

# IEEE

*Advancing Technology for Humanity*

## New York Monitor

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Photo captured from video clip by: Joly MacFie, Internet Society, New York

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# IEEE NY Monitor, December 2015

## What you will find inside



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**S**lowly but steadily we are approaching the end of 2015. This is usually a difficult time for our volunteer members. Those who work for private companies must submit their year-end reports; those in academia must grade their students' tests; and the student members are busy preparing for their examinations or writing their theses. No wonder we do not see much activity in our chapters though there were two significant meetings in the New York City area involving the IEEE.

The first of the two was a joint presentation (2 December) on IoT entrepreneurship. The event was co-sponsored by MeetUpNYC\_IoT. The Standards Association within the IEEE (IEE-SA) announced an award to be bestowed upon the best IoT entrepreneurship presentations. The amount of the award to the best idea was \$2,000 maximum. The award was for reimbursing the travel expenses for attending the IEEE World Conference on Internet of Things, 14-16 December, Milan, Italy. Inside this edition of the NY Monitor you will find more information of both events

The second chapter event was also related to IoT. The NY chapters of the Systems, Man and Cybernetics Society's (SMC) and Education have had the

pleasure of inviting Dr. Shu-Ping Chang, SM, Past chair of New York Section, Software Development Manager, IBM T.J. Watson Research Center, NY

This has also been a very personally difficult time for me. Since July 2014 four times I had staved off a total replacement of my right knee. I shuttled between various medical specialists and surgeons. One problem led to investigation of another. I almost gave it up as a never-ending saga. Finally, at the end of November I was given the final pre-medical surgical clearance by a unanimous vote of "positives." Thus, I succumbed to the surgeon's knife on 8 December and now I am writing this editorial piece from my rehabilitation center. Those of you who have had this surgery know the painful recovery process is. Besides enduring the awful physical pain I miss my little home office, other little gadgets .... This edition of the NY Monitor will be the shortest since I took over the responsibility of editing again in 2014. But please bear with me. I have been promised to be *released* on 30 December. In January 2016 will try to offer you a new version of the Monitor. I am always experimenting with new ideas. If you have any idea re the Monitor please send it to me. Until then I hope you will enjoy reading the December version. Editor.

**HAPPY NEW YEAR TO YOU ALL**

# THE IEEE-SA SUPPORTS INITIATIVES ON INTERNET OF THINGS (IOT)

**THE IEEE's** push into the burgeoning area of Internet of Things is getting stronger and everyday more visible. This push is being orchestrated by the IEEE Standards Association (or IEEE-SA) that is a major activities board within the IEEE. The engagement of the IEEE-SA in the development of standards in all branches of electrical and electrical technologies is not yet well known outside the closed professional groups. For example, how many members of the public in general would know that IEEE 802.xx sets of standards covering Ethernet to cell phones were developed by the IEEE? It is a way the world's largest professional and technical organization extends its hands to improve the quality of life of the humanity and it is not a meager contribution either.

Europe's approach to IoT has been spectacular. The national planners have had the support of all the EU countries in their IoT-related activities: continuing research, dissemination of information through holding seminars and conferences, and in even publishing technical books that are publicly available. That is why probably Milan was chosen as the venue of the recent WF-IoT where there would be interchange of ideas.

What would be the real importance of the WF-IoT to the march of technology? Its impact on our society would come at a slow pace, slowly but surely. The flier designed for the *IEEE Internet of Things Conference* dwelt on technologies, applications, and social implications. It was a unique event for industry leaders, academics, and decision making government officials. This event was designed to examine key critical innovations across many intertwined technologies which would alter the research and application space of the future. The Internet of Things envisions a highly networked future, where every object is integrated to interact with each other, allowing for communications between objects, as well as between humans and objects, which enables the control of intelligent systems in our daily lives.

Nearly all of the important IEEE Societies and technical activities are now involved in advancing IoT. On 14-16 December 2015 they, jointly with other technological Societies, sponsored the IEEE World Forum on Internet of Things held at University of Milan, Italy. Now, the IoT, as you can well imagine, encompass a vast swath of specialized technologies. No wonder that we had sponsorship of the following IEEE Societies.

