin: solution too should come up here itself within the framework of laws and rules applicable in India.

Later in the evening Millennium Function was organized by Delhi Section jointly with India-ED-MTT Chapter in which the awards are presented by the IEEE President. Seven Millennium Medals were presented to Section members - Dr. Pratap N. Choudhary, Mr. Harbans L. Bajaj, Mr. Promod K. Srivastava, Mr. Man Mohan S. Puri, Dr. Subrata Mukhopadhyay, Mr. Raj Kumar Vir and Mr. A. Velayutham. While congratulating them for their selection by the Section, Prof. Eisenstein remarked that the total number of medal winners being 3,000 out of over 352,000 IEEE Members worldwide (i.e., less than 1%) it was a matter of pride for the concerned volunteers. Delhi Section Chair honoured Dr. Bruce Eisenstein and his wife by presenting Souvenirs to them on this occasion. The occasion was also utilized for the presentation of 2000 PES Outstanding Chapter Engineer Award to Prof. B. Prasad Singh of IIT Delhi. India ED-MTT Chapter while celebrating their Silver Jubilee, honoured their past Chairpersons and present Executive Committee members. viz. Prof. S. K. Koul, Prof. Bharati Bhatt, Prof. J. Bihari, Dr. Govind and Dr. K. S. Chari.

## FROM THE DESK OF ELECTRONIC COMMUNICATIONS COORDINATOR

Dear our Esteemed IEEE Members of Delhi Section,

Though earlier I shared my experience with some of you, through our newsletter I am now trying to reach you to clarify what happened to our group circulation through e-mail in end-October 2000. In fact as the genesis goes, it started with the sending of certain greetings from some members of IEEE Delhi Section to the entire Delhi Section mailing list consisting of 1,066 e-mail addresses. Other members then reciprocated using the same mailing list. Message circulation went on increasing. Some members thought unnecessarily they are getting mails. They started originating messages to unsubscribe in whatever manner, but again using the Delhi Section mailing list, which otherwise they should have addressed to, if at all, to me as owner. When it went out of control, in panic, I too did the mistake by trying to unsubscribe those who sent the greetings through command.

Majordomo is a very weak grouping software. The members are requested to correct their email addresses to avoid bouncing back of mail and reduce load on the server. Though there is an owner, there is no moderator as per IEEE policy. Once the member's e-mail address is included, he can shoot a message directly. So what is our next step? Subsequently, using the latest e-mail address of members

corresponding to end-November, 2K I will start sending message to those members having e-mail address and as disclosed to IEEE, to agree with certain basic terms and conditions (as per consent of Section EXECOM) for subscribing to the *new* Delhi Section list which would be built again. As earlier it has been misused, this time it will be made clear that though all possible information for members in general are available from time to time in the Section's web-site at <http://www.ewh.ieee.org/r10/delhi>, only for drawing attention through e-mail, new information will be sent on e-mail. If any member finds any specific information for sharing amongst the members, he / she should send it to the list owner for circulation, as all the messages are to be originated by the owner from the Section side. Please give your consent to subscribe you to the Delhi Section mailing list following the terms and conditions mentioned earlier.

Seeking cooperation in this context,

Sincerely yours

(S.Mukhopadhyay)  
Electronic Communications Coordinator,  
IEEE Delhi Section

## STUDENT AND EDUCATIONAL ACTIVITIES SUB-COMMITTEE REPORT

The IEEE Delhi Section had so far nine student branches under its umbrella, at SJPMLIET Radaur (formed last year), REC Kurukshetra, MBM Engineering College Jodhpur, BITS Pilani, Punjab Engineering College Chandigarh, IIT Delhi, Delhi College of Engineering (DCE) Delhi, Netaji Subhash Institute of Technology (NSIT) Delhi & Jamia Millia Islamia (JMI) Delhi. One new branch was inaugurated on 24<sup>th</sup> November 2000 at Govt. Engg College Ajmer with 37 student members due to the efforts of Mr. M.B.S. Aggarwal which are appreciated. Another student branch with 40 student members will be opened at Malviya REC Jaipur within a few weeks which will be possible due to the efforts of Dr. Tarun Verma, the Branch Counselor.

