◆ IEEE | LONG ISLAND SECTION

THE PULSE
OF LONG ISLAND

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INSIDE THIS ISSUE

A new year is now upon us, and the mission of the IEEE remains the same, to provide our Long Island Section members with unique benefits and to increase that membership, especially among a new breed of engineers. Membership in the Section is down a bit from last year, which indicates a need to inject some lifeblood into the organization. The Executive Committee is working on developing a system to organize that outreach.   Among the Societies, many hold to the requirement of two technical lectures. Those that do not should take that requirement more seriously. There are also opportunities to create Societies in the newer disciplines.

However, nothing changes in the benefits member currently enjoy: our social networking events and CEU credits for attendance at IEEE sponsored lectures remain popular. As usual, the **Awards Banquet** is our highlight event and will be held again at the Crest Hollow Country Club on March 25. We look forward to a great turnout this year.

Some upcoming annual highlights deserve special mention. **The Power Electronics Symposium** and the Long Island **RF/Microwave Symposium** continue to draw significant attendance, as does the annual LISAT Conference. Be sure to register early, these events can be very popular. Here are the dates:

- **Power Electronics Symposium**, November 5, 2020
- **RF/Microwave Symposium**, April 20, 2020
- **LISAT Conference**, May 1, 2020

Also of note is **NYIT's Women in Engineering and Technology Day** on April 4. Not strictly an IEEE event, but IEEE President-Elect Susan K. Land will be giving an address. Registration is at *nyit.edu/Womensday*. Since students are the future of the IEEE, the Executive Committee is expanding its outreach to the student chapters. The efforts to enhance our social media presence are mainly directed at the students and "millennial" engineers. Feel free to find us on twitter, facebook, linkedin and instagram in the coming months.

Regards,

Arnold Stillman
IEEE Long Island Section 2020 Chair

THE PULSE
OF LONG ISLAND

IEEE | LONG ISLAND SECTION

The Pulse of Long Island is produced by the **Long Island Section** of the **Institute of Electrical & Electronic Engineers**. It is published monthly except during July & August.

Supriya Karmakar, *Editor*
pulse@ieee.li

Anthony Giresi, *Graphic Designer*
pulse@ieee.li

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INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS

445 Hoes Lane, Piscataway, NJ 08855-1331

Phone: 1-800-678-4333 (USA & Canada)
Phone: 1-732-981-0060 (Worldwide)
Website: www.ieee.org
E-mail: contactcenter@ieee.org

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vc@ieee.li

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education@ieee.li

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membership@ieee.li

Young Professionals
RHONDA GREEN
rhonda.renee.green@gmail.com

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life@ieee.li

Student Development Activities
GLENN LUCHEN
student@ieee.li

Women in Engineering (WIE)
MIHAELA RADU
wie@ieee.li

Awards Committee
NIKOLAOS GOLAS
awards@ieee.li

Professional Activities
NIKOLAOS GOLAS
pace@ieee.li

Legal Affairs
JOHN VODOPIA
legal@ieee.li

Professional and Industry Liaison
YASH CHOWDHURY
liason@ieee.li

www.ieee.li
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.licn.org
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
MEMBERSHIP DEVELOPMENT

For more information on membership with the LI Section of the IEEE, e-mail Carl Meshenberg at: **membership@ieee.li**

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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.

SYSTEMS COUNCIL (SYSC)
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Vice Chair: **Vacant**
Email: systems@ieee.li

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IEEE | LONG ISLAND SECTION

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.** If selected for publication, the letter or article will be edited before being published.

ADVERTISERS:
Please contact us at **pulse@ieee.li** for advertising rates.

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,** 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.

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

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2020
IEEE LONG ISLAND SECTION
ANNUAL AWARDS CEREMONY
AWARDEES

LONG ISLAND SECTION
CHARLES HIRSCH AWARD

PAWEL JANCZYKOWSKI

For technical excellence in the development of airborne radar systems.

LI SECTION ATHANASIOS PAPOULIS
OUTSTANDING EDUCATOR AWARD

WEI LIN

For outstanding educational methodologies through innovative computing techniques in Biomedical Engineering.

LONG ISLAND SECTION
ALEX GRUENWALD AWARD

ROBERT DIFAZIO

For outstanding support of the LISAT Conference and distinguished technical leadership in the wireless industry.