- **IEEE Communications Society**
- **IEEE Computer Society**
- **IEEE Consumer Electronics Society**
- **IEEE Council on Electronic Design Automation**
- **IEEE Reliability Society**
- **IEEE Sensors Council**
- **IEEE Signal Processing Society**
- **IEEE Social Implications of Technology Society**
- **IEEE Vehicular Technology Society**



**IEEE World Forum  
on Internet of Things**  
14-16 December, 2015 // Milan, Italy

IEEE.org | IEEE Xplore Digital Library | IEEE Spectrum Online | More IEEE Sites



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**KEYNOTE SPEAKER:**  
**Vinton G. Cerf**

Vinton G. Cerf was the principal keynote speaker at the Milan Conference  
Much of the conference detail may be found at <http://www.ieee-wf-iot.org/>

## Organizing Committee

### Steering Committee



**Latif Ladid**  
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Conference Chair



**Roberto Minerva**  
Telecom Italia  
IEEE IoT Initiative Chair



**Harold Tepper**  
IEEE  
Senior Program  
Director, IEEE IoT



**Oleg Logvinov**  
STMicroelectronics  
IEEE Internet Initiative Chair

**Among other members of IEEE Oleg Logvinov, SM and IEEE Internet Initiative chair represented the IEEE at the Milan Conference**

# IEEE-SA meets MeetUp\_NYC\_IoT

**HOWEVER**, even before the Milan conference the IEEE-SA teamed up with the MeetUp\_NYC\_IoT to sponsor a mini Conference to encourage entrepreneurs to present their ideas. The ideas were presented to a general body of IoT enthusiasts and, more importantly to a group of judges. Five minutes were allowed for the opening presentation and there after it was followed by a short interval for Q&A for a discussion with the judges and other attendees. A cash

amount of US\$ 2,000 was awarded to the best presentation. Well, a bright string was attached to the award, obviously! The award money would go toward the reimbursement of the money spent on attending the Milan conference. An excellent idea! It would encourage more people to think about IOT. Thanks to Jolie MacFie of the Internet Society, the entire conference was filmed and is now available online.

 <p>The flier features the IEEE logo, a cityscape image, and text: 'IEEE IoT Startup Night', 'Join IEEE for another exciting IoT Startup Event that will bring together established and emerging players in the Internet of Things (IoT) market', '2 December 2015 New York City, USA', 'IEEE IoT Startup Night Presented by IEEE with IoT Central', and 'IEEE internet of Things'.</p>	 <p>The logos include the IEEE logo with the tagline 'Advancing Technology for Humanity' and the 'IEEE Internet of Things' logo.</p> <p><b>Agenda</b></p> <ul style="list-style-type: none"> <li>5:30pm Networking, Food &amp; Drink</li> <li>6:15pm Welcome &amp; Intro Mitchell Golner, IoT Central</li> <li>6:25pm IEEE Program Intro Oleg Logvinov, IEEE</li> <li>6:35pm Keynote Speech</li> <li>7:00pm Startup Presentations &amp; Interaction</li> <li>8:10pm Member Announcements</li> <li>8:15pm Announce Winners &amp; Awards</li> <li>8:20pm Closing Mitchell Golner, IoT Central</li> </ul>	 <p>The photograph shows two men, Oleg Logvinov and Mitchell Golner, standing at a podium with a microphone and a laptop. A screen behind them displays 'IEEE &amp; IoT Central PRESENTS IEEE IOT STARTUP COMPETITION December'.</p>
<p><b>The official flier of the IEEE and MeetUp_NYC_IoT in New York</b></p>	<p><b>The agenda</b></p>	<p><b>Oleg Logvinov of the IEEE and Mitchell Golner of MeetUP_NYC_IoT</b></p>



**Judges for the IEEE-SA award**



**The entrepreneurs with Oleg Logvinov**



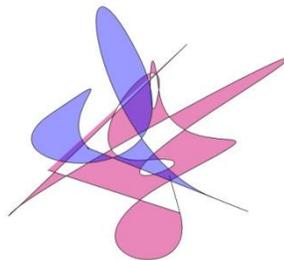
**The best entrepreneurship idea congratulated by Oleg Logvinov**



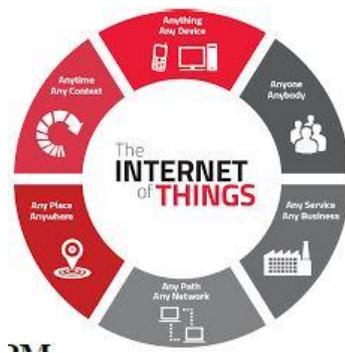
**Brenda Mancuso, IEEE-SA Staff and Oleg Logvinov**



**Amitava Dutta-Roy of IEEE NY Monitor, Brenda Mancuso, Oleg Logvinov and Mitchell Golner**



# INTELLIGENT INTERNET OF THINGS (IOT)



## A TALE OF THE INTERNET OF THINGS

**FROM THE STORIES** of the events narrated above it would be clear that the Internet of Things (IoT) by now has generated much interest among technologists, investors, social scientists, and economists all over the world. Start-ups, medium and big-sized companies have painted a rosy picture ahead. That picture is not only full of software and hardware enthusiasts. The technologies for collection of big data, their analysis and, privacy, security and legal implications are also involved. Will the concept make our lives better and easier than what we have today?

