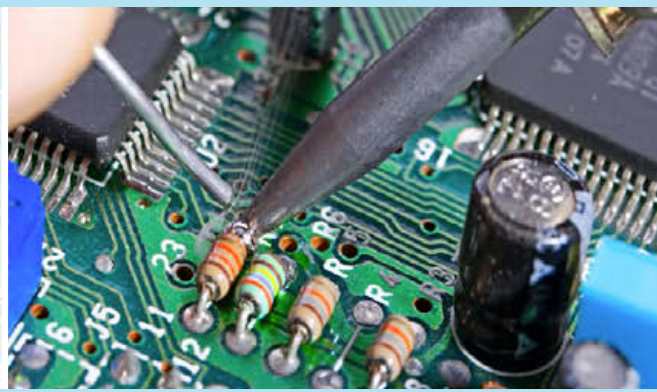
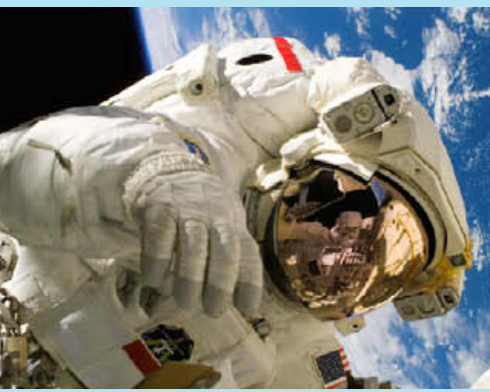




# THE PULSE

JUNE 2019 | VOL. 66, NO. 6

## OF LONG ISLAND



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Although the year is not yet half over, plans for identifying candidates for 2020 LI Section Chair have already begun. I have appointed Lorenzo LoMonte to be the Chair of the Nominations and Appointments Committee. He will be starting the process of selecting candidates for the 2020 LI Section Officer positions. The goal will be to announce a slate of 2020 candidates to ExCom by August 1st.

**IEEE Ethics Hotline.** At the May 13th meeting, Victor Zourides made a presentation about the IEEE Ethics Hotline. (please refer to the article on **pages 7 and 8** of the **PULSE** for further information). A meeting to further discuss this issue is being planned for June. Please contact me at [chairman@ieee.li](mailto:chairman@ieee.li) or Victor Zourides if you would like to be involved. Please refer to the Calendar of Events in the PULSE and on the LI Section website, [ieee.li](http://ieee.li), for further information about the events that the LI Section is sponsoring in the month of June. These include: LI Consultants network meeting with a lecture on **Circuit Studies** on June 6th at LIU-Post. For more information on registration, please refer to the announcement on **page 15**.

A tour of the Underwriters Laboratory in Melville sponsored by the LI Section Product Safety Engineering Society on June 18th. Please check the website, [ieee.li](http://ieee.li), for further information when it becomes available. Engineers in Medicine & Biology Society (EMBS), Young Professionals, and the Computer Society are sponsoring **"The Retina Check Project"** on June 20th at Farmingdale State College. For more information on registration, please refer to the announcement on **page 17**.

The Engineers Joint Committee of Long Island (EJCLI) is a consortium of engineering societies of which IEEE is a member. EJCLI is looking for volunteers to participate in the **Marcum Challenge** on July 30th. Proceeds from the event will benefit 4 local charities. Please go to the website, [EJCLI.org](http://EJCLI.org) for more information, and to register. The IEEE Power & Energy Society is offering a scholarship to undergraduates who are interested in a career in the Power & Energy. The deadline to apply is June 30th. For more information, please refer to the announcement on **page 20** of the **PULSE**.

**IEEE Day** is scheduled to be held on October 1, 2019. Please let me know if you are willing to participate in an event (to be determined). The website for IEEE Day is <https://ieeeday.org/>. Please consider supporting the Section by volunteering to become involved in one of our Societies, Affinity Groups, or Committees. It is very important to me that the Section provide value to all of our members. Any comments and recommendations that you have are always welcome. You can contact me at [chairman@ieee.li](mailto:chairman@ieee.li) Thank you for your support of our Section, and I look forward to meeting you at our upcoming events.

Warm regards,

**Louis D'Onofrio, PE, SM IEEE**  
*IEEE Long Island Section 2019 Chair*

## THE PULSE OF LONG ISLAND



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### THE IEEE LONG ISLAND SECTION WEBSITE

The IEEE LI Section website is regularly updated to reflect recent section activity and upcoming events. Each Society and Affinity Group has a dedicated page that describes their function and includes contact information.

[www.consult-li.com](http://www.consult-li.com)

### CONSULTANT'S NETWORK OF LONG ISLAND

The Consultant's Network of Long Island maintains a referral service of engineering, computer, managerial and technical professionals.

[membership@ieee.li](mailto:membership@ieee.li)

### MEMBERSHIP DEVELOPMENT

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The Long Island Section of IEEE has 18 Chapters. Each Chapter is a technical subunit of the Long Island Section, associated with an IEEE Society. The Chapters, as well as the Section, are always welcoming volunteers. If you would like to help with any of the Long Island Chapter's steering groups, please do contact the relevant Chapter Chair, Vice Chair, or one of the Section officers.



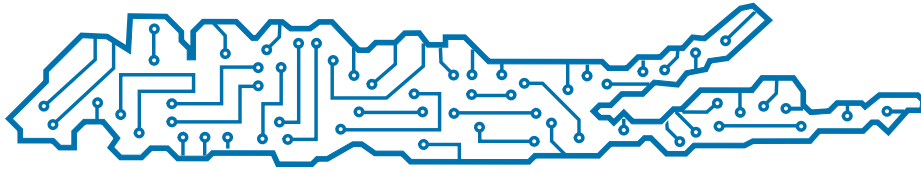
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## Long Island's Electrical and Electronic History

**Jesse Taub**  
*IEEE Long Island  
Section Historian*

We continue to examine *Pulse* issues from 1962, by looking at the March and April issues. Descriptions of six Long Island Professional Group (now called Technical Societies) were featured in the March issues. They were: Automatic Content, Electronic Computers, Military Electronics and Microwave Theory and Techniques. The dues to belong to any one of them was only \$2 to \$4 which included their transactions. They also noted that an Antennas and Prospection group was being formed.

Our Section was proud to publish a list of 23 lectures that our members gave at local high Schools. Some of the topics were radar Fundamentals, Infra-Red, Microwaves & Optics Digital Techniques and Automatic Computers. I have no doubt that some students chose to become engineers after being exposed to these fascinating topics .

There was an announcement that Henry Bachman of Wheeler Laboratories was promoted to Assistant Chief engineer. This was long before he became a Hazeltine Vice-president and IEEE President.

General Instruments in Hicksville placed an ad for Silicon Planar Epitaxial Transistors. This was a big advance from the original point contact device and epitaxial growth was relatively new.

The March issue featured an announcement about the Section's annual Fellow Awards ceremony at the Garden City Hotel. There was one new Fellow, Arthur Dorne. His citation was for contributions to the design of antennas particularly for aircraft".

