



# New York Monitor

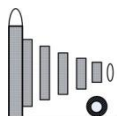
*Advancing Technology for Humanity*

**A PUBLICATION OF THE IEEE NEW YORK SECTION**

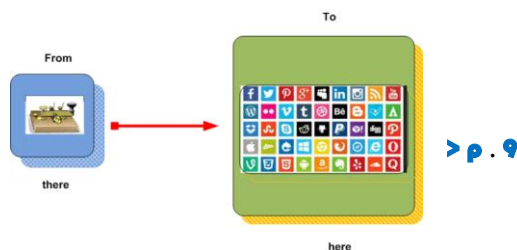
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*NY Monitor wishes you, your family & friends a Happy, Healthy & Peaceful 2015*



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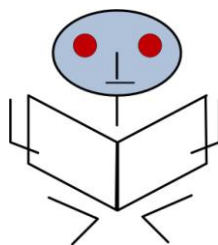
It's incredible! How quickly the time flies. It seems just the other day we ushered in 2014. Before we can fathom the this year's impact on our lives suddenly we realize that it's time to welcome 2015! Anyhow in this short period of time (April-December) we have changed the face and the inner contents of the Monitor, hopefully to your liking. We worked hard to make the Monitor more colorful, more elegant, more informative and easier to read. Our efforts in that direction continue to make the Monitor even better. Please help us to do this well by submitting your suggestions. This month we also, for the first time, introduce a snapshot of the year's activities in the Section. This year we have received only reports only from three Chapters. We presume that at the end of the year you may busy with writing reports or preparing for your holidays and thus, did not get enough time to contribute to the snapshot. Never mind, this is just the first year's effort. We hope that



next year's snapshot will be more complete. Furthermore, in 2014 we also introduced a mid-month calendar of events that can be posted online as needed. In this issue we also bring you the results of the election of the office bearers of the Section and the Power & Energy Society and Industrial Applications Society chapters and the Life Members' Affinity Group of the NY Section. We offer you a report on the 2014 Sections Congress held in Amsterdam in August.

Furthermore, we have reports on technology-related events organized by this Section and other NYC entities. You will find some interesting snippets of news on Internet of Things (IoT) from the IEEE and its Standards Association. The life members will find a technological travel offer from the IEEE as well. There is something for every member of our Section. Even non-member readers will find the Monitor worth browsing. Hope you will enjoy reading it. Happy New Year!

