



Chairman's Message



Dear Fellow Members,

As you are aware, IEEE India Council has restarted its monthly Newsletter under a new name "IEEE India Info" and 4 issues are already circulated. The editor Mr. N. T. Nair has made all attempts to include each and every member who has renewed membership. Please ask all your colleagues and friends who are IEEE members whether they are getting the Newsletter or not. If not please ask them to let us have their name and membership number to

enable us to retrieve their addresses from IEEE database.

I would like to share our concern for our members in India. Hopefully you are aware of various categories of IEEE membership. One such category is "Associate". Some time back Mr. Anthony Lobo of Bombay Section prepared a Section-wise list of Associates and sent it to all Section Chairs. The list shows that IEEE Membership of India included 2247 Associates also. An analysis as in March 2006 reveals that out of these 2247 Associates, only 225 have renewed their membership up to March 2006. Thus only 10% of the total Associates have renewed membership and balance 90% have dropped out. Reasons could be many. May I take liberty of requesting Section MDCs and Section Chairs to kindly approach all those Associates who have not renewed membership and help them in their elevation as full fledged IEEE Members / Senior Members depending on their eligibility. I also request all IEEE Members to kindly help Sections by informing about Associates known to them so that all eligible Associates are elevated to Higher Grades. Associates can also directly approach Sections for needful. Another concern is Higher Grade membership, Lot of our members are having 10 to 30 years of experience and are eligible for Senior Membersip. All are requested to kindly recommend the names of such members to their local Section for their elevation

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IEEE Officers Meet Hon'able President of India on April 29, 2006

L to R Bajaj (Past IEEE RIO Director) Pro. Michael Lightner (2006 IEEE President) Mrs. Nimmi Bajaj, Mrs. Linda, Dr.A.P.J. Abdul Kalam (Hon'ble President of India) Rajendra K. Asthana (Chairman IEEE India Council) and P.V. Ekande (Chairman IEEE Delhi Section)

'Sometimes our light goes out but is blown into flame by another human being. Each of us owes deep thanks to those who have rekindled this light'

-Albert Schweitzer

Editor Writes....

Friends,

'Should the CEO look at minute details or spend more time on larger Issues?'

The branch head received a letter from CEO, along with two outer covers of courier letters sent few days back from the branch to HO. CEO was asking why two letters were sent on the same day which were delivered together. Branch head was puzzled, as they were very careful in cutting wastage at all fronts, including in using courier service. On checking the records they found that those two envelopes were sent on adjacent days, but were delivered at the HO end on the same day by the courier Co. He informed this fact to the CEO, adding that they were even saving courier charges on week ends by using ordinary post, but taking care to put the covers on the city-specific letter boxes to ensure delivery on Monday morning itself. In another case, a CEO, after careful monitoring of the mounting STD bills for sending fax messages among 100s of depots spread all over the country, ordered that pleasantries like 'best regards' will no more be used for routine inter-employee messages, as these two words in every fax message add to the STD cost, significantly. What do these instances indicate? CEOs coming down to lowest levels and looking at cost implications, one can say. Probably these actions will send the message to all that cost cutting, a must to survive in the globalised economy, should start from the minor-most level and move to higher levels so that its impact will be much more. As per Pareto's principle or 80:20 rule, which says 80% of the cost is incurred by 20% of the activities, senior executives spending too much time on 80% of the not-so-important segments may not be wise. But occasional delving into some select ones in those unimportant areas may send the message that they can not be ignored totally. A judicious blend of both would be ideal.



N.T. Nair
Editor

Trivandrum
01 June '06

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IEEE NEWS & EVENTS

A Brief Report on 2006 IEEE Power India Conference

2006 IEEE Power India Conference was held in New Delhi during April 10 - 12, under the aegis of IEEE Delhi Section and IEEE PES-IAS Delhi Chapter. Besides reporting by officers, issues on Meetings Activities, Membership / Chapters Activities, Education / Industry Relations, Technical Information Services, Technical Activities were discussed. Goals for 2006 and Budget for 2007 too were presented.

