

BOSTON



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AWARDS NOMINATIONS
(DEADLINE DEC. 31, 2021)

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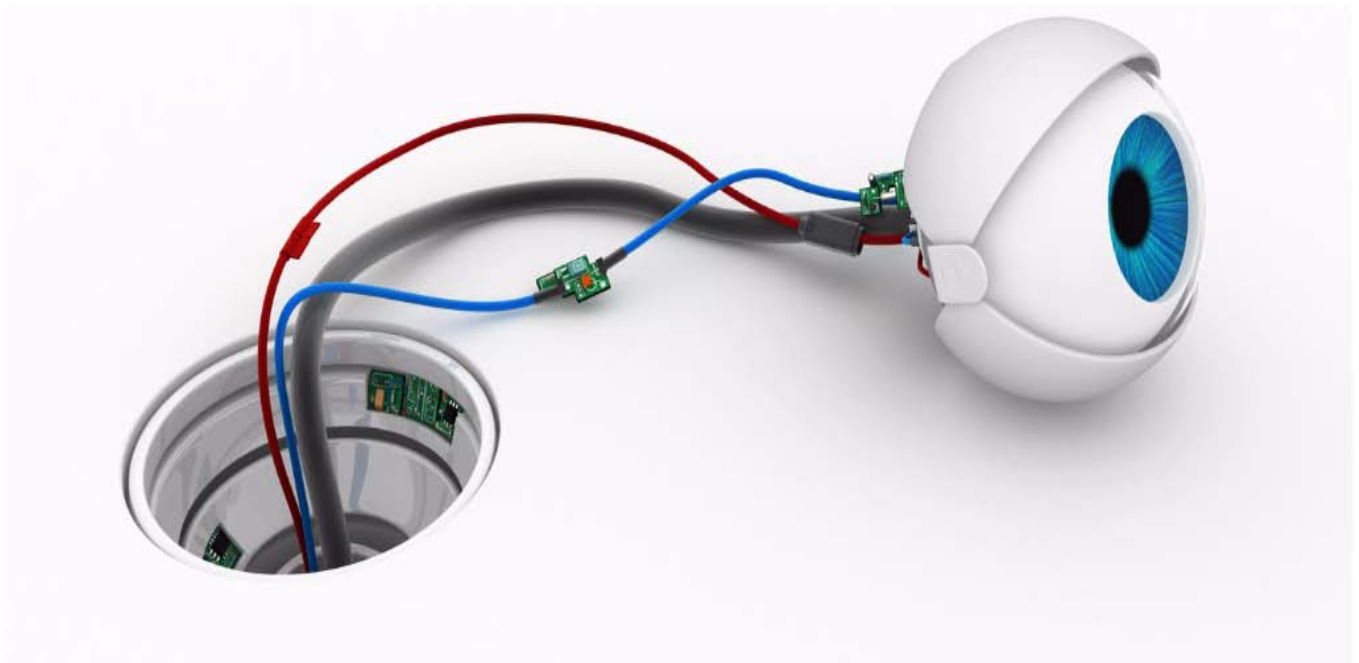


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The Importance Being Able to Adapt

Denise Griffin, Chair, IEEE Boston Section

Dear Members, Welcome to a new calendar year! And what a year it has been...

The one thing that I think this past year and the one prior have proven to me is that being able to adapt is one of the most crucial skills to have both personally and professionally.

Adaptation has been essential in this time of constant uncertainty and change. Now that we have finished our 2nd year of the pandemic, we have all had to make at least some sort of changes in our lives. Many aspects of our lives have been completely transformed. Thankfully for most of us, since our professional lives revolve around technology, we have been able to continue working in a remote fashion, at least part of the time. But that does not mean it has been easy to adapt to that style of working. Not having our peers to talk to on a daily basis or to just wave or smile at in the hallways at work hasn't been easy for everyone to get used to. I personally have to remember to push my cat out of the way before every customer ZOOM meeting to prevent her from making a cameo appearance as she walks across my keyboard. And after a full day of online meetings, I still don't always feel that I have really connected with anyone since these meetings are scheduled and don't really allow for time for social interaction. But for the most part, after 2 years I have adapted, and am getting better at it. I also try to focus on the positive - such as the fact that I do not

currently have a long commute to/from work, and that when the inevitable snow comes I will be safe in my house while making progress at work.