Most of the student branches are quite active in their ownway. The branches at JMI and DCE were fortunate to host Prof. Saifur Rahman in Nov. 2000. Delhi College of Engineering student branch is having their technical festival in February 2001 and REC Kurukshetra in March 2001. IIT Delhi and NSIT student branches are being revived so that activities can start soon. Overall, the student branches are working hard and making the Section proud. The credit goes to the inspiring branch counselors and the hard working student volunteers. All good luck to them for the year 2001.

Reported by  
Dr. (Mrs.) Mini S. Thomas  
Student and Educational Activities Sub-Committee Chair

## LIST OF TECHNICAL & PROFESSIONAL ACTIVITIES

*(from July to December 2000)*

July 14	Talk on 'Electromagnetic Compatibility' by Dr. V.P.Kodali, formerly of Dept. of Electronics (GOI), New Delhi at IIC, New Delhi (by ComSoc Chapter along with IEE)
July 28	Talk on 'Grid Management and Availability Based Tariff' by Mr. Bhanu Bhushan, POWERGRID, New Delhi at IIC, New Delhi (by PES-IAS Chapter along with IEE)
Aug 08	Talk on 'Internet Telephony' by Dr. K.K. Ramakrishnan (ComSoc Distinguished Lecturer), AT & T Labs, New Jersey, USA at EE Dept., IIT, New Delhi (by ComSoc, CAS-CS & Computer Chapters along with EE Society of IIT)
Aug 09	Half-a-day Seminar on 'Protocol and QoS Support for Internet Telephony' by Dr. K.K. Ramakrishnan (ComSoc Distinguished Lecturer), AT & T Labs, New Jersey, USA at Hughes Software Systems Ltd., Gurgaon (by ComSoc, AES-COM-LEO Chapters)
Aug 11	<i>Fourth</i> Thomas Alva Edison Memorial Lecture on 'Energy Use and Global Climate Change' by Prof. Saifur Rahman (PES Distinguished Lecturer), Director Alexandria Research Institute, Virginia Tech, USA at EE Dept., IIT, New Delhi (by PES-IAS Chapter along with EE Society of IIT)
Sept 21	Talk on 'The Irrational exponential "e" and radial "PI"' by Prof. Q.C.Gupta, formerly of Delhi College of Engineering, Delhi at IIC, New Delhi (by CAS-CS and Computer Society Chapters along with IEE)
Sept 29	Talk on 'Concepts of Designs of Electrical Aspects of Metro-Rail' by Mr. V.Santhanam, DMRC, Delhi at IIC, New Delhi (by EMS and PES-IAS Chapters along with IEE)
Nov 04	Talk on 'Information Technology Industry Supported by Distributed Generation' by PES DL Prof. Saifur Rahman, Alexandria Research Institute, Virginia Tech, USA at Exposition Hall, Delhi College of Engineering, Delhi (along with DCE Student Branch & PES-IAS Chapter)
Nov 07	Talk on 'Infrastructure Needs of the Information Technology Industry' by PES DL Prof. Saifur Rahman, Alexandria Research Institute, Virginia Tech, USA at Auditorium, Jamia Millia Islamia, New Delhi (along with JMI Student Branch & PES-IAS Chapter)
Nov 09	Talk on 'Web Certification - Initiatives and Challenges ' by Dr. K.K. Subramanian, NIC, New Delhi at IIC, New Delhi (along with Computer Society Chapter)
Nov 17	Talk on '3-Phase Drive - Electric Locomotives ' by Mr. Kul Bhushan, Railway Board, New Delhi at EE Dept., IIT, New Delhi (along with EMS & PES-IAS Chapters, IEE, IREE and EE Society of IIT Delhi)
Dec 14	Course on "Mobile Communications" by Prof. Gordon L. Stuber (9:00 A.M.- 4:00P.M.) at EE Dept., IIT Delhi (along with CAS-CS Societies & ComSoc Chapters, EE Dept. of IIT Delhi)
Dec 14	Mahalanobis Memorial Lecture on "Mobile Communications" by Prof. Gordon L. Stuber at EE Dept., IIT Delhi

### FUTURE PROGRAM

*(Look for more details and new programs every month under 'Lecture schedule'  
at <http://www.ewh.ieee.org/r10/delhi>)*

