

SPEED e- NEWSLETTER



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Top 10 Electronics Companies In the World

Main Article

It was not surprising to see that some companies were tagged as the *companies of the future*. Well, the future has arrived, and these companies are some of the *most admired* in the world. These companies are companies whose activities are connected either directly or indirectly to the **information technology** industry. These activities may include those that deal with *computer hardware, software, semiconductor, electronics, the Internet, telecommunication, and other computer services*. Here is a list of the top ten tech companies in the world, based on annual revenues reported.

1. Apple, Inc., United States – \$156.5 billion



The company is based in Cupertino in California and is known for its **groundbreaking designs and cutting edge gadgets**. Everyone has encountered at least one of its items, be it the Mac computers, notebooks, iPad tablets, iPhones, or the iPod mp3 music player. Its software includes the OS X and iOS operating systems, iTunes, iLife, iWork and the Safari web browser. It has more than 70,000 staff that are employed on a full-time and permanent basis, aside from 3,300 temporary

employees. Its annual revenue has more than doubled from 2010 when it only earned \$65 billion.

2. Samsung Electronics, South Korea – \$149 billion



Samsung is a multinational electronics company based in Suwon in South Korea. It employs almost 221,000 people and has production and assembly plants and sales networks in 61 countries around the world. It is the **largest maker of mobile phones** in the world, **the largest television manufacturer** in the world, **the largest LCD panel maker** in the world, **largest seller of memory chips** in the world, and **largest vendor of smart phones** in the world. It is also the **second largest semiconductor chip-maker** in the world.

3. Hewlett Packard, United States – \$120.35 billion



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Top 10 Electronics Companies

Hewlett Packard Company, or HP, is an American multinational company based in Palo Alto in California. It was **the largest manufacturer of personal computers** until 2012 when the Chinese giant Lenovo overtook it. The company is a provider of products, technologies, software, services and solutions to its customers. Its customers range from simple consumers to giant enterprises. It also has clients in the education, government and health sectors

4. Foxconn, Taiwan – \$117.51 billion



Its full name is the Hon Hai Precision Industry Co. Ltd, but it trades by the name of Foxconn. The electronics manufacturing company is based in Tucheng in New Taipei in Taiwan. It is considered to be the **largest maker of electronic components** in the world. It is involved in the production of such products as Apple's iPad, iPod and iPhone, as well as Amazon's Kindle, Sony's PlayStation 3, Nintendo's Wii U, and Microsoft's Xbox 360.

5. IBM, United States – \$106.91 billion



The International Business Machines Corporation is based in Armonk in New

York. It produces and markets **computer hardware and software**. It also offers consulting, hosting and infrastructure services in fields ranging from nanotechnology and mainframe computers. It has the record for most patents by a company, which it has held for 19 straight years. The company is also credited for inventing the ATM, the floppy disk, the hard disk drive, the magnetic stripe, the Universal Product Code and the SABRE airline reservation system.

6. Panasonic, Japan – \$99.65 billion



The company was formerly known as Matsushita Electric Industrial Co. Ltd. It is based in Osaka in Japan. Konosuke Matsushita founded the company in 1918, and it originally sold only duplex lamp sockets. It has since grown to become the **fifth largest manufacturer of televisions** in the world and **one of the 20 largest vendors of semiconductors in the world**. It changed its name to Panasonic Corporation in 2008 to align it with its global brand name.

7. Toshiba, Japan – \$74.39 billion



Toshiba is a Japanese **engineering and electronics company** based in Tokyo in Japan. It manufactures and markets electrical products for **information and communications equipment and systems, internet-based solutions, power systems, household appliances, electronic components and industrial infrastructure systems**. It is one of the largest vendors of semiconductors and personal computers in the world.

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"We love those subjects which we understand and later work on it."

-N. M. Kulkarni

Top 10 Electronics Companies

8. Microsoft, United States – \$73.72 billion

It is considered to be one of the most valuable companies in the world. It is also **the largest software maker in the world based on revenues**. The company was founded in 1975 by Bill Gates and Paul Allen, and has its headquarters in Redmond in Washington State. It dominated the personal computer operating system market from the mid 80s to the 2000s, even though there were frequent complaints on the system being buggy and vulnerable. It also held a practical stranglehold on the productivity suite market with its Microsoft Office brand of documents, spreadsheets and presentations. It has since diversified, and it now owns Skype Technologies. It also has a strong foothold in the video game market through its Microsoft Xbox and Xbox 360 consoles.



