



Chairman's Message



Dear Members,

It is time for renewal of your valuable membership. If you have not paid the dues kindly do so at the earliest.

This year's INDICON is taking shape in DA-IICT Gandhinagar, Ahmedabad, as a major activity of Gujrat Section and the India Council on 18-20 December 2009. Best wishes to Prof. S L Maskara, the General Chair of the conference and Prof. Anil K Roy, the co-Chair of the conference and the Chairman of the IEEE Gujrat Section which is organizing the event.

We are coming to the end of the year and therefore it is important for all the volunteers and officers of the respective IEEE entities to file the respective activity reports.

Region10 IEEE GOLD Congress is being organised by IEEE Bangalore Section at Bangalore on 5th and 6th December, 2009. All GOLD Affinity Groups of the sections in India are requested to lend full support to the event by participating in large numbers and making it a success.

The 125th year of IEEE will be coming to end on 31st December. I request all the sections, society chapters and student branches to appropriately celebrate the 125th Anniversary of IEEE and spread awareness in the society on the contributions of the IEEE to the Engineering in last 125 years and to the society in general.

With best wishes to the IEEE fraternity in India

Kasi Rajgopal

Bangalore

Chairman, IEEE India Council

01 November '09

kasi.rajgopal@ieee.org

IEEE CODE OF ETHICS

We, the members of the IEEE, in recognition of the importance of our technologies in affecting the quality of life throughout the world, and in accepting a personal obligation to our profession, its members and the communities we serve, do hereby commit ourselves to the highest ethical and professional conduct and agree:

1. 'to accept responsibility in making decisions consistent with the safety, health and welfare of the public, and to disclose promptly factors that might endanger the public or the environment;'

Technology Notes

US Postal Service Goes Electric Vehicle Way

Electric vehicle wave is catching up well and United States Postal Service("USPS") is in the line. Smith Electric Vehicles US Corp, together with AM General, a leading manufacturer of military and commercial vehicles at Indiana, is developing a prototype electric version of the gasoline-powered Long Life Vehicle to replace the present fleet of around 178,000 vehicles in service with the USPS. AM General will manufacture the chassis and SEV US Corp will supply the electric drive train, including the motor, battery pack, electronics and ancillary systems. The aim is to introduce vehicles that are energy efficient, cost-effective, reduce US reliance on oil and lower greenhouse gas emissions.

Electric Cars need Fake Engine Noise

Right from beginning, automakers have been on a quest to make cars quieter: an auto that purrs, and glides almost silently in traffic. Now the complaint is that electric vehicles and hybrids aren't noisy enough, despite the fact that 70% of the noise generated by a vehicle is created by the tyres. Many worry that electric vehicles and hybrids pose a threat if pedestrians can't hear them approaching and want to impose themselves on automakers to supply some digitally produced sound.

So automakers are now on a searching spree: just as cell phones have ring tones, "car tones" may be needed — an option for owners of electric vehicles to choose the sound their cars emit.

Working with Hollywood special-effects wizards, some hybrid auto companies have started tinkering in sound studios, rather than machine shops, to customize engine noises. In a typical case, the Fisker Karma, an \$87,900 plug-in hybrid expected to go on sale next year, will emit a sound — pumped out of speakers in the bumpers. Nissan is also consulting with the film industry on sounds that could be emitted by its forthcoming Leaf battery-electric vehicle, while Toyota has been working with the National Highway Traffic Safety Administration, the National Federation of the Blind and the Society of Automotive Engineers on sounds for electric vehicles.

"One possibility is choosing your own noise," said a spokeswoman for BMW's Mini division. BMW is also planning to go electric vehicle way in the future.

A study published last year by the University of California and financed by the National Federation of the Blind evaluated the effect of sounds emitted by hybrid and internal-combustion cars travelling at 5 miles per hour.

People listening in a lab could correctly detect a gas-powered car's approach when it was 28 feet away, but could not hear the arrival of a hybrid operating in silent battery mode until it was only seven feet away.

Forthcoming Events

INDICON 2009

The Annual Conference of IEEE India Council, INDICON2009, is being organized by IEEE Gujarat Section in Ahmedabad during 18-20 December 2009.

Theme: INNOVATIONS, EMERGING TECHNOLOGIES, ENGINEERING WITH EXCELLENCE - for the Humanity.

Venue: DA-IICT (Dhirubhai Ambani Institute of Information and Communication Technology), Gandhinagar.