Jan 22 (2001)	Workshop on "Electro-Magnetic Compatibility of Electrical / Electronic Equipment" by IAS DL Prof. Paolo Tenti, University of Padova, Italy (9-30 A.M. – 5-30 P.M.) at Conference Room No. I, India International Centre, New Delhi (along with PES-IAS & India ED-MTT Societies Chapters)
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## VISIT OF PROF. SAIFUR RAHMAN, PES DISTINGUISHED LECTURER



Prof. Saifur Rahman with Prof. R. Balasubramaniam, Dr. S. Mukhopadhyay, Dr. (Mrs.) Mini S. Thomas and IEEE student members

Prof. Saifur Rahman , IEEE PES Distinguished Lecturer (DL) was on a four-nation tour of Malaysia, Thailand, Bangladesh and India. He delivered 12 lectures in this Distinguished Lecture series during the period from October 23 to November 08, 2000. Prof. Rahman is the Director of Alexandria Research Institute at Virginia Tech, USA and a Fellow of the IEEE. He is also the PES Vice-President for Education / Industry Relations Activities and Chairs the IEEE Web Education Workshop Committee. He completed his assignment in Delhi in two legs, one at Delhi College of Engineering (DCE) on Nov 04 by attending Executive Committee Meeting of PES-IAS Delhi Chapter as special invitee, followed by delivering a lecture on ‘*Information Technology Industry Supported by Distributed Generation*’ and the other at Jamia Millia Islamia on Nov 07 through a lecture on ‘*Infrastructure Requirements of the Information Technology Industry*’.

The lecture at DCE was attended by more than fifty students and faculty members, inspite of being a holiday. At Jamia, Prof. Rahman was the Chief Guest at the inauguration of the IEEE Student Branch activities for the academic year 2000-01. The lecture at Jamia was attended by over 200 students and around 25 teachers from Jamia, IIT Delhi and the representatives from IEEE Delhi Section.

In his lectures, he gave an overview on the mutual dependencies of critical national infrastructures and showed how the infrastructure outage in one sector can have debilitating effects on the national economy. He stressed

upon the study of infrastructure for electric power, natural gas, telecommunication, transportation, banking and finance networks and the whole gamut of IT industry to identify emerging issues that contribute to their vulnerabilities. Examples of vulnerabilities, like western grid failure, stopping of beepers, etc. in recent times were touched. Necessity and importance of distributed resources were stressed for the reduction of outage both in terms of frequency and duration. He focused on issues that need to be addressed to enhance power quality and security of supply. The concept of interconnected micro-grids consisting of distributed sources was introduced. The micro-grid is characterized by interconnected localized sources that share resources through intelligent communications to meet the normal system load and can meet emergency loads when isolated. These sources include Fuel cells, Photo-voltaic cells, Wind turbines, Micro turbines and Fly Wheels. He went into the details of Fuel Cell Technology, its basic chemistry, cost aspects at present and as targeted and overall advantages.

The lectures opened a new area of research which need to be tackled for the uninterrupted, quality power supply for the IT industry. The lectures generated a lot of interest among the teaching faculty and students.

Reported by

Dr. Mini S. Thomas

Students & Education Activities Sub-com Chair

Dr. S.Mukhopadhyay, PES-IAS Chapter Chair

### E-BUSINESS IN INDIA

*A couple of years ago an honorable minister always wrote NOT APPROVED on all the papers which were put to him by his assistants for approval.*

*He always left a significant space between NOT and APPROVED. When the affected persons suitably greased his palms (bribe), he would recall the files and just add an E: after NOT so that it became*

*NOTE : APPROVED*

*That was the beginning of E Business.....in India*



## FROM THE CHAIRMAN'S DESK

Dear Fellow Members,



This will be the last issue of BEACON in this Millennium and also my last communication with you as Chairman of Delhi Section. On completion of my tenure, I will be relinquishing my office in the coming Annual General Meeting scheduled for January 21, 2001. During my two one year terms in 1999 and 2000, I got valuable support from all my colleagues in

Section Executive Committee as well as from members of the Section for which I am greatly obliged to each one of you. We have almost come to the end of yet another year and it is time to look back what Section could achieve for you and also what could not be achieved.

