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SEPTEMBER 2023 VOL. 70, NO. 4

OF LONG ISLAND





Greetings and welcome back, Section Members, from the summer hiatus. I hope everyone had an enjoyable summer, spending time with family and friends. We've begun planning a full slate of upcoming events, such as the *LICN Electronic Navigation Systems Before the GPS* lecture on September 7th and our Annual

Barbecue Picnic at Sunken Meadow State Park on September 9th. For more information and to register, please search for the keywords (LICN and picnic) in vTools. *https://events.vtools.ieee.org/m/371189*

Planning is already underway for the **2023 Power Electronics Symposium**, which will be held on November 2nd. For more information, go to *https://www.ieee.li/pes/*.

Another significant action for the Section is electing the 2024 slate of Executive Committee officers. Our Junior Past Chair, Arnie Stillman, will chair the nominating committee and start the procedure. Self-nominations are acceptable, and there is no particular experience required for the offices. Please keep an eye out for the election process directives from Arnie.

We are very fortunate for all who volunteer to serve the Section, and I trust that everyone is ready to continue the mission of getting connected and involved.

Warm Regards,

Rhonda Green 2023 IEEE Long Island Section Chair chair@ieee.li







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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.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 MEMBERSHIP DEVELOPMENT

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



THE IEEE LI SECTION HAS 19 CHAPTERS. EACH CHAPTER IS A TECHNICAL SUBUNIT OF THE LI 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 LI CHAPTER'S STEERING GROUPS, PLEASE DO CONTACT THE RELEVANT CHAPTER CHAIR, VICE CHAIR, OR ONE OF THE SECTION OFFICERS.



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COMPUTER SOCIETY (CS)

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MICROWAVE THEORY AND TECHNIQUES SOCIETY (MTT)

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IEEE POWER ELECTRONICS SOCIETY

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NUCLEAR AND PLASMA SCIENCES SOCIETY (NPS) Chair: Gabriella Carini Vice Chair: Vacant Email: nps@ieee.li



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ROBOTICS AND AUTOMATION SOCIETY (RAS)

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COMMUNICATIONS SOCIETY (COMSOC)

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INSTRUMENTATION AND MEASUREMENT SOCIETY (IMS)

Chair: Vacant Email: im@ieee.li



Power & Energy Society®

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Chair: Nathaniel Steier Vice Chair: Marjaneh Issapour Email: power@ieee.li



SIGNAL PROCESSING SOCIETY (SPS)

Chair: Jessica Donaldson Vice Chair: Dave Mesecher Email: signal@ieee.li



TECHNOLOGY & ENGINEERING MANAGEMENT SOCIETY (TEMS) Chair: Vacant Email: tmc@ieee.li





FOR UPDATES ON ALL LONG ISLAND SECTION **EVENTS, CHECK OUT** THE IEEE LONG ISLAND **SECTION WEBSITE:** www.ieee.li



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The IEEE App connects you to the world's largest professional technology community. Stay informed with cutting-edge content from IEEE Spectrum, IEEE Transmitter, and more. Receive personalized technology and engineering content relevant to your activities and interests and stay connected to your tech community.







SATURDAY, SEPT. 9, 2023

SUNKEN MEADOW STATE PARK • 12:00 PM - 4:00 PM

COME SOCIALIZE & PLAY!

PROFESSIONALS: Come Network in the last Summer Sun

STUDENTS/STEM MAJORS: Find out about Your Intended Majors from the Real Deal.

BRING A GUEST

BBO PICNIC REGISTRATION: https://forms.gle/NZYQV4JQUcaRzgzz7

TO REGISTER YOUR FOOD CHOICES: EMAIL: Imc2020.ieee@gmail.com Subject Line: IEEE BBQ PIcnic Food Choices





MARK YOUR CALENDAR: MARCH 21, 2024



ENGINEERS JOINT COMMITTEE OF LONG ISLAND IS PRESENTING A SEMINAR TITLED: ENGINEERING ETHICS SIMINAR

A Networking Evening with Dinner and Ethics Seminar



SESSION 1: THE ETHICS OF COMPETENCE

Participants will improve understanding of the components of competence, recognize practice issues in competence, reviewmultiple Board of Ethical Review cases addressing competence, and identify shifting standards for competence.

