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## CHAIRMAN'S MESSAGE

### Bulletin at Eleven

The IC Bulletin is entering its eleventh year with this issue. It started off in July 1990 as India News. By Oct 91 it was renamed as the IC Bulletin. Dr. P. K. Patwardhan, the Chairman in 1990, wrote a beautiful message for the inaugural issue. The leadership of IC passed into the hands of Shri H. L. Bajaj after 1991. Besides the Bulletin, he also established a quarterly called the Horizon. Every issue of Horizon focussed on one aspect of technological achievements of India. It was a creditable attempt at building the 'India brand'. However we could not sustain the Horizon for a long period. Fortunately the IC Bulletin, the one medium of communication among Indian members, has survived. Dr. C. G. Ravi during 1994-95-96 and Dr. R. K. Bagga during 1997-98 nurtured it well. During the last five years, Prof. V. K. Damodaran, the editor, has provided yeoman service by bringing out the Bulletin highly regularly.

"For Indians in any field, to work in a synergical fashion, is said to be difficult. It is said that we cannot co-ordinate our activities of different units and that every one of us would prefer to align with non-Indian forces rather than suffering the ignominy of having an Indian identity. With the support of some outside elements, we would like to establish small Indian units rather than contributing to and taking pride in a strong All Indian ethos" IEEE's Indian members have largely proved all the above prognosis wrong. During the last decade we have not only progressively strengthened IEEE activities in India at each Section and Chapter, we have also tried to work synergically, through India Council. Today I guess IEEE India Council is the third strongest national entity in IEEE after the IEEE USAB and IEEE Canada. India Council Bulletin has contributed significantly to this development by establishing firmly the concept of the Indian identity of IEEE, by making it possible and easy to co-ordinate the activities in India and by keeping us informed about important activities in India. Moreover the Bulletin is a shining example of an activity truly owned and supported by all the ten Sections in India. On this occasion, on behalf of all the IEEE members in India, I would like to present bouquets of high appreciation to Mr. N. T. Nair, the premier editor of the Bulletin from July 1990 to Sept 1994 and to Prof. V. K. Damodaran, the present editor, who took over the reigns from Mr. N. T. Nair in 1994 and is continuing to get it released every month.

### All India Student Congress

By the time this issue of Bulletin reaches in your hands, the first All India Student Congress would have concluded in Chennai. This is a historic attempt by India Council

and I do hope that the host Section, with the active co-operation of the other nine sections, will be able to pull off the great event success- fully.

Ahmedabad  
1st July, 2000.

A. K. Aggarwal  
Chairman



**E-mail :** [aka@ad1.vsnl.net.in](mailto:aka@ad1.vsnl.net.in)

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## **FUTURE ENERGY CHALLENGE**

### **US \$ 75,000 for Winning Competitors**

More than US\$75,000 is being offered in the 2001 Future Energy Challenge competition for qualified college engineering teams to build a prototype, low-cost inverter. This competition is being sponsored by the IEEE Power Electronics Society in collaboration with the National Association of State Energy Officials, and the U.S. Departments of Energy and Defense. Participating schools will be judged on the basis of design quality, a formal engineering report, cost analysis, prototype quality, and operational results. Interested schools should contact Robert Myers, Administrator, IEEE Power Electronics Society, at [bob.myers@ieee.org](mailto:bob.myers@ieee.org) or visit the IEEE PELS Website at <http://www.pels.org>.



**Click on image to see the image in full resolution**

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### **Prof. S. S. Murthy receives two National Awards**

Prof. S. S. Murthy, Head, Electrical Engineering Department, IIT Delhi and Senior member IEEE has received the following two National Awards:

- Maharashtra government National Award for outstanding research for the year 1999 given by Indian Society for Technical Education (ISTE).
- Bimal Bose Award for outstanding contribution for Power Electronics for the year 1999 given by the Institution of Electronics and Tele-communication Engineers (IETE). The above awards were presented to Prof. Murthy during the Annual Convention of ISTE and IETE held respectively in Erode, Tamil Nadu and New Delhi, recently. We congratulate Prof. S. S. Murthy for these recognitions.

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**CONGRATS !****Bombay VESIT Student Branch**

Please join the IEEE Bombay section Chair and the Executive committee in congratulating the IEEE-VESIT Student Branch that repeated the performance in the 2000 IEEE Student Branch Web contest at HQ level. IEEE-VESIT Student Branch, please accept the Section's congrats and we are proud of you.