Technical and professional activities are organized from July onwards, making a total of 13 for the year. In addition 4 executive committee meetings were held and section had pleasure to host 2 India Council EXECOMS at Delhi. PES- IAS chapter of the section organized a Workshop on Electrical Safety in Industry. Section also invited speakers under Distinguished Lecturer Programme for the benefit of Section members. Details are given elsewhere in the newsletter. 'BEACON' was given a face lift, which I hope has been liked by all of you. During 1999 a student branch was approved by IEEE HQ at Radaur. During the year 2000, two proposals were sent to HQ for opening new student branches. The proposal for student branch at Ajmer Engineering College was approved on 31.10.2000 and same was inaugurated on 24.11.2000. Another student branch at REC, Jaipur is due for formal approval any time now. Thus the total number of student branches under Delhi Section will go up to 11. Section's Dr. R.G. Gupta, Ministry of Information Technology, got Region 10's Best Volunteer Award and Delhi College of Engineering received one of the 1999-2000 AT&T Lab's Student Enterprise Award. Section had started increased use of electronic communication which is certainly most reliable and fastest mode of communication amongst members and of course also economical. All those members who have e-mail address but have not given the same to Section, may please furnish the same so that they get included in Section's electronic mailing list. To know about Section, office bearers and activities taking place / being organized, please visit Section web site at <http://www.ewh.ieee.org/r10/delhi>.

It is heartening to note that Section continues to remain very active and due recognition is being accorded by the Region as well as IEEE Head Quarter. In both the years, IEEE Presidents visited your Section. During 1999, it was IEEE TAB Colloquia led by Dr. Kenneth R. Laker, IEEE President 1999 which visited your Section and during December 2000, Dr. Bruce Eisenstein, IEEE President 2000. During the visit of both the Presidents, Section members got opportunity to have free and frank interaction. Not only this, during the year, Section had greater inter-action/co-operation with other professional institutions in India like IEE (UK), IE (India) and IETE and a few of the activities were jointly organized with them besides with Section Chapters and Societies. During the year Communication and Computer Society Chapter have been reorganised to have increased technical activities.

Membership grew from 876 on 31.12.98 to 1699 as on 30.11.2000 which is quite satisfying. It was for the first time in January 1999 that membership crossed 1000 mark and touched a high of 2000 but in April 2000 it fell down to 1350. Could be because of non-renewal by some members. Since then it has grown to 1699 as on 30.11.2000. Such a pattern shows that there is potential for growth and it is for this reason that it is a matter of concern for the Section. The other concern has been that despite lot of potential to form a sub-section it could not be achieved. At the end, I wish all the best to the incoming Executive Committee and extend my full support.

With best wishes for a VERY HAPPY NEW YEAR to you and your family.

R.K. Asthana  
e-mail: [asthana@ieee.org](mailto:asthana@ieee.org)

### THOUGHT

*Our thoughts are causes.  
You sow a thought, you reap an action.  
You sow an action, you reap a habit.  
You sow a habit, you reap a character.  
You sow a character, you reap a destiny.  
It all starts with a thought.*

## ENGINEERING MANAGEMENT SOCIETY

Delhi Chapter of Engg. Management Society was set up on 29<sup>th</sup> Sept.98. During its working in two years, this Society has contributed to sponsoring presentations and organizing lectures and events concerning discipline of Engineering Management.

Engineering Management as a discipline concerns itself to application of Management techniques in diverse Engineering fields. As a result the presentations are of interest to wide cross section of Engineering Community ranging from academicians on one side of broad spectrum to practical engineers working in the field on the other end.

To commemorate founder day i.e. 29<sup>th</sup> Sept. 2000 a presentation by Shri V. Santhanam, Chief Consultant Delhi Metro Rail Corporation on *Design Aspects of Delhi Metro Railway* was organized. He touched upon salient features of design and management of Delhi Metro. Shri Santhanam, a retired Member/Electrical Railway Board and an expert in the field of railway electric traction, drew upon his life time experience to throw light on various aspects of Engineering Management of this project of national importance. In the follow up discussion diverse issue of Delhi Metro including impact on environment, cost, schedule of project, financial aspect etc. were touched.