I'm personally very happy and relieved that IEEE Boston members have continued to network with each other and hold events virtually wherever possible. It isn't perfect but it has worked. I think we have all done a great job trying to stay connected. I'm not sure what 2022 has in store for us regarding the ability to have meetings in person, but I think if we stick together and continue to try to be flexible and adaptable we will get through it.

I thank all of you for continuing to support IEEE Boston and keeping it as part of your life. For me, IEEE is certainly a constant in a time of change.

I am super excited to be the Chair of the Boston IEEE section for the upcoming year and hope that I get a chance to meet more of you, whether it be in person or via a ZOOM call! We welcome volunteers at all levels and there is no minimum amount that you need to commit to in order to be an active volunteer - we are just grateful to have you involved.

If you haven't renewed your membership, please don't forget to do so!

Happy New Year!

Eli Brookner, long time Boston Section volunteer, dies at 90



On November 29, 2021 the IEEE Boston Section lost one of its longest serving and most dedicated volunteers, Eli Brookner. Eli was a Lexington resident since 1962 and a Principal Engineering Fellow at Raytheon.

He was the husband of the late Ethel (Bobick) Brookner. Eli was born in Brooklyn, New York on April 2, 1931, the son of the late Angel and Fanny Brookner. He was a graduate of Stuyvesant High School in New York City. Eli received a Bachelor's degree in electrical engineering at City College in 1953 where he met his future wife.

Eli received a ScD in electrical engineering from Columbia University in 1962.

During his career as a radar systems engineer at Raytheon from 1962 - 2014 (52 years) he played a major role as a technical authority and consultant and made significant contributions to the development of over twenty radar and phased array radar system programs for civil and defense applications.

He published more than 230 papers, technical talks, and technical correspondences during his career and was awarded 10 patents.

Eli authored four popular books on radar and related topics:

- Radar Technology, Artech House, 1977.
- Aspects of Modern Radar, Artech House, 1988
- Practical Phased Array Antenna Systems, Artech House, 1991
- Tracking and Kalman Filtering Made Easy, Wiley, 1998.

He was a legendary local, national, and international lecturer on radar and related topics. He developed and presented many, many lecture series and short courses during over 50 years to over 10,000 attendees, particularly in the local IEEE Boston Section and in 25 other countries on all continents except Antarctica.

For many, many years Eli was the Chair of the local IEEE Boston Section Chapter of the Aerospace and Electronic Systems Society. He planned and conducted many Chapter meetings each year with technical speakers on radar and related topics.

Eli was one of the originators of the IEEE Boston Section's IEEE International Symposium on Phased Array Systems and Technology. He served on the Planning Committees of all six symposia held thus far during 1996, 2003, 2010, 2013, 2016, and 2019 and served as Chair of the Planning Committees of the 1996 and 2003 symposia.

Eli served on the Planning Committees of the IEEE Boston Section's International Radar Conferences held thus far during 1993, 1999, 2007, and 2019 and he served as Chair of the Planning Committee of the 2007 conference.

Eli was a Life Member of the IEEE and an IEEE Fellow. He received the IEEE Dennis J. Picard Medal and Warren White Award for Excellence in Radar Engineering, plus IEEE Centennial and Millennium medals. Eli was the first recipient of the IEEE Boston Section Volunteer Award, later known as the IEEE Boston Section Distinguished Service Award.

Eli leaves behind two sons Lawrence Brookner of Paris, France and Richard Brookner of Sunnyvale, California; a grandson Daniel Brookner; a nephew Jonathan Liebowitz; and a sister-in-law Anita Raynes.