Of the two Tutorials, one was on "Electricity Restructuring and the Role of Security in Power Systems Operation and Planning" by the PES Distinguished Lecturer Dr. Mohammad Shahidehpour (Fellow IEEE) of Illinois Institute of Technology, USA and the other on "Grid Disturbances, Remedial Measures (& Restoration)" by the PES Distinguished Lecturer Dr. Prabha S. Kundur (Fellow IEEE) of Powertech Labs, Canada.

The first presentation pointed out that restructuring of electricity and the creation of self-interested entities such as generation and transmission companies lead to surfacing of many shortcomings of the existing electricity systems in an interconnected network. Recent blackouts throughout the world provided a growing evidence that certain actions are urgently needed to ensure that the electricity sector continues to provide secure and affordable energy to its customers. In this background critical review was made based on some of the existing methodologies for enhancing the power systems security in vertically integrated utilities and proposed alternatives in various time scales for improving the security of restructured power systems.

The second one dealt with the new electricity supply industry posing increasing challenges for stable and secure operation of power systems. State-of-the-art methods have advanced capabilities significantly through comprehensive stability analysis tools, automated tools for system planning / design, online Dynamic Security Assessment (DSA) and coordinated design of robust stability controls. However, industry is yet to take full advantage of these developments. Future directions will be to explore new techniques which can better deal with growing uncertainties and increasing complexities of the problem, like, risk-based security assessment, intelligent systems for DSA, "self-healing" power systems, real-time monitoring and control. It was opined that widespread use of distributed generation could be a cost effective means of minimizing the impact of power grid failures.

The main Conference was inaugurated by the PES President John D McDonald. He highlighted what PES would be doing for the community world-wide through its technical activities. This was followed by 24 paper sessions in three parallel venues. Effectively there were 154 papers (accepted for IEEE Xplore too) in seven areas, viz, Power System Analysis, Computing and Economics, Power

System Models and Dynamic Performance, Power System Control and Operation, Power System Relaying and Protection, Challenges in Restructured Energy Systems, Applications of Power Electronics and Power, Energy Management System and Distribution Automation. A third of the papers were from abroad with the participation of delegates from China, Taiwan, Hong Kong, Malaysia, Vietnam, Japan, Iran, New Zealand, South Africa, Canada, Poland, Czech and United Kingdom, thus giving a true international color. Though mostly participation was from academic institutions, representation was also from power utilities as well as manufacturers in the country (like, POWER GRID, NTPC, CEA, Railways, BHEL, ABB, GE, Alstom, Siemens) and abroad (Toshiba). Topics of papers ranged from in-depth analysis of complex power system, means of stability enhancement, application of control techniques, advances in protection systems along with restructuring of power system on the transmission side to application of SCADA System and Control of Electrical Machines and Drives through the application of power electronics.

The panel discussion at the end had Subrata Mukhopadhyay, Prakash V Ekande, R Balasubramanian, Bhim Singh, Vijay K Sood and Mini S Thomas as the speakers, who highlighted about the deliberations in the various technical sessions.

Prepared by:

Subrata Mukhopadhyay

(PES Region Representative, Asia and Pacific Rim)

Chairman & Convener, Organizing Committee

2006 IEEE Power India Conference

New Delhi, India: 25-May-2006



Who's who of PES just after inauguration of 2006 IEEE Power India Conference, from L to R, IEEE Division VII Director W.O. (Bill) Kennedy, PES VP Education/Industry Relations Activities Prabha S Kundur, VP Technical Activities Keith I Gray, VP Technical Information Services Activities S.S. (Mani) Venkata, President John D McDonald, Secretary Noel N Schulz, VP Membership/Chapters Activities Enrique Tejera, Treasurer Alan C Rotz, Executive Director Robert A Dent, and PES Region Representative, Asia and Pacific Rim Subrata Mukhopadhyay

IEEE R10 Region website contest -Results

IIT, Bangalore won the second place in the R10 website contest (Not by IIT, Bombay as reported in the last issue. Error is regretted - Editorial team)

IEEE NEWS & EVENTS

IEEE Computer Society International Design Competition - 2006

ICFAI Institute of Science and Technology, Hyderabad short listed

Ten teams of university students have been chosen as finalists in the IEEE Computer Society International Design Competition. Finalists include three teams from the United States, two from China, two from Poland, one from India, one from Romania and one from Jordan.

