



IEEE New York Monitor

Advancing Technology for Humanity

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“ Science can amuse and fascinate us all,

but it is

engineering that changes the world. ”

Isaac Asimov

January 1920 – April 1992

Professor Biochemistry and a prolific author

Principal officers of the IEEE New York Section 2018

Chair: David K Horn

Vice Chair, Chapter operations: Robert M Pellegrino

Vice Chair, Section Activities: Wilson M Milian

Treasurer: Thomas Villani

Secretary: Amy Batallones

EDITOR NY MONITOR: DR. AMITAVA DUTTA-ROY



Currently, the New York Section of IEEE comprises of the following

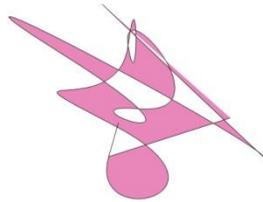
Active Chapters of the IEEE Societies:

- Broadcast Technology Society
- Computational Intelligence Society
- Computer Society
- Communications Society
- Technology Management Society
- Engineering in Medicine and Biology Society
- Instrumentation and Measurement Society
- Power and Energy Society
- Industrial Applications Society
- Solid State Circuits/Electron Devices Societies
- Systems, Man and Cybernetics Society
- Vehicular Technology Society

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The following Affinity Groups as defined by IEEE

- Consultants' Network
- Life Members Affinity Group (LMAG)
- Women in Engineering
- Young Professionals



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p. 8	<p>Upcoming events in the NYC and vicinity and of interest to IEEE members (see the flyers at the end)</p> <ul style="list-style-type: none">• 27 March: TETRA Technology for Mission Critical Solutions: a PES/IAS/LMAG offering; ConEd Building, 4 Irving Place (one block east of Union Square), New York, NY 10003 (please see flyer at the end)• 30 March: Integrating Data Science with Science of Care for Precision Healthcare Applications of Computational Behavior Science in an Interpretable AI Fashion for Minimally Disruptive Medicine: a SMC/Education Committee presentation at LUI Brooklyn Campus, 6.00 pm• 5 April: Long Island Section presentation: "Switching Power Supplies"• 12 April: The Origins Of Silicon Valley: Why and How it Happened Here: Coned Building 4 Irving Place (one block east of Union Square), New York, NY 10003

QUICK DATE CHECKS FOR NY SECTION EXCOMM MEETINGS

The following are the presumed dates for the 2017 Executive Committee meetings at IEEE NY Section (unless

otherwise notified in advance, always held on the second Wednesday of the month)

~~10~~ **January**

~~14~~ **February**

~~21~~ **March**

11 April



**No meeting in May due to
Award Dinner Dance (5 May)**

13 June

No meetings during the months of July and August

12 September

10 October

14 November

12 December

Unless otherwise notified, all ExComm meetings are scheduled for 12:30 pm at the ConEd Building, 4 Irving Place, New York. All members of the New York Section are invited to participate in the ExComm meetings.

However, for reasons of security controlled by ConEd, the owner of the venue, all members desirous of attending any ExComm meeting must notify the Section chair. Thank you for your understanding

This is one of the thinnest Monitor issues you will find. Why this is so? What could be the causes of this dearth of material posted in the newsletter? Since any Section newsletter should, in principle, show the activities and thus the health of a Section, its contents warrant serious consideration. Let's then openly discuss the issue of the contents of our newsletter. I believe that such an open interaction will help to understand not only the group activities of the New York Section of the IEEE but also many other Sections. This understanding, in its turn, will better promote the ideals of the IEEE.

- Why don't we have more descriptive reports on past events at the Section? One editor cannot be physically present at all events of the Section even if they are held on different dates and at different times. Reporting then would naturally fall on the chair of the chapter organizing the event or on a member designated for the specific purpose of reporting on the chapter's events. How easy or difficult it is to accomplish this? Let us ponder on the following.
- Those who expect fulltime dedication of the volunteer members to the cause of the IEEE must accept the fact that volunteers, by definition, are *volunteers*. Most of them are practicing engineers (including those in the business of financial engineering) have a fulltime job to bring home their livelihood. We cannot and must not expect them to sacrifice their work with detriment to their workplace reputation or financial gain so that they can carry on their duty as volunteer IEEE officers. Hence, every aspir-



ing IEEE volunteer must be made aware, in advance, of the time that the candidate would be required to spend to discharge his responsibilities at the IEEE. A compromise solution could be to appoint two chair persons of the chapters. Life members, especially those who have retired, have more time and they can come forward to alleviate the pressure on the younger members. Also, they have the desired experience. As a Life Fellow, I can assure them that their work will help them to maintain a lucid brain! A frank discussion would certainly lead to a better distribution of responsibilities.