Eli's humor, wit, and enthusiasm will be missed by all.

Donations in his memory may be made to the American Cancer Society, 3 Speen Street, Framingham, MA 01701 (www.cancer.org).

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IEEE Boston Section Online Courses:

(Students have 180 day access to all online, self-paced courses)

Electronic Reliability Tutorial Series

Full course description and registration at ,
<http://ieeeboston.org/electronic-reliability/>

High Performance Project Management

Full course description and registration at ,
<http://ieeeboston.org/high-performance-project-management-online-course/>

Introduction to Embedded Linux Part I

Full course description and registration at ,
<http://ieeeboston.org/introduction-to-embedded-linux-part-i-el201-online-course/>

Embedded Linux Optimization - Tools and Techniques

Full course description and registration at ,
<http://ieeeboston.org/embedded-linux-optimization-tools-techniques-line-course/>

Embedded Linux Board Support Packages and Device Drivers

Full course description and registration at ,
<http://ieeeboston.org/embedded-linux-bsps-device-drivers-line-course/>

Software Development for Medical Device Manufacturers

Full course description and registration at ,
<http://ieeeboston.org/software-development-medical-device-manufacturers-line-course/>

Fundamental Mathematics Concepts Relating to Electromagnetics

Full course description and registration at ,
<http://ieeeboston.org/fundamental-mathematics-concepts-relating-electromagnetics-line-course/>

Reliability Engineering for the Business World

Full course description and registration at ,
<http://ieeeboston.org/reliability-engineering-business-world-line-course/>

Design Thinking for Today's Technical Work

<http://ieeeboston.org/design-thinking-technical-work-line-course/>

Fundamentals of Real-Time Operating Systems

<http://ieeeboston.org/fundamentals-of-real-time-operating-systems-rt201-on-line-course/>

CALL FOR IEEE BOSTON SECTION AWARDS NOMINATIONS (2021)

DISTINGUISHED SERVICE AWARD

Description - The purpose of the Distinguished Service Award is to honor an IEEE Boston Section member who has made exceptional and distinguished contributions to the Boston IEEE Section. The Distinguished Service Award is to honor an IEEE Boston Section member who has made exceptional and distinguished contributions to the Boston IEEE Section. This award is a wood, engraved plaque with the recipient's citation.

Administration - The Distinguished Service Award will be administered by the Boston Section's Awards Committee. The Awards Committee will submit their recommendations to the Section's Executive Committee for approval.

Eligibility - Individuals nominated for this award must be members of the Boston Section and the IEEE. The award is based upon evidence of distinguished service to the Boston Section. Selection criteria include leadership roles and leadership quality, innovative and important services/contributions to the Boston Section

DISTINGUISHED MEMBER AWARD

Description - The purpose of this award is to recognize distinguished long-term service to the Boston Section of the IEEE and significant contributions in an IEEE field of interest. The Distinguished Member Award recognizes outstanding long-term service (10-years or more) to the Boston Section and significant contributions in an IEEE field of interest. This award is a wood, engraved plaque with the recipient's citation

Administration - The Distinguished Member Award will be administered by the Boston Section's Awards Committee. The Awards Committee will submit their recommendations to the Section's Executive Committee for approval.

Eligibility - Individuals nominated for this award must have been members of the Boston Section for at least the previous ten (10) years. Multiple awards may be given each year, if suitable candidates are nominated. Individuals nominated for this award must currently be members of the Boston Section and members of the IEEE. The award is based upon evidence of distinction in long-term service to the Boston Section and for contributions to the fields of interest to the IEEE. Selection criteria include leadership roles and leadership quality, innovative and important contributions to the Boston Section, service and dedication to the Boston Section, and technical achievements in the fields of interest to the IEEE.