With best regards,

**R. Muralidharan**

Bombay Section Chair

IC Committee & Bulletin

*also join the greetings parade!*

This issue is sponsored by

**AES - COM- LEO Society Chapter of India Council**

This issue and all the back issues of this Bulletin from Aug 1999 can be visited at our website [http://www.ewh.ieee.org/r10/india\\_council/](http://www.ewh.ieee.org/r10/india_council/)

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**IEEE AEROSPACE & ELECTRONIC SYSTEMS,  
COMMUNICATIONS AND LASERS & ELECTRO-OPTICS,  
SOCIETY CHAPTER - INDIA**

- The Royal Society of Uganda awarded Fellowship of the Royal Society of Uganda to the Chair of above Chapter in RECOGNITION of achievement through education, training, and higher level of employment in Information Technology Communication.
- The Chapter has technically participated in organising "ELITEX'99" on Technologies developed in Electronics during February 2 & 3, 1999 at India Habitat Centre, New Delhi. It was indeed a great success and attracted the maximum number of visitors for such exposition organised in the recent past. During the exposition the following New Software Products were released.

\* Multimap, Leap Office Ver.2.0, Communication Co-Processor Chip, CD on Bilingual Hindi Dictionary

\* Participants in Bangalore also participated via Video Conferencing link through INSAT designed and developed by STPI. It is first of its kind.

The Technology Sessions on Information Technology, Strategic Electronics, Communications, Micro-Electronics & Photonics, Technology Development Programmes of DoE, Material & Components and Panel Discussions on "Indigenous Technology Development for Improving the Global Competitiveness of the Electronics & IT Sector in India" was well attended. The exhibition has shown tremendous potential and created the impact both within and outside in terms of awareness and availability of indigenous technologies/products.

Following technologies were transferred to the industry for its full commercial exploitation.

Micro Remote Terminal Unit, Versatile Color Sensor, Integrated Receiver Decoder System, Prototype order placed for 25 nos. for Agriculture products

- The major event of the Chapter " 1999 IEEE International Conference on Personal Communications (ICPWC'99)" was held during Feb. 17-19, 1999 at Rajputana Palace

Sheraton, Jaipur, India. The response was overwhelming. 187 Participants from 25 countries attended. There were 24 technical sessions with 101 papers, 4 exclusive tutorials and the Plenary and Panel discussion sessions during the Conference. The Plenary session was Chaired by Shri P.S.Saran, Member, Telecom Commission, Govt. of India. Nearly 90% of the technical papers were presented.

This is an incredible achievement. To encourage participation from the semi-urban and rural areas of India, 38 complimentary registrations were granted to the colleges and universities around Jaipur. This will also ensure that the technical activities of IEEE and the Chapter are known in the area around Jaipur. 15 complimentary copies of the proceedings and tutorials notes were given to volunteer students from the local engineering colleges who helped organize and ensure the smooth running of the Conference. 200 copies of the proceedings shipped to IEEE for wider circulation throughout the world. Few copies of the proceedings are still available with the undersigned and can be obtained on payment of Rs.2000/- in the name of ICPWC on cost to cost basis.

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The Chapter along with India Council and Delhi Chapter arranged the Technical Activities Board Colloquia visit to Delhi. A Dinner was hosted by the Chapter. Secretary, Ministry of Information Technology and other senior officers joined the Dinner discussions on the various projects which can be initiated on mutual cooperation basis. The TAB-Colloquia Committee led by IEEE President Prof.Ken Laker included Mr. Michael Adler, Prof.Vijay Bhargava, Mr.Shah Rajgopal, Ms.Mary Ward Callan, Ms.Fanny Su and others. All the colloquia delegates were impressed with the vitality and energy of members/delegates/students they met. The delegation visited Delhi College of Engineering and met IEEE Student Chapter members.