SESSION 2: MICHIGAN MAY 2020 CASCADING DAM FAILURES: A FORENSIC STUDY IN ETHICS

The history and timeline of the cascading dam failure will be reviewed. Participants will identify the various contact points at which the dam failures were preventable. (*Learning Objective 1*) and identify the apparent ethical issues arising during the design, construction, maintenance, and operation of the failed dams. (*Learning Objective 2*)

LOCATION:

Hilton Garden Inn Melville,

1575 Round Swamp Rd, Plainview, NY 11803

DATE: Tuesday, September 26, 2023

SPEAKER: Rebecca A. Bowman, Esq., P.E.

LOCATION:

Hilton Garden Inn Melville, 1575 Round Swamp Rd, Plainview, NY 11803

TIME:

6:00pm - 7:00pm: Networking & Dinner 7:00pm - 9:15pm: Seminars (2 Sessions) 9:15pm - 10:00pm: Cash Bar & Networking

PDH:

Seminars: 1.0 PDH each

SPEAKER:

Rebecca A. Bowman, Esq., P.E. is NSPE Senior Director, Ethics and Professional Practice. In this role, Ms. Bowman is responsible for serving as the subject matter expert on engineering ethics, providing ethics counsel to members in need of guidance and providing management, policy direction, & guidance on ethics in all internal and external operations of the organization. She also serves as the inhouse and industry expert on engineering licensure laws and liability laws affecting the profession

REGISTRATION:

Click here to register online. Fee: \$45 (includes Dinner and Seminar). For questions e-mail: ashaimes@optonline.net. Payment needed by September 17.

Both 1 PDH seminars are approved for the Ethics Seminar requirement by New York State.





THE IEEE LONG ISLAND SIGNAL PROCESSING SOCIETY (SPS) PRESENTS THE FOLLOWING DISTINGUISHED LECTURE: CO-DESIGN OF ALGORITHMS & ARCHITECTURES FOR MACHINE LEARNING INFERENCE AT THE EDGE FOR VIDEO ANALYTICS



DATE: Monday, October 30, 2023

SPEAKER: Dr. Kiran Gunnam

LOCATION: Virtual Meeting

TIME: 6:00pm - 7:00pm

REGISTRATION: https://events.vtools.ieee.org/m/369906

ABSTRACT:

Video analytics involves processing video content in real-time, extracting metadata, sending out alerts, and delivering actionable intelligence insights to security staff or other systems. Video analytics products apply artificial intelligence to cameras to recognize temporal and spatial events. Video analytics are needed in various end applications such as quality inspection, industrial process automation, and workplace security. It is crucial to have video analytics performed at the edge on the multiple streams from on-premises cameras to make automated predictions with high accuracy and low latency. This talk explains the co-design of hardware friendly algorithms and corresponding domain specific accelerator architectures for machine learning inference at the edge for video analytics.

DISTINGUISHED LECTURER:

Dr. Kiran Gunnam is aninnovative technology leader with vision and passion who effectively connects with individuals and groups. His breakthrough contributions are in the areas of advanced error correction systems, storage-class memory systems, and computer vision-based localization & navigation systems. He has helped drive organizations to become industry leaders through ground-breaking technologies. He has 86 issued US patents and 100+ patent applications/invention disclosures on algorithms, architectures, and real-time low-cost implementations for computing, storage, computer vision and AI systems. He is the lead inventor/sole inventor for 90% of them. His patented work has been already incorporated in more than 3 billion data storage, Wi-Fi and 5G chips as of 2020 and is set to continue to be incorporated in more than 500 million chips per year.



Dr. Gunnam is also a key contributor to the precise localization and navigation technology commercialized for autonomous aerial refueling and space docking applications. His recent patentpending inventions on low-complexity simultaneous localization and mapping (SLAM) and 3D convolutional neural network (CNN) for object detection, tracking, and

classification are commercialized for LiDAR+ camera-based perception for autonomous driving and robotic systems. His more recent inventions on machine learning accelerators have \sim 2x savings vs the state of the art.

