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GOVERNMENT OF INDIA
Department of Information Technology
Ministry of Communications &
Information Technology

ELECTRONICS ***e-NEWSLETTER***

... For Electronics System Design & Manufacturing (ESDM) Sector

Year 2 | Vol 3: January 2012

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- Smart Energy Meter to be Developed

- Technical Review on Hazardous Waste
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From Chief Editor's Desk



Dear Readers,

Welcome to the third edition of the Electronics e-Newsletter, an official publication from Department of Information Technology (DIT). The response to earlier editions has been very encouraging. Thank you for all the feedback and good words regarding the initiative.

The most important development during the last month has been a step towards institutionalizing the development and mandating standards for electronic products. It has been agreed to set up a PMU in DIT to undertake this activity. Recruitment to the PMU should happen in the coming months.

I would also like to thank all our stakeholders who have given feedback to the draft National Policy on Electronics, 2011. We are in process of considering these comments and further action to finalize the policy is being initiated.

The Prime Minister has emphasized on the need for greater emphasis on R&D. In this regard some noteworthy work has been done by CDAC, Kolkata and C-DAC, Thiruvananthapuram. Industry partners may consider these for commercialization.

Let me once again wish all readers a Very Happy 2012. Let us hope that 2012 is the watershed year for electronics development in India.

Dr. Ajay Kumar
Chief Editor

Institutional Mechanism in DIT for Standards Implementation in Electronics

In furtherance of the proposals stated in the draft National Policy on Electronics, 2011, the Department of Information Technology has created an institutional mechanism for developing and mandating standards in the ESDM sector. Approval has been accorded for setting up of a Programme Management Unit (PMU) for coordinating on various issues related to Standards of Electronic Goods and Components. This is to overcome the problem of sub-standard goods being supplied to the market which may potentially put consumers and environment at risk, besides giving unfair competition to the domestic industry.

PMU on Standards within DIT will develop Indian standards to meet specific Indian conditions including climatic, power supply and handling conditions etc., by suitably reviewing existing standards and mandating technical standards in the interest of public health and safety. This will also develop a National Policy Framework for enforcement and use of Standards and Quality Management Processes. Strengthening the lab infrastructure for testing of electronic products and encouraging development of conformity assessment infrastructure by private participation will also be taken up besides creating awareness amongst consumers against sub-standard and spurious electronic products. These activities will be initiated in close coordination with Bureau of Indian Standards (BIS) and Standardisation Testing and Quality Certification (STQC). For those interested in applying for the said PMU, please contact Shri Rajesh Suri (Email: rajesh.suri@nic.in). For details regarding proposed standards implementation, please contact Shri Arun Sachdeva (Email: asachdeva@mit.gov.in).

SOURCE INDIA: ELECTRONICS SUPPLY CHAIN 2011

"SOURCE INDIA: Electronics Supply Chain 2011", an annual event, the third in a series, was organized by ELCINA on 14th December 2011 at the Chennai Trade Centre. The event encourages greater sourcing of electronic components from India by the manufacturers of products. The one day event featured 26 Exhibitors, 15 Buyers and 175 delegates from 78 companies from India and aboard from verticals like electronic component manufacturers, EMS companies and equipment manufacturers from Telecom, Consumer Electronics, IT, Automotive, Medical and Industrial Electronics segments. Some of the major companies include global giants such as Nokia, Philips, LG Electronics, HCL Infosystems, Tyco, Flextronics, Foxconn, SFO Technologies, Whirlpool, Nokia Siemens Networks, Dixon Technologies, Visteon and TVS-Lucas. The event has grown significantly since it was launched in 2009. The event was supported by the Department of Information Technology, Government of India.

• EOI to Identify Skills Gap in ESDM

• Radiation emission guidelines set

SmartPlay's 70-seat design centre in Hyderabad

According to a report, SmartPlay Technologies, a US-based provider of digital, analog, wireless software system design services, opened a new 70-seater design centre in Hyderabad recently. SmartPlay currently has design centres at San Jose, San Diego and Austin in the US, and at Bangalore and Greater Noida in India, employing 650 professional. Out of this 200 are in mobile technology and the remaining in semiconductor design.

Source: Business Reporter, Dec 2, 2011

Belkin Looks for Manufacturing Partners in India

According to reports, Belkin India, part of the US based provider of computing and consumer electronic accessories, has shortlisted potential partners in India for manufacturing contracts. The company imports practically all its products from Hong Kong through contract manufacturing arrangements. Belkin has shortlisted manufactures of surge protectors, mouse and keyboards, IT peripherals and structured cabling among others. The company also plans to set up a central warehouse for its products as currently it takes a four-week cycle for goods to arrive in India after leaving from Hong Kong. According to the company, this time will reduce to five to seven days. It is further reported that the company may look at local manufactures not just for domestic sales but even global sales.