- The Chapter along with India Linux Users' Group-Delhi Chapter arranged one full day Seminar and Demo on Linux Technology Applications on September 19, 1999. More than 145 participants attended. It was to promote the use of Linux and demonstrate the power of the open source environment and applications to users from all walks of life.
- The Chapter along with Delhi-Chapter arranged a lecture by Prof.Roop L.Mahajan of University of Colorado, Boulder on "Artificial Neural Networks for Engineering Applications" at IIT Delhi on August 23, 1999. The topic generated lot of interest and Prof.Mahajan gave free copy of the Software developed at Boulder to the interested participants.
- The Chapter has technically sponsored 42nd Annual Technical Convention of IETE-ATC-99 in 25-26 September 99 on "IT for Socio-Economic Developments". The ATC was well attended and generated interest in IT applications in Society, Commerce, Socio-Economic Development, Spectrum requirement for Services, and Vision & Policy incentives.
- The Chapter along with Delhi Chapter organized a lecture by Prof.Vijay Bhargava on the following on 29th Sept. at C-DOT.
  - \* What are Third Generation Mobile Communication Systems
  - \* Evolution to the Third Generation
  - \* Spread Spectrum Techniques
  - \* CDMA Systems for Mobile communications
 More than 125 participants attended.

The Chapter has sponsored the formation of New IETE Student Forum at MREC-Jaipur. Prof.KEN LAKER, President, IEEE inaugurated the same and delivered keynote on "Switched Capacitor Filter for Precise Analog Signal Processing" on Dec.6,1999. Prof.V.K.Bhargava was the guest of honour on the occasion. During the visit of the President, the discussions on the following were held with the President of IETE. IETE, India is the Sister Society of IEEE-Communications Society and also have mutual agreement of cooperation with IEEE.

- Renewal of IEEE contract with IETE India.
- Publication of materials in each other's publication common membership/supplementary to each other.
- Payment of IEEE membership in Indian Rupees.
- The Chapter has partially sponsored "Sixth International Conference and Workshop on Electromagnetic Interferences and Compatibility INCEMIC-99" organized by Society of EMC Engineer (India) Delhi-Chapter during Dec.2-8, 1999. 6 Intensive tutorials by International experts including 5 from outside India were undertaken. 130 Registered delegate attended the tutorials. The conference had 107 technical papers presented in 23 sessions. It was attended by 217 registered participants. Panel discussion on "Indian Perspective Policy on Global EMC Obligations" were held. 15 Industries participated in the trade show organized with the above. One Special Plenary Session was conducted on "Advanced Technology and Product Appraisal" in which 7 leading manufacturing agencies of EMC equipment gave presentation on the state of the art technologies.
- The Chapter has partially sponsored "National Symposium on Advances in Microwave, Millimeterwave and Infrared Technology - SAMMIT'99" at Centre for Advanced Studies in Microwave and Millimeterwave Technology, Calcutta during December 21-24, 1999. The SAMMIT was well attended both by National and International experts. 80 Technical papers were presented during the SAMMIT in 12 technical sessions. 83 participants both within and outside India attended the SAMMIT.
- 125 Technical popular books in the area communication and information technology were given as complimentary to the Library of Rama Krishna Mission, Kanpur.
- All the technical journals received from the IEEE Communications Society by the Chapter have been given after its use from members to the Library of Father Agnal Polytechnique as complimentary.
- Activities planned during 2000
- ELITEX-2000
- INTELLECT,2000
- National Symposium on Advances in Microwaves and Lightwaves
- ICPWC'2000
- Distinguish lecture programme under IEEE Communication and other Societies.

**Dr. Ram Gopal Gupta**

Ministry of Information Technology

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**IEEE INDIA COUNCIL AWARD**

- **Purpose :** To be awarded to recognize the services rendered voluntarily by a member to any section/subsection/chapter in India or to any India Council entity in promoting their activities; as an annual award.

**Eligibility:** Any IEEE member in India, other than student member of IEEE, is eligible for the award, provided that

- A) He has been an active member for not less than five years.  
 B) His voluntary services should have benefited the entities in India (Section/Chapter/Society/Council) in a significant/exceptional manner. Contributions made in IEEE Conferences/Seminars/Technical Programs/Membership Development/Student Activities/Financial matters etc. together with the office held are to be taken into account.

**Prize item & presentation:** Cash Rs. 5000/- with a plaque. To be awarded at the ACE conducted every year by India Council and hosted by one of the Sections. An amount limited to Rs. 2000/- may be reimbursed to the awardee, towards TA, stay etc.

**Nomination Solicitation:** Nominations solicited from entities of IC, and all IEEE sections and chapters in India every year in a prescribed format. Every Nomination should be duly proposed and seconded by two members of the entities EXECOM/ADCOM. It should be duly endorsed by the entity Chairman. Not more than one nominee from each entity will be entertained. The format should clearly bring out the proposed candidature with specific contributions made for the last 5 years and the quality/quantity of their effect on the activities of IEEE in India.