- Physical space is at a premium in big cities. Most commercial entities that traditionally supported non-profit professional associations by encouraging realization of meetings in their own premises are reluctant to do so today. (ConEd of New York is a notable exception.). Rising costs of HVAC and security personnel prevent them from being generous. Terrorist attacks have given rise to a paranoia about security. Even the educational institutions in New York city and elsewhere are not immune to this. Consequently, even if we have a lofty desire to hold technical presentations or networking events lack of available physical space prevent us from getting together more often.
 - Mobility is an important factor to consider while planning events. Under the unenviable state of public transportation (subway and buses) in New York City it takes inordinately long times to move between point A to point B. Often the subway trains are stuck because of signal problems, police activity or emergency medical ser-

vices (to a sick passenger, say). Thus, both organizers and attendees do not know in advance if they will reach a meeting at the appointed time. Driving to appointed venues in NYC is just out of any consideration. Most of the inhabitants of the city and its suburbs avoid driving. Apart from the hassle of navigating through the chaotic traffic parking fees are exorbitant and, I dare say they, are outside the personal budgets of most NY members.

- Weather is another element that influences our activities. Subfreezing temperatures,

snow, slush, furnace-like heat, debilitating humidity are our destinies in New York. In spite of that we continue with our planned meetings. Postponements or cancellations are rare indeed. Out volunteer members deserve our applaud.

Hope that you, in other cities and suburbs will now understand the problems we, in the big cities, face and perhaps it will help you to plan *your* own meetings. We'll continue to strive for the best. Thank you for reading.

UPCOMING EVENTS OF INTEREST TO IEEE MEMBERS

IEEE NEW YORK SECTION

POWER ENGINEERING SOCIETY/INDUSTRIAL APPLICATIONS SOCIETY

LIME MEMBERS' AFFINITY GROUP

PRESENTS

TETRA Technology for Mission Critical Solutions

Tuesday, March 27th, 2018

THE PRESENTATION:

The objective of this presentation is to provide a general knowledge of the TETRA Technology and its high value when it is applied to Public Safety and Mission Critical Solutions. Nowadays, technology is everywhere, especially in regards to telecommunications. In this era every officer, bus operator, train driver, forest ranger, etc; needs to be connected, located and coordinated with high quality and effective telecom systems. The TETRA technology

allows the end user to control, coordinate and manage large fleets of subscribers in wide areas with a spectrum efficient radio network. This technology fully integrates voice and data allowing the end user to maximize the network functionality and performance. However, TETRA technology has limitations and practical considerations that have to be addressed and could create risks for the design and implementation of the systems.



THE SPEAKER: Victor Hernández Hernández, NYCT TETRA BRS Project Manager, PowerTrunk Inc. Victor Hernández joined

Teltronic (PowerTrunk’s HQ in Spain) in 2009 as Infrastructure Hardware Engineer in the Research and Development department working with TETRA and LTE mission critical systems. He has over 8 years of experience with TETRA systems having worked as a System Design Engineer and Project Manager for systems in Europe, South America and USA. He

worked for 2 years in the Tetronic TETRA-LTE Solution for railway applications, highlighting the cases of the Bilbao Metro presented to the Basque Country President (Lehendakari) and Canary Islands system for the Tram and Forest Rangers of Tenerife. He was responsible of the deployment of the TETRA-LTE infrastructure deployed in Rio de Janeiro for the 2014 FIFA World Cup Final. Currently, he works as a Project Manager of the TETRA Bus Radio System for New York City Transit. Victor has a BS in Electronic Engineering, Masters in Network and Internet Administration and Masters in IT Project Management from Euroinnova Business School in Spain.

Times: 5.00 pm: Networking and refreshments; 5.30 pm: the presentations; 7.00 pm: end of program

RSVP to Arnold Wong (212-460-4189/email: wongar@coned.com) or Sukumar Alampur (917-460-4189)/email: salampur100@hotmail.com)

Place: ConEd Building, 4 Irving Place (x 4th Street, one block east of Union Square), New York, NY 10003

PLEASE NOTE THAT IT IS ESSENTIAL TO REGISTER IN ADVANCE.

CONED WILL NOT ALLOW ANY WALK-IN!

New York Chapter of IEEE
Systems, Man, Cybernetics (SMC) Society &
NY IEEE Education Committee

March 30, Friday, 6~ 8:00 PM at LIU-Brooklyn, Health Sciences Building, Room: HS 119

“Integrating Data Science with Science of Care for Precision Healthcare: Applications of Computational Behavior Science in an Interpretable AI Fashion for Minimally Disruptive Medicine”

Dr. Pei-Yun S. Hsueh

IBM Academy of Technology Member and Research Scientist, The Center for Computational Health at IBM T.J. Watson Research Center

ABSTRACT:

Behavioral factors are the key contributors to mental health risk and morbidity. For cardiovascular disease alone, they contributed to 41 percent of its global disease burden. In practice, varying behavioral responses are often revealed in patient care history. The rise of consumer awareness and the prevalence of personal health technologies (e.g., mobiles, sensors, wearables) have further enabled the accumulation of personal health and contextual data for interpretation. The goal of this talk is to review the development of an interpretable behavioral learning pipeline to capture individual predictive pathways from observational behavior data (including precision measurement from sensors). In

particular, the black-box nature, inherent in some of the best performing AI/ML methods, has widened the gap between how humans and machines make decisions. In this talk, I will outline the principles and lessons learned in current practice for making AI/ML more interpretable and actionable in health informatics. Example showcases in stress management, patient engagement, and health goal attainment will illustrate how the incorporation of an interpretable behavioral learning framework into health information technology help support precision health applications that are maximally patient-supported yet minimally disruptive in life

ALL ARE WELCOME

IEEE LONG ISLAND SECTION

"Switching Power Supplies", lecture by Martin Kanner, Plainview, NY.