9. Sony, Japan – \$67.4 billion

Sony is a multinational corporation based in Tokyo in Japan. It has interests in various tech sectors, like **electronics, games, entertainment and financial services**. It is the **third largest manufacturer of televisions** in the world and is **one of the 20 largest vendors of semiconductors** in the world. Consumers may also be familiar with Sony because of the Ericsson brand of mobile phones, as well as the video game consoles of PlayStation and PSP. The company also has interests in music, publishing and the movies.



10. Dell, United States – \$62.07 billion

Dell is a **computer technology firm** based in Round Rock in Texas. It creates, develops, markets, sells, repairs and supports computers and its related products and services. It also sells **data storage devices, network switches and other peripherals**. It is considered to be **one of the largest personal computer vendors** in the world.



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3. Ordinary members	500 (per year)
4. Student	200 (per year)

*"Let us work towards
Excellence in Electronics
for the betterment of
society"*
-N. M. Kulkarni

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National Conference on Recent Initiatives towards Green Electronics (NCRIGE-2013), February 8-9, 2013 REPORT

The Post Graduate department of Electronics, Brijlal Biyani Science College, Amravati (M.S.) have successfully organized a two days National Conference on Recent Initiatives towards Green Electronics in association with Society for Promotion of Excellence in Electronics Discipline (SPEED), Pune on February 8-9, 2013.

The conference was sponsored by the government agencies like UGC and DST. IEEE SSCS & CAS Chapter, India, Inditech Systems, Pune and Vidarbha Advanced Development and Computer Technology Research Organization were technical co-sponsors of the conference.



Brochure of the Conference

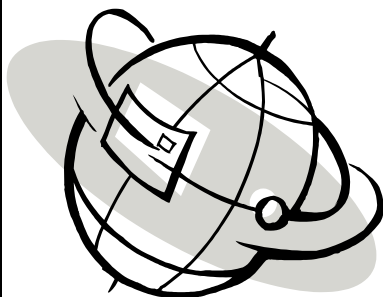
To start with, the organizers launched separate website for the conference and a separate webpage was also designed on Brijlal Biyani Colleges' website to make time to time announcements regarding the conference and also to provide on-line facilities to the contributors of papers to submit their abstracts and full length papers. The information brochures were mailed to most of the colleges in the country by post and electronic version of brochures were sent by email to the organizations and individuals well in advance.

The organizers received overwhelmed response to the conference from various parts of the nation. Total 168 papers were received by the organizers, which were shortlisted to 151 by the committee constituted under the chairmanship of Dr. A. D. Shaligram, Professor and Head, Department of Electronic Science, University of Pune, the technical Chair of the Conference.

The inaugural function of the conference was held on 8th February 2013 at 10.00am. The conference was inaugurated at the hands of Dr. D. P. Amalnerkar, Executive Director, CMET, Pune.



Professor Raj Kamal, Former Vice Chancellor, Devi Ahilya University, Indore and Dr. Mohan Khedkar, Vice Chancellor of Sant Gadge Baba Amravati University were the chief guests. Advocate Ashok Rathi, President, Shri Brijlal Biyani Shiksha Samiti presided over the function. Mr. Sanjay Kakraniya, Secretary, Shri Brijlal Biyani Shiksha Samiti was also present on the dais. Principal Dr. S. B. Lohiya delivered the welcome speech and Professor Dr. D. S. Dhote, Conference General Chair presented information about the conference.



Dr. A. D. Shaligram, Professor and Head, Department of Electronics, University of Pune, the Technical Chair of NCRIGE-2013 and also the Chairman of SPEED, Pune addressed the august gathering in the inaugural function. He elaborated the need of such conferences and role of the SPEED. He mentioned that this National Conference NCRIGE-2013 is the first Conference co-sponsored since establishment of SPEED.



