PRODUCED BY THE LONG ISLAND SECTION OF THE INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS





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2020 OUTSTANDING MEMBERSHIP RETENTION PERFORMANCE LONG ISLAND SECTION

CHAIR's MESSAGE



This November will be a month to remember. Thanksgiving this year may not be the holiday we would love to celebrate in the usual fashion. It will most likely be one we will recall with some not so fond memories. My message this month, at the risk of being too repetitious, is to continue driving the pandemic infection curve downward. We all know what to do.

This last October, however, has seen the section get more comfortable with online events. Thanks to the efforts of Barbara Porter and Lon Chu, the Section hosted a very successful 1010 Day event. The two guest speakers for the event, Bart Romeny and Peter Scott were online from the Netherlands and California, indicating geography is no barrier to these events. Between the two speaker sessions, Marj Issapour and Ron Pirich hosted an insightful panel discussion featuring local tech professionals and Section members. The turnout for the meeting was encouraging, with about 30 attendees logged in, even though October 10 was a Saturday. Planning for next year's event will start soon; anyone interested in helping put it together is welcome to contact me for further information. There is no theme for next year's 1010 Day yet, and it is on a Sunday. Organizing it will be a challenge, but it will be rewarding when it comes off as successfully as this year's.

In the first quarter of 2021, the Section will be hosting a very popular retirement planning seminar given by Rob Leitner. Originally scheduled for this month, unforeseen circumstances led him to reschedule for early next year. This will be a virtual session hosted by the Long Island Section and one of the New Jersey Sections. As many may have suspected, I intend to postpone the Awards Banquet yet again, from March to September. I have spoken with two authoritative sources about the March date and they agree the postponement is the wiser option. The banquet will combine the awards for 2020 and 2019 into one. Although final arrangements are not yet complete with the venue, Crest Hollow Country Club, our force majeure clause should allow us to reschedule without a problem.

On a final note of good news, also in this month's issue we have the report by Mallika Rathore on her internship at Google. These internship reports give an insight into the experiences of our young professionals as they experience the workforce. Especially now, during a pandemic, when entering the workforce is problematic to say the least, reading these essays is heartening.

As usual, stay healthy and everyone please have a safe and meaningful Thanksgiving.

Regards,

Arnold Stillman IEEE Long Island Section Chair, 2020









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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.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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Chair: Dave Mesecher Vice Chair: Vacant Email: aes@ieee.li

IEEE computer society

COMPUTER SOCIETY (CS) Chair: Barbara Porter Vice Chair: Brian Quinn Email: computer@ieee.li



MICROWAVE THEORY AND TECHNIQUES SOCIETY (MTT)

Chair: Saikumar Padmanabhan Vice Chair: Eric Darvin Email: mtt@ieee.li



POWER ELECTRONICS SOCIETY (PELS)

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ANTENNAS AND PROPAGATION SOCIETY (APS)

Chair: Bryan Tropper Vice Chair: Sai Padmanabhan Email: ap@ieee.li

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COMPATIBILITY SOCIETY (EMCS)

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Chair: James Colotti

Vice Chair: Vacant

Email: emc@ieee.li

NUCLEAR AND PLASMA

Chair: Shaorui Li

Email: nps@ieee.li

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Vice Chair: Graham Smith

Product Safety Engineering Society



CIRCUITS AND SYSTEMS SOCIETY (CAS)

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Email: emb@ieee.li

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



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INSTRUMENTATION AND MEASUREMENT SOCIETY (IMS)

Chair: Joe Jordan Vice Chair: Ephraim Adeola Email: im@ieee.li



Power & Energy Society*

POWER & ENERGY/INDUSTRY APPLICATIONS SOCIETY (PES & IAS) Chair: Marjaneh Issapour Vice Chair: Lou D'Onofrio Email: power@ieee.li



SOCIAL IMPLICATIONS OF TECHNOLOGY SOCIETY (SSIT)

Chair: Howard Edelman Vice Chair: John Vodopia Email: social@ieee.li



TECHNOLOGY & ENGINEERING MANAGEMENT SOCIETY (TEMS)

Chair: Brian Quinn Vice Chair: Barbara Porter Email: tmc@ieee.li





Vice Chair: Vacant Email: safety@ieee.li

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.

WRITE FOR THE PULSE

LET YOUR

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.



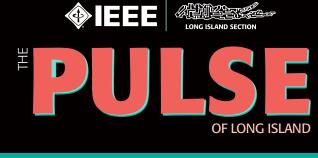
ADVERTISERS: Please contact us at pulse@ieee.li for advertising rates. **TECHNICAL & ENGINEERING COMPANIES:**

CONTRIBUTION DEADLINE: 20th of a month for the next month edition.

ALINESS

CONTRIBUTIONS FROM LONG ISLAND

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



STUDENT INTERNSHIP SUMMARIES

For the next three months, the Educational Activities Committee, under the direction of our member Lon Chu, will have the pleasure of presenting summaries of student internship experiences that some of our Long Island students have experienced. We welcome their accounts and look forward to more of these.