Amitava Dutta-Roy, PhD, LF, Editor



**PRINCIPAL OFFICERS OF THE IEEE NEW YORK SECTION  
2014**

NY Monitor Editor:  
Amitava Dutta-Roy, LF

Chair: Neil Weisenfeld, MS

Vice Chair Section Activities: Wilson Milian, SM

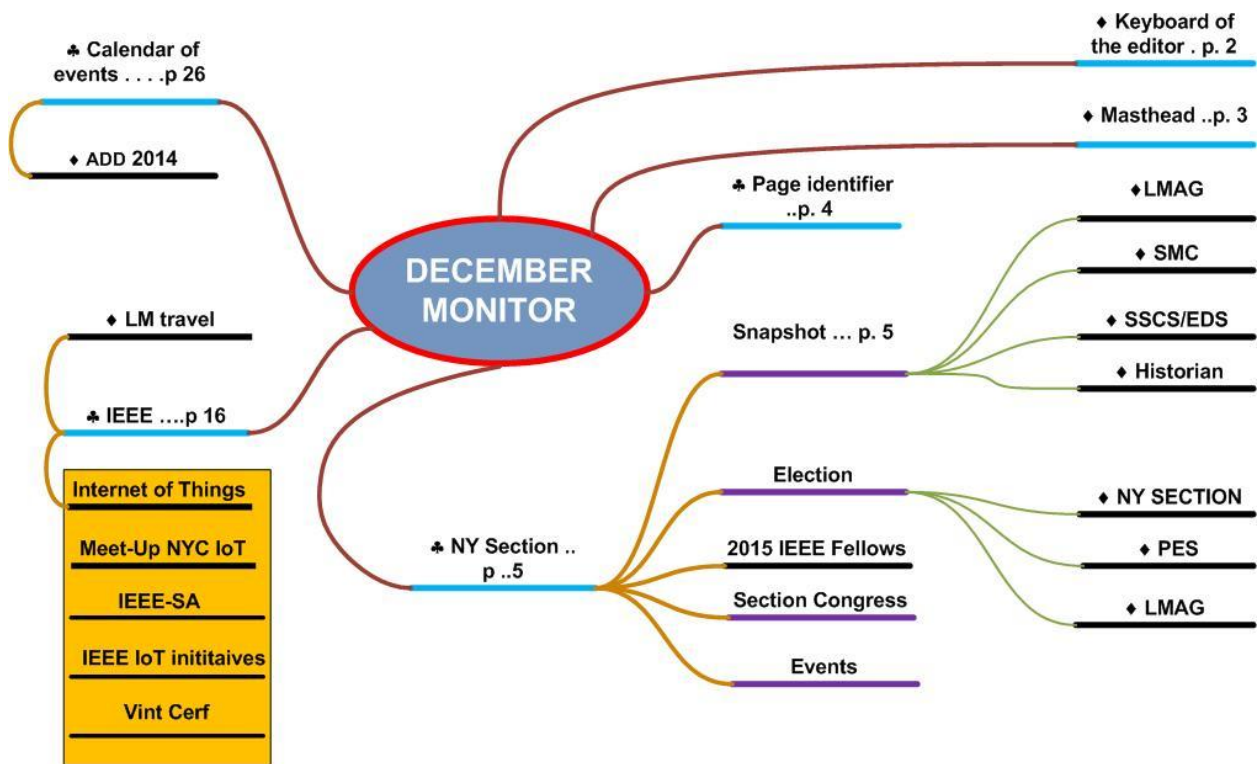
Treasurer: Kim K. Smith, Grad M

Secretary: Warner Sharkey, LSM

Jr. Past Sec. Chair: Shu-Ping Chang, SM

Sr. Past Sec. Chair: Balvinder Deonaraine, M

# Page identifier



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**POWER & ENERGY SOCIETY, INDUSTRIAL APPLICATIONS SOCIETY AND LIFE MEMBERS' AFFINITY GROUP**

For many years the group has been jointly sponsoring one presentation per month at the ConEd building, Irving Place, New York. This year too it did the same and, in this sense, the PES/IAS chapters and the LM Affinity Group are perhaps the most active in the NY Section. The presentations serve not only to inform our members about the general technological developments but also to attract the peers in our community in brightening our public image as a not-for-profit association of professional engineers the motto of which is to advance technology for humanity.

The priority in the selection of specialists and inviting them to offer their presentations is to disseminate information. The topics chosen are such that they are of general interest and does not lead to a specialist-to-specialist type of event that only a few can fathom. At the joint organizer level we all share the privilege of identifying future speakers. We can boast of roughly 50-70 attendees in each of our events. Some 25-30 percent of those attendees indeed are from the nearby community.

Out of the 12 events we had in 2014 four deserve special mention in a snapshot.

**1. Forensic engineering by Mr Jim Cohen who was one of the expert witnesses in the legal proceedings arising out of the Second Avenue crane collapse of 2008.**

- ◆ Abstract: Engineering forensic investigations require a different approach and set of skills to that of design. The engineer no longer acts as an advocate for the client, justifying the design and seeking to have it implemented. Rather, independence from the client is needed, including independence of thought, approach and conclusions which may often be in conflict with the desired end. Where conclusions are detrimental to the business interests of the client, these nevertheless need to be fully and clearly communicated. Standard protocols for proposals, communications, documentation, site work, reports and related activities will differ from design and study projects. Where the project may involve litigation and / or expert witness services, additional care is needed and special attention to the choice of words and phrases is required. General knowledge of laws and procedures which are followed during testimony, discovery of evidence and cross-examination will assist both the engineer and the client in achieving a just settlement. This seminar presents an introduction to these topics and methods of approach when an engineer is faced with a request to investigate a failure, whether real or perceived.

**2. Controlling LED's to Meet Customer Expectations by Mr Manny Ferris, a LEED AP and a consultant to the lighting industry for 30 years**

- ◆ Abstract:
  - a. A short background of LEDs in architectural lighting – both Pro's and Con's
  - b. Review of LED retrofit lamps vs. LED fixtures
  - c. Outline of the driver output options for any LED lighting source
  - d. Review of the dimming control input options to a driver and variables of each
  - e. Confirm the importance of the driver in providing the smooth, reliable, flicker-free dimming down to 1% measured light output

**3. New York Power by Joe Cunningham, Historian**

- ◆ Abstract: This illustrated lecture tells the story of the innovation and creative engineering necessary to electrify New York City and make possible the metropolis that it became. NY City has long represented one of the most concentrated urban developments in the world. That density has placed unique constraints on every aspect of life. Electric light and power appeared during the 1880s, but much development was required to supply urban service at a cost that would make possible large-scale consumption. Innovation was needed most in midtown Manhattan, where the sheer density of electrical load overwhelmed the early systems and which continues to be the greatest concentration of electrical load in the world. The first public service was initiated in 1880 with the illumination of Broadway, Madison Park and some businesses by arc lights of the Brush Electric Company. Two years later, Thomas Edison introduced incandescent light service to the offices and businesses of the financial district from his station on Pearl Street. While the installation entered the record books, his long term objective was the midtown area. It was obvious that the load of the midtown area required electrical capacity on a scale that surpassed any planned elsewhere. The focus of this presentation and also the book is the 125 years of innovation and change made necessary by the growth of that demand as the city has grown.