Dr. A. D. Shaligram, Technical Chair



The Souvenir and Proceedings of the conference were published by the guests in the inaugural function. The abstracts of the papers selected for publications were included in the souvenir whereas, the proceedings contains the full length papers of the researchers selected for the publication in the NCRIGE-2013. Dr. S. P. Yawale, Organizing Secretary of the conference proposed vote of thanks and function was concluded after Pasayadan.

Professor Raj Kamal, Senior Professor and former Vice Chancellor Devi Ahilya University, Indore (M.P.) delivered the keynote address on 'Embedded Systems and Real Time Operating Systems' followed by the plenary lecture by Dr. D. P. Amalnerkar, Executive Director, CMET, Pune on 'Integrated Electronics Packaging and Nanoscale functional Materials Development'.



Professor Raj Kamal



Dr. D. P. Amalnerkar

Day 1 (8th Feb. 2013) post lunch sessions were conducted at two separate venues namely Kanada Hall and J. C. Bose Hall. In the first day of conference, four invited talks were delivered by the following speakers on recent topics in the field

- Mr. Prafulla Wadaskar, Senior Architect, Green Technology, Marvel, Pune (Topic: Understanding and Managing Lights with Digital Addressable Lighting Interface)
- Dr. S. N. Talbar, Professor, Dept. of Ex & TC, SGGSIET, Nanded (Topic: Recent trends in Image Processing)
- Dr. A. K. Gwal, Head, Dept. of Electronics, Space Science Laboratory, Barakatullah University, Bhopal (Topic: Electromagnetic Hazards)

- Dr. D. S. Patil, Professor and Head, Dept. of Electronics, North Maharashtra University, Jalgaon (Topic: Semiconductor Nanostructures for Green Electronics)

Total 16 participants presented their papers in oral presentation session in Day 1 in three Award categories. The poster session was organized in Venue 3 "VISUALS" , where 54 posters were displayed by the participants.

In the evening, a cultural programme by iconic star and Television industry artist Mr. Aniruddha Joshi was arranged for the participants as a musical treat to them.



The day 2 (9th Fe. 2013) schedule was started with invited talks by the following speakers in two parallel sessions.

- Dr. A. D. Shaligram, Professor and Head, Department of Electronic Science, University of Pune (Topic: The all pervasive Electronics Embedded Systems must Go Green)
- Dr. B. P. Ladgaonkar, Associate Professor, Dept. of Electronics, Mohite College, Akluj (Topic: Mixed Signal Based VLSI technology and its Applications for precision Electronic Instrumentation)
- Mr. Vijay Badhe, Director, Inditech Systems, Pune (Topic: Design Considerations towards Reducing E-waste)
- Dr. S. S. Sadistap, Head, Agrielectronics Division, CEERI, Pilani, Rajasthan (Topic: Current Trends in Embedded Technology Development for Water and Agriculture sectors.)
- Dr. Babasaheb Sankpal, Nano Materials and Device Laboratory, Dept. of Applied Physics, VNIT, Nagpur (Topic: Nano Materials Synthesis for colorful Solar Cell Applications)
- Dr. Mukul Sutaone, Professor, Ex & TC Department, GOE, Pune (Topic: Overview of EMI/EMC for Electronic Circuits and Systems)
- Dr. V. M. Thakare, Professor and Head, Dept. of Computer Science and Engg., Sant Gadge Baba Amravati University, Amravati (Topic: Advanced Robot Technology)

In the oral presentation session of Day 2, 25 participants presented their papers in post lunch session in two venues. In venue 3, 63 posters were displayed and presented by the participants.

The valedictory function was started at 4.30 pm on 9th February 2013 in Venue 1. Dr. J. A. Tidke Pro-Vice Chancellor, Sant Gadge Baba Amravati University, Amravati and Dr. K. S. Chari, President, IEEE SSCS & CAS Chapter, India were the chief guests. Dr. F. C. Raghuwanshi, Dean Faculty of Science, Sant Gadge Baba Amravati University, Amravati was the guest of honor. Advocate Ashok Rathi, President, Shri Brijlal Biyani Shiksha Samiti presided over the function, Principal of the college Dr. S. B. Lohiya was also present in the function. Professor Dr. D. S. Dhote, Conference General Chair, presented the gist of the conference.