LONG ISLAND SECTION
HAROLD WHEELER AWARD

BABAK BEHESHTI

For technical achievements and outstanding management of the NYIT College of Engineering and Computing Sciences.

LONG ISLAND SECTION JESSE TAUB
LIFETIME ACHIEVEMENT AWARD

VICTOR ZOURIDES

For outstanding contributions and dedication to the IEEE, Region 1 and the Long Island Section and its members.

LI SECTION VELIO MARSOCCI
OUTSTANDING STUDENT CHAPTER AWARD

FARMINGDALE STATE COLLEGE STUDENT BRANCH

For dedicated commitment to providing opportunities to IEEE Student Branch members to develop professionally and technically in electrical and computer engineering technology and continuous support of the LISAT Conference.

LI SECTION ORGANIZATION
OF THE YEAR AWARD

IEEE CONSULTANTS NETWORK OF LONG ISLAND (LICN)

For providing a constant source of outstanding level technical presentations to the Long Island engineering community.

LI SECTION OUTSTANDING
YOUNG ENGINEER AWARD

PENG ZHANG

For contributions to reliable and secure distributed energy resources and microgrids.

LONG ISLAND SECTION
OUTSTANDING VOLUNTEER AWARD

RONALD DELUCA

For contributions instrumental to the technical program of the Long Island Power Electronics Society Symposium.

REGENT 1 AWARDS

TECHNOLOGICAL INNOVATION AWARD
(INDUSTRY OR GOVERNMENT)

ROMAN KHAZANOVICH

For innovative contributions to IFF design and development.

TECHNOLOGICAL INNOVATION AWARD
(ACADEMIC)

MATTHEW D. EISAMAN

For contributions to the field of materials nanoengineering applied to next generation optical and electronic devices

**OUTSTANDING SUPPORT FOR
THE MISSION OF THE IEEE AWARD**
(MGA, REGION 1 AND/OR SECTION)

JOHN SCHMIDT

For dedicated and creative service as Long Island Section webmaster and the LISAT conference by introducing vTools

IEEE | LONG ISLAND SECTION

THE LONG ISLAND SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

2020 ANNUAL AWARDS CEREMONY

Presentation and Dinner

WHEN:
Wednesday, March 25, 2020

WHERE:
Crest Hollow Country Club,
8235 Jericho Tpke, Woodbury, NY

TIME:
5:30 pm

Arnold Stillman
Chair, IEEE LI Section

IEEE | LONG ISLAND SECTION

Information on registering for the banquet, and sponsorship opportunities will be communicated in the near future

IEEE | LONG ISLAND SECTION

CALL FOR VOLUNTEERS
LISEF IS IN NEED OF QUALIFIED JUDGES

The Long Island Science and Engineering Fair (LISEF) organizes a yearly forum for senior high school students from Nassau and Suffolk Counties to submit and exhibit their research projects. From this group of over 500 student participants, finalists are selected to compete in the annual International Science and Engineering Fair (ISEF). *LISEF is in need of qualified judges* and is inviting all qualified individuals (medical/veterinary doctors, university faculty, postdoctoral associates, graduate students, engineers, psychologists) to volunteer on one or both days of the upcoming competition. There are 21 judging categories to select from. Round One will be held on Wednesday, February 5, 2020 and Round Two on Thursday, March 12, 2020. The event takes place at the Crest Hollow Country Club in Woodbury, NY.

Judging for LISEF is a volunteer activity for qualified professionals who have a PhD or are currently pursuing a PhD or have suitable experience in a science and/or engineering field, retirees included. Category assignments will be determined on the day of the fair as the number of available judges in each category becomes more definitive. The only items that a judge is asked to bring is an inquisitive mind and a lot of enthusiasm!

For further information and to register as a judge for this rewarding experience go to **www.lisef.org**, click on register, create a user account, verify email and register as a judge. Graduate students that sign up to judge are eligible to receive a transportation stipend.

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

IEEE LONG ISLAND SECTION

IEEE computer society

SHARE YOUR EXPERIENCE
PRESENT YOUR WORK TO THE 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** with your suggested topic.

IEEE | LONG ISLAND SECTION

HARNESSING CYBERTECH?

DONALD CHRISTIANSEN

HARNESSING CYBERTECH?

Many of us were exposed to the belief that technology and our own personal role in its development could be the savior of mankind. Yet it now appears that many cyber developments will become a major threat to that hopeful ambition. Some examples follow.