#### 4. Transformer Design and Design Parameters by Ronnie Minhaz, specialist in transformer design

- ◆ Abstract: The presentation was on the basic of transformer design. The presentation explained how a transformer designer interprets parameters such as MVA, lightning impulse, switching impulse, and percentage impedance supplied by a customer. Power rating (MVA), the core, rated voltages, insulation coordination, short-circuit impedance, short-circuit forces, loss evaluation, temperature limits, cooling, sound Level etc. were discussed. The talk also explained the overload and life expectancy of a transformer as well as the situation in which delta winding is needed in a Wye-Wye connection. The presentation furthermore explained why in North America we like to regulate from low voltage side whereas in Europe the regulation starts at the high voltage.
  - Amitava Dutta-Roy, 2014 chair of LMAG with information provided by Arnold Wong, Program chair of PES/IAS NY chapters. ◆

### SYSTEMS, CYBERNETICS AND MAN SOCIETY (SMC) NEW YORK CHAPTER

The New York chapter of the IEEE Systems, Man, and Cybernetics Society (SMCS) was established in September of 2012 by its founding chair, Ping-Tsai Chung, SM. Since then, the NY of SMCS has offered 24 technical seminars. Recent seminars were covered various topics within its scope such as Social Network Analysis, Human-Robot Interactions, Big Data, Machine-to-Machine Communications, the Internet of Things (IoTs), and the Intelligent Transportation Systems (ITS). A list of NY SMCS 2014 Activities follows.

*"A History of Internet Access Technologies: From Telnetting to Flexible Optical Networking via the tortuous path of ADSL and Cable Modems,"* SMCS Distinguished Lecture, by Dr Amitava Dutta-Roy, IEEE Life Fellow and Historian of the NY Section, December 4, 2014. This event was jointly sponsored by NY Chapter of SMCS, the Historian of the NY Section, and the IEEE Student Branch Chapter of SMCS and Computer Society•

*"ITS and IoT - From V2X to Cohesive Intelligent Transportation Systems,"* by Mr Chiao-Wei Lee, Senior Manager, Ansell Healthcare, IEEE Day, 10 October, 2014•

*"How to reveal anyone's interests on Twitter using Social Network Analysis"*, by Mr Brian Lee, M, Founder of Zato Novo, 26 September, 2014•

*"Landscape and Trends of Machine-to-Machine Communications"*, by Dr Ming-Yee Lai, Co-Founder, ConnectiLife, 16 May, 2014. Currently there are more than five billion devices (phones, laptops, tablets, etc.) connecting people through the network. It is projected by 2020 there will be over fifty billion connected devices deployed to serve people. The technology foundation for connected devices is M2M. Many M2M devices are equipped with wireless radios (wide area, local area, or personal area) to enable mobile applications (e.g. transportation, m-health, asset tracking) and integration with fixed applications (e.g. smart grid, smart home, environment monitoring). In this talk, Dr. Lai addressed an overview of M2M Devices, Networks, and Applications (DNA), M2M business and technical challenges, M2M ecosystem, M2M application store, M2M service and management case study, M2M DNA related standardization efforts, and future M2M trend and R&D topics. •

*"IBM InfoSphere Streams: A Big Data platform for Data-in-Motion Analytics"*, by Dr Kun-Lung Wu, IEEE Fellow, Research Manager at IBM T. J. Watson Center, 6 May, 2014. IBM InfoSphere Stream is a large-scale distributed stream processing platform designed for processing big data in motion. This talk covered its use cases and major features while addressing various technical challenges in stream computing•

*"An Introduction of RFID Technology and the Internet of Things"*, by Dr Xinzhou Wei, Associate Prof, CUNY CityTech, 4 April 4, 2014•

*"The Multi-modality in Human-Robot Interaction, Assistive Robotics, and Robot Learning and Humanized Intelligence"* by Dr Chung Hyuk Park, Assistant Professor, Electrical and Computer Engineering, NYIT, 20 March, 2014•

*"An Overview of Privacy Preservation for Social Networks"* by Dr Leon S L Wang, Vice President National University of Kaohsiung, Taiwan, 28 January 28, 2014•



(Left) IBM InfoSphere Streams Computing, (6 May, 2014), Dr Kun-Lung Wu, IBM Research

(Right) M2M and Devices, Networks, and Applications, (16 May, 2014), Dr Ming-Yee Lee.