The teams, which designed and implemented computer-based solutions to real-world problems along the theme of Preserving, Protecting and Enhancing the Environment, will travel to Washington, D.C. to present their projects in the CSIDC 2006 World Finals on 1-2 July. This year's competition drew entries from 133 teams from 28 countries.

From India, ICFAI Institute of Science and Technology, Hyderabad (Project Tsunami Tracking System) is one among the finalists. The IEEE Computer Society Design Competition is sponsored by Microsoft and is designed to provide a substantive design experience for undergraduate students in computer design and computer engineering fields.

Speakers for DVP India 2006 to 2009

Dear IEEE Section Chairs in India Council,

Prof. SSSP Rao, the Co-ordinator of IEEE Computer Society DVP India Program sends us the following list of the speakers for DVP India 2006 to 2009.

The Computer Society Chapters of Sections are urged to invite the following speakers for local lectures/seminars etc. Please be informed that the travel expenses to the Chapter will be borne by IEEE DVP India and the host chapter/section need only take care of local hospitality. For further details, pl visit the IEEE India Council web site.

Please join me in thanking the speakers for having kindly agreed to serve IEEE.

Thanks and best regards,

R. Muralidharan
Imm. Past Chair - IEEE India Council

Chairman's Message (contd. from ... Page 1)

as senior members. In case any of you want to have further information / details, please get in touch with your local Section or with me.

Student Branch of National Engineering College, Kovilpatti (Madras Section) has been awarded "Regional Exemplary Student Branch Award" for Academic Year 2005-06. Congratulations to Students, Prof. Vijayarangan and Prof. Shankarlingam for their achievement.

I would again like to inform you that this year INDICON 2006 is being organized at Delhi jointly by Delhi Section and India Council from 15th to 17th September 2006 at India Habitat Centre, Lodhi Road, New Delhi. All are requested to contribute to the same by way of papers and participation.

Should you have any suggestions, please do write to me.

With warm regards,

Delhi
01 June '06

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

IEEE Computer Society - DVP India (2006-2009) List

1. Prof. Rajat Moona
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Fax: +91-512-2597586
Mobile: +91-9935-028481
Areas of interests: Security, RFID and Smart Cards, Embedded Computing
2. Prof. Susmita Sur-Kolay
Advanced Computing and Microelectronics Unit
Indian Statistical Institute
203, B. T. Road, Kolkata 700 108, INDIA
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Mobile: +91 9830137242
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Areas of interest : Combinatorial optimization algorithms in VLSI physical design, Fault simulation, fault modeling, layout-aware testing, Graph algorithms, CAD tools for synthesis of quantum computers, Computational molecular biology
3. Dr. Partha P. Chakrabarti
Dept. of Computer Science and Engineering, IIT Kharagpur
Kharagpur - 721 302, India
Phone : 91-3222-282037 (O)
91-3222-983467 (R)
e-mail : ppchak@cse.iitkgp.ernet.in
Areas of interest : Artificial Intelligence, CAD for VLSI, Design of Algorithms, Formal Verifications
4. Dr. Harrick Vin
Tata Research Development and Design Center (TRDDC), Tata Consultancy Services, 54-B Hadapsar Industrial Estate Pune 411 013, Maharashtra, India
Phone: +91-20-56086269 (Office)
+91-98814-72390 (cell)
e-mail: Harrick.vin@tcs.com
URL: <http://www.cs.utexas.edu/~vin>
Areas of interest: Networks, operating systems, distributed systems, multimedia systems
5. Dr. Priti Shankar
Professor
Department of Computer Science and Automation, Indian Institute of Science
Bangalore 560 012
Phone: +91 80 22932911, +91 80 22932368, FAX: +91 80 23602911
e-mail : priti@cse.iisc.ernet.in
Areas of Interest : Compiler Tools, Formal Language and Applications, Error correcting codes
6. Mr. S. Manivanan,
Technology Group,
IBM Global Services India Pvt. Ltd.
Golden Enclave, Airport Road,
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Areas of interest : System Hardware Design, Computer Engineering & Parallel Processing
7. Prof. G. Sivakumar,
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Areas of Interest : Computer Networks, Information Security and Assurance Logic Programming Distributed Systems and Algorithms Software and Protocol Verification
8. Dr. Ravi Kothari, IBM Research Lab.,
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Areas of Interest : Pattern Recognition, Machine Learning, Data Mining