Cybercrime now threatens individuals as well as businesses and is growing at a rapid pace. The Russian military cyber operation has disrupted corporations & utilities and is preparing for cyberwarfare (see Greenberg ref.).

Jonathan Lusthaus, director of the Human Cybercriminal Project at the University of Oxford, describes how a "Criminal Silicon Valley" now thrives in Eastern Europe. It centers on cybercrime organized and conducted by STEM-educated cybercriminals who have been discouraged from starting their own legitimate businesses.

Bill Joy, the chief scientist for Sun Microsystems, predicts that "by 2030 we are going to be able to build machines that are a million times as powerful as the personal computers of today, and as we combine that . . . with the ability to manipulate things in the physical and biological sciences (while) understanding what we are manipulating & being able to simulate it, we open up the opportunity . . . to completely redesign the world for better or worse." Joy goes on to suggest that unlimited open access to new knowledge might "put us all in clear danger of extinction."

THE ELECTRIC POWER GRID

There are three United States power grids, each dependent upon the Internet to connect thousands of individual elements, including generating sources, transmission lines, and local power distribution companies. Some 140 control centers "wheel" power as needed throughout the grids. The interdependence of the connected utilities makes them subject to attacks, both physical and cyber, that can disable an entire grid. They thus become prime targets in cyberwarfare.

RANSOMWARE

The FBI, in January 2015, revealed an increase in the illegal encryption of municipal computer files, with a ransom payment demanded for access. The FBI announcement noted that "your computer screen freezes with a pop-up message—supposedly from the FBI or another federal agency—saying that because you violated some sort of federal law your computer will remain locked until you pay a fine. Or you get a message telling you that your personal files have been encrypted and you have to pay to get the key needed to decrypt them."

The ransom might vary from hundreds to thousands of dollars, with the threat of permanent destruction of the files if not paid. The FBI with its partners has successfully neutralized some of the more significant scams, but asks that it be informed of any ransomware scheme or other cyber fraud at http://anon.ic3.gov. It also recommends updated antivirus software, automated patches for operating systems and web browsers, strong passwords, a pop-up blocker, and downloading software only from sites you know and trust.

By 2019, the number of cyberattacks had increased, a New York Times front-page article calling it the "Year of Cyberattacks." Some 22 cities in Texas were held hostage for millions of dollars. Nationwide, more than 40 municipalities were cyberattack victims. Some of the attacks originated in the United States, but most were identified as coming from Eastern Europe or Iran. Municipal facilities victimized included hospitals, court systems, government offices, police patrol cars, and public safety systems.

THE BOTTOM LINE

On balance, we seem to be failing in our defense against cyberattacks of any kind. Its most serious consequence will be its use in international cyberwarfare, in which it could yield equal or greater pain and destruction than would nuclear weaponry alone.

RESOURCES

IEEE European Public Policy, *Webinar on Cybersecurity*. Dec. 17, 2019.

"Holding Data Hostage: The Perfect Internet Crime," *MIT Technology Review* https://www.technologyreview.com/holding-data-hostage-the-perfect-internet-crime, retrieved Aug. 26, 2019.

Fernandez, M., Sanger, D., and Martinez, M. T., "Hackers Cripple Dozens of Cities, Hunting Ransom: Year of Cyberattacks," *The New York Times,* 23, 2019.

Ransomware on the Rise: FBI and Partners Working to Combat this Cyber Threat, Jan. 20, 2015 https://www.fbi.gov/news/stories/ransomware-on-the-rise, retrieved Aug. 26, 2019.

Chao, T., Pham, T., and Seregine, M., The Dangers of Technological Progress, https://cs.stanford.edu/people/eroberts/cs181/projects/technology-dangers/currdev.html, retrieved Aug. 20, 2019.

Lusthaus, J., "In Eastern Europe, A Criminal Silicon Valley Thrives," *The New York Times*, 30, 2019.

Wilbanks, L., "What's Your IT Risk Approach?," *Computing Edge*, Nov. 2019.

Greenberg, A., Sandworm: A New Era of Cyberwar and the Hunt for the Kremlin's Most Dangerous Hackers, Doubleday, 2019.

Newman, L. H., "The Hail Mary Plan to Restart a Hacked U.S. Electric Grid," *Wired*, 14, 2018.