The NY Chapter of IEEE SMCS was one of the sponsoring chapters of an event held on October 27, 2014 at Columbia University for the Commemoration of the 100th anniversary of granting of a patent by the USPO to Major Edwin Armstrong for his regenerative circuit. Major Edwin Howard Armstrong was the giant of wireless broadcast technology and inventor of wideband FM transmission, a New Yorker, graduate and (later) faculty member of Columbia University. Other sponsors for this event were the Historian, the Professional Activities Committee for Engineers (PACE), Systems, Man and Cybernetics Society (SMCS), and EDS/SSCS chapters of the New York Section jointly with the Fu Foundation School of Engineering and Applied Science of Columbia University, Columbia University's EE Dept., Columbia University Amateur Radio Club, Armstrong Memorial Research Foundation and the IEEE History Center.



(Left) Seminar - An Overview of Privacy Preservation, for Social Networks, Wang, Vice President, NUK, Taiwan (28 January, 2014), Dr Leon S L Wang

(Right) A History of Internet Access Technologies (4 December, 2014), Dr Amitava Dutta-Roy



(Left) ITS and IoT & IEEE Day 2014 Celebration (10 October, 2014) - Mr Chiao-Wei Lee



(Left) Social Network Analysis (Sept. 26, 2014) - Mr Brian Lee Rowe

—Information provided by Dr Ping-Tsai Chung, 2014 chair of SMCS NY chapter. ♦



## SOLID-STATE CIRCUITS SOCIETY AND ELECTRON DEVICES SOCIETY

In 2014, the EDS/SSCS joint chapter hosted 6 seminars offered by experts from industry and academia. IEEE SSCS. One of the seminars was part of the Distinguished Lecturer Tour offered in New York on 27 October, 2014 at which Dr Frank O'Mahony, Prof Payam Hetdari, and Prof Jacob Baker gave three talks on the recent advances in RF, mixed-signal, and digital IC designs. More details can be found in the chapter website (<https://sites.google.com/site/edssscs/>)



Dr Frank O'Mahony (Intel) lecturing at the SSCS chapter 2014 Distinguished Lecture



Lecturers and organizers at the Distinguished Lecture: Profs Peter Kinget, Harish Krishnaswamy, Payam Hedary, Dr Frank O'Mahony, Profs Jake Baker and Mingo Seok

—Information provided by Prof Mingo Seok, EE Department, Columbia University, New York ♦

## THE HISTORIAN OF NEW YORK SECTION

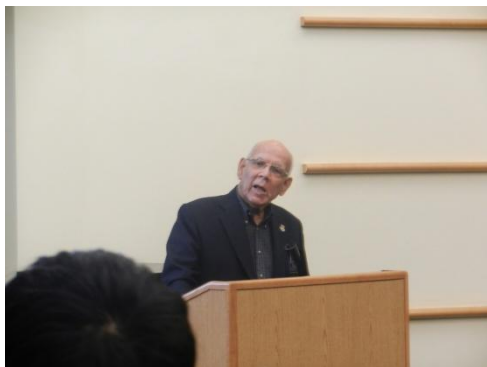
This is the first time in the recent history of the New York Section the Historian has taken initiative to actively foster lectures, demonstrations and discussion on the history of the electrical and electronics engineering. Borrowing an expression from the title of a book by the famous physicist Prof Stephen Hawkins *we stand on the shoulder of giants* who shaped our profession. I believe it is good that young engineers and entrepreneurs know that Tweeter or Facebook did not come out of the blue. Today we enjoy the fruits of the thought processes of the nineteenth century mathematician and professor George Boole, born in England in 1815. Our logical thought processes as applied to digital circuits based on the concept of “true or false” or “0 or 1” were first formalized by Boole. That was the beginning! Then came the telegraph key, teletype and punched cards. Now their functions are realized by semiconductor chips. Every single one of those chips has millions of implementations of that fundamental concept of Boole. It is my firm belief that some knowledge of the history of technology is of enormous help to tinkerers and entrepreneurs to avoid the mistakes of the past. In this we plan to

work closely with the IEEE History Center the archives of which are housed at Stevens Institute of Technology, Hoboken, NJ.

Our first event was the commemoration of the 100th anniversary of granting a US patent to Major Edwin Armstrong for his regenerative circuit. We amply reported this event in the Monitor of November. In that edition we also published several photographs. The SMCS NY chapter was one of the cosponsors of that event (please see the SMC snapshot above).