While we had only our Fellow, our Section hosted six overseas fellows. Also present at the Garden City event was Patrick Haggerty, the IRE President. He was also the last IRE President because in 1963 the IRE and AIEE merged to form the IEEE. The overseas Fellows were Max Knoll and Fritz Borgnis of Germany, Guillermo Andrews of Argentina, Louis Stumpers and Johannes Van Soest of the Netherlands and George Boutry of France.

The New York Section announced a six part spring lecture series on Application of Decision theory to System Design. This was jointly sponsored by the AIEEE and IRE. It was becoming clearer and clearer that the two organizations needed to merge.

As always, thanks to James Colotti, for putting these issues on our website and to our former historian for saving them. I wish all of you, a good summer.

## LET YOUR VOICE BE HEARD

### WRITE TO THE PULSE

*The Pulse of Long Island* is a newsletter for the members of the IEEE Long Island Section. You can let your voice heard by writing to the Editor. How to bring more value to our members? Interesting new technology, or a project? An issue of interest to members of the IEEE Long Island, Long Island engineers and computer professionals, or Long Island technical community at large? Write to the **Pulse**. Let your letter be read, and your voice heard.

### HOW CAN I CONTRIBUTE TO THE PULSE?

Send your letters or articles via email to [pulse@ieee.li](mailto:pulse@ieee.li). If selected for publication, the letter or article will be edited before being published.



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### CONTRIBUTION DEADLINE:

20th of a month for the next month edition.

### CONTRIBUTIONS FROM LONG ISLAND TECHNICAL & ENGINEERING COMPANIES:

Publish your technology-related press release (up to one page) at no cost. Please send the press release as a PDF file attached to email to [pulse@ieee.li](mailto:pulse@ieee.li), addressed to the Editor, with a Subject line "Pulse -PR" followed by your company name, and the responsible contact person's name, email and phone number in the email body.



# THE PULSE OF LONG ISLAND

CONTRIBUTE TO THE PULSE – LET YOUR LETTER BE READ and LET YOUR YOUR VOICE BE HEARD



# ETHICS HOTLINE

BY VICTOR ZOURIDES

**The purpose of this article is to detail the Hotline committee’s history, actions, accomplishments and eventual demise. Also, my efforts to have the IEEE Board of Directors review the Hotline issue with the possibility of reinstating it in amanner that does not jeopardize the IEEE (from legal entrapments) but at the same time provides assistance to members in need. My effort to reinstitute the Hotline and the roadblocks the IEEE are detailed in this report after some Hotline history.**

Engineers and indeed most persons working for an organization or respected entity generally require their adherence to a code of ethics. Behavior to that code of ethics is detailed step by step. Violation of any of the code’s values usually means suspension or some admonishment of varying severity. However, if the person, member, employee lives up to that code and is in dire trouble for having done so, he/she is in all probability on their own. There is no reciprocity. The whistleblower is left to whistle in the wind.

IEEE members during a one year period from August 1996 to August 1997, attempted to bridge this gap within the IEEE. Professor Stephen Unger and a small committee was formed called “Hotline”. Professor Unger is Professor Emeritus Columbia University of Computer Science & Electrical Engineering.

I have read several codes of ethics from several organizations. I believe the IEEE Code of Ethics is the finest and most encompassing of any in existence. I was never personally involved in or on the Hotline committee nor did I even know of its existence till the summer of 2008. As a member of the IEEE chapter of the Society on Social Implications of Technology (SSIT), I received the IEEE Technology and Society Magazine of SSIT in which an article by Professor Unger appeared detailing its history.

### THE PRELUDE TO THE HOTLINE GUIDELINES AND PROCEDURES STATES:

*...the hotline is intended to provide immediate support for engineers seeking information, advice or help regarding an ethics related problem. The goal is to make it easier for engineers to practice their profession ethically, even in situations where this may lead to conflicts with organizational superiors. It should be understood by all that difficult situations may arise in which intelligent, knowledgeable people of goodwill may disagree as to the best course of action. \*(The hotline can only offer information and advice; it cannot guarantee a good outcome in every case)\*\**

The guidelines go on to emphasize that they are not intended to deal with grievances unrelated to ethics. Detailed procedures to facilitate confidentiality and experience of the IEEE Ethics Hotline over the one year period Aug 1996 – August 1997 are given. The last example reads *“One note that we received from an IEEE member subsequent to the termination of the hotline, reads: [I am wondering who I should ask for guidance in ethics-related matters. Sorry if this is not the right place to ask.] We have not responded.”*

I made a Powerpoint presentation before the Long Island Executive Committee on January 31, 2011. Virtually the same Powerpoint presentation, abbreviated somewhat due to time constraints, was made before the Region 1 Board of Governors on March 12, 2011. Key features of that presentation follow and also provide facts and procedures related to it.

- IEEE Ethics Hotline August 1996 – August 1997
- Most inputs and interactions via e-mail, one to two per week on average
- Guidelines and procedures provided detailed steps regarding ethics related problem.
- IEEE urged to actively assist engineers trying to abide by the IEEE Code of Ethics
- No problem of any kind surfaced- February 1998 Excom praised overall work of EC
- Liability insurance available at reasonable rates

### PER S. UNGER ARTICLE REFERENCED ABOVE:

“IEEE United States Activities Board (now IEEE-USA) endorsed a set of proposals by its Ethics Committee, ...to strengthen IEEE support for engineering ethics. Instead of merely preaching ethics to its members, the IEEE was urged to actively assist engineers trying to abide by the IEEE Ethics code, particularly in situations where doing so jeopardized their careers.”

CONTINUED ON PAGE 8 ►

◀ CONTINUED FROM PAGE 7

*"The EC got off to a strong start, establishing an ethics hotline and bolstering the IEEE's ethics support operations in several other ways." ...went into operation in Aug. 1996. For a full year, the hotline operated successfully, providing useful advice to dozens of engineers.*

*"However, despite the fact the IEEE lawyers had approved the hotline procedures and despite the fact that no problems of any kind surfaced, the same lawyers resurrected the argument that the hotline exposed the IEEE to threats of serious lawsuits."*

*"The ExCom then commissioned a blue-ribbon committee of a former IEEE President, the current IEEE VP for Professional Activities and an attorney often involved in IEEE activities to review the activities of the EC, paying particular attention to the operation of the hotline."*

The report of this committee was presented at the February 1998 Excom meeting. It praised the overall work of the EC and strongly recommended that the hotline be re-instated. It pointed out that appropriate liability insurance was available at reasonable rates. *"After a brief open discussion the Excom went into executive session with the IEEE attorney...After the closed session, a vote was taken and with only one abstention. The blue ribbon committee report was rejected....effectively terminating the drive for ethics support."*

## CODE OF ETHICS

**ITEM #1** – To accept responsibility in making engineering decisions consistent with the safety, health and welfare of the public and to **disclose factors that might endanger the public or the environment.**

**ITEM#2** – To assist real or perceived conflicts of interest whenever possible & to **disclose them to affected parties when they do exist**

**ITEM #10** – **To assist colleagues & co-workers in their professional development and to support them in following this code of ethics.**

In response to the Hotline Committee's efforts and in spite of the IEEE's own Code of Ethics the IEEE Board amended the bylaws as follows:

## IEEE BYLAW I-305.4

*"Neither the Ethics and Manpower conduct committee nor any of its members shall solicit or otherwise invite complaints, nor shall they provide advice to individuals."*

It is apparent that the IEEE Code of Ethics, via Items, #1, #2 and #10 clearly state to its members "get involved" in ethical matters, yet the IEEE Board clearly refuses to accept responsibility for any such involvement by its members. I contacted four Distinguished Lecturers of the "IEEE Society on Social Implications of Technology" Three of the lecturers responded. The general thrust of all three lecturers,

I believe is quite appropriate. That is, it is a good idea to have a hotline, likely for all the same reasons that it was initially set up.