Christiansen, D., "Cyber Gridlock," *IEEE-USA Insight,* Sept. 20, 2016.

Koppel, T., Lights Out: A Cyberattack, A Nation Unprepared, Surviving the Aftermath, Crown Publishers, 2015.

Christiansen, D., "Smart Machines and Artificial Intelligence," *IEEE-USA Insight*, Aug. 4, 2018.

Everett, J., "Rapid Attack Detection, Isolation, and Characterization Systems (RADICS)," retrieved Aug. 26, 2016.

Lucky, R. W., "When Innovation & Ethics Collide," *IEEE Spectrum*, July, 2019.

Hurlburt, G., "How Much to Trust Artificial Intelligence?," *IT Professional*, 2017.

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;

IEEE | **LONG ISLAND SECTION**

NEW YORK INSTITUTE OF TECHNOLOGY

College of Engineering & Computing Sciences

We are thrilled to invite you... the inquisitive, fun-loving, caring, problem-solver interested in making the world a better place by solving the many challenges we face today. Are you a high school student who is curious about engineering & technology? Do you want to meet female engineers, leaders, and NYIT engineering students to learn about their journeys and how they make a difference in their world? Join us for a day of empowerment, hands-on learning, and fun engineering/technology activities. What are you waiting for?

Do.
Make.
Innovate.
Reinvent the Future.

WOMEN IN ENGINEERING AND TECHNOLOGY DAY
Imagine. Inspire. Empower.

SATURDAY, APRIL 4, 2020
8:30 a.m. – 4:30 p.m.
NYIT Long Island Campus,
Old Westbury, NY

SPACE IS LIMITED: JOIN US ON APRIL 4 AT OUR LONG ISLAND CAMPUS.

REGISTER TODAY: NYIT.EDU/WOMENSDAY

RSVP: BY MARCH 19, 2020

INVITED SPEAKERS AND PANELISTS

SANYOGITA SHAMSUNDER
VP of Technology Development & 5G Labs, Verizon

SUSAN K (KATHY) LAND
IEEE President-Elect & Program Manager, The Missile Defense Agency

PENNIE S. TURGEON
VP of IT and CIO, New York Institute of Technology

MARIA R. PERBELLINI
Dean, School of Architecture & Design, New York Institute of Technology

IEEE | LONG ISLAND SECTION

FRIDAY, MAY 1, 2020

LISAT 2020

Sixteenth Annual IEEE Long Island Systems, Applications and Technology Conference

HELD AT THE FARMINGDALE STATE COLLEGE OF THE STATE UNIVERSITY OF NEW YORK, FARMINGDALE, NY

CALL FOR PAPERS, PRESENTATIONS, EXHIBITORS and STUDENT PAPERS

The Long Island Systems, Applications and Technology (LISAT) Conference features several parallel professional tracks including topics in systems, applications, and technology, a PDH program and an Exhibition. We are soliciting submissions for participation in the systems, applications and technology, program, and the exhibition, and are interested in papers, presentations, and exhibits that showcase the development and use of technology by local organizations, including small and large businesses, local, state and federal government agencies. LISAT 2020 will also include both Distinguished Lecture and Invited presentations on topics of strong interest to the scientific and engineering community and will provide the opportunity for select Undergraduate and Graduate student papers and/or posters to be presented.

Authors shall be required to provide a six (6) page IEEE standard manuscript for publication in IEEE Xplore, and will be required to make a Power Point TM presentation at the conference. Manuscripts are subject to the LISAT Technical Program Committee's peer review and may require revision prior to final acceptance. Important dates for the Technical Program are:

LISAT 2020 IMPORTANT DATES	
MANUSCRIPTS FOR PUBLICATION AND COPYRIGHT RELEASES DUE	MARCH 2, 2020
NOTIFICATION OF ACCEPTANCE OF MANUSCRIPTS (SUBJECT TO FINAL EDITS)	MARCH 16, 2020
FINAL MANUSCRIPT EDITS, BIOS, AND POWER POINT DUE	APRIL 6, 2020
PRESENTER REGISTRATION	APRIL 6, 2020
LISAT 2020 CONFERENCE	MAY 1, 2020

Detailed instructions on submission, manuscript and presentation templates, and information on the conference are available on the LISAT web site at **www.ieee.li/lisat** . Manuscript format must agree with requirements specified in the Author's Kit, which will be made available.