Our second event was also cosponsored by the SMCS NYs Chapter at which your editor (also the Historian of the Section) spoke on the history of the Internet, beginning with telegraph keys to modern networking on flexible fiber optics. Some of the photographs of that event appear below. The Section Historian thanks the SMCS NY Chapter for their cooperation and generosity.

The story of the Internet, in fact, that of the entire technology of computer networking is complex and involve several organizations and innumerable highly talented individuals who dedicated their efforts during several years, not for making a kill but just for the fun of creating something that had not existed before. I did my best to offer a thumbnail sketch of this complex history within a reasonable time (1hr 15m) allowed to me. I was most impressed by the numbers of young members who stayed until the end of the lecture. We'll be in good shape if we could make the young members of all our chapters so enthusiastic and diligent.



Dr Amitava Dutta-Roy giving his talk at SMC



Prof Ping-Tsai Chung delivering a Distinguished Lecturer's certificate to Dr Amitava Dutta-Roy



Members and student members of the SMC chapter with Prof Ping-Tsai Chung and Dr Amitava Dutta-Roy

We are happy to announce that at the election held on 10 December, 2014 the following Section officers and chairs were duly elected

**Section Officer Positions**

Chair:Neil Weisenfeld  
Vice Chair for Chapter Operations:Wilson Milian  
Vice Chair for Section Activities:Vacant  
Treasurer:Vacant  
Secretary:Sharene Williams

**Elected Committee Chair Positions:**

Chapter Organization Committee Chair: Paul Sartori  
Historian: Dr Amitava Dutta-Roy  
Long Range Planning Committee Chair:Vacant  
Operations & Procedures Committee Chair:William Coyne  
Publications Committee Chair:Michael Miller  
Special Events Committee Chair:David Horn  
Webmaster:Harold Ruchelman

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The New York Chapters Power & Energy Society and the Industrial Applications Society held their annual election on 3 December, 2014. The following officers were elected for 2015.

**Executive Committee Positions**

Chair – Neil Weisenfeld  
Vice Chair – Tom Villani  
Treasurer – Chris Kwong  
Secretary – Vincent Ammirato  
Senior Member-at-Large Sisenandi Tobias  
Junior Member-at-Large – Jasvinder Blah

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The Life Members' Affinity Group also held its annual election on 10 December, 2014 and the following officers were elected.

### Executive Committee Positions

Chair: Michael A. Miller  
Vice-Chair: Roland Plottel  
Treasurer: Ralph Tapino  
Secretary: Amitava Dutta-Roy  
Program Chair: Lewis Terman -  
Member at Large: Ralph Mazzatto

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The Monitor congratulates all elected officers of the Section, the PES/IAS Chapters and LMAG of the NY Section. We offer them our sincere cooperation so that they can dedicate their time and efforts to keep the Section as thriving as it has been in 2014, if not better!



## 2015 IEEE FELLOWS

**WE ARE HAPPY TO ANNOUNCE THE ELEVATION OF THE FOLLOWING SENIOR MEMBERS TO THE FELLOW GRADE, THE HIGHEST GRADE OF MEMBERSHIP IN THE IEEE**

## OUR CONGRATULATIONS TO ALL 2015 IEEE FELLOWS

### NY SECTION

#### **Francisco De Leon**

NYU Polytechnic School of Engineering

*For contributions to transformer modeling for electromagnetic transient studies*

#### **Ernest Feleppa**

Riverside Research Inst  
*For contributions to ultrasound imaging medical applications*

**Moti Yung**

Google Inc  
*For contributions to cryptography*

**TAPPAN ZEE SUBSECTION**

**Jianying Hu**

IBM T. J. Watson Research Center  
*For contributions to pattern recognition in business and health analytics, and document analysis*

**Yurii Vlasov**

IBM T. J. Watson Research Center  
*For contributions of silicon-integrated nanophotonics*

**Mahesh Viswanathan**

IBM T. J. Watson Research Center  
*For contributions to ubiquitous access to cloud computing and to vehicular speech communications*

**Murthy Devarakonda**

IBM T. J. Watson Research Center  
*For contributions to measurement-based analytics of distributed systems for data center optimization*

**Deepnarayan Gupta**

HYPRES Inc  
*For contributions to superconductor digital radio-frequency receivers*



## A report by Neil Weisenfeld, SM, 2014 chair of the NY Section

The IEEE Sections Congress is a big annual event in which representatives from all its ten Regions take part. Prior to the congress all Regions and the Sections in their respective domains draw up a list of recommendations to be included in its agenda. This year the congress was held in Amsterdam, Netherlands during the weekend of 22–24 August. Neil Weisenfeld, the chair of the

### **The Report:**

As the chair of the NY Section I had the privilege to attend the 2014 Sections Congress that had drawn some 1,000 IEEE members from 95 countries.