In addition I asked a highly respected Life Fellow, who has written and lectured on ethical issues for his opinion, analysis and my efforts responded with the following:

*"You are exactly right. A parallel might be that of a high school football coach who sends a rookie into a game, advising him to play well and how to play "clean" telling him if he gets hurt because of anything he did right the school will have no ambulance standing by and it will give him no advice on treatment or recovery exercises. Also, if a call goes against him the coach will not demand that the refs review the instant replay."*

It appears that the IEEE is asking individuals to "get involved" yet the IEEE will walk away when these individuals do get involved. **It appears that the IEEE is itself unethical in disavowing "involvement".** At both the Long Island Section power point presentation on 1/31/2011 and the IEEE Region 1 Board of Governors on 3/12/2011 (Region 1 consists of 22 sections of the north-east -i.e. New England, New York, Long Island and most of New Jersey), I made the following motion which passed unanimously on Long Island and overwhelmingly by Region 1:

***"IEEE shall take steps to re-establish an ethics hotline for members seeking advice on ethics related problems"***

The purpose of presenting this motion before Region 1 was to advance it for discussion and action either up or down by the full Board of Directors of the IEEE. (by way of full disclosure, I was Long Island Section Chairman 1977 and Region 1 Director 1988-89).

The Region 1 Director at this interval in time advanced the motion. However, a single Director (Vice President of Regional Activities) would not allow it to go forth. In other words the action/voice of the democratic elected members of Region 1, representing thousands of IEEE members within Region 1, could be suppressed by a single individual. We had a saying while I was a Director, "Members First". The following Region 1 Director tried advancing the motion only to be likewise frustrated. I wrote to two succeeding IEEE Presidents but never received a response.

## SO MUCH FOR "MEMBERS FIRST"

I have tried to quietly advance the idea of the Hotline to protect the IEEE from a possible embarrassing situation. It is time to come forth in public and let the tale be told. All I ever expected or hoped is that the issue would come forth in open discussion by the IEEE Board of Directors. There are many options to be considered. The worst is silence or suppression.

# LISAT 2019

## CONFERENCE RECAP

BY DAN ROGERS

The IEEE Long Island Section sponsors **15th annual Long Island Systems, Applications, and Technology Conference** was held on May 3, 2019 on the campus of Farmingdale State College. This academic conference is one of the principal services that the IEEE provides to the local industrial and academic engineering community. This conference benefits local scientists, career engineers and students who wish to advance the state of technology by publishing original papers. It also provides an opportunity for exhibitors to educate the local engineering community about the benefits of their products to individual engineers by meeting them in the exhibits hall.

As this was the 15th annual conference, the General Chair of the conference, Dr. Charles Rubenstein, reflected on the occasion in the conference bulletin: *"It was the fall of 2004 and a few IEEE Long Island Section volunteers were sitting in a room with me, likely at Telephonics, considering how to create a meaningful, one-day conference that would serve the members and industry on Long Island. Most of us are still involved with this, our 15th annual event. I am sure it is more of a reflection on their sincere feelings to provide a return to our profession and not merely their loyalty to my dream which has become a reality. The core group from the first LISAT includes John Fiorillo, Dan Rogers, Dave Mesecher, Fred Kruger, Jesse Taub and a large number of Farmingdale staff that do so much behind the scenes to make us all look good. Some volunteers and staff have gone to other areas of the country, a few have passed away and their input is missed, but we are fortunate that there are some new faces as well. The mix of exhibitors has been interesting throughout the years."*

Dr. John Nader, President of FSC spoke at the Opening ceremony in Roosevelt Hall. The conference and the Farmingdale College Foundation collaborated in providing 10 student scholarships this year. Note that there have been 105 scholarships provided to students since the LISAT conference began, for a total of \$50,500 in joint student scholarship support!

The conference provides a venue for peer reviewed original papers to be presented to the engineering community. Our slate of papers included the IEEE LISAT Technical Program Committee's selected paper presentations. In addition, three distinguished lecturers (DLs) and invited speakers provided state of the art presentations on the areas of their technological expertise.

This year our Power and Energy Society/Industry Applications Society Chapter leadership again co-hosted a Professional Development Track for PE's and others requiring CEUs or PDH credits on varied topics.

The conference is fully staffed by volunteers from both the IEEE Long Island Section and Farmingdale State College. Dr. Rubenstein also acknowledged their efforts, "My welcome message would not be complete without thanking the platoon of volunteers that worked tirelessly to bring LISAT to you. Dan Rogers has stepped up

and is covering the exhibits area, Ron Pirich and Jesse Taub oversaw the review of the papers in our technical program. And through the tireless efforts of John Fiorillo and Doug Kim many Farmingdale State colleagues - from the vice president for institutional advancement and enrollment management Patrick Calabria and staff; Nancy Connor, Vice President for Development and Alumni Engagement and staff; Dr. Barbara Christe, Dean of the School of Engineering Technology, Use of Facilities Coordinator Joanne Ulrich, Scholarship Coordinator Babette Kastens, our Aramark caterers Jeanne Castaldini and Dean Rasi, the custodial, and IT staff to Chief Daugherty's Campus Police and the President's office - have made "invisible" contributions that can never be overlooked, nor underestimated. Thank you to all that made this year's conference possible!"

### DISTINGUISHED LECTURERS PRESENTED 3 LECTURES:

#### *"Distributed Energy Resources"*

**Dr. Babak Enayati**, National Grid, Waltham, MA

#### *"Nonlinear Filters with Particle Flow"*

**Mr. Frederick E. Daum**, Raytheon, Waltham, MA

#### *"Designer Matter: Meta-Material Interactions with Light, Radio Waves and Sound"*

**Dr. Andrea Alù**, CUNY

### INVITED SPEAKERS PRESENTATIONS:

#### *"Role of Renewable Natural Gas in Decarbonizing Energy Sector"*

**Dr. Devinder Mahajan**, Stony Brook University

#### *"Application of Atomic Layer Deposition for Functional Organic-Inorganic Hybrids & Nanostructured Semiconductor Devices"*

**Dr. Chang-Yong Nam**, Brookhaven National Laboratory

#### *"5G Is Not Just Another G"*

**Dr. Arnab Roy**, InterDigital Communications

### THE 2019 LISAT CONFERENCE COMMITTEE:

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General Chair and LISAT Bulletin Editor

**Dan Rogers**, Telephonics  
Co-Chair and Exhibits Committee Chair

**Santo Mazzola**, BAE, Treasurer

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**Louis D'Onofrio, P.E.**, MJ Beck Consulting  
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**Prof. Marjenah Issapour, P.E.**, Farmingdale State College, Education Committee

**Dr. Babak Beheshti**, New York Institute of Technology  
Co-Chair and Fundraising Committee Chair

**Dr. John Fiorillo**, Farmingdale State College, Facilities and Scholarship Chair

*If you speak with the members of the LISAT committee, they will all tell you that the experience of volunteering and participating in the management of a conference is challenging but has many rewards. I would encourage all Long Island Section IEEE members to consider volunteering for next year's conference, which will be the 16th annual LISAT. We could use the help to make this important anniversary conference the best yet.*

## The recent Boeing 737 MAX crashes,

in both of which all passengers and crew were lost, brought to the fore two issues: how best can today's pilots interface with planes that can "fly themselves," and how and by whom is a complex technology approved for public applications in which the public itself has little or no input or control.