For details, please visit the conference website: <http://ewh.ieee.org/r10/gujarat/indicon2009/>

IEEE ENVISIONED FUTURE

IEEE's Mission

IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity.

IEEE's Big Audacious Goal

Be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions.

Vivid Descriptions

Descriptions of what it will be like to achieve the big audacious goal:

- The IEEE community and its technologies will positively impact global prosperity and quality of life.
- Governments will increasingly seek IEEE's input as an unbiased source of technical information.
- Industry will recognize and value IEEE thereby strongly supporting professionals' participation in IEEE.
- Communities around the world will universally recognize and appreciate the profession and IEEE's role.
- Technological literacy will prevail among all educated citizens.
- IEEE members will have productive, distinguished, and rewarding careers. Increasing numbers of students will choose careers in IEEE fields of interest.
- IEEE will be recognized as a global force in shaping education and curricula in IEEE fields of interest.
- IEEE will be a center of excellence in technology information and a global force in intellectual property rights management.
- IEEE members will universally find value in active engagement and involvement in the organization.

NT Nair - Life Senior Member

N T Nair, former Chair, IEEE India Council has been conferred Life Senior Member status with effect from January 2010.

From India Council Secretary



My Dear India Council Members,

We are almost coming to the end of 2009 IEEE activities. It is requested that any IEEE activity marking 125th Anniversary if still pending during the year may please be completed in time and on behalf of India Council I wish a grand success for all such pending events to celebrate IEEE 125th Anniversary.

I have been requesting all the valued members and interested non IEEE Members to become part of this prestigious IEEE community by renewing/ fresh joining the membership of the year 2010 for which IEEE Membership portal at www.ieee.org can be utilized instantly. The use of credit card is very safe for such Membership renewal/joining purpose which take hardly 30 minutes to become a proud member of IEEE family.

The active/interested Technical and Management Professional may also find good opportunity to serve the society through IEEE forum. All dynamic and enthusiastic IEEE volunteers can also opt and join any IEEE Society/ Sections Executive Committees spread across the country. For more details, please look into respective Section/Society web site. There is another reminder for all those who are interested to serve in the editorial board on this renowned informative monthly Newsletter of India Council for which deadline is extended up to 30th November, 2009.

The Women Engineering Congress hosted by IEEE Bangalore Section on 23rd and 24th October, 2009 was a grand success, a brief report of which is published in this Newsletter. Regarding the IEEE forthcoming events, Region10 IEEE GOLD Congress is being organised by IEEE Bangalore Section at Bangalore on 5th and 6th December, 2009 apart from the prestigious INDICON 2009 hosted by Gujarat Section at Ahmedabad from 18-20 December, 2009. For more information please visit IEEE Bangalore Section and India Council web sites. I request one and all to utilize this opportunity and participate in great numbers in these concluding functions of IEEE marking the 125th Anniversary of IEEE and contribute for grand success.

Thanks and Best Regards,

Yours sincerely
K Ramakrishna

Secretary

Email: kramakrishna@ieee.org

The manager accepts the status quo; the leader challenges it - Warren Bennis

RAINWATER HARVESTING FOR FOOD SECURITY AND SUSTAINABLE LIVELIHOOD IN THE NORTHWEST DESERT OF INDIA

Marwar Geo- Cultural Society (MGCS) Anand Bhawan, Opposite filter house, Chopasani Road,
JODHPUR - 342008 (Rajasthan) INDIA

Technical support: Regional Remote Sensing Service Centre (RRSSC)
Indian Space Research Organization (ISRO), Department of Space, Government of India, CAZRI Campus,
JODHPUR - 342 003 (Rajasthan) INDIA

&

IEEE Committee on Earth Observation 445 Hoes Lane Piscataway NJ 08855 USA

The program schedule provides for project completion in one year. Since the work corresponds to the growing season in India (July to October), the installation of the equipment should be complete by early spring, 2010. It is thus highly recommended that commitment to the project be before the end of 2009. In kind contributions for about half of the program costs related to the construction of one cistern, equipments and the building for training centre have been secured by MGCS in India to start the program. Additional funds for full potential of the project, capacity building, training and sustainability are being solicited through grants.