Here are some key points I took away from the :

- Dr Roberto Demarca, the 2014 president of the IEEE that our volunteer-based organization has been successful in maintaining its ideals during the last 130 years. Volunteerism and emphasis on service must continue as core values for future success
- At 431,000 members worldwide, the biggest challenge for us is sustaining our membership
- Region 1 to Region 6 membership is now 203,357
- Membership in the USA has dropped while student membership has increased both in the USA and in all other countries
- IEEE needs to engage volunteers; volunteers want to make an impact – this is a recurring theme in surveys
- Volunteers will need to be engaged differently than in the past due to greater distraction and demands

New York Section attended the congress and sent us a short report that follows. Thank you, Neil for your collaboration! I think that as members of the IEEE you will be interested in knowing about topics that were discussed and what impression they might have made on an attendee. Here is the report Neil sent to the Monitor. —*Editor*

Some of the most notable benefits of IEEE membership that were highlighted at sections congress were:

- Professional peer network
- Mentoring network
- IEEE TV (1000 videos)
- IEEE job site
- Resume lab with mock interviews (900 questions)
- IEEE eBooks: handbooks, advanced texts, and references
- IEEE podcasts
- Special Interest Group on Humanitarian Technology (SIGHT) which engage with non-governmental organizations, civil society organizations the UN and other similar bodies to develop useful and sustainable technologies for humanitarian benefit
- SIGHT comprises of 51 groups from all geographic areas of the IEEE

Some notable SIGHT projects are:

- Sensor column to detect landslides in the Philippines
- Engineering students designing solar lamps in India
- Wireless head-mounted keyboard
- Interactive classroom tech for hospitalized children

The most notable presentation at the congress was given by Dr Jayant Baliga, the inventor of the insulated gate bipolar transistor (IGBT). Baliga detailed the computations to quantify and demonstrate the societal benefits of his invention. The IGBTs have improved efficiency of motor drives, automobile electronic ignition systems, and ballasts for fluorescent lights. That has resulted in a reduction in energy usage of over 50,000 terawatt hours and 56 trillion pounds in carbon dioxide emissions.

Sections congress attendees voted on the 34 recommendations for process improvement (mostly via their personal tablets or smart phones)

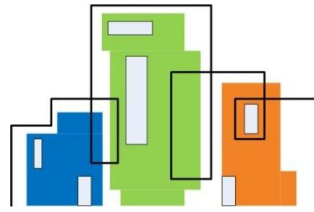
**The top five recommendations based on voting were:**

- Include free access to IEEE Digital Library as a member benefit. Promote other IEEE services and products based on their usage and preferences (adopt Google Business Model)
- Develop an incentive and recognition program for companies that invest in full or partial support of their employees' IEEE membership dues
- Introduce loyalty rewards such as publication access, conference fees, and standards activities for continued membership
- Provide a tool to build, promote, record, host and broadcast technical events at the local level and make them available to IEEE members
- Enhance vTools for better usability by volunteers and provide a training program to the Sections.

Edited by Amitava Dutta-Roy ♦

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### A PANEL DISCUSSION AT THE GERMAN CENTER OF RESEARCH AND INNOVATION

Benjamin Chang, M

## What

is your first reaction when you notice an item touted as 'smart'? For me, I instinctively assume that a smart version of any inanimate object — be it hard- or software — must be better than its previous non-smart incarnation. Compare a smart phone with its older sibling. Yes, the



Drs Dr Joahnn-Dietrich “Jan” Wörner, Barbara Lenz,  
Joann Halpern and Mr William Sisson

smart version of a phone is capable of showing many more sleight of hands. What then will its next generation be called? A smarter phone? Besides signifying technological improvements ‘smart’ has really become a marketers’ tool to advertise their products as better than those of

their competitors, e.g., 'smart' home appliance, smart car, or a smart TV. But for the engineers none of the smart devices has fully passed the Turing test.