Source: The Economic Times, Dec 2, 2011

Videocon plans to set up mobile phone facility

According to reports, Videocon is scouting for locations across the country for setting up mobile phone manufacturing plant in India, which could entail an investment of up to Rs 75 Crore in the initial phase. The decision is expected in February or March 2012. The company plans to sell around 2.5 million mobile handsets next year. Currently, it sources the phones from OEMs. The company, which sells consumer electronics and appliances such as televisions, refrigerators, among others, had entered into the mobile phone space last year.

Source: PTI, December 09, 2011

Identifying Skills Gap in ESDM- EOI to be floated soon

As a follow up to the study conducted by MAIT in 2008 and NSDC regarding the skills gap in the ESDM, the Department of Information Technology, Government of India proposes to further drill down the requirement for various skills and create capacities for the identified gaps. A detailed study is proposed to be carried out for various verticals, including telecom, mobile handsets, broadcasting, IT and office automation, consumer electronics, industrial electronics, LEDs, strategic electronics, automotive electronics, avionics, solar photovoltaics, components etc. An Expression of Interest is proposed to be floated by the Department shortly to conduct the study inviting responses from interested and qualified professional agencies to conduct the studies. While the existing studies provide a high level assessment of manpower requirement for the ESDM sector, the objective of this study would be to specifically aim to identify Job-roles for which there is an existing and projected skills-gap (for 2012-2017 period), establish competency standards and academic eligibility for the identified roles. Gap between the demand and supply of work-force will be estimated and specifics of capacity-building for supplying skilled human resource will be ascertained. The study would pave way for planning schemes and interventions for skill building and training for the ESDM sector. The objective is that requisite manpower is available at all levels and across verticals.

A draft EOI prepared by the Department was discussed in a stakeholders' meeting held on December 22, 2011 in Electronics Niketan under the Chairmanship of Dr. Ajay Kumar, Joint Secretary, Department of Information Technology. The participants included representatives of Industry Association and Apex Chambers, DGE&T & NIELIT (formerly DOEACC) and NSDC. For more details, please contact Shri Prerit Rana, Consultant, ESDM PMU (Email: prerit.rana@nic.in)

Radiation emission guidelines set for Mobile Handsets, Mobile Base Stations

Department of Telecommunications has, vide its reference No 32-7/2011-EW dated November 17, 2011 accepted the recommendations of the Inter Ministerial Committee on EMF Radiation, providing a set of new radiation emission guidelines for mobile handsets and mobile base stations. The recommendations stipulate the emission levels for handsets sold in India and make it compulsory for these levels to be displayed on phones and retail outlets.

Some of the key recommendations for the mobile handsets include: SAR level for mobile handsets to be limited to 1.6 Watt/ KG, averaged over a 6 minutes period and taken over a volume containing a mass of 1 gram of human tissue; SAR level to be displayed on the handsets; compliance to BIS standards. The key recommendations for the Mobile Base Stations include: the exposure limit for the Radio Frequency field (Base Station Emissions) lowered to 1/10th of the existing exposure level; provision shall be made for continuous online monitoring and display of radiation level in mobile network.

The more details in this regard, please see relevant guidelines which are available in the "Electronic Hardware" segment of the website www.mit.gov.in.

Fresh FDI in the ESDM sector

In its order No. 11(1)/2011-FIPB, dated Nov 25, 2011, the Central Government has given approval to an FDI proposal of M/s Dish TV India to increase foreign equity to produce telecommunication equipment and provide management and marketing of 'agrani' services in the area of mobile satellite communications. The induction of fresh foreign equity will involve an inflow of Rs.980 Crore in foreign exchange.

• Smart Energy Meter to be Developed**• Cost Effective Digital Programmable Hearing Aid****DIT initiates steps for Brand Building in ESDM**

The Department of Information Technology has initiated steps to develop a brand for Electronics System Design and Manufacturing (ESDM) in the country. As a small step in this direction, the Department is proposing to develop collaterals including brochures, short films and such other promotional material which would highlight the opportunities and strengths of India in the ESDM sector.