**Schedule:**

Submission of nominations by **30 Aug.**  
 Announcement of Result by **25 Oct.**

**Award function:** ACE to be held in Nov/Dec.

**Awards Committee:** Two members of the awards committee will be nominated by the IC Committee in its 1st or 2nd meeting, but in any case before 30th June every year. IC Chairman will be the Chairman of the Awards Committee.

**NOMINATION FORM:**

INDIA COUNCIL AWARD

1. Name of the Nominee:

Membership No.                      Grade  
 Date of Joining IEEE:  
 Details of Society Membership if any:

2. Educational Qualifications:

3. Contributions made by the candidate for the Last 5 years to IEEE objectives/activities:

Year, Activity, How the entity Benefited, Comments by proposer(s):  
 Signature & Name & Office held (proposer) -----  
 Signature & Name & Office held (secondor) -----  
 Endorsement by entity Chairman with comments -----

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**IEEE Student Branches in India**

Branches with good membership strength (as of 31.12.1999)  
 Branch Section Strength

Thadomal Shahani Engg. College	Bombay	695
Crescent Engg. College	Madras	578
St. Joseph College of Engg.	Madras	254
Sathyabama Engg. College	Madras	250
VES Instt. Of Technology	Bombay	203
KLE Society's College of Engg.	Bangalore	164
Chengannur College of Engineering	Kerala	155
Mepko Schlenk Engg. College	Madras	138

Gujarat University	Gujarat	117
Seth Jai Prakash Mukanl Lal Inst. of Engg	Delhi	111

**Call to Counselors of all Student Branches:** Please try to emulate the above Branches and please see that every eligible student in your institution is enrolled as a member before **30.11.2000**.

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### Books to Read

#### Industrial Instrumentation Principles and Design

-Tattamangalam R. Padmanabhan  
Springer publication  
Web: <http://www.springer.de>

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### PES-IAS Delhi Chapter receives Outstanding Chapter Award

According to the information received from Power Engineering Society HQ, for the year 1999 Delhi Chapter has been selected by them as the recipient of Outstanding Chapter Award under small chapter category. Chapter Chair Dr. S.Mukhopadhyay and his team are congratulated for bringing this laurel again to the country (in fact for the second time, after Hyderabad Chapter).

- Congrats ! Dr. S. Mukhopadhyay

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### Students from Nashik, Pune, Mumbai and New Delhi Shine at the International Computing Contest ICC-2000

In the contest held in January 2000, students from Modern School, New Delhi; K K Wagh College of Engineering, Fravashi Academy and St. Xavier's School of Nashik; Sai Computers Mumbai; and from Cummins College of Engineering, Abasahed Garware College, and Modern College of Pune have ranked at the National level.

At the Elementary BASIC Division, Archishmat Gore of Pune Institute of Computer Technology and Shamik Aga of Fravashi School have secured GOLD rank. In the Elementary Logo Division, students of Fravashi School-Anuja Dani, Viraaj Navalkar and Radhika Ganorkar have secured GOLD while Sahil Puri has secured SILVER. Apurva Kochargaonkar, Megha Bansal and Shruti Dubey of Fravashi as well as Visha Chavan of St. Xavier's School were recipients of BRONZE.

At the Junior Level in BASIC, the students of Modern School Delhi-Ishaan Gupta secured Gold while Shekar Patnaik received Silver alongwith Ajit Mishra of K K Wagh College of Nashik. Rishi Suri of Modern School Delhi and Kshama Thakkar of Sai Computers Mumbai got Honour Mention.

At Junior Logo Division, Sanhita Nadkarni and Janaki Dani of Fravashi received GOLD while Anant Bhatia of Fravashi got BRONZE. At Senior C Division, students of K K Wagh college of Engineering Nashik – Anupam Mukherjee secured GOLD while Ankur Gandhi secured SILVER. The Bronze recipients were Rashmi Soman of Abasaheb Garware College, Sema Joshi of Cummins College of Engineering and Shruti Behor. Pallavi Ghatpande and Ashwini Kulkarni of Modern College; Pallavi Chavan of Abasaheb Garware College and Mayur Choksi got Honour Mention.