A smart city, however, is not a single object but a complex assemblage of millions of objects and *ideas*, some smart and others not-so-smart. Also, people and animals either already live or will live in them. Thus, we can contemplate that smart cities would be infinitely complex. But ideas mature and technology marches on. The Institute reports that the IEEE has begun a smart cities initiative in five selected cities in different parts of the world

(<http://theinstitute.ieee.org/static/special-report-smart-cities>). I was thus intrigued when I came to know about a panel discussion on smart cities right in our city. The event was recently organized by the German Center for Research and Innovation (GCRI) of NY. The function of GCRI is to invite leading German and American scientists from academia and industry to promote discussion on contemporary technological issues that are in the forefront and their societal implications in both countries. Dr Joann Halpern, the director of the center and



the moderator of the discussion opened the evening's session by introducing the panelists: Dr Joahn-Dietrich "Jan" Wórner, chairman of the Executive Board of the German Aerospace Center (DLR); Dr Barbara Lenz, director of the German Aerospace Center (DLR) Institute of Transport Research; and William Sisson, director of United Technologies Research Center's (UTRC) development of sustainable science and technology.

Ms Halpern opened the session by stating the abstract of the evening's topic that was later posted online: "Urbanization, globalization, demographic and climate change are continually placing higher demands on our cities. By 2050, the world's population is expected to reach nine billion, resulting in a significant transformation in cities where people live and work in close proximity to one another. How will the cities of

the future address the challenges associated with such a significant population increase? How can energy, transportation, and human resources be more efficiently managed, and to what extent will smart cities develop innovative energy storage concepts that meet the demands of net stability?"

Following the introduction of the topic by Ms Halpern the panelists gave brief overviews of what *they* thought about smart cities and their impact on our society. After this the panelists answered and discussed questions hurled at them for about half hour. An informal discussion session continued at a cocktail reception offered by the GCRI and the panelists was available to discuss, one-to-one, the smart cities that seemed to please all attendees.

My takeaway of the salient points from the discussion:

1. People are leaving rural areas to cities at a pace faster than ever before. This phenomenon is not restricted to some specific and isolated cases but is worldwide and probably is an irreversible one. Suburban areas are growing too and are becoming urban on their own *right*. For sustaining their growth rates cities, small and big, should consider technological innovations. An overwhelming argument is that technologies are the basis of what makes the a city smart.
2. Growing cities, however, should not choose one grand theory and one program to turn themselves 'smart'. It was argued that grand theories have rarely delivered *goods* as envisioned in their forecasts. The examples from real-world case studies demonstrate that effective infrastructure of a city evolves from its inhabitants and not from top down bureaucratic policies. The panelists reported that bureaucrats often neglect the impact of technology on society. The fundamental and most pragmatic question of implementing any new technology should be: "Do you or I really want to use this?"
3. A smart city is usually viewed as an assemblage of buildings that are greener in energy consumption which can be managed real-time. However, But one panelist raised the argument that investing in smart infrastructures in cities should not be based solely on how much energy is being used or saved. There was also a side discussion on the financing aspects of incorporating latest technologies toward making a city smart.
4. Another attribute of the smart city that one panelist identified was personal mobility in and around a smart city. The panelist suggested that there is no indication that cars will soon be replaced by mass transit. Automobiles will continue to exist in a smart city. There are ongoing development projects, such as a single fare card (EZ Pass?) to make travel simpler for those who use several modes of transportation. The current payment feature for single fare system is feasible from a single sponsoring entity (e.g., DB, the German Railroad Company), but is not mature enough to be universally adopted. \*\*\*\*\*

The panelists also briefly discussed several other issues raised by the attendees. Those were: financing and investment for infrastructures, safety of personal information that will inevitably pass through multitudes of real-time sensors and information collecting devices installed in smart buildings and cities.

Although, at the end of the discussion I was unable to comprehend if really there was a formal definition of a smart city he panelists

were able to disseminate information on the work that is being done to formalize the definition of smart cities and standardize the technologies used in them. Standardization will facilitate exchange information worldwide and also reduce the cost of implementation through the use of products made to common standards.

— Edited by Amitava Dutta-Roy ♦



Rapt attention!



Tough questions



Dr Amitava Dutta-Roy, Mr. Benjamin Chang of the IEEE and panelist Dr Barbara Lenz



Dr Joann Halpern, Director, GCRI and an attendee at the reception

Photo credits: Ms Nathalie Schueller

The podcast of the Smart Cities and other similar events are available at: <http://www.germaninnovation.org>

The Monitor is happy to post two events in this calendar that, so far, have been scheduled for the months of January and February of 2015. However, it is likely that once the holiday period is over more events will be held during those two months. In that case, we will inform you about those events through our mid-month calendar of events.

### **Tue, 27 Jan, 2015**

5:00pm Refreshment  
5:30pm-7:00pm:  
Presentation  
ConEd Building  
4, Irving Place, NY 10003  
(X 14th Street East, one  
block from Union Square)  
Please send your RSVP to  
Arnold Wong  
([wongar@coned.com](mailto:wongar@coned.com))  
For reasons of security no  
walk-ins will be allowed.