Dr. Gunnam has been involved with the IEEE standards association (SA) since 2013. He is a member of IEEE Computer Society's Microprocessors Standards Committee and is the Chair of IEEE P3109 Standards Working Group for Arithmetic for Machine Learning. He is also the Chair of IEEE CASS Standard Activities Subdivision (SASD). He is also a member of the Board of Governors of the IEEE Circuits and Systems Society (CASS) for 2021-2022. Dr. Gunnam served as IEEE Distinguished Speaker and Plenary Speaker for 30+ events and international conferences and more than 4000 attendees benefited from his talks. Dr. Gunnam also served as a lead Instructor for machine learning and deep learning workshops organized by ACM in collaboration with IEEE and ValleyML from 2018 to 2020. Dr. Kiran Gunnam is a recipient of the ValleyML Distinguished Technical Achievement Award for longlasting contributions to architectures and algorithms of real-time signal processing, communication, and machine learning systems that enabled ubiquitous computing.



31st International Symposium on the Modeling, Analysis, and Simulation of Computerand Telecommunication Systems Conference

The **MASCOTS Conference** is a well-established forum for state-of-the-art research on the measurement, modeling, and performance analysis of computer systems and networks. The 31st edition of this conference will take place October 16-18, 2023 in Wang Center, Stony Brook University, Stony Brook, NY, USA. The conference will bring together academics and industry practitioners to present and discuss their latest research results. The technical program for the 3-day conference will include keynote talks and refereed paper presentations.

We encourage original submissions describing state-of-the-art research in the areas of the performance evaluation of computer systems and networks as well as in related areas. Papers describing results of theoretical and/or practical significance are welcome. Experimental, modeling, and simulation studies are all in the scope of the conference. Papers focusing on novel performance evaluation methods or providing insights on design and runtime management tradeoffs are particularly encouraged. Accepted papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements. A selection of the accepted papers will be invited to submit an extended version of their work to a special issue in the Performance Evaluation (PEVA) journal. Papers that are not accepted for the conference program will be considered for the MASCOTS'23 Workshop and, if accepted, may then be published in another Open Access venue.

IEEE

The MASCOTS 2023 proceedings are available at IEEE Xplore. All questions about the conference should be emailed to *mascots2023 at easychair.org*

REGISTER AT: https://mascots.iitis.pl/



IEEE CONFERENCES





THURSDAY, NOVEMBER 2, 2023 • RADISSON HOTEL, 110 MOTOR PKWY, HAUPPAUGE LI • NOON TO 8 PM

IEEE LI SECTION POWER ELECTRONICS SYMPOSIUM 2023

The Long Island Power Electronics Symposium & Exhibits is the area's premier annual event that brings together the power electronics community. All professionals (engineers, managers, etc.) involved in the use, design, qualification, test, procurement 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 & automotive. **This event is free for attendees** but please register in advance to maximize your experience. Registered attendees will receive admission to the exhibit floor, technical lectures, complimentary lunch, and the complimentary dinner. The first 200 registered attendees will also receive a complimentary swag bag with gifts from our exhibitors.

CALL FOR PAPERS

Abstract, viewgraphs, speaker bios and speaker contact information are due **October 6, 2023**. Scheduling of qualified papers is accomplished on a first-come/first-served basis. Notification of acceptance by **October 17, 2023**.



FREE GENERAL ATTENDANCE

A free invitation is extended to all professionals (Engineers, Managers, etc.) involved in the use, design, qualification, test or manufacture of power supplies, power converters, power management or energy storage. This event is free for attendees but please register to enhance your experience. Registered attendees will receive complimentary networking lunch, admission to the exhibit floor, technical lectures, and the complimentary networking dinner. The first 200 registered attendees will also receive a complimentary swag bag.



EXHIBITORS

Limited exhibitor space is available to companies & representatives 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 bags given to the first 200 registered attendees. Exhibitors are also invited to enjoy the complimentary networking lunch and the complimentary networking dinner. All tables are offered at \$450.



SPONSORS

A sponsorship upgrade entitles you to one free table with a preferential position and inclusion on the symposium flyers and posters at the event. 6 sponsorship options are available; swag bag sponsorship (limit 5), lunch sponsorship (limit 1), coffee break sponsorship (limit 1), beer cart sponsorship (limit 1), wine cart sponsorship (limit 1), wine cart sponsorship (limit 1) and dinner sponsorship (limit 2). Sponsorship opportunities are available on a first-come, first-served basis. All sponsorships are offered at \$1000.