TECHNOLOGY SNIPPETS

Wave Power Generator Without Moving Parts

The wave - driven generators presently in use are dogged by heavy start-up costs and low efficiency. Snapper, an alternative solution for tapping wave energy has now been devised by a consultant engineer from UK, Ed Spooner. It consists of a buoy linked to a generating unit on the sea bed. The buoy is attached to a vertical armature inside the generating unit, and as it bobs up and down, magnets mounted on the armature induce a current in static coils fixed to the generating unit.

Mounted next to the armature are a parallel set of fixed magnets, aligned with the magnets on the armature. It is the interaction between the two sets of magnets that produces the jerky motion. The attraction of two sets of magnets tends to hold them in place next to each other. As the buoy tries to rise with a wave, this attraction initially holds it down. When the buoyancy force becomes large enough to overcome the attraction between the magnets, the buoy and the armature attached to it move sharply upwards until the magnets align again. As the buoy continues to rise this behaviour is repeated. Then as the buoy descends after the wave has passed, a spring produces a similar effect as the armature moves downwards. The result is a sequence of rapid movements that generate pulses of current.

Early experiments on a prototype show that the arrangement produces more power compared with existing wave power systems. The result would be small-size wave generators, costing less. [Source: New Scientist]

Wind Power Potential

The gross wind power potential of India has been estimated as 45,195 MW while the technical potential has been calculated as 14,775 MW. Maharashtra has the highest technical potential of 3,060 mw followed by Tamil Nadu (2,150 MW) and Andhra Pradesh (2,110 MW). With an installed capacity of 3,595 MW, India today is the fourth largest wind power producing country in the world, after Germany, USA and Spain.

IEEE NEWS & EVENTS (Contd.)

National Engg College, Kovilpatti Bags Award

The student branch of IEEE at National Engg College, Kovilpatti has been selected for Regional Exemplary Student Branch Award for the academic year 2005 - 06. **Congratulations from IEEE India Council**

NEWS SNIPPETS

China vs. U.S.

For many years, environmentalists have been pointing out that U.S. with just 5% of world population was consuming nearly a third of the earth's resources like basic food, energy and industrial commodities. Situation has changed, of late, with China overtaking U.S. as the leading consumer of basic commodities. To cite a few examples:

- In 2005, grain consumption of China was 380 million tons, compared to 260 m tons of U.S.
- Meat consumption of China in 2005 was 67 m tons, in the place of 38 m tons of U.S.
- China burns 960 m tons of coal which exceeds 560 m tons of United States
- Steel consumption is a basic indicator of industrial development of any nation. Steel consumption of China is nearly two and a half times that of the U.S. In 2003, China consumed 258 m tons of steel and U.S. 104 m tons.
- With consumer goods also, China leads in the no of mobile phones, televisions and refrigerators.
- However, U.S. keeps the lead in personal computers, and automobiles still, but for how long?.

Some Bare Facts also

	China	India
Population	1.3 billion	1.08 billion
Population growth rate	0.58%	1.4%
Literacy rate	90.9%	59.5%
GDP	US\$ 8.158trillion	3.678 trillion
Population below poverty line	10%	25%
Public debt	28.8% of GDP	82% of GDP
Internet users	111 million	50.6 million

Editorial Board

Er. N.T. Nair	Editor
Prof. V.K. Damodaran	Member
Er. J. Muraleemohan Lal	Member

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[http:// www.ewh.ieee.org/r10/india_council](http://www.ewh.ieee.org/r10/india_council)

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