On 17.11.2000, Shri Kulbushan, Executive Director Electrical Engineering Development, Railway Board gave presentation on *3-phase Technology in Electric Locomotives*. The presentation covered evolution of Electric Traction on Indian Railways and indigenous efforts in development of

this technology. The efforts to keep pace with emerging trends in the world in the field were highlighted. It was felt that for lectures on Engineering Management which cover wide areas concerning all disciplines of engineering, a wider publicity in other engineering disciplines should also be given to enable these engineers also to benefit from discussions.

On 17.5.2000, a lecture on *Condition monitoring of power transformer – frequency response analysis approach* was delivered by Shri P.K. Goel, Dy. Chief Design Engineer/ Electrical of NTPC. The lecture covered development of this nondestructive testing method for condition monitoring of power transformers which is a key area in saving downtime of super thermal power plants. The audience appreciated this innovative approach in electrical testing. Its potential and wider application was recognized in discussions.

Static invertors have become an essential component in diverse engineering applications. To give an insight into R&D efforts and current issues, a topical lecture by Dr. Bhatt of M/s Autometers (who has contributed significantly in the field of static invertors) is being organized in the month of January 2001.

Reported by  
V.K. Dutt  
Secretary-cum –Treasurer

### NINE STEPS TO FOLLOW WHEN WRITING ANY TECHNICAL OR SCIENTIFIC ARTICLE

1. Choose the type of article you intend to write.
2. Decide which magazine would be most likely to publish your article.
3. Study at least six recent issues of the magazine to determine the best method of presentation for your material.
4. Prepare an outline of the article.
5. Collect illustrations and tables.
6. With the outline and illustrations ready, write the article. Use your study of the magazine as a guide to the number of words, illustrations, and tables you should have in your article. As a rough estimate, plan on using about two illustrations per page for articles of four published pages or less. The usual magazine page contains about 1,000 words when no illustrations are used and 700 words when the illustrations occupy about one-third of the printed page.
7. Write quickly, try to finish the text as soon as possible
8. Concentrate on technical or scientific facts when you write. Get your thoughts on paper. You can improve the grammar later.
9. Have your article typed double-spaced and submit it, along with the illustrations, to the magazine you choose earlier.

# DECENTRALISED LOAD MANAGEMENT FOR GRIDS OPERATING UNDER DISTRESS

**Dr. Ram Nath, BHEL**

In an interconnected network operation, where energy shortages are rules of the day and not exception to the rules, the demand side load management assumes a very significant role for a utility service provider. Such networks operate on very thin margins. A major disturbance in such a network can bring such networks to total collapse situation as a result of cascade trippings. Indian power networks are operating at frequencies which are very close to the under frequency settings of the generators. It is also true for grids in the other developing countries. Normal operating frequency is in the range of 48.5 to 48.7 Hz corresponding to nominal frequency of 50 Hz.

In such networks number of state grids operate as a unified regional network. Load shedding as a tool for management of grid frequency has not provided satisfactory solution for grid operation. In an integrated operation any reduction in grid frequency followed by load shedding by one state can lead to load pickup by other state without bringing any improvement in system frequency. Thus, in case of major disturbances state grids prefer to come out of the integrated

operation to safeguard their network. It has been experienced that islanding of a power utility network from an integrated operation does not always lead to a safe solution for the state utility.

It is the management of load after islanding which can either mar or save the utility network. Considering the availability of slow rate of communication between the main load dispatch center and the respective load centers, it is preferable to depend upon local information about frequency and its rate of change for load management.

The load shedding can be implemented in number of rounds. In case the first round of load shedding does not result in complete recovery, there shall be additional rounds of load shedding. The subsequent rounds shall operate only if the first round results in inadequate recovery. Availability of load shedding in different rounds can ensure minimum load to be shed in first round. The decentralized load management concept is a cost-effective solution for prevailing situation in the developing country networks.

## IEEE DELHI SECTION MEMBERSHIP STATISTICS AT A GLANCE

(as in end-November 2000)

**Total : 1699 (net)**

<u>GRADE</u>	<u>STRENGTH</u>
Honorary Member	2
Fellow	2
Senior Member	113
Life Senior Member	8
Member	610
Life Member	2
Student	341
Others	621
<u>CHAPTER</u>	<u>STRENGTH</u>
Computer Society	237
Communications Society	219
Power Engineering Society - Industry Applications Society	92
Circuits & Systems Society and Control Systems Society	49
Engineering Management Society	23

