

IEEE India Council Newsletter Vol. 3 Number 6 June 2008 Single Copy: Rs. 4/-

#### IEEE THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC

# **Chairmans Message**



Friends,

'Let us find out at least one reason why it can be done'

Throughout the history of mankind, there were different kinds of people who chased their dreams with actions in a relentless manner. What we see as progress or development all around us is such dreams turned to reality by that small majority of

dream-chasers. They would have faced several obstacles in various forms - 'nay sayers' sitting on sidelines trying to shoot down ideas, saying that it won't work or interpreting chaste actions as bad deeds, reading in between lines of communications, and the like. But none such impediments created by people who should have supported the move, would have deterred them, as otherwise many of the monuments carved out using their blood and sweat would not have been there for us to enjoy today. This negation process continues unabated in all our action fields, today also. But let us not be discouraged by them and let us go forward with more vigour, pinning hope on the support of those who often come up with *at least one reason why it can be done*.

May-June 2008 was a landmark period for IEEE India, as the HQ team led by Dr. Rangachar Kasturi made earnest efforts to study the IEEE scenario in our country (Report elsewhere). With NDLP finally taking off in vast majority of our Sections, mega programmes like TENCON, INDICON, AISC etc making steady progress, India Initiative of President Lewis Terman completing the fact finding mission etc., the future appears very bright for IEEE in India. If the additional genuine incentives demanded by Sections and India Council for members also come into fruition with approval from HQ, our call for value for membership may be seeing results. But, that may happen only in the last quarter of 2008. Let us look for brighter IEEE days here - with all your efforts!

With warm regards,

Trivandrum 10 June '08 N. T. Nair Chairman, IEEE India Council ntnair@ieee.org

The world is a comedy to those that think, and a tragedy to those that feel – Horace Walpole

# **Ocean Engineering Society in India**



Ocean Engineering Society as a Chapter under the India Council, planned by Dr. M. A. Atmanand, Project Director at National Institute of Ocean Technology, Chennai and recommended by India Council and R-10 Director was approved recently by the HQ. This Society Chapter will be working with all the Sections in the India Council, promoting the mutual interests of India's Oceanic Engineers and the IEEE. Dr.

Atmanand is now designated as the Interim Chairman.

As India is bounded with ocean on the three sides, Ocean engineering has tremendous potential with a huge reservoir of well trained manpower and limitless resources under the sea. Our presence in Antarctica is also noteworthy. Out of the major IITs, one in Chennai (Madras) and another in Kharagpur have dedicated Ocean engineering departments.

(http://www.iitm.ac.in/Departments/Ocean%20Engineering.html) (http://www.iitkgp.ac.in/departments/home.php?deptcode=NA)

Cochin University of Science and Technology (CUSAT) (http:// dept.cusat.ac.in/index.php?deptcode=ship) has also many programs in this area. Ministry of Earth sciences, the main coordinating body in its home page: http://www.dod.nic.in/ has links to all these Institutes. The major Institutes under this ministry are:

- 1. National Institute of Ocean Technology (NIOT), Chennai
- 2. National Centre for Antarctic and Ocean Research (NCAOR), Goa
- 3. Integrated Coastal and Marine Area Management (ICMAM), Chennai
- Indian National Centre for Ocean Information Services (INCOIS), Hyderabad
- 5. Indian Meteorological Department (IMD), New Delhi
- 6. Indian Institute of Tropical Meteorology (IITM)
- 7. Centre for Marine Living Resources and Ecology (CMLRE), Kochi Apart from the above, National Institute of Oceanography in Goa is the premier Institute dedicated to Oceanography in India.

NIOT as a technical arm of Ministry of Earth Sciences, Govt of India, is involved in development of technology related to the Oceans. Some of the activities are, Energy from Ocean, developing the technology for mining manganese nodules from Central Indian Ocean Basin, Remotely operated vehicle for 6000 m for gas hydrates survey, establishing Tsunami warning buoy system and weather data buoy network in the Oceans, etc.

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Visit http:/ www.ewh.ieee.org/r10/india_council	

Talent is what you possess, genius is what possesses you – Walcolm Cowle

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# From India Council Secretary



In this column last month, I had discussed about the need for a new model for professional bodies including IEEE to ensure meaningful member services. It is heartening to report that our organization is indeed in the process of developing one, as evident from the last month's visit of an HQ team led by Prof. Rangachar Kasturi, President of IEEE Computer Society. As part of the "Focus on India" initiative, the team visited five cities in India and had discussions with six of the ten chapters and the India Council. The main purpose of the visit was to evolve ways of delivering better service to IEEE members.