The marketing initiative by the Department is part of its agenda as spelled out in the draft National Policy on Electronics, 2011, where inter alia, one of the proposed strategies includes to globally market and showcase chip design, product design and embedded software industry capabilities. Further, the mandate of the proposed National Electronics Mission includes promoting India as an Electronics Hardware Manufacturing Hub and suitably marketing "Brand India" in Electronics. DIT has already initiated the process of getting a "Communications Need Analysis" (CNA) done to finalize a strategy. The RFP process is underway and the agency to conduct a detailed CNA is expected to be taken on board shortly.

National Smart Energy Meter to be Developed

Ministry of Power has constituted a committee under the Chairmanship of Dr. Sam Pitroda, Adviser to the Prime Minister on Public Information, Infrastructure and Innovation to finalize the R&D efforts for the development of indigenous single chip IC solution for low cost Smart meters under the aegis of Smart Grid Task Force (ISGTF) and to evolve a strategy for its large scale production after finalizing and approval of its design/technology. The proposal is to install low cost smart meters with AMR facilities at the consumer level, thereby eliminating the need for human intervention for meter reading and facilitate the reduction of AT&C losses.

A sub-committee constituted to look into the related issues was held at Yojna Bhawan on November 18, 2011. CDAC, Thiruvananthapuram made a presentation on developing a smart energy meter.

Second Meeting of Inter-Ministerial Group on promotion of domestic manufacturing of Electronic Medical Devices held

The second meeting of the Inter-Ministerial Group (IMG) regarding promotion of domestic manufacturing of Electronic Medical Devices was convened under the Chairmanship of Dr. Ajay Kumar, Joint Secretary, Department of Information Technology (DIT) on 15th December, 2011. The representatives of Government Ministries / Departments (Health and Family Welfare, National Manufacturing Competitiveness Council, Pharmaceuticals, Commerce, Science and Technology, Centre for Development of Advanced Computing) and representatives from concerned Industry Associations viz., Association of Indian Medical Device Industry (AIMED), Federation of Indian Chambers of Commerce and Industry (FICCI), Confederation of Indian Industry (CII) and India Semiconductor Association (ISA) participated in the meeting.

A Presentation on "Complex-Compact-Cheap Electronics for Medical Appliances – A Hardware Design & Manufacturing Perspective" was made by Shri R. Ravindra Kumar, Executive Director, Centre for Development of Advanced Computing, Thiruvananthapuram. The participants appreciated the Digital Programmable Hearing Aid designed and developed by C-DAC Thiruvananthapuram with DIT's support. Some products suggested for development included Capsule Endoscope, Electronic Stethoscope, Neuro Stimulators, Defibrillators, Pacemakers, Diabetic Care Devices etc. AIMED shared lists of medical devices needed to address the priority on communicable and non-communicable diseases and conditions for further updates and suggestions. The members of FICCI - Medical Electronics Forum informed about the In-Country/ For-Country Programmes for development of medical electronic products specific to Indian requirements. The members were unanimous in their view that we need to promote product development and indigenous manufacturing of Electronic Medical Devices.

Cost Effective Digital Programmable Hearing Aid

The Hardware Design Centre at the C-DAC, Thiruvananthapuram, has developed a low-cost digital hearing aid which brings down the price of comparable product in the market by a factor of 10, i.e. from about Rs 25,000 per device to Rs 2,500 per device or thereabouts. Field trials of the prototype units have been carried out at the National Institute of Hearing Handicapped, Kolkata, in the last six months. The Hardware Design Centre is looking for commercializing the product through a suitable manufacturing partner for the product.

Called DHA-1, the digital hearing aid has been developed using an indigenously evolved Application-Specific Integrated Circuit (ASIC) technology and using sophisticated digital signal processing techniques. The product offers superior and stable amplification over a wide dynamic range. The DHA-1 works on an easily available rechargeable battery, which has a low cost of ownership and maintenance and has a long operating life. The product is amenable to high-volume manufacture with low testing costs. The digital volume control, eliminates the crackling and popping noise associated with conventional hearing aids. The frequency-dependent filter matches the audiogram of the specific user with individual hearing losses over a period of time.

Emerson ramps up India plans: To invest \$200 m

According to reports, the US conglomerate Emerson is planning to step up investment in India to take advantage of the country's growing power, telecom and auto sectors. Emerson, which offers a range of products and services in the areas of network power, process management, industrial automation and climate technologies, plans to invest \$35-40 million every year for the next five years to expand its businesses in India. For Emerson, this would serve as a manufacturing base for markets in the Middle East and Africa. The company is also exploring acquisition opportunities in the country.