MALLIKA RATHORE, Google Intern



NAME: Rathore, Mallika SCHOOL ATTENDING: SUNY Stony Brook COLLEGE/DEPARTMENT: Electrical Engineering INTENDED DEGREE: PhD. INTENDED GRADUATION YEAR: Spring 2020 INTERNSHIP TITLE: Hardware Engineering Intern COMPANY NAME: Google SEMESTER/YEAR OF INTERNSHIP: Summer 2020 SUPERVISOR NAME: Dr. Kaushik Vaidyanathan,

Sudesna Dash, and Chi Keung Lee

PHD Student, Stony Brook University

My NAME IS Mallika Rathore

Kaushik Vaidyanathan at Google defined the expectations and goal of this internship project, which was supervised by Chi Keung Lee and Sudesna Dash. The project was to develop a framework for analyzing different integrated circuit technology and foundry data to make important design decisions for current and future projects. Before developing this framework, I was expected to set up the project groundwork by taking into account the different infrastructures that the framework has to interact with to produce the desired results. The goal of this project was to design a framework that the engineers can use to analyze the data without exposing them to the complexities of the implementation.

What I liked about this project was that my supervisors at Google encouraged me to keep an open mind and research an efficient solution to the problem while ensuring that the framework is scalable & flexible. They were always there to provide the necessary support whenever I hit a roadblock. The project was complicated and challenging, and had a steep learning curve, especially for a 12 week internship, but I was able to fulfill the expectations for this project and produce a feasible solution to the problem. The key takeaway from this experience was that it is very important to ask questions and talk to the experts to learn as much as possible. Knowledge sharing is very important for creating an effective solution to a problem.

This internship experience gave me the exposure to what it is like outside the academic world and how the work and effort put in by every member of the workforce, including an intern, is an important piece of the entire puzzle. Even though my project is a small part of the bigger picture, it laid the foundation to grow the framework to do more complex analysis in the future. The few technology analyses that I was able to implement during my internship will save time and resources for the team while helping them make quick decisions on some important aspects of the chip design process. It was a remarkable experience to work in a company like Google. They gave me exposure to state-of-the-art technologies and the opportunity to learn from and work with some of the best minds in the industry

DID YOU FIND YOUR SCHOOLING AT STONY BROOK PREPARED YOU FOR THIS INTERNSHIP?

Yes. I am fortunate enough to get the opportunity to get my basics right. It is amazing that irrespective of the complexity of a problem people are trying to solve in the industry, it all comes down to the basics which we learn during school. So it definitely helped me prepare for my internship in that aspect.

HAVE YOU DECIDED TO MAKE ANY CHANGES IN YOUR SCHOOLING BECAUSE OF YOUR INTERNSHIP?

Not really since it is my last year of my PhD program. I plan on going into the industry after my schooling is over.

GOOGLE IS A GREAT COMPANY TO WORK FOR. DID THEY LIVE UP TO YOUR EXPECTATIONS?

Yes. The work culture at Google is very unique and unlike other industries, that I have had the opportunity to interact with. The learning possibilities are endless and it is strongly encouraged to discuss and share ideas, which also helps them come up with the next big innovation. As an intern, I never felt that I cannot reach out to someone at a Director level, for example, if I just want to have a coffee chat and learn about their work or their career path.



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THE PULSE OF LONG ISLAND



POWER ELECTRONICS SYMPOSIUM 2021

The IEEE LI Power Electronics Symposium that was scheduled for this November was cancelled due to the Coronavirus pandemic.

However, mark your calendars – our next Symposium is scheduled for **November 4, 2021**.



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

LONG ISLAND SECTION



IEEE (Computer society

SHARE YOUR EXPERIENCE PRESENT YOUR WORK TO THE IEEE

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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.



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>> 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.

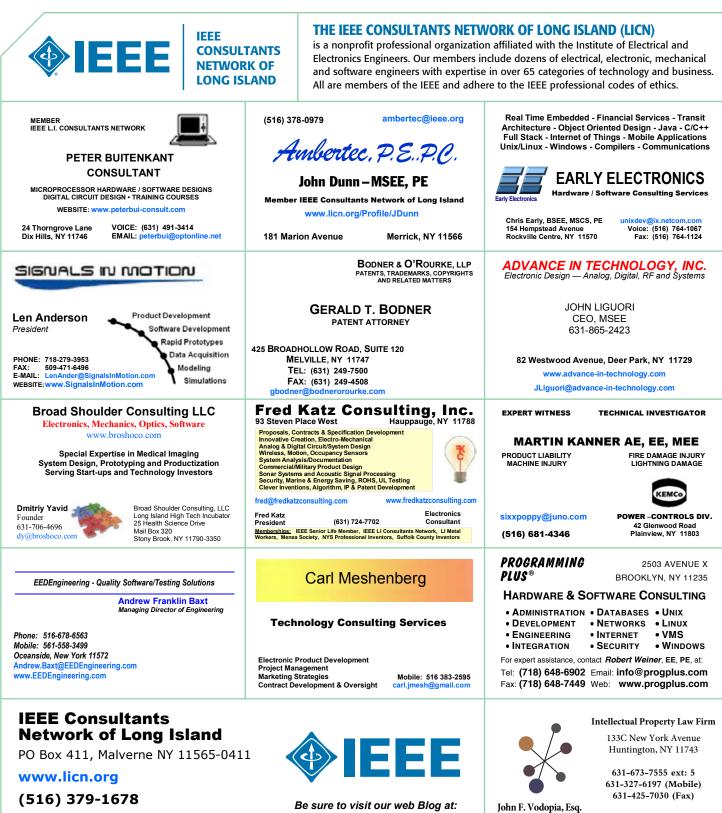
WANTED: IEEE LIFE MEMBER NEEDED TO VOLUNTEER TO SUBMIT A MONTHLY HISTORY ARTICLE FOR THE PULSE

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**

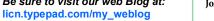
WE WANT YOUR STORIES



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EMPLOYMENT OPPORTUNITY



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



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