Prior to the visit, the India Council Chair, Mr. N. T. Nair had written to all Sections requesting their

views in this regard and a few were received. These were discussed with the HQ team. Prof. Kasturi has suggested that if there are further inputs, they may be forwarded to him at the earliest. Since this Newsletter reaches all members in India, I am making a request to all members to let us know of any inputs that they may like to pass on to the committee. Prof. Kasturi had suggested that all suggestions reach him by the end of second week of June. Perhaps another week may be okay.

To make things easier, a framework has been suggested for giving inputs:

- 1. Identify two things that IEEE does very well
- 2. Identify two things that IEEE can do much better
- 3. Identify two new things that IEEE should do

Members may send their views on the above to ieeeindia@gmail.com at the earliest.

Cheers!

K G Satheesh Kumar Secretary, IEEE India Council, k.g.kumar@ieee.org

# **NDLP News**

The NDLP programme was formally inaugurated on 24th May 2008 at Trivandrum. The first NDLP lecture was presented by Mr.Amarnath Raja, Chair, Kerala Section on "Free and Open Source Software" at Mohandas College of Engineering and Technology, Trivandrum.

#### 7 sections have identified Section level coordinators.

#### Kerala: Aju Thomas : ajuthomas@ieee.org,

Gujarat: Prof. Deepak Mathur : deepakmathur@ieee.org, Bangalore: Babu Narayanan : babu@powersearch.cpri.res.in Delhi: Daman Dev Sood : damandev.sood@steria.co.in Madras: Prof.Amitava Dasgupta : adg@ee.iitm.ernet.in Calcutta: Prof. Prasanta Kumar Basu : pkbasu\_rpe@yahoo.co.in Hyderabad: Prof. Arun Agarwal : aruncs@uohyd.ernet.in,



India - S. Gopakumar : s.gopakumar@ieee.org s Gopakumar,National Coorinator NDLP Enrollment of Speakers for NDLP has commenced in many of the sections. Delhi has enrolled 14 speakers, Kerala 18, and Calcutta 4.

Following screening committee has been constituted:

Prof. V. K Damodaran (Chairman)

Sri. Antony Lobo (Bombay)

Dr. Suresh Chander Pal (Madras)

Sri. S.Gopakumar (Convener).

The screening committee will go through the speaker list and approve the speakers in consultation with the experts in their area of expertise. Delhi section has submitted their speaker list to the screening committee. Speakers wishing to join this program may enroll their name either through the section website or through India Council webpage:

http://ewh.ieee.org/r10/india\_council/ndlp/ndlpreg1.htm

## Student Enterprise Award for Bannari Amman

The prestigious and internationally acclaimed IEEE Student Enterprise Award for 2007-08 (\$1150 Fin. Support attached) was bagged by the IEEE Student Branch of Bannari Amman Institute of Technology, sathyamangalam under Madras Section. Congratulations Mr. V. K. Sudhaman, Mr. R. Parthiban of Final BE (ECE), their teacher guide and HOD Prof. R. Hariharan and Dean and IEEE Madras Student Counselor Dr. G. Guruswamy! Only 10 best projects are selected worldwide by IEEE and this recognition is therefore creditworthy.

The project is very interesting: FPGA model of Fuzzy PD Controller for Insulin Pumps for Diabetes and is a novel approach to identify and design a simple robust fuzzy FD controller for insulin pump with minimum number of fuzzy rules for diabetic patients as a single injection process. The blood glucose level is monitored from photo plethysmograph of pulse oximeter and the result is expected to be a boon to diabetic patients.

#### **Forthcoming Technical Events**

IEEE PES General Meeting, Pittsburgh, USA	:	20-24 Jul 08
ISMCR-08 Bangalore	:	04-06 Sep 08
REMES 08 Changa, Gujarat	:	12-13 Sep 08
SMART GRIDS INDIA, Mumbai	:	14-16 Oct 08
TENCON 2008, Hyderabad	:	18-21 Nov 08
ICIIS 2008, Kharagpur	:	08-10 Dec 08
INDICON 2008, IIT Kanpur	:	11-13 Dec 08
AISC 2008, Kharagpur	:	Sep 08

ISMCR - 08

4-6 Sept 08

Organised by IEEE Bangalore Section, "Robotics in Assistance to Mankind" is the theme topic of the International Symposium on Measurements & Control in Robotics (ISMCR-08) to be held from 04 to 06 Sept 08 at the National Institute of Mental Health and Neuro Sciences (NIMHANS) Convention Centre in Bangaluru. It is co-sponsored by IMEKO/TC-17, IETE, IET, SEE, ISRO and CAIR-DRDO. There is Exhibition, Tutorials and Presentation sessions and Registration is open. Please contact:

**D. Rajagopal**, Secretary ISMCR-08, at robotics@seminarindia.org Details at www.seminarindia.org

## Impact of Petroleum Regulatory Act

27 Sept 08

An International IEEE Seminar on "Impact & Benefits of The Petroleum & Natural Gas Regulatory Board Act 2006 on the Society" will be held at Vadodara (Gujarat Section) on 27th September 2008, where speakers of international fame on the subject will be making their views known. It is expected that over 200 persons comprising technocrats, engineers, industrialists and engineering students will attend this Seminar. Please look up in subsequent issues of Info as well as in the IC website for more details. Those interested, please contact:

#### Mr. Hasmukh Shah

<hasmukhsurya@hotmail.com>

## The NDLP Inaugurated

24 May 08

Under the newly funded New Initiatives Program of IEEE, the India Council is organizing a member services extension program through the National Distinguished Lecturer Program (NDLP). This program envisages best volunteer lecturers travelling to hitherto un-serviced areas, giving lectures on topics on the horizon and interacting with small islands of members beyond the Sections' physical reach and prompting them to benefit by the professional services of IEEE. The most benefited would be the Student Branches and the township centred engineers. The lecture scheme under this initiative was officially launched at Trivandrum on 24 May '08 at Mohan Das College of Engineering and Technology under Kerala Section. Mr Amarnath Raja, Chairman, Kerala Section and a vehement advocate of Open Source Software delivered this first NDLP lecture on 'Free Open Source Software' to an audience of IEEE student members and teachers. The National Coordinator Mr. S. Gopakumar and Kerala Coordinator Mr. Aju Thomas were also present. We are awaiting reports from other Sections too.

#### The absurd man is he who never changes - Barthelemy



# Dr. R. Kasturi and Matt Loeb. India Council team is on the right & left wings

The team headed by Dr. Rangachar Kasturi (2008 President of IEEE Computer Society and Douglas W. Hood Professor of Computer Science and Engineering, University of South Florida) with Mr. Matt Loeb, Staff Director at IEEE HQ, Ms. Angela R. Burgess, Executive Director of Computer Society based in Washington and Ms. Providence More, Manager of Strategic Planning & Competitive Intelligence based in Piscataway toured India for two weeks, consulting IEEE members and volunteer leaders on the proposed India Initiative of President Mr. Lewis Terman. They met several IEEE office bearers of 6 Sections in 5 cities - Bangalore, Bombay, Delhi, Hyderabad and Chennai (Kerala Section leaders met the team in Chennai), which was followed by a formal meeting with the representatives of India Council (Chair Mr. N. T. Nair, Newsletter Editor and former IC Executive Vice Chair Prof. V. K. Damodaran and Secretary Prof. K. G. Satheesh kumar) on the last day, viz. 05 June 08. This meeting could take stock of the various valuable suggestions made at the meetings in 5 centres and come up with concrete suggestions (Listed below) to energise IEEE activities in India and to eliminate the problems faced by members in their growing with IEEE.

- 1. IEEE Starting an account in a Bank in India to enable members including students to make payments in Indian currency for various IEEE services in any of its branches.
- 2. Broad basing the Life Member status by allowing all those with more than 25 years of standing in IEEE to enjoy this benefit. If found needed, weightage for IEEE volunteers for a few years may also be linked to this. This will also ensure that more members will come forward to play active roles in IEEE from Section level upwards.
- 3 A second category of Life Membership may also be considered for those with minimum 15 years of membership, but ready to pay a bulk amount, to be decided after considering the economics.
- 4. Open Corporate Member category worldwide.
- 5. Start a Tele-engineering activity, similar to Telemedicine, to allow public as well as IEEE members to seek solutions for complex engineering problems from the IEEE experts anywhere in the world. This would go a long way in bringing more societal approval for the IEEE, one of its goals.
- 6. Include a few representatives of IEEE Sections in India and also of India Council in finalizing the elements of President Terman's India Initiative.
- 7. Institute more incentives for members completing 5/10/15 years of membership, like limited free Xplore time.
- 8. Prevent the present massive drop out syndrome in IEEE of graduating students, thro' a one time attractive incentive, which can not be availed any time later.
- 9. Digital Library facility to student branches, at attractive terms, linked to total membership.
- 10. A single IEEE outfit under HQ to which any kind of issues faced by members, Sections, student branches etc could be referred, who in turn will refer it to the appropriate agency within IEEE for urgent action.
- 11. Enhance the reach of IEEE standards at country level by interactions with the relevant standards body, say, Bureau of Indian Standards (BIS) in India. India Council has already initiated steps for this and requested for appropriate support from IEEE HQ. The Staff Director Mr Matt Loeb promised sending an official to join such discussions with Govt.
- 12. One time payment for student membership for the whole first degree studentship and erosion in potential membership from among computer and IT professional due to more attractive terms from other Societies were cited as threats to membership growth.
- 13. India Council's initiatives like National Distinguished Lecturer Programme (NDLP) and IEEE member sticker scheme to foster easy networking among members were, after presentation appreciated by the HQ team as encouraging.
- 14. The status and mandate of 17 National Councils (like India Council) with budgetary support from HQ to be established for promotion of IEEE activities and expansion of its structure more vigorously. It was pointed out as more important, because IEEE Council, the Apex body in a country, will only be able to address the needs of the members in the whole geographic region, including encouraging growth of IEEE in Tier-2 cities and townships, where members may be there but no mainline activity of a Section has reached. In due course, a new sub-section could be formed in such places. India has a great potential in this direction.