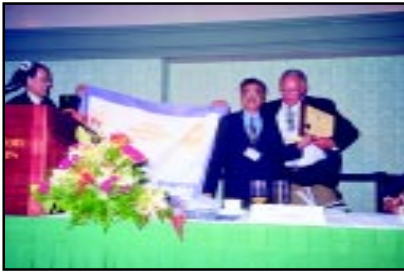
## IEEE DELHI SECTION EXECUTIVE COMMITTEE FOR THE YEAR 2001

(as recommended by the Section Nomination Committee  
through its meeting of September 30, 2000)

<u>Sl. No.</u>	<u>Position</u>	<u>Name</u>	<u>Organization</u>
1.	Chairman	Dr. R Balasubramanian	IIT
2.	Vice Chairman	Mr. Raj Kumar Vir	Ex-Rlys
3.	Vice Chairman	Dr. Ajay K Tandon	DCE
4.	Secretary	Dr. Ram Nath	BHEL
5.	Treasurer	Dr. Sudhanshu S Jamuar	IIT
6.	Joint Secretary	Dr. (Ms) Mini S Thomas	JMI
7.	Past Chairman	Mr. Rajendra K Asthana	BHEL
8.	Member	Dr. Subrata Mukhopadhyay	CEA
9.	Member	Mr. Prakash V Ekande	NTPC
10.	Member	Mr. Man Mohan S Puri	DESEIN
11.	Member	Mr. Promod K Srivastava	Ex-BHEL
12.	Member	Dr. Asok Bhattacharyya	DCE
13.	Member	Mr. Vijay K Dutt	Rlys
14.	Member	Dr. (Ms) Devi Chadha	IIT
15.	Member	Mr. Harish Tejwani	HUGHES
16.	Member	Dr. V R Singh	NPL

## AWARDS

### PES OUTSTANDING SMALL CHAPTER



Dr. S. Mukhopadhyay, Chair IEEE PES-IAS Delhi Chapter, received the 2000 PES Outstanding Small Chapter Award on behalf of Delhi

Chapter "For excellence in performance in the small Chapter category (100 members or less)" in the 2000 PES Summer Meeting at Seattle, USA on July 18, 2000

### PES OUTSTANDING CHAPTER ENGINEER



Prof. B.P. Singh of IIT Delhi was awarded 2000 PES outstanding chapter engineer Award by Dr. Bruce Eisenstein, President IEEE during the Delhi Section Millennium Function held on Dec. 19, 2000 at New Delhi.

### OUTSTANDING VOLUNTEER AWARD



IEEE 1999 Region 10 Outstanding Volunteer Award has been presented to Dr. Ram Gopal Gupta. Chairman, IEEE India AES-COM-LEO Society Chapter (Director, Ministry of Information Technology, Govt. of India) The award was ceremoniously presented in

TENCON 2000 Banquet at Kuala Lumpur Malaysia on Sept. 26, 2000.



IEEE President Dr. Bruce A. Eisenstein presented a certificate to Shri Rajendra K. Asthana, Delhi Section Chairman in recognition and appreciation of his valued services

and contribution to the IEEE – Technical Activities Board colloquia.

**BEACON congratulates all the award winners !**

## FROM THE EDITOR

Dear Fellow Member,



First year of the new millennium comes to an end without any Y2K mishap thankfully and we can feel satisfied that our section continued its activities with the same vigor and enthusiasm. All the details will be found in this issue.

Delhi Section has taken upon themselves the onerous task of organizing the Annual Conference and Exhibition for the year 2001, the ACE 2001 is an event of India Council but is hosted by one of the sections in India by rotation. Delhi section had earlier hosted the ACE'95 in New Delhi. With the active participation of all our members we hope

the ACE 2001 should be a success.

Membership growth, which was phenomenal in 1998 and 1999, has somewhat flattened in 2000. We should make efforts to again renew the earlier tempo and increase the membership in 2001.

New Executive Committee of Delhi Section for the year 2001 will come into position in the Annual General meeting to be held on 21<sup>st</sup> Jan 2001. We wish them a successful tenure and hope that they will set new records.

Wish you and your family a Very Happy New Year.

(P.K. Srivastava)

**Editorial Committee:** Mr P.K.Srivastava, Dr Ram Nath, Mr P.V. Ekande, Mr Harish Tejwani