The 737 MAX was a product of Boeing's decision to upgrade its highly successful "Baby Boeing" 737, which had been introduced in the 1960s and more than 10,000 of which had been purchased by airlines worldwide. The 737 MAX was intended to compete with its rival, the recently introduced Airbus 320neo. Even prior to its certification in 2017 by the Federal Aviation Administration (FAA), Boeing had orders for more than 5000 MAXes from more than 100 carriers. It began deliveries in May 2017.

## AUTOMATION FLAWS

The MCAS responds to the input from an angle of attack sensor. Two of the sensors are mounted on the forward exterior of the MAX, one on either side. Boeing has made it optional for purchasers of the MAX to acquire an angle of attack indicator that displays to the pilots the readings of the two sensors, as well as a "disagree light" that is activated when the sensor readings are not identical. The FAA has not mandated installation of either the angle of attack indicator or the disagree light. But in the future they may well be required on the 737 MAX. Then if a serious disagreement between the readings of the two sensors occurs, the MCAS can be automatically disabled and the pilot can take control. Both American Airlines & Southwest Airlines had the 2 safety features installed in the 737 MAXes already in their fleets, while United Airlines refrained because its pilots "use other data to fly the planes" according to a United spokesperson.



## AUTOMATION DOMINATES

The 737 MAX employs larger, more powerful engines, which are mounted significantly forward of the conventional 737 engines. To help prevent stalls on the MAX, Boeing developed a new flight-control system, the MCAS (Maneuvering Characteristics Augmentation System). It is intended to swivel the tail's horizontal stabilizer to push the nose of the plane down if it rises too swiftly, threatening a stall.

The Seattle Times reported that, in contrast to the Boeing tradition of giving the pilot complete control of the aircraft, the MCAS flight control system was designed to act independently, without pilot input. Possibly as a result, pilot training exercises for the MAX may not even refer to the MCAS, and the 737 MAX pilot manuals provide no information about it.

There proved to be some discrepancies between Boeing's specifications for the operational functioning of the MCAS and its actual response in use. In a report to the FAA the stabilizer was said to be movable a maximum of 0.6 degrees by the MCAS, but in service it could move 2.5 degrees. Also, Boeing did not account for how the MCAS reset itself each time a pilot reacted, enabling the system to repeatedly push the plane's nose down. And finally, the input required to activate the MCAS was specified to be based on the readings of both sensors, but in fact was based on just one.

## NEW-GENERATION PILOTS

In 2016, the U.S. Transportation Department reported that the FAA had not ensured that airlines adequately trained pilots on hands-on flying or even on how to monitor a plane on autopilot. It was feared that newly-trained pilots were becoming button-pushers but might not be able to fly the planes when automation failed.

CONTINUED ON PAGE 11 ►

◀ CONTINUED FROM PAGE 10

Despite the possibility that training of passenger pilots might include the FAA-specified 1500 hours of flight time and up to 30 days in simulation, when in the cockpit of an advanced jet they quickly begin to rely on autopilot. To compensate, some airlines urge pilots to turn the automation off on “beautiful” days to keep their manual skills intact.

In the continuing growth of air travel, young pilots often do not get the 1500 hours flight time specified by the FAA. In the recent Ethiopian crash, one of the pilots had only 200 hours of flight time. Today, pilot time is largely devoted to programming and monitoring pieces of equipment, inputting data, and checking operation. Young Asian and Middle Eastern pilots have limited or no experience in military planes or in other local flying opportunities, so must place their trust heavily on automation. In emergency situations they must decide quickly which button to push and may be too busy to notice what the plane is actually doing—or not doing.

### WHO PREVAILS?

As flight technology grows in complexity, who best defines safety procedures, and who should monitor their application? In 2005, the FAA's Organization Designation Authorization (ODA) enabled in-house inspectors at Boeing to oversee testing and design review, a program that was fully implemented by 2009. In 2018, the FAA was mandated by Congress to fully delegate safety functions to industry. It made some sense. Who knows better the strengths and weaknesses of their products than the designers, engineers, and manufacturers themselves? Or, in some cases, the users.

Yet engineering professor Henry Petroski, in his book *Design Paradigms*, warned that once a design becomes accepted, incremental extrapolation in succeeding generations tends to be the norm and first principles tend to be overlooked. Also, design decisions that may prove to be critical are often relegated to less experienced engineers.

### “OUTSIDE” INPUT

It may be unwise to exclude third parties (e.g., government agencies) completely, or, conversely, to grant them excess power to certify the safety of completely new products. Following the 2010 Deepwater Horizon oil rig disaster, an industry-financed study concluded that a mentality existed among rig operators that “I don't want to find problems; I want to do the minimum necessary to obtain a good test.” The study concluded that companies cut corners on federally mandated tests of blowout preventers.

The recent airliner accidents are no doubt sending a foreboding message to developers of AV automobiles. One major difference: in an AV there will be no on-board pilot to aid in attempting to avoid a serious accident—or to share the blame for failing to do so.

Your thoughts are welcome.



**Donald Christiansen** is the former editor and publisher of *IEEE Spectrum* and an independent publishing consultant. He is a Fellow of the IEEE and a Long Island Section member. He received the Section's Lifetime Achievement Award in 2016 with the citation: “For a lifetime of service to the engineering profession as the long-time editor and publisher of *IEEE Spectrum*, numerous papers including engineering ethics, and originating the Micromouse competition”

Don can be reached at [donchristiansen@ieee.org](mailto:donchristiansen@ieee.org)



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## JUNE 2019

### JUNE 6

*IEEE Consultants Network of Long Island Lecture:*  
**ABS CIRCUIT STUDIES LIVING ANALOG PART 8**

Speaker: John Dunn

**LIU-Post Campus**, Lorber Hall,  
720 Northern Boulevard,  
Brookville, LI 11548

7:00 PM - Lecture



**IEEE**

### JUNE 18

*The Long Island Chapter of IEEE Electromagnetic Compatibility Society Lecture:*  
**COMPLIANT MEASUREMENTS with FFT TECHNOLOGY IN ORDER TO MEET THE NEW REQUIREMENTS OF CISPR and MIL-STD-461G**

Speaker: Jason Smith

**Telephonics Corporation**  
815 Broadhollow Road,  
Farmingdale, Long Island

6:00 PM - Refreshments

6:30 PM - Lecture

### JUNE 20

*The LI Section of IEEE EMBS and Young Professionals, Computer Society and Stony Brook University Lecture:*

**THE RETINA CHECK PROJECT**

Speaker: Prof. Bart ter Haar Romeny

**SUNY Farmingdale**

2350 Route 110,  
Rm T101, Lupton Hall,  
Farmingdale, LI

## LOOKING FOR AN UPDATE ON SECTION EVENTS?

FOR UPDATES ON ALL LONG ISLAND SECTION EVENTS, CHECK OUT THE IEEE LONG ISLAND SECTION WEBSITE:

[www.ieee.li](http://www.ieee.li)



## IEEE computer society

### SHARE YOUR EXPERIENCE PRESENT YOUR WORK TO IEEE

**Working on an interesting project? Or have an interesting topic to talk about?  
A startup ready to spread a word, or in need of beta testers with computer knowledge?**

**Computer Society Chapter** invites you to present your project or your experience. For one of the upcoming meetings, we'd like to mash technical and social, and have several presenters presenting interesting computer-related topics in a shorter timeframe, fostering conversation. This is an opportunity to meet each other, learn about our work and possibly identify opportunities for collaboration.