When pedalling is too hard, leave it to this smart solar PV drive. Can be fitted on any bicycle. Developed by Energy Enterprise Ltd, Newport, Wales, UK.  
[mark@energyenterprise.co.uk](mailto:mark@energyenterprise.co.uk)

Source: British Commercial News

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## **COMNAM – 2000 TWO-DAY NATIONAL SEMINAR ON COMPUTER NETWORKING & MULTIMEDIA**

### **Organised by**

Dept. of Electronics & Telecom. Engg, JU

**Dates:** Thursday 21 & Friday 22, Dec' 2000

**Areas:** All fields of Computer communications, Multimedia applications, Web Technology, Telecom Services, ISDN techniques, Telematics, Information Technology & related fields.

**Datelines :** Contributed papers

2-page summary – 15 Sept 2000

5-page (A4) manuscript-18 Nov 2000

Proposal for tutorial/short courses solicited within 9 Sept 2000

### **Correspondence at :**

Dept E T C Eng, Jadavpur Univ.,

Calcutta 700032

Tel (033) 4832304

### **Attn :**

Dr. Salil K Sanyal, [Salil\\_kumars@hotmail.com](mailto:Salil_kumars@hotmail.com)

Prof. C K Sarkar, [phyhod@hotmail.com](mailto:phyhod@hotmail.com)

Dr. B Gupta, [Gupta\\_bh@yahoo.com](mailto:Gupta_bh@yahoo.com)

Prof. R Nandi, (Fax : 033 412 7905) [robinandi@hotmail.com](mailto:robinandi@hotmail.com)

**Regn Fee.** Cheque/DD Payable to 'COMNAM-2000'

Individual – Rs. 1000 paid before Dec'6, 2000

Student Rs.250/- Rs. 1200 after Dec'6, 2000

Or at spot Company sponsored delegate - Rs. 1500

The event is co-sponsored by **IEEE Calcutta Section**

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**VLSI : Systems, Design & Technology  
National Seminar**



**9-11 December 2000**Venue: **IIT Bombay**Co-sponsored by **CSI, IEEE Bombay Section and IEEE APS/EDS Bombay Chapter**

Recent advances in VSLI has made it possible to integrate millions of transistors on a single chip, and "System on a Chip" become a reality. The aim of this seminar is to bring together experts in several areas related to VSLI. Particular emphasis will be given to invited talks and tutorials so that a large cross section of practicing engineers and students can benefit.

Contributory papers are invited for which the deadline is **August 31, 2000**.

For details, please see contact:

**Prof. A. N. Chanorkar**

Dept. of Electrical Engineering

IIT Bombay, Mumbai 400 076.

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**IEEE 929 Standard Approved**

Approval of IEEE 929, a new kind of interconnection standard which will simplify the process of interconnecting photovoltaic systems with an electric utility has been announced . The standard is expected to remove barriers to PV use throughout the U.S.

(Source: IEEE The Leadership Wire, 09 June 2000)

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**Micro CHP Concept**

In this Natural Gas is consumed in a Stirling Engine to provide heat and electricity for use within a home. A total of 70% of energy value of the gas is converted into useful heat, with 25% being converted to electricity. Around 5% is lost in the exhaust gases. This compares with a conventional gas central heating boiler where 70% of the energy in the gas is converted into useful heat and the remaining 30% is lost to the flue gases. The electricity generated in the home has a value which covers the investment cost of the micro-CHP (combined heat and power) unit and provides a net saving.

Source: COSPP, issue 2, March April 2000.

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**EDITORIAL**

Bulletin

Sections, Chapters and Branches

As pointed out by the Chairman in his Column this month, the concept of IEEE members in India communicating through a print media originated 10 years ago. Hitherto, this Bulletin has been devoting most of its print area to cover announcements of forthcoming activities and reports of past events. Some space was also spared for notes on new technologies. Starting from this month, there will be occasional reviews of recent activities of Chapters and other entities of IEEE in the country. It is also planned to include expert reviews on technical subjects of importance as invited articles. Readers are requested to offer suggestions for making the pages of this Bulletin more useful. Such suggestions,

reports and announcements may be sent through e-mail for convenience and speed. Photographs of good activities are also solicited.

Regards,

Trivandrum  
03 July 2000

**V. K. Damodaran**  
Editor  
E-mail:  
[vkd@ieee.org](mailto:vkd@ieee.org)



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