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### **Sat, 28 Feb, 2015**

Hilton Hotel and Towers  
Avenue of the Americas  
and 53rd Street, New York

**Sponsors: Power & Energy Society, Industrial Applications Society chapters and Life Members' Affinity Group of the IEEE NY Section**

### **High Efficiency Shielded Toroidal Transformers**

**Speaker:** S. Jazebi

Abstract of the presentation and the speaker bio will be posted online either in the Monitor or in the mid-month calendar of events.

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### **Sponsor: New York Section**

### **2015 Award and Dinner Dance (ADD)**

This is an annual event in which many of us in the New York Section participate. At this event we will honor the 2015 IEEE Fellows and this year's Section, Regional awardees. Furthermore, through the ADD the New York Section also acknowledges the dedicated work the IEEE volunteers during the past year. It is certainly a unique event you should not miss. You want to enjoy the company of your colleagues at the ADD? Just get your company to reserve a corporate table for you all. Contact the special events chair David Horn ([davesieemail@aol.com](mailto:davesieemail@aol.com)). Please see the complete announcement below.

## THE NEW YORK SECTION'S 2015 AWARDS DINNER DANCE

### The 2015 IEEE NY Section Awards Dinner Dance honoring the Section's Awardees will be held on Saturday evening, February 28, 2015

This year, our Annual Awards Dinner Dance (black tie optional) will be held in the beautiful Mercury Ballroom, located on the third level of the New York Hilton Midtown Hotel, 1335 Avenue of the Americas (between 53rd and 54th Streets), New York. This year's awardees include individuals from MTA's New York City Transit and IBM.

Festivities will begin at 6:00 pm with hot and cold hors d'oeuvres and cocktails in the Rotunda and Mezzanine area on the third floor. Here we will have a chance to relax, get acquainted, and reacquainted.

We will have the opportunity to pamper our palates with a choice of either a succulent filet mignon, delicious salmon, or vegetarian entrée. Each gourmet entrée will be accompanied by a soup, salad, and dessert course. The presentation of the awards will take place after dinner and then we can continue dancing until the last song ends at 11:00 pm.

The NY Section is working with the Hilton to set aside a block of rooms at a discounted rate for those guests that may want to spend that Saturday night in the hotel - further information on room rates can be obtained from Mr. Horn at the contact number noted below. Valet parking is available at the hotel (sorry, no discount).

Tickets for the affair may be obtained by completing the reservation form below and forwarding it to Mr. Horn at the address listed below before January 28, 2015. Corporate supporters: Table of 10 at \$2500 (the NY Section is offering a free 1/2 page advertisement in its monthly publication - The Monitor - for supporters purchasing a full 10-person table). Individual tickets are also available at \$250 for non-IEEE members. **A special non-transferrable rate of \$130 for each ticket is available to IEEE members. Note that this special rate is for the attending IEEE member and one guest only and an IEEE Member name and number must be provided below.**

**If you have any questions or need additional information, please contact:  
Mr. David Horn at (631) 560-2309 or at nysectionadd@yahoo.com**



**TICKET RESERVATION FORM**

Send form to: Mr. David Horn  
129 Rosemont Avenue  
Farmingville, NY 11738

Please indicate # of entrée selections:

Filet Mignon \_\_\_\_\_  
Salmon \_\_\_\_\_  
Vegetarian \_\_\_\_\_

Send tickets to:

Name: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Telephone: \_\_\_\_\_ E-Mail: \_\_\_\_\_

IEEE Member Name and #: \_\_\_\_\_

No. of IEEE Member Tickets @ \$130 per ticket: \_\_\_\_\_

Other Tickets:

No. of Tables @ \$2,500 per table: \_\_\_\_\_

No. of Tickets @ \$250 per ticket: \_\_\_\_\_

Total Amount Enclosed: \$ \_\_\_\_\_

**Make Check Payable to: New York Section, IEEE**

## ADVERTISING IN THE NY MONITOR

The IEEE NY Monitor is published online monthly excepting in July and August. The target readers are IEEE members (more than 4,000) who reside in New York City and vicinity. It is also downloaded by many of the 30,000+ members of the IEEE Region 1 that covers 22 Sections of the IEEE in the entire northeastern United States.

### Advertisement rates per insertion

Quarter page	\$150
Half page	\$200
Full page	\$250

Please submit camera-ready jpg images. For further information about advertisements in the NY Monitor please contact [a.dutta-roy@ieee.org](mailto:a.dutta-roy@ieee.org). Thank you!

**THIS IS THE END OF THIS MONTH'S NY MONITOR**

**Thank you for reading!**