Four awards and one consolation prize were given by the college in the memory of Late T. T. Rathi to the winners to encourage and promote research activities. The winners are:



Category-I:
(PG Student Award)

Sayali Deshpande
Department of Electronics,
University of Pune.

Category-II:
(Young Scientist Award)

Neelam Qureshi
CMET, Pune.

Consolation Prize

Ankita Karule
Dept. of Physics,
Govt. Polytechnic, Amravati

Category-III:
(Best Scientist Award)

Supriya Patil
Department of Electronics, University of Pune.

Category-IV:
(Best Poster Award)

S. T. Aghav
Department of Electronics, University of Pune.

Prof. G. D. Agrahri, Treasurer NCRIGE-2013 proposed vote of thanks. Valedictory function and the conference were concluded after national anthem. The Certificates were distributed to the participants after valedictory function.

The separate, sophisticated and safe accommodation arrangements were made for male and female participants who have traveled down to attend the conference, also transportation facilities were provided to the participants from their arrival in the city till departure to their hometowns as an respect to the academicians and researchers.

The participants, in their remark, recorded the conference 'Excellent' in all sense in their feedback and most of them personally congratulated the organizers for their timeless efforts for the conference.

Acknowledgement:

The organizers extend their thanks to University Grants Commission, New Delhi and Department of Science and Technology, Govt. of India for their financial assistance.

National Conference on Recent Initiatives towards Green Electronics (NCRIGE-2013)

February 8-9, 2013

NCRIGE-2013 AWARDS

The Post Graduate department of Electronics, Brijlal Biyani Science College, Amravati (M.S.) has successfully organized a two days National Conference on Recent Initiatives towards Green Electronics in association with Society for Promotion of Excellence in Electronics Discipline (SPEED), Pune during 8-9 February, 2013. The conference was sponsored by the government agencies like UGC and DST. IEEE SSCS & CAS Chapter, India, Inditech Systems, Pune and Vidarbha Advanced Development and Computer Technology Research Organization were technical co-sponsors of the conference.

Five awards including one consolation prize were given by the college in the four award categories in the memory of Late T. T. Rathi to the winners to encourage and promote research activities. The winners are:

Category-I: Sayali Deshpande
(PG Student Award)

Category-II: Neelam Qureshi
(Young Scientist Award)

Category-III: Supriya Patil
(Best Scientist Award)

Category-IV: S. T. Aghav
(Best Poster Award)

The brief details of awardees and their topic are given below.

1. P.G. Student Award:

The P. G. Student award was given to **Ms. Sayali Deshpande** of Department of Electronic Science, University of Pune, for best paper presentation of paper entitled **"DEVELOPMENT OF WIRELESS SENSOR NODE WITH USER INTERFACE FOR LARGE FOOD GRAIN WAREHOUSE"**.



In this paper the design of sensor node for warehouse which stores food grains was presented. The temperature, humidity and CO₂ of warehouse were checked to maintain grain quality and can preserve it over long period. GUI and database of environmental parameters gives idea about change in environmental conditions, that is which parameter is changing fast and how we can maintain healthy conditions for food grains with lower power consumption.

2. Young Scientist Award:

Ms. Neelam Qureshi, Research Fellow, Centre for Materials for Electronics Technology (C-MET), Pune received the Young Scientist Award for best Presentation of paper entitled **"FABRICATION OF NIO NANOPARTICLES-POLYPHENYLENE SULFIDE (PPS) COMPOSITE PELLETS AND THEIR ELECTRIC PROPERTIES"**.

The paper unveils a new approach for synthesis of nickel oxide - polymer nanocomposite in pellet form via solid-state reaction route using polyphenylene sulfide (PPS) as polymer network. As-obtained pellets of NiO nanocomposites were characterized for determination of structural and morphological information dependent on the weight of pellets. Bulk resistivity measurements of the fabricated pellets reveal changes in resistivity in accordance with the structural, morphological and microstructural variation. These results indicate that unique strategy of NiO nanocomposite pellets fabrication may be helpful in designing nanocomposite based devices which may be used in advanced industrial applications such as supercapacitors and Li-ion batteries.