Contact IEEE Computer Society Chapter at [computer@ieee.li](mailto:computer@ieee.li) with your suggested topic.

# MARCUM WORKPLACE CHALLENGE



ENGINEERS JOINT  
COMMITTEE  
OF LONG ISLAND

Join the **Engineers Joint Committee of Long Island** team on Tuesday, July 30, 2019. 7pm at Jones Beach.  
3.5 mile Run/Walk  
Benefits 4 Charities

14th Annual  
**MARCUM  
WORKPLACE  
CHALLENGE**

ROAD TO  
**\$1 MILLION**



## AT THE 14TH MARCUM WORKPLACE CHALLENGE:

- EJCLI 4th Year Participating
- The Engineering / Architectural Firm Challenge 2nd Year

**EJCLI will Provide tent, team tee-shirts, food / refreshments**

## BENEFICIARIES:



# A CELEBRATION OF THE APOLLO 11 LUNAR LANDING

**Donna L. McCormick,**  
Executive Director,  
Montauk Observatory



July 20, 2019 marks the 50th anniversary of the Apollo 11 lunar landing—the first manned mission to the Moon when astronauts Neil Armstrong and Edwin “Buzz” Aldrin took that “one small step for man, one giant leap for mankind.” To celebrate this historic event, Montauk Observatory will hold a FREE, public program at the Avram Theater on the Southampton Campus of Stony Brook University (our co-presenter) in Southampton.

Professor Timothy Glotch, a Principal Investigator with NASA's SSERVI project and on faculty at Stony Brook University since 2007, will present a talk entitled “50 Years of Lunar Science: What We Learned From and Since Apollo 11.” The Apollo missions provided a wealth of scientific information about the Moon from remote observations, samples collected, and experiments left on the lunar surface. This talk will describe the advances that we have made in our understanding

of the Moon in the 50 years since the Apollo 11 astronauts successfully landed on the lunar surface and returned safely to Earth. Prof. Glotch will also look forward to the coming decades of lunar exploration, including the eventual return of humans to the Moon and the requirements for a long term sustainable presence.

“The Grumman Roundtable” will consist of retired Grumman engineers discussing their work on different aspects of the Apollo mission. The group includes: Raymond LeCann (moderator), Director of the Lunar Module Data Reduction System (LDRS); Joe Bevilacqua, who worked on ascent stage display panels, who met with the astronauts, and who is a former President of the Grumman Retiree Club; Leon Gurinsky, who worked on the LEM propulsion systems; Anthony Mascolo, whose responsibilities included fireproofing the cockpit and who met with Gavin and Von Braun; and Ed Whitman, who worked on communications between the LEM and the Command Service Module. NYS Assemblyman, Fred W. Thiele Jr., will be present to introduce The Grumman Roundtable and to present each of the engineers with a Citation to acknowledge their invaluable contributions to the space program.

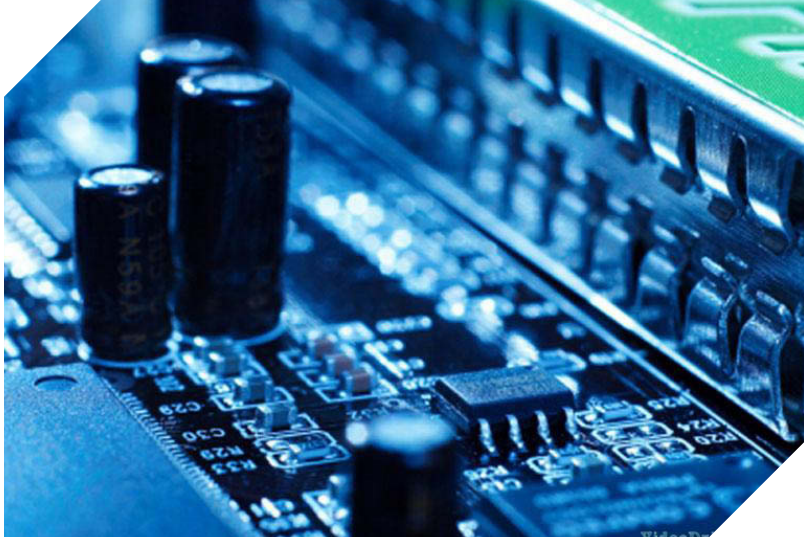
The program will conclude with a screening of the full version (93 min.) of Todd Miller's acclaimed documentary, “Apollo 11.” The film will be followed by a Q&A with Ben Feist, a member of the production team who is a NASA software engineer and program historian for Apollo17.org and ApolloInRealTime.org. Ben led the documentary team that restored 11,000 hours of mission control audio to bring the silent footage back to life.

Montauk Observatory would like to thank it's co-presenter, Stony Brook University, the presenters, as well as the Grumman Retiree Club for their kind collaboration. Thanks, too, to the sponsors for helping to make this event possible: Neon/CNN Films, SSERVI (NASA's Solar System Exploration Research Virtual Institute), The Hampton Maid, Northern Trust, and Claude's at the Southampton Inn.

The event will occur on Saturday, July 20, 2019, from 1:00 to 6:00 PM. Refreshments will be served. For further information go to [www.MontaukObservatory.com](http://www.MontaukObservatory.com) or email [MontaukObservatory@gmail.com](mailto:MontaukObservatory@gmail.com). If you have any further questions, or would like to attend this free event or make a donation to help support it, please email Donna L. McCormick, Executive Director of Montauk Observatory: [McCormick@scientific-consultants.com](mailto:McCormick@scientific-consultants.com). To register, email [Laura.Lyons@stonybrook.edu](mailto:Laura.Lyons@stonybrook.edu)

**Montauk Observatory** (est. 2005) is a publicly supported NYS 501(c)(3) nonprofit dedicated to fostering interest in science on Long Island. To that end, it holds frequent lectures and other events throughout the towns of the east end. It has an astronomical observatory (in East Hampton) with state-of-the-art, research-grade equipment that will soon be made available over the internet to students, teachers, researchers and the general public. Montauk Observatory offers its programs free-of-charge to ensure that their quality educational programs are as accessible as possible to all.