Internet has proliferated into all aspects of human life and all industries, mobile, social networks, cloud computing and Big Data/Analytic are drawing the “new” frontiers. Everything and everyone are connected to the internet in one way or the other. With data-centric as the new economic, this Internet of

Things (IoT) brings more challenges to the technologies, industries and human society as a whole. In this dynamics, it is essential to look into the ecosystem of the new era, the nature of the data and introduce many new markets of *the brave new world* that will affect industries such as healthcare, telecom, transportation, public safety, etc. and even our daily lives.

The NY Chapters of IEEE Societies of Education and Systems, Man and Cybernetics did a marvelous job of inviting Dr. Shu-Ping Chang to give us glimpses of the IoT concepts. Shu-Ping has vast experience of IoT. He is a software development manager of Cognitive Computing, IBM T.J. Watson Research Center for the IBM System S (Streams) Laboratory, a cluster for distributed computing research and development with 600+ nodes and 5,000+ CPU cores. IBM System S project, the base of IBM Big Data platform

product InfoSphere Streams, uses streams processing architecture for massive information computing and management as decision making support. His primary function is System S Laboratory management, prototype systems development and cluster system administration automation especially in fault management. Dr. Chang received his Ph.D. in Computer and Information Sciences from University of Minnesota with special focus in Computer Communication and System. Dr. Chang has more than 25 years re-search and

product development experiences in the Computer and Information technology arena.



Dr Chang had to leave on a consulting tour of Asia the day after he gave his speech at Long Island University, Brooklyn Campus. We all were interested a get a copy of his slide presentation. Shu-Ping promised that on his return to this country he would let us a have a copy. Please look out for it in the next

editions of the NY Monitor.



# Partial list of event of our interest in 2016

(Please feel free to send the notifications of other events to the Monitor)

## ENGINEERS WEEK CELEBRATION

Sponsored by the

### METROPOLITAN ENGINEERING SOCIETIES COUNCIL (MESC)

RESERVATIONS REQUIRED FOR DINNER THE PUBLIC MAY ATTEND THE LECTURE ONLY AT NO CHARGE.

Date: Thursday, February 18, 2016

Where: NYU Tandon School of Engineering, 6 Metro Center Brooklyn, NY 11201  
For Directions: <http://engineering.nyu.edu> then click About and Directions

Time: 5:30 pm Registration, Room 116, Rogers Hall

6:00 pm Buffet Dinner, Room 116, Rogers Hall

Program: 7:00 pm, Room 116, Rogers Hall

7:00 - 7:25 Welcome & Introductions: Wasyl Kinach, P.E., MESC Chair  
Representative from NYU-Tandon

7:25 - 7:45 Presentation of Mayor's Proclamation

7:45 - 7:50 Introduction of Keynote Speaker, David Weiss, IEEE Representative

7:50 - 8:45 Keynote Address- Speaker: Dr. Imin Kao, Associate Dean, College of  
Engineering and Applied Sciences, Stony Brook University

Topic: Engineering of Mechanical and Electronic Systems for Robotics Research as applied to  
Medical Resection and Rehabilitation

Robotics research has made it possible for engineers and researchers to model and control articulated manipulators, such as hands and fingers. Robotics encompasses applications in mechanical engineering, electrical engineering, biomedical engineering, and computer science. The advances in engineering theory, CAD and 3D printing, as well as medical imaging and signal processing have facilitated innovative solutions for surgery and rehabilitation.

Cost: \$50.00 – mailed reservations and check required by February 11, 2016  
No "At Door" payment 1 PDH (expected) for this meeting

Please mail your check made payable to MESC and mail it with the tear-off below to:  
MESC, PO Box 1981, Church Street Station, New York, NY 10008-1981

February 18, 2016 ENGINEERS WEEK CELEBRATION

Fee Enclosed: \_\_\_\_\_ Phone #: \_\_\_\_\_

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Company: \_\_\_\_\_ Society: \_\_\_\_\_

Address: \_\_\_\_\_ E-Mail \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

FOR ADDITIONAL INFORMATION, CONTACT WASYL KINACH, e-mail: [info@mescnyc.org](mailto:info@mescnyc.org),  
Tel: (212) 669-2203.

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ADVERTISING IN THE NY MONITOR

The IEEE NY Monitor is published online monthly excepting in July and August. The target reader are IEEE members (more than 4,000) who reside in New York City and vicinity. It is also download 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.

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Full page	\$250

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

**Thank you for reading!**