A consolation prize in this category was also presented to **Ms. Ankita Karule** of Dept. of Physics, Govt. Polytechnic, Amravati for presentation of paper entitled **"SYNTHESIS, CHARACTERIZATION AND SENSING CHARACTERISTICS OF COMPOSITE POLYPYRROLE-POLYETHYLENE OXIDE-ZnO AS A CARBON DIOXIDE SENSOR"**.



In this paper author suggests that instead of metal oxides, conducting polymers have emerging application in the field of gas sensing. Polypyrrole (PPy) - polyethylene oxide (PEO) - zinc oxide (ZnO) composite thin film was synthesized by chemical oxidative polymerization method with the solution of ferric chloride (FeCl_3) oxidant in methanol and it is used as a gas sensor. The sensor was used for different concentration (ppm) of CO_2 gas investigation at room temperature. It was observed that response values of sensor vary linearly with the CO_2 gas concentration for an exposition time of 10 min and it shows saturation effect at 700 ppm CO_2 . The response and recovery time of sensor were found to be ~4 min and ~10 min respectively. SEM and TG-DTA were used to analyze the sample. **Keywords:** CO_2 gas, PPy-PEO-ZnO, SEM, TG-DTA.

3. Best Scientist Award:

The best scientist award was given to **Supriya Patil**, a Teacher Fellow of Department of Electronic Science, University of Pune, for best paper presentation of paper entitled **"REFRACTOMETRIC FIBER OPTIC SENSOR FOR DETECTING SALINITY OF WATER"**.

The paper reports the refractometric fiber optic sensor for detection of salinity of water. The mathematical model is developed for detection of the refractive index of liquid and simulated in MATLAB. The fiber optic sensor probe is developed to measure the refractive index of the solution containing different amount of salt dissolved in water i.e. different molar concentrations. Experiments are carried out using the developed probe for these solutions. Experimental results are showing good agreement with the simulated results.



4. Best Poster Award:

The award for best poster was received by Mr. S. T. Aghav of Department of Electronic Science, University of Pune for the paper entitled **"A SMART HOME CONCEPT MODULE FOR LABORATORY TRAINING"**.



The present paper focused on the development of a laboratory based concept module of –Smart Home. This consists of a 1 BHK mechanical house structure. This structure is made up from low cost materials like acrylic, plywood etc which also has sufficient mechanical strength. To facilitate the goal of smart home it consists of a various sensor modules and few appliances. The sensor modules like IR sensor, humidity sensor, gas sensor, temperature sensor and motion sensor and home appliances like LED light and fan were selected accordingly for the same. The present Smart Home concept module can be used to train the students in various aspects like, hands on experience of handling actual sensors, testing of sensor performance in various actual real environments, designing of various automation algorithms according to the application in real system environment.

E-toons

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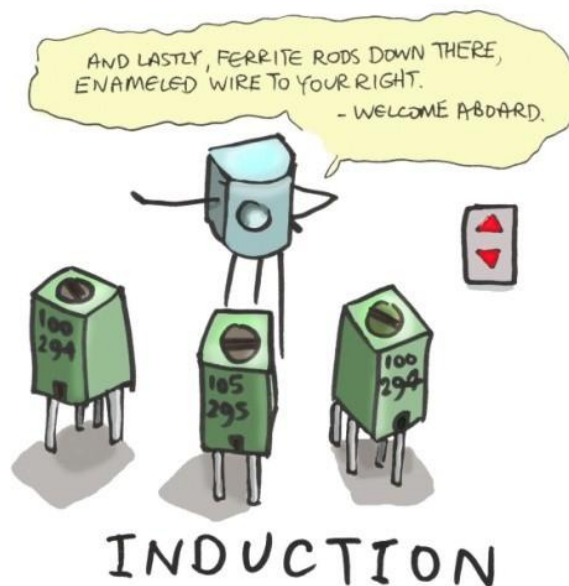
**We will be on the Web
shortly**



RELEASING THE MAGIC SMOKE



CIRCUIT JITTER



INDUCTION