## The IEEE Consultants Network of Long Island (LICN) is presenting a lecture titled: ***CIRCUIT STUDIES, LIVING ANALOG, PART 8***

**DATE:**

Thursday, June 6, 2019

**SPEAKER:**

John Dunn

**LOCATION:**

**LIU-Post Campus**, Lorber Hall,  
720 Northern Boulevard, Brookville, NY

**TIME:**

6:30 PM - Refreshments  
7:00 PM - Seminar

**COST**

There will be a \$10 charge for CEU Credits

**CEU CREDITS:**

0.2 CEU Credits.

**WHO SHOULD ATTEND?**

Engineers, technicians and students who are interested in issues of analog circuits and design issues. Attention Professional Engineers: An application for .2 CEU credits (equivalent to 2 PDHs) has been applied for and is approved.

**ABSTRACT:**

A smorgasbord of analog treats await you as our resident Analog Guru, John Dunn, touches upon a variety of topics taken from his popular Living Analog blog published by the EDN Network on EDN.com.

**TOPICS FOR THIS LECTURE WILL INCLUDE:**

- Accidental cracking of ferrite cores as a function of transformer assembly technique
- Active bias control for RF specialty transistors
- Characteristic impedance of a cable
- Bode plot limitations in SPICE simulations
- Safety precautions in the design of power RF amplifiers
- Using step excitations to assess feedback loop stability
- An attempted computer memory design using a quartz delay line
- Dangers of explosions involving RTV silicone rubber
- Automobile runaway acceleration

**REGISTRATION:**

<https://www.meetup.com/LICN-Long-Island-Consultants-Network/presentation>

**LOCATION and TIME:**

This lecture will be held at: **LIU-Post Campus**, Lorber Hall, 20 Northern Boulevard, Brookville, NY. Please see <http://licn.org/pmwiki/uploads/Events/LIU-LICN.jpg> for directions. The presentation will begin at 7:00 PM. Light refreshments will be served at 6:30 PM

**6:30 PM:** Network with others over delicious food and soft drinks. We will be having deli heroes: American, Italian and Grilled Vegetable plus coleslaw, macaroni and potato salads. So, bring your appetite.

**7:00 PM:** Introductions, LICN announcements and presentation

Between our normal non-Meetup crowd and those on this Meetup list, we expect to have a good 40 or so people attending, so bring your business cards to share when networking. More info about the LICN can be found at [www.licn.org](http://www.licn.org). Read our blog at [licn.typepad.com](http://licn.typepad.com).

**COST:**

There will be a \$10 charge for these credits payable by check made out to "IEEE Consultants' Network of Long Island."

**FOR FURTHER INFORMATION**

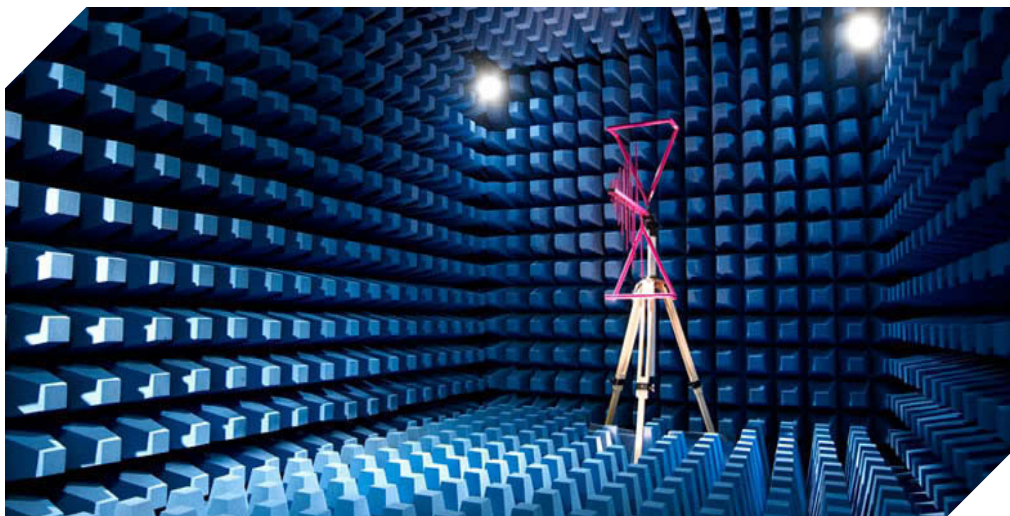
Contact John Dunn at 516-378-0979.

[ambertec@ieee.org](mailto:ambertec@ieee.org)

**IEEE**

IEEE  
CONSULTANTS  
NETWORK OF  
LONG ISLAND

## The Long Island Chapter of IEEE Electromagnetic Compatibility Society is presenting a lecture titled: **COMPLIANT MEASUREMENTS WITH FFT TECHNOLOGY IN ORDER TO MEET THE NEW REQUIREMENTS OF CISPR AND MIL-STD-461G**



**DATE:** Tuesday,  
June 18, 2019

**SPEAKER:**  
**Jason Smith,**  
*President and Engineer,  
Absolute EMC LLC*

**LOCATION:**  
**Telephonics Corporation**  
815 Broadhollow Road,  
Farmingdale, NY

**TIME:** 6:00 PM

**COST:**  
This seminar is free  
and all are invited.

### WHO SHOULD ATTEND?

Anyone doing EMC testing on their products or are in the test lab and covering standards for industrial/commercial, automotive, and military testing. Learn about the new requirements that spell out the proper use of this revolutionary technology.

### ABSTRACT:

New FFT or Time Domain scanning technology has been around for a long time but only recently has been proven to be compliant to EMC standards. The technology can shorten test time, but its real benefit is more accurate testing. How can you be sure what FFT receiver is compliant and meets the new specific FFT requirements in newly released standards? With this new technology it is important to know and understand the parameters so you can purchase the equipment and use it correctly. MIL-STD-461G and CISPR 16-1-1 have new terminology regarding the use of FFTs. Learn all the facts about the requirements to understand which FFTs on the market will meet your needs.

### LOCATION and TIME:

This lecture will be held at Telephonics Corporation located at 815 Broadhollow Road (Route 110), Farmingdale, NY. The facility is located just north of Route 109 on Broadhollow Road. Presentation will begin at 6:30 PM. Pizza & beverages will be served starting at 6:00 PM. Seating is limited. Please bring proof of citizenship: Passport, enhanced driver's license, birth certificate.

### SPEAKER BIOGRAPHY:

**Jason Smith** Graduated with a BS from University of Delaware in 1997 majoring in Engineering Technology. Over all Jason has over 21 years' experience in the EMC industry. First testing and managing at an independent EMC test lab in Pennsylvania. Later became an Applications Engineering Manager for a prominent EMC and RF test equipment manufacture. He has been a member of the USNC (US National Committee) to SC77B and SC77C, a participating member of WG10 (IEC 61000-4-3, -6) and the SAE AE2 Lightning committee. Working very closely to some of the leading EMC/EMI manufacturers in the industry. Jason created Absolute EMC LLC in July 2018; for meeting the many requirements of the EMC Industry. Offering consulting services centered around the proper selection and use of EMC test equipment for IEC, MIL, Automotive and Avionics testing. Working with all manufacturers to get you the right solution for the application.