Source: The Economic Times, Dec 22, 2011

• Bio-Inspired Electronic Perception Machines

• Technical Review on Hazardous Waste

Prime Minister emphasizes need for R&D in Science and Technology

Speaking at the 99th Annual Session of the Indian Science Congress on January 3, 2012 at Bhubaneswar, Hon'ble Prime Minister, Dr. Manmohan Singh emphasized the need for investment in R&D facilities in the country calling for ensuring a major increase in investment in R&D, including by industry and strategic sectors and for achieving greater alignment of the Science and Technology sector with the inclusive development needs of the nation.

He mentioned that we must aim to increase the total R&D spending as a percentage of GDP to at least 2 per cent by the end of the XII Plan Period from the current level of about 1 per cent, which can only be achieved if industry, which contributes about one-third of the total R&D expenditure today, increases its contribution significantly, along with Public Sector Undertakings, particularly those in the energy sector. A set of principles should be formulated to push such funding and to drive Public-Private-Partnerships in Research and Development.

Dr. Manmohan Singh called for shift in publicly funded R&D from more of fundamental to applied research as it is easier to attract industrial funds into applied research areas. While research generates new knowledge, we need innovation to use this knowledge creatively and productively for social benefit. He emphasized that we must ensure a major increase in investment in R&D, including by industry and strategic sectors and also achieve greater alignment of the Science and Technology sector with the inclusive development needs of our nation.

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Novel Bio-Inspired Electronic Perception Machines: E-Nose & E-Tongue

C-DAC, Kolkata has developed 'ENOVISION' (integrated Electronic Nose & Vision System) for quality measurement of tea and rice and 'E-Tongue' for taste assessment of tea. C-DAC, Kolkata, an organization of Department of Information Technology, has been engaged with developing electronic products specific to Indian conditions in the area of Agricultural and Environmental electronics. The products involve intelligent integration of multitude of technologies like chemometrics, microelectronics and advanced soft computing. As a result, human senses of vision and olfaction have been successfully mimicked by such new techniques and systems called electronic nose, electronic vision and electronic tongue.

'E-Nose' mimics the sense of smell of biological system by array of non-specific sensors. The sensor array is exposed to the volatile molecules and smellprint (or fingerprint) is generated from sensor array. Patterns or fingerprints from known odours are used to construct the database and train a pattern recognition system so that unknown odours can be classified and identified.

'E-Vision' captures digital images of the target object and objectively measure dimensional and appearance related traits of the target object in a constant illumination condition by intelligent image analysis algorithms.

In 'E-Tongue', sensors of electronic instruments detect the dissolved compounds in the target solvent. Like human receptors, each sensor has a spectrum of reactions different from the other. The information given by each sensor is complementary and the combination of all sensors results generates a unique fingerprint which is recognized by intelligent pattern recognition techniques to declare a specific taste.

The developed systems have been tested and validated by seventeen tea industries including Tea Research Association, United Planters' Association of South India, IHBT etc. and Rice Research Station, Government of West Bengal, Chinsurah. The technologies for the systems are on offer for transfer to interested entrepreneurs.

Meeting of Committee on Technical Review held in The Ministry of Environment and Forests

The Technical Review Committee (TRC) was held on 16th November, 2011 to discuss the applicability of the provisions of hazardous Waste Rules, 2008 in its meeting held on November 16, 2011 decided as follows. This has relevance for industry importing used electric goods and assemblies. It was decided that all exports of defunct electrical and electronic assemblies for repair and re-import of the same as the service contract would not require prior permission from Ministry of Environment and Forests (MoEF). However, this would be verified by the Customs Authorities as per the provisions laid down in section 20 of the Customs Act, 1962. The procedure for exports and re-import has been outlined in Chapter 19 of the Customs Manual, 2011.

The committee also decided that the import of obsolete refurbished electrical and assemblies by actual users and services providers, which are no longer available in the market as they are not being manufactured, can be considered by the Experts Committee. For import of electrical and electrical assembled for charity, it was agreed that in general it should not be encouraged. The import of electrical and electronic assemblies in to the country for repair/refurbishment is at par with the import waste electrical and assemblies. Such application would be placed before the Expert Committee. It was also decided that the DGFT be requested to include Multi Function Devices (MFDs) in the restricted list. MoEF would consider the applications for imports of MFDs on case to case basis and in light of the conditions provided in the Basel Convention Technical guidelines on 'Transboundary Movements of Electronics and Electrical Waste (e-waste),' in particular regarding the distinction between waste and non-waste through the Expert Committee.