Hosted by The IEEE Consultants Network of Long Island at LIU-Post Campus, Lorber Hall, 720 Northern Boulevard, Brookville, NY.

Map: https://drive.google.com/file/d/1N12FKX86c8qOhvD1g-0Z4W_kc5vO5kgJ/view?usp=sharing

April 5, 2018, 7 PM to 9:30 PM.

Light refreshments.

Free admission. \$10 fee for continuing education units of 2.0 PDH.

Contact John Dunn at (516)378-0979.

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IEEE NEW YORK SECTION APRIL PRESENTATION

Principal sponsors: Power & Energy Society (PES), Industrial Applications Society (IAS) and Life Members Affinity Group (LMAG)

Cosponsors: Communications Society (ComSoc) and the IEEE History Center

Supporters: Computer Society (CS), Computational Intelligence Society (CIS) and IEEE Spectrum Magazine

PAUL WESLING

IEEE LIFE FELLOW and an Electronics Packaging Society Distinguished Lecturer

****THE ORIGINS OF SILICON VALLEY: WHY AND HOW IT HAPPENED HERE****

§ Why and how did **Silicon Valley** come into being? The story goes back to local Hams (amateur radio operators) trying to break RCA's tube patents; Angel investors of Stanford; sinking of the Titanic; Prof. Fred Terman and Stanford University; local invention of high-power tubes (e.g., Gammatron and Klystron); WW II and radar; William Shockley's mother who as then living in Palo Alto, CA, and the SF Bay Area infrastructure. These factors pretty much determined that the semiconductor and IC industries would in future be located in the Santa Clara Valley, and that the Valley would remain the world's innovation center as new technologies — computers, software, mobile,

biotech, Big Data, VR, and now autonomous vehicles — emerged and it would become a model for innovation worldwide.

Speaker Paul Wesling, an IEEE Electronics Packaging Society Distinguished Lecturer, will give an exciting and colorful history of device technology development and innovation that began in Palo Alto, then spread across the Santa Clara Valley during and following World War II. You'll meet some of the colorful characters — Leonard Fuller, Lee De Forest, Bill Eitel, Charles Litton, Fred Terman, David Packard, Bill Hewlett, Russ Varian and others — who came to define the worldwide electronics industries through their inventions and process de-

velopment. You'll understand some of the novel management approaches that have become the hallmarks of tech startups, and the kinds of engineers/developers who thrive in this work environment. He'll end by telling us about some current local organizations that keep alive the spirit of the Hams, the Homebrew Computer Club, and the other entrepreneurial groups where geeks gather to invent the future.

Speaker Paul Wesling received his BS in electrical engineering and his MS in materials science from Stanford University. Following assignments at GTE/Lenkurt Electric, ISS/Sperry-Univac, Datapoint Peripheral Products (VP - Product Integrity), and Amdahl (testing mainframe machines), he joined Tandem Computers in Cupertino (now a part of Hewlett Packard) in 1985. He designed several multi-chip module prototypes, managed Tandem's Distinguished Lectures series, and organized a number of advanced technology courses for his Division and also for the IEEE. He man-

aged a grant from the National Science Foundation for the development of multimedia educational modules. Wesling retired from HP in 2001, and then for 10 years served as the Communications Director for the IEEE's S.F. Bay Area Council.

As vice president of publications from 1985 through 2008, he supervised four archival journals and a newsletter for IEEE's Electronics Packaging Society. He is a Life Fellow of the IEEE, and received the IEEE Centennial Medal, the Board's Distinguished Service award, the Society Contribution Award, and the IEEE's Third Millennium Medal. He has organized over 500 courses for the local IEEE chapter in the Santa Clara Valley (Silicon Valley), many of them held at Stanford University (and, more recently, at the facilities of many Silicon Valley companies' facilities). An Eagle Scout, he served as scoutmaster of his local Boy Scout Troop for 15 years, was Advisor of a High-Adventure Crew, and enjoys backpacking, fly fishing, guitar and amateur radio (call sign: KM6LH)

Date: 12 April, 2018

Times: 5.00 pm: Networking and refreshments;
5.30 pm: Paul Wesling; 7.00 pm: program ends

Place: ConEd Building, 4 Irving Place (one block east of 14th Street), New York, NY 10003

RSVP to **Arnold Wong (212-460-4189/email: wongar@coned.com)** or **Sukumar Alampur (917-460-4189)/email: salampur100@hotmail.com)**

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THE END