### REGISTRATION:

<https://events.vtools.ieee.org/m/197824>

### SEMINAR COORDINATORS:

Mr. Donald Lerner and  
Mr. Sandy Mazzola



The LI Section of IEEE Engineering in Medicine and Biology (EMBS) in collaboration with Young Professionals, Computer Society (CS) and SUNY Farmingdale presents the following lecture:

## **THE RETINA CHECK PROJECT**



**DATE:** Thursday,  
June 20, 2019

**SPEAKER:**

**Prof. Bart ter Haar Romeny,**  
Eindhoven University of Technology, Netherlands

**LOCATION:**

**SUNY Farmingdale**  
2350 Route 110,  
Rm T101, Lupton Hall,  
Farmingdale, Long Island

**TIME:** 6:00 PM - 8:00 PM

**COST:**

This seminar is free, all are invited.  
Pizza and refreshments will be served.

**ABSTRACT:**

The Retina Check project is a Sino-Dutch collaborative project, aiming to set up a large-scale screening program for finding early eye damage in diabetes patients (diabetic retinopathy) in the province of Liaoning, Northern China. Diabetes is reaching epidemic proportions worldwide, especially in Asia due to fast lifestyle changes and genetic factors. It is estimated that currently 11.6 % of the Chinese population has diabetes-2, the most of any country. Diabetic retinopathy is also the main cause of newly formed blindness in the working population, leading to high societal costs. Early detection is the key to prevention and successful treatment. Many cases still go unnoticed and are not treated in time, especially in rural areas. The technology is based on fully automatic quantitative analysis of high-resolution images of the retina, made with a fundus camera. The software is based on brain-inspired geometric methods, and convolutional neural networks (deep learning).

**INFORMATION and REGISTRATION:**

Please go to <https://meetings.vtools.ieee.org/m/198095>

**DISTINGUISHED LECTURER BIOGRAPHY:**

Prof. Bart ter Haar Romenij (Romeny), distinguished Lecturer from Eindhoven University of Technology, Netherlands, is known for research and teaching on brain-inspired and mathematically well-founded medical image analysis and deep learning techniques, with applications in computer-aided diagnosis, brain connectivity and retinal image analysis. Prof ter Haar Romeny is project leader of the RetinaCheck project, a project for retinal image screening for diabetes in northeast China, a senior member of IEEE, a Fellow of EAMBES and a 2019 IEEE EMBS distinguished lecturer. He has supervised 30 PhD theses (6 cum laude) and over 140 MSc theses, published over 220 papers and 12 books and book chapters and holds 2 patents.

**LECTURE COORDINATORS:**

**John Vodopia**, Chair, Engineering in Medicine & Biology Society

**Rhonda Green**, Chair, Young Professionals

**Barbara Porter**, Chair, Computer Society

**Marjaneh Issapour**, Chair, IEEE Long Island Section 2017

**Farmingdale  
State College**  
State University of New York

IEEE  
 **computer  
society**

**EMB**  


IEEE  
 **youngprofessionals**

# IESC 2019

## International Energy and Sustainability Conference 2019

**OCTOBER 17th - 18th, 2019 • FARMINGDALE STATE COLLEGE, 2350 BROAD HOLLOW RD., FARMINGDALE, LI**

### IESC 2019 CALL FOR PAPERS

Join the Renewable Energy and Sustainability Center (RESC) at Farmingdale State College for its Eighth Annual International Energy & Sustainability Conference (IESC) 2019. This year's conference will continue to provide attendees with the most cutting-edge developments in renewable energy from the leaders in their respective fields.

Experts in research as well as industry will be invited to present the emerging technologies and future directions in their field. Prospective authors are invited to submit original technical papers for presentation at the conference. Accepted and registered papers will be published in the IEEE Xplore® peer review publication.

### TOPICS OF INTEREST

#### ENERGY RESOURCE & TECHNOLOGY

- Energy Supply & Demand Management
- Energy Audits
- Feed-In Tariffs
- Local & Global Incentives

#### SUSTAINABILITY

- Sustainable Graphic Design
- Sustainability in Aviation
- LEED/Green Buildings
- Passive House
- Recycling
- Waste/Water Management
- Sustainable Garden
- Environmental Sustainability
- Sustainable Process & Development

#### SMART GRID

- Smart Metering
- SCADA
- CyberSecurity
- Building Management Systems

#### RENEWABLE ENERGY

- Solar PV
- Solar Thermal
- Wind
- Geothermal
- Tidal Power

#### ENERGY STORAGE

- Energy Education & Policy
- Battery
- Fuel Cells
- Mechanical
- Electrical

#### ALTERNATE FUEL VEHICLE

- Electric
- Hybrids/PHEV
- Hydrogen
- Bio-Fuel
- Natural Gas

### IMPORTANT DATES

ABSTRACT SUBMISSION	<b>AUG. 2, 2019</b>
NOTIFICATION OF ABSTRACT ACCEPTANCE	<b>AUG. 23, 2019</b>
FINAL PAPER SUBMISSION	<b>SEPT. 6, 2019</b>
NOTIFICATION OF FINAL PAPER ACCEPTANCE	<b>SEPT. 27, 2019</b>
REGISTRATION FOR AUTHORS	<b>OCT. 4, 2019</b>
CONFERENCE	<b>OCT. 17-18, 2019</b>

**Farmingdale State College**  
State University of New York



**Renewable Energy & Sustainability Center**  
at Farmingdale State College



THURSDAY, NOVEMBER 7, 2019 • RADISSON HOTEL, 110 MOTOR PARKWAY, HAUPPAUGE LI • NOON TO 8 PM

## IEEE LONG ISLAND SECTION POWER ELECTRONICS SYMPOSIUM 2019

### **FAST TRACK** **Call For Papers**

*Get Published. Be Recognized for Your Work. Fast.*

The Long Island Power Electronics Symposium & Exhibits is the area's premier annual event that brings together the local power electronics community. The symposium staff is seeking 45-minute lectures covering applicable topics including but not limited to:

- Power conversion tutorials
- Energy storage
- Power integrity
- Novel design concepts in power conversion
- Power management
- Emerging trends

The proceedings will be published on the official website of the IEEE Long Island Section. IEEE LI PELS has a strict "no podium, no publish" policy. Material will only be published if a presentation is made at the Symposium. Feel free to read the viewgraphs from previous symposiums [www.ieee.li/pes](http://www.ieee.li/pes) for inspiration.

#### IMPORTANT DEADLINES:

- **Abstract, viewgraphs, speaker bio and speaker contact information are due 2019 October 10.**  
*(Authors are encouraged to submit their work well in advance of this deadline to increase the likelihood of being accepted. Scheduling of qualified papers is accomplished on a first-come/first-served basis.)*
- **Notification of acceptance by 2019 October 21** *(or much earlier if material is submitted well before deadline).*
- **Presentation at symposium on 2019 November 7** *(please arrive at noon).*

#### FOR QUESTIONS, FURTHER INFORMATION OR MATERIAL SUBMISSION:

- **Ron De Luca**, IEEE LI PELS Chair, 631-786-1091, [rdeluca1144@gmail.com](mailto:rdeluca1144@gmail.com)
- **James Colotti**, IEEE LI Section Second Vice Chair, 631-755-7352, [colotti@ieee.org](mailto:colotti@ieee.org)

[www.ieee.li/pes](http://www.ieee.li/pes)

## IEEE POWER & ENERGY SOCIETY SCHOLARSHIP PLUS INITIATIVE

The IEEE Power and Energy Society is looking for the power and energy engineers of tomorrow. Are you one of them?