Each presentation will be 15 minutes long followed by 5 minutes of Q&A. At least one author must register for the conference for each paper/presentation. If one presenter is presenting multiple papers, then multiple registrations are required. A limited number of tutorial and application presentations, which will not be published by the IEEE, may also be accepted.

LISAT has a strict "No Podium, No Publish" policy. "Manuscripts will only be submitted for publication in IEEE Xplore if a presentation is made at the Conference."

For information on Exhibiting at LISAT, please contact: **exhibits@ieee.li.** For all other information contact LISAT 2020 Technical Program Committee Chair: Dr. Ronald Pirich at **rpirich@gmail.com**, Conference Chair: Dr. Charles Rubenstein at c.rubenstein@ieee.org or Conference Co-Chair: Dan Rogers at **drogers@ieee.org.** LISAT is sponsored by the IEEE Long Island Section and its Technical Society Chapters and IEEE Region 1, in cooperation, for the last thirteen years with the Farmingdale State College of SUNY.

LISAT encourages submissions from all areas of engineering, science, and technology. Topics of particular interest include Surveillance & Navigation Systems, Communications (Military and Commercial), Sensors and Advanced Electronics, Photonics, Fiber Optics and Wireless Technologies and Applications, Data Acquisition, Analysis and Computational Science, Microelectronics and Antennas for Commercial, Military and Space-Based Applications, Nanomaterials, Climate, Environment and Biosciences, Energy and Cyber Security and Health Sciences and Health Care.

Releases and Approvals: This conference will be unclassified and attended by both US and non-US persons. It is the author's responsibility to obtain all required company and government releases and approvals prior to making a paper submission. A statement that such releases and approvals have been obtained as well as a completed IEEE Copyright Form (signed by the submitting author) must accompany the manuscript of each accepted paper. For those requiring a travel visa, it is strongly recommended that Authors apply for their visa as soon as is possible.

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State University of New York
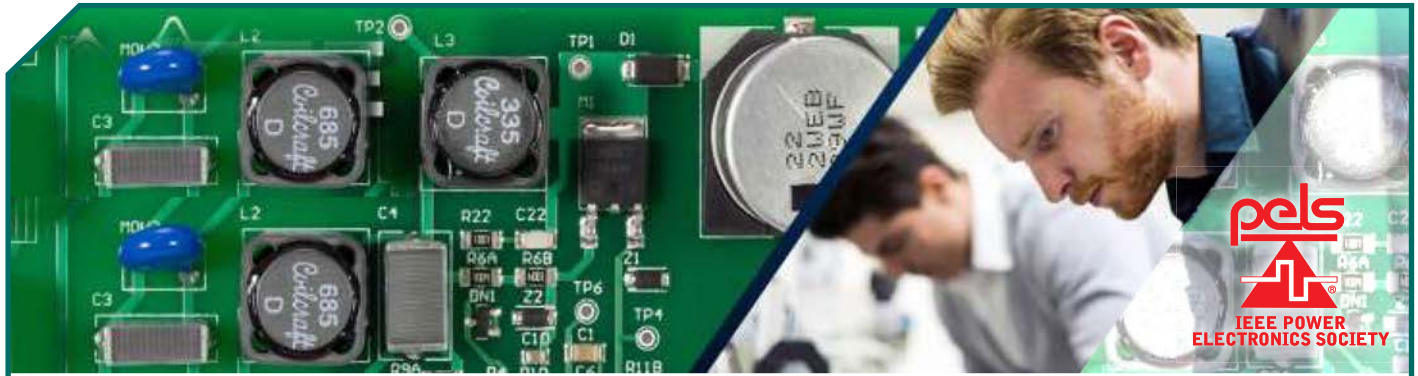
THURSDAY, NOVEMBER 5, 2020 • **RADISSON HOTEL**, 110 MOTOR PARKWAY, HAUPPAUGE LI • NOON TO 8 PM

IEEE LI SECTION POWER ELECTRONICS SYMPOSIUM 2020

All professionals (engineers, managers, etc.) involved in the use, design, qualification, test or manufacture of power supplies, power converters, power management, servos or energy storage are invited. All sectors of power electronics are represented including military, industrial, medical, space, consumer and automotive.