Dr. Suresh P. Chander Pal (former TNEB Member), Dr. S. Salivahanan (Chair Madras Sn), Dr. Thiagarajan (Secretary Madras Sn) and Prof. Ms. M. Ramalatha, R 10 WIE Co-ordinator, Mr. Amarnath Raja (Chair, Kerala Sn) and Mr. M. Satish Babu (Vice Chair Kerala Sn) gave support to the IC team in Chennai to meet the HQ team. Members from all over India may send more points if any, to IC [ieeeindia@gmail.com] within a week of getting this Bulletin for consolidation and forwarding to the Team. [See Secretary's Column]

There is mighty big difference between good, sound reasons and reasons that sound good – Burton Hillis

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## **Tech News**

SunPower, San Jose, California has announced that it has produced a full-scale, 5" prototype solar cell with an efficiency of 23.4 %. This is a world-record for a large area solar cell. SunPower has reported improvements of its cell efficiency in the laboratory and in mass production since its first all-back contact solar cell prototype in 2003.

"This is a step function increase from our 22 percent efficient Gen 2 technology, which has been in mass production since last year," said Tom Werner, CEO of SunPower. "Credit for this achievement goes to our world- class research and development team led by Dick Swanson and Bill Mulligan, as well as to our talented engineering group."

This record efficiency solar cell, which is expected to be commercially available in approximately two years, extends our expectation of reducing PV system cost by 50 percent by the year 2012.

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Coming to the commercial area of Ocean engineering India, there are a number of ship yards both in the Government sector and private sector. Another major player in this area is the oil and gas industry. The State player is the ONGC. With oil price booming in the International level, efforts to increase the average recovery from 28% to 40% is on. Another important area is in the Indian Navy. There are various Defence Research and Development Laboratories, the major ones in this area are Naval Physical and Oceanographic Laboratory (NPOL) at Kochi and Naval Science and Technology Laboratory (NSTL), at Vizag.

The new Society Chapter will network initially through its 13 members with the wide range of Ocean Engineers in India. The immediate plan is to organise a simple inauguration of the OES in India and then go ahead with meetings and talks. The priority would be to reach out to as many prospective members as possible and increase the membership in OES.

More information about OES membership benefits is available at:

http://www.oceanicengineering.org/main.cfm?EID=24. Dr. M. A. Atmanand (atma@niot.res.in) Chairman OES India Council and Vice Chair Madras Section Project Director National Institute of Ocean Technology Velachery - Tambaram Road, Pallikaranai Chennai 600 100 Phone +91 44 6678 3366 Fax +91 44 2246 2038

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## Editorial India's Youth Power

The members of IEEE the world over know pretty well that the largest and strongest IEEE Student Branches are India's own. The various international contests for student members and their results also prove this fact. Yet, the vibrancy outlasts only for a few years and our conversion to GOLD from Student membership is not at all attractive; not to mention the large numbers of fallen student branches as unearthed by our Veteran IEEEian

HK.

This is of course, no reason for India not to place rightful confidence in India's youth power - of today and tomorrow. I heard Dr. Cheung, President, Communications Society 2006 & 07, at a conference recently in New Jersey, saying that by 2032, the percentage of youth in India will be the highest in the world and that would offer quite a good lead for India in modern technologies. Policy makers please listen! Teachers at Universities please ponder over as to how to lead the youth power into the right channels. More than that let students - especially in the cutting edge technologies - decide how the youth should shape the destiny of Mother India! How many of you would return to India, given the right conditions, after being exposed to the best of S&T in the present leading countries of the world - as has been seen in China recently?

Regards,

Trivandrum 10 June '08

V. K. Damodaran, Editor vkd@ieee.org

Man is not the creature of circumstances; Circumstances are the creatures of man - Anon

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RNI No. KERENG/2006/17872 Regd. No.KL/TV(S)/319/2006-2008 Licence No. Tech/62-2/2006 Licenced to post without prepayment At TVM RMS on 15<sup>th</sup> and 16<sup>th</sup> of every month for the years 2006-2008

If undelivered, please return to:

N.T. Nair, 186, PTP Nagar, Trivandrum 695 038, India.

Printed and Published by Er. N.T. Nair, 186, PTP Nagar, Trivandrum - 695 038 on behalf of IEEE India Council Printed at Akshara Offset, TC 25/3230(1), Trivandrum - 695 035 and published at Trivandrum. Editor : Prof. V. K. Damodaran