The PES Scholarship Plus Initiative has a simple goal: to increase the number of well-qualified, entry-level engineers by rewarding top power and energy engineering students in the U.S., Puerto Rico, and Canada.

The IEEE Power and Energy Society has developed the "PES Scholarship Plus Initiative" in order to encourage undergraduate students to pursue careers in power and energy engineering.



### IEEE Power & Energy Society SCHOLARSHIP PLUS INITIATIVE

Within the next decade, the U.S. electricity grid will undergo enormous changes. There is a national commitment to replacing aging infrastructure. New green technologies and the smart grid will change the way power is generated, transmitted, distributed and utilized. Compounding these challenges is a projected energy workforce shortage of critical proportions. It's been estimated that the power and energy industry will experience as much as a 50% turnover in engineers, and there's increasing concern about the availability of highly-skilled, quality engineers to revitalize the nation's power grid and prepare us for a clean energy future.

For qualifying students, the program not only provides scholarships and facilitates internships/co-op experience, but also offers many opportunities to gain experience and build knowledge in power and energy engineering careers, including mentoring opportunities and special recognition as a PES Scholar.

The Scholarship Plus Initiative benefits the power and energy industry by attracting qualified and energized young engineers to the field. Organizations can benefit directly through involvement in the internship and career experience program. Funding from partners in industry makes the program possible and will allow us to expand our efforts.

For colleges and universities, participation in the Scholarship Plus Initiative can attract more students to electrical engineering departments. By promoting awareness and excitement about the challenges and rewards of careers in power and energy, the Scholarship Plus Initiative supports EE and ECE departments by providing interesting and exciting opportunities for their students.

### SCHOLARSHIP DETAILS

We offer up to \$7,000 over three years and assistance with career experience opportunities to selected students! You must be a full-time undergraduate student studying electrical engineering and be a citizen (or permanent resident) of the U.S., Puerto Rico, or Canada. You should also be willing to take power engineering courses and have a GPA of at least 3.0. See the full eligibility requirements.

Scholarship amounts are \$2,000 the first year, \$2,000 the second year, and \$3,000 the third year (as long as you continue to qualify). Funds are paid to the university who will provide the funds to the students to help defray educational costs.



**SCHOLARSHIP DEADLINE:** June 30th

### FOR MORE INFORMATION:

Further information including the scholarship eligibility requirements can be found at the following website:

Website: <https://www.ee-scholarship.org/>

Email: [pes-scholarship-info@ieee.org](mailto:pes-scholarship-info@ieee.org)

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Being elevated to senior member recognizes people who have moved beyond entry-level work in their careers. It also encourages them to engage more broadly with engineers and other technical professionals in companies and universities outside their own. To be eligible for senior member status, members must have worked in a professional capacity in a technical field for at least 10 years. Educational experience is partially credited toward that time. Nominees must also have professional references from three IEEE senior members, Fellows, or honorary members. If you're interested in elevation, you don't have to wait to be nominated—you can nominate yourself.

**>> APPLY FOR *SENIOR MEMBER GRADE***

The Section is inviting you to record your stories and histories in our monthly publication, the *Long Island Pulse*. An article of approximately 300 – 350 words is recommended.

**LET US HEAR FROM YOU.**

Send your article to: [pulse@ieee.li](mailto:pulse@ieee.li)  
c.c. Life Member Chair: [life@ieee.li](mailto:life@ieee.li)

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## IEEE LIFE MEMBERS

*Write for Pulse!*

The IEEE Long Island Section has held meetings with many of our Life Members and Senior Engineers, in recent months. Your stories and histories in engineering are interesting, inspiring and should be recorded for future generations. You have served your profession for many years, many have served our country in the military, many as engineers fighting the Cold War. The many contributions are the legacy to this new digital age, space age, environmental age and beyond.

**WE WANT YOUR STORIES**



## FARMINGDALE STATE COLLEGE SECURITY SYSTEMS AND LAW ENFORCEMENT TECHNOLOGY ASSISTANT PROFESSOR

### JOB DESCRIPTION:

The Department of Security Systems and Law Enforcement Technology at Farmingdale State College (SUNY) invites applications for a tenure-track position at the rank of Assistant Professor beginning in the Fall of 2019. The successful candidate will teach a variety of undergraduate courses in Computer Security, including computer security, cryptography, cyber security, computer forensics, physical security, and database operations. Other responsibilities include student advisement and curriculum development. Candidates must engage in grant development work and research leading to publications in refereed academic journals. All faculty members at Farmingdale State College have three workload components: teaching, research and scholarly activity, and service. The successful candidate will demonstrate an interest and high level of competence in teaching. Candidates should have a research agenda that complements their area of academic specialty resulting in peer-reviewed publications and presentation, both of which are necessary for promotion and tenure at Farmingdale State College. The service component of the workload includes student advisement as well as active participation on departmental, school and college-wide committees. The faculty member may be expected to teach in multiple formats including hybrid, online and traditional face-to-face classes.

### REQUIRED QUALIFICATIONS:

An earned doctorate in Computer Science, Computer Security, Cybersecurity, or a closely related field. Highly qualified ABD's may be considered if completion of the Ph.D. will occur by the Spring 2019 semester.

### PREFERRED QUALIFICATIONS:

The candidate should have earned a Bachelor's degree in Computer Security, Computer Science, or a closely related field. He/she should possess expertise or interest in the areas of Computer Security, Cyber Security, Homeland Security, and/or Physical Security. Applicant must possess excellent communication,

interpersonal skills & have previous college level teaching experience. Evidence of prior teaching experience and scholarly publications is preferred.

### ADDITIONAL INFORMATION:

This is a full-time, 10 month faculty position. For the first 10 working days, beginning Wednesday, August 29, 2018 and ending Tuesday, September 11, 2018, applications will be limited to UUP Farmingdale. CLOSING DATE FOR RECEIPT OF APPLICATIONS: Sunday, February 17, 2019, or until position is filled POSITION AVAILABLE: September 1, 2019 Salary: \$75,000, may increase commensurate with experience The State University of New York offers excellent fringe benefits including health insurance options and retirement plans. VISA SPONSORSHIP IS NOT AVAILABLE FOR THIS POSITION.'

### APPLICATION INSTRUCTIONS:

To apply, submit a letter of application (that includes a statement of teaching philosophy and methodology), c.v., and names and contact information for three references. Candidates selected for interviews may be asked to provide copies of teaching evaluations and graduate transcripts (showing highest degree awarded/or currently in process). Only applications made through Farmingdale's electronic application system will be accepted. Candidates invited for interviews will be asked to make a presentation on their research as well as a separate teaching demonstration.

### TO APPLY GO TO:

[www.farmingdale.edu/employment](http://www.farmingdale.edu/employment)

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