CALL FOR PAPERS
Abstract, viewgraphs, speaker bio and speaker contact information are due **October 9, 2020**. Scheduling of qualified papers is accomplished on a first-come/first-served basis. Notification of acceptance by **October 16, 2020**.

www.ieee.li/pes

FREE GENERAL ATTENDANCE
REGISTRATION OPENS APRIL 2020

A free invitation is extended to all Engineers, Managers, other Professionals and Students involved in the use, design, qualification, test or manufacture of power supplies, power converters, power management or energy storage. Registered attendees will receive complimentary networking lunch, admission to the exhibit floor, technical lectures, and a complimentary networking dinner.

EXHIBITORS
REGISTRATION OPENS APRIL 2020

Limited exhibitor space is available to LI companies & reps that cover LI involved in the design, qualification, test or manufacture of power supplies, power converters, power management or energy storage. Tables are 2.5' x 8' and are provided with two chairs. All exhibitors are invited to provide business cards and giveaways for the swag bagss. Exhibitors are also invited to enjoy the complimentary networking lunch and the complimentary networking dinner. Exhibitor tables are offered at $400.

SPONSORS
REGISTRATION OPENS APRIL 2020

A sponsorship entitles you to one free table with preferential placement. In addition, your company logo is prominently placed on the 200 swag bags, symposium flyer, and on all event posters. As a sponsor, you are also entitled to have up to two business cards and two items placed in the event swag bags. The number of sponsorship opportunities is limited to five and are available on a first-come, first-served basis. Sponsorships are offered at $1000.

FOR MORE INFORMATION, GENERAL REGISTRATION, EXHIBITOR REGISTRATION, SPONSOR REGISTRATION AND CALL FOR PAPERS: **www.ieee.li/pes**

IEEE MEMBERSHIP and MEMBER BENEFITS

IEEE membership offers access to technical innovation, cutting-edge information, networking opportunities, and exclusive member benefits. Members support IEEE's mission to advance technology for humanity and the profession, while memberships build a platform to introduce careers in technology to students around the world.

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MEMBER BENEFITS

As an IEEE member, you'll be presented with new resources, valuable opportunities, and many discounts that will help you advance your career in the right direction. You can find colleagues who share your vision and commitment—those who are moving technology forward today.

ENHANCE YOUR MEMBER-SHIP—JOIN AN IEEE SOCIETY

IEEE Societies provide members with opportunities to connect with experts and network with colleagues locally and abroad—all while staying up-to-date on technology and trends in their industry.

GIFT OF MEMBERSHIP

IEEE membership delivers access to the industry's most essential technical information and provides networking opportunities both locally and globally. Members have the ability to stay current in their chosen profession, connect with peers, and invest in their future.

MEMBER-GET-A-MEMBER

Consider sharing your IEEE membership experience and get rewarded for doing so. Through the Member-Get-a-Member (MGM) program, IEEE rewards your efforts in recruiting new members. Your local IEEE Section can also benefit.

IEEE.tv

Made possible by IEEE members, IEEE.tv is an award-winning, Internet-based television network, producing special-interest programming about technology and engineering for IEEE members and the general public.

There is no better time to discover all that IEEE membership has to offer. Join now and your membership is through 2020.

WHEN YOU JOIN IEEE, YOU:

- Join a community of over 425,000 technology and engineering professionals united by a common desire to continuously learn, interact, collaborate, and innovate

- Get the resources and opportunities you need to keep on top of changes in technology

- Get involved in standards development

- Network with other professionals in your local area or within a specific technical interest

- Mentor the next generation of engineers and technologists and so much more.

IEEE members can access information on local events and activities by signing in to myIEEE, the members' personalized gateway to IEEE membership. In addition, members can also:

- Access individual Society memberships and subscriptions

- Connect with local IEEE Sections and volunteer leadership

- Find upcoming conferences
  Learn more about individual benefits

- Read the latest news from IEEE, IEEE Spectrum, IEEE Standards News, and The Institute

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You've Always Set Yourself Apart. Now it's Time to make it Official. Nominate Yourself to become a...

IEEE SENIOR MEMBER

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

IEEE LIFE MEMBERS, *WRITE FOR THE 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.