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



LONG ISLAND SECTION

LET YOUR VOICE)))) 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:

LONG ISLAND SECTION

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.



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



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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 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.

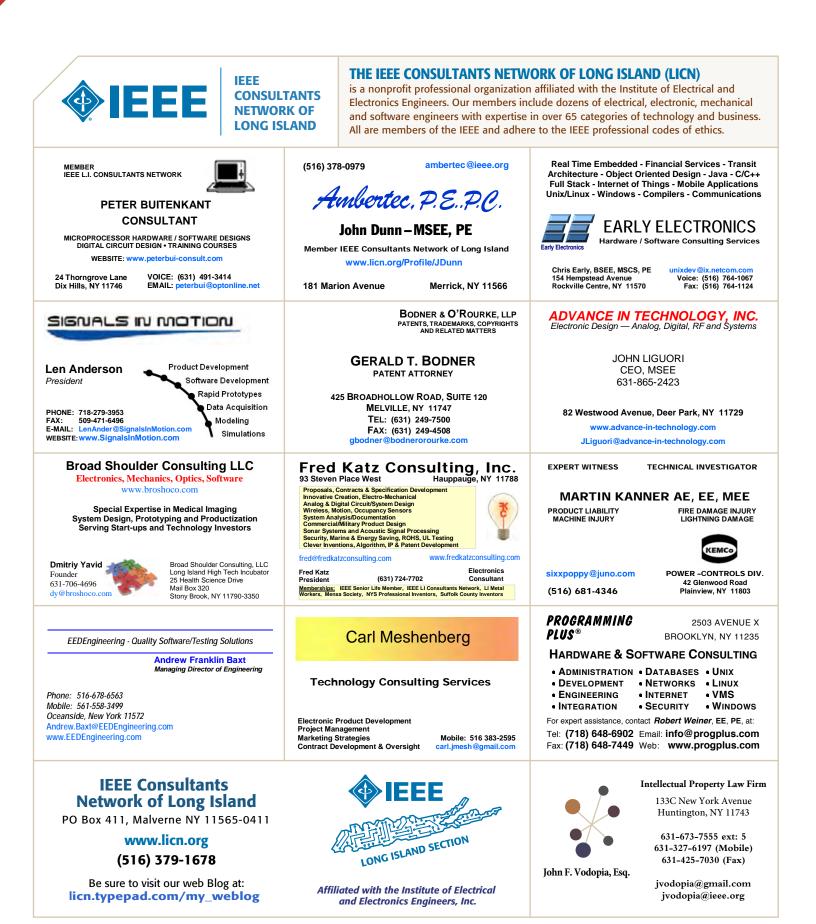
> LET US HEAR FROM YOU. Send your article to: **pulse@ieee.li** Life Member Chair: **life@ieee.li**

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.

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**

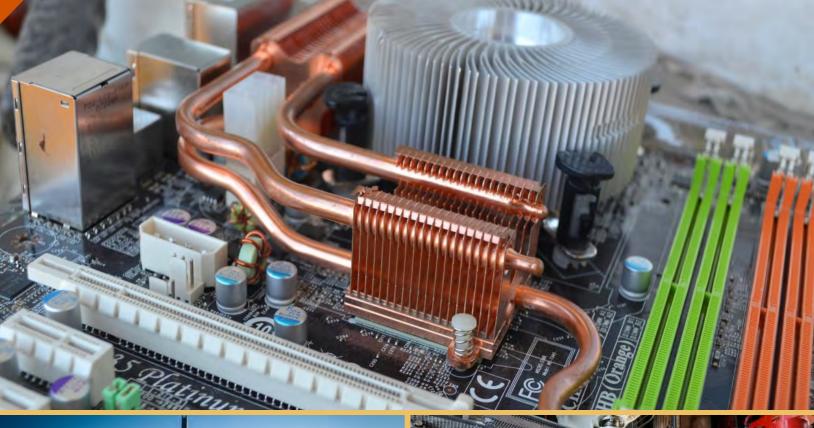
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