SYMPOL 2009

Tenth Biennial Symposium on Ocean Electronics, 2009

Technically co-sponsored by IEEE Oceanic Society under IEEE India Council

The Tenth biennial Symposium on Ocean Electronics, 2009(SYMPOL 2009) is organized as an international conference, addressing the global oceans, systems and technologies during 18-20 November, 2009 in Cochin University of Science and Technology. The first symposium of this series was organised during 18-20 December 1991, to mark the occasion of the formal opening of the Centre for Ocean Electronics established in the Department of Electronics of Cochin University of Science and Technology as a joint venture of the Ministry of Human Resources Development (Govt. of India) and University Grants Commission. This symposium is intended to provide a forum for the researchers to interact with one another and present their innovative ideas and research findings in the fields of Ocean Electronics and allied areas. The technical sessions of the Symposium include presentation of contributed research papers and invited talks on some of the current and emerging topics in Ocean Electronics. These invited talks are intended for working engineers/scientists to update their skills and knowledge in some of the highly specialized and fast developing areas in Ocean Electronics.

Contact:

Department of Electronics, Cochin University of Science and Technology, Cochin-682 022

Tel: 0484-2576418, 2577910, Fax: 0484-2577910, 2575800, email: sympol@cusat.ac.in

WiNGCom '09

IEEE Kerala section, in association with CDAC, Trivandrum, is organising a seminar on Next Generation wireless communication technologies - WiNGCom '09. The event will be held at Hotel Udaya Samudra, Kovalam, Trivandrum on 20th and 21st November 2009. Two tutorials will be presented on 20th Nov - OFDM and SDR. The seminar on 21st will cover topics like Evolution of wireless communication, Software defined radio, Cognitive radio, Wireless security, Mobile Ad hoc Networks, WiMAX, Wireless sensor networks, futuristic tactical communication and spectrum for future wireless communications. The topics will be handled by eminent personalities in the corresponding areas. Details are available in www.cdactvm.in/wingcom.

Bad officials are elected by good citizens who do not vote - George Jean Nathan

Editorial



Well Conceived Vision

IEEE and its New Vision for the next couple of years is currently being given wide publicity, as it will keep its members proud of its very purpose, which is stated as 'to foster technological innovation and excellence for the benefit of humanity' – a very laudable goal for a professional society which has the highest influence in promoting development in almost all the countries of the globe. Elsewhere in this issue, we have abstracted the Big Audacious Goal of IEEE. Though termed audacious, with every passing year after approving the 3-5 year and the ultimate goals of the organization as well as its core values, it has come to the point that these are very much realizable. We very much wish that our Section gatherings and the various Branches and Societies under the India Council discuss these points, so as to device ways by which these could be made meaningful in ones own region and in their places of work.

Working Towards a Renewable Energy Future
The World is at a cross road now.

Regards

Trivandrum
12 November 2009

V K Damodaran
Editor, vkd@ieee.org

Sustainable Development

Prof. C K Prahlad, Management Guru

If you deeply understand sustainability, then it's just like the quality movement some 30 years ago.

If you recall, there was a lot of debate about whether quality will increase cost. What did we find? That if you deeply understand quality and you put methodology in place, costs automatically come down. I believe sustainability can be the next quality challenge. It's going to drastically reduce costs and increase consumer acceptance. Don't look at sustainability as compliance and regulation, but as an opportunity for breakthrough innovation.

(Courtesy: Economic Times)

Bacteria to Grow as Custom Packaging

Bacteria are good and bad. Bad, of course, we all know: cause for many diseases. On the good side, bacteria may be able to help make fuels like ethanol, put the brakes on desertification, clean up radioactive waste, and detect pollutants. Bacteria-based computing is also a field getting a growing amount of attention.

Packaging is an incredibly wasteful expenditure. Some companies are downsizing their packaging, but many products still come wrapped and boxed in ridiculous amounts of plastic, paper, cardboard etc. One designer has now come up with a way to get rid of the waste by wrapping objects in bacteria, creating a biodegradable, custom-fitting shell.

Mareike Frensmeyer just won third place in the Cargo Packs 2020 challenge for his bacteria wrap idea called **Bacs**. The packaging is made by covering an object with a culture of the bacterium *acetobacter xylinum*, then starting a sugar feeding frenzy. This creates a "fibrous nano-scaled cellulose network" that encases the object and keeps it safe along its journey.

The Bacs system can be manipulated to offer damp, gel-like packaging for food, dry, paper-like packaging or freeze-dried, foam-like packaging for the most fragile objects. Definitely the idea of a world free of packing is welcome.

To

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