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**
c.c. Life Member Chair: **life@ieee.li**

WANTED: IEEE LIFE MEMBER NEEDED TO VOLUNTEER TO SUBMIT A MONTHLY HISTORY ARTICLE FOR THE *PULSE*

The **PULSE** is seeking a IEEE LI Life Member to write the *Long Island Electrical & Electronic History* monthly article for the *Pulse*. If interested contact **pulse@ieee.li**

WE WANT YOUR STORIES

THE IEEE CONSULTANTS NETWORK OF LONG ISLAND (LICN)

is a nonprofit professional organization affiliated with the Institute of Electrical and Electronics Engineers. Our members include dozens of electrical, electronic, mechanical and software engineers with expertise in over 65 categories of technology and business. All are members of the IEEE and adhere to the IEEE professional codes of ethics.

IEEE Consultants Network of Long Island

PO Box 411, Malverne NY 11565-0411

www.licn.org

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Affiliated with the Institute of Electrical and Electronics Engineers, Inc.

Be sure to visit our web Blog at:
licn.typepad.com/my_weblog

FARMINGDALE STATE COLLEGE
SECURITY SYSTEMS AND LAW ENFORCEMENT TECHNOLOGY

ASSISTANT PROFESSOR (2 Postions)

JOB DESCRIPTION:

The Department of Security Systems and Law Enforcement Technology at Farmingdale State College (SUNY) invites applications for two tenure-track positions at the rank of Assistant Professor beginning in the Fall of 2020. The successful candidate will teach a variety of undergraduate courses in Computer Security and Software Technology, including information security, cryptography, cyber security, computer forensics, database security, physical security, artificial intelligence, software development, and machine learning. 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. The college particularly welcomes candidates with knowledge, skills and abilities that include: Commitment to diversity and university initiatives supportive of diversity and inclusion. Interest in participating in student-centered service activities. Desire to apply expertise in promoting civic engagement with the College's many community partners.

REQUIRED QUALIFICATIONS:

An earned doctorate in Computer Science, Computer Security, Cybersecurity, Computer Engineering, or a closely related field. Highly qualified ABD's may be considered if completion of the Ph.D. will occur by the Spring 2021 semester.A proven-track of records programming with C, C++, Java, Python, and/or other programming languages beyond school level, and familiarity with Windows, Linux and Mac OS. The candidate must be a permanent resident or a US citizen because Farmingdale State College does not offer any kind of visa sponsorship.

PREFERRED QUALIFICATIONS:

The candidate should have earned a Bachelor's degree in Computer Security, Computer Science, Computer Engineering, or a closely related field. He/she should possess expertise or interest in the areas of Computer security, cyber security, homeland security, physical security, artificial intelligence and/or machine learning. pplicant should possess excellent communication, interpersonal skills a& have previous college level teaching experience. Evidence of prior teaching experience, scholarly publications and any industry experience is preferred.

ADDITIONAL INFORMATION:

This is a full-time, 10 month faculty position. For the first 10 working days, beginning Friday, October 25, 2019 and ending Thursday November 7, 2019, applications will be limited to UUP Farmingdale. CLOSING DATE FOR RECEIPT OF APPLICATIONS: Sunday, December 8, 2019. Salary: $70,000/year, may increase commensurate with experience. ANTICIPATED START DATE: Tuesday, September 1, 2020. SUNY offers excellent fringe benefits including health insurance options and retirement plans. VISA SPONSORSHIP IS NOT AVAILABLE FOR THIS POSITION.
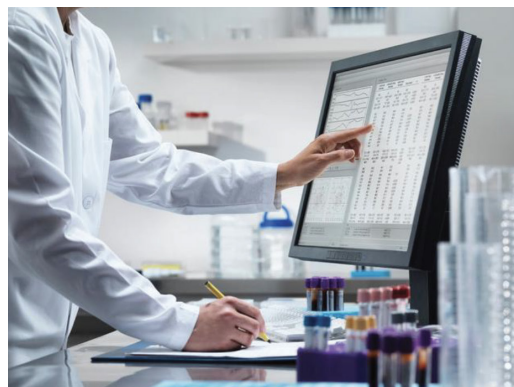
APPLICATION INSTRUCTIONS:

To apply, submit a letter of application(that includes a statement on teaching philosophy and methodology), c.v., copies of teaching evaluations, unofficial copy of graduate transcripts (showing highest degree awarded/or currently in process), names and contact information of three references. 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/creative activities as well as a separate teaching demonstration.

TO APPLY GO TO:

www.farmingdale.edu/employment

Farmingdale State College
STATE UNIVERSITY OF NEW YORK

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THE PULSE

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