STUDENT ACHIEVEMENT AWARD

Description - The purpose of the Student Achievement Award is to recognize a college student who demonstrates the potential to become distinguished leader and outstanding contributor in an IEEE field of interest. This award is a wood, engraved plaque with the recipient's citation. The Student Achievement Award is to recognize a college student who demonstrates the potential to become a distinguished leader and outstanding contributor in an IEEE field of interest.

Administration - The Student Achievement Award will be administered by the Boston Section's Awards Committee. The Awards Committee will submit their recommendations to the Section's Executive Committee for approval.

Eligibility - An individual nominated for this award must be a student (sophomore year or higher), in good standing, at an institution of higher education located in the Boston Section or be a legal resident within the Boston Section who is attending an institution of higher education outside the Section. The nomination must be submitted by, or endorsed by, the student's major professor, academic advisor or Dean of the department/college they are attending. All nominees' major field of study must be in an IEEE field of interest. The award is based upon evidence of distinguished leadership, accomplishment, and/or outstanding contributions that further the aims of the IEEE.

The deadline for submitting nominations for the 2021 Boston Section Awards is Monday, January 31, 2022.

**Nominations can be submitted to the Boston Section Awards Committee at
ieeebostonsection@gmail.com**

Consumer Technology Society Call for Volunteers!

We are currently looking for volunteers who would be interested in pushing forward the mission of the Consumer Technology (CT-S), Boston Chapter. The chapter is looking for volunteers to help organize chapter meetings and help meet the needs of the local CT-S member needs.

The Boston Section is organizing chapters into groups of similar technical interest areas to pool their resources for easier and better chapter collaboration in planning the chapter events.

If you have interest in volunteering for a chapter leadership position or are interested in learning more about what these volunteer positions may entail, please send an email to Karen Safina in the IEEE Boston Section office at, ieeebostonsection@gmail.com

Aakash Deliwala, Chair, IEEE Boston Consumer Technology Chapter

Engineering in Medicine & Biology Society Call for Volunteers!

We are currently looking for volunteers who would be interested in pushing forward the mission of the Engineering in Medicine & Biology Society (EMBS), Boston Chapter. The EMBS - Boston Chapter was recently approved in July 2021, and we're looking to make a significant impact in the area of Biomedicine, Bioengineering, and Biotechnology in the region. The chapter is looking for volunteers to help organize chapter meetings and help meet the needs of the local EMBS members.

The Boston Section is organizing chapters into groups of similar technical interest areas to pool their resources for easier and better chapter collaboration in planning the chapter events.

If you have interest in volunteering for a chapter leadership position or are interested in learning more about what these volunteer positions may entail, please send an email to Karen Safina in the IEEE Boston Section office at, ieeebostonsection@gmail.com.

Aseem Singh, Marie Tupaj, Co-Chairs, Boston EMBS Chapter

IEEE Video Series

A collaborative discussion panel featuring esteemed members from the Institute of Electrical and Electronics Engineers has convened in 2021 to produce educational video presentations that embrace IEEE's mission of advancing technology for humanity.

Among the programs they've produced include "Electric Vehicles: Fun Saving Our Planet", "Greener Power For More Electric Vehicles", "Overcoming Nuclear Fears To Achieve Net Zero CO2 By 2050" and "Achieving a Net Zero Carbon Future", "Green Energy's Economic Progress", and "Net-Zero CO2 with Nuclear, Hydrogen and Geothermal". Projects currently in production include the expansive topic of futurology, with a focus on increasing the efficiency and transformation of aging electrical power generating stations and infrastructure to accommodate nuclear power; reviewing the viability of alternative energy (such as geothermal, wind and solar); and focusing on 'cleaner' fossil fuels that are more environmentally-friendly to slow the rate of climate change.

These shows are produced and directed by Lennart E. Long, IEEE Senior Life Member from the Executive Committee and Past Chair of the Boston Section; Dr. Paul H Carr, BS, MS, MIT; PhD Brandeis U, IEEE Life Fellow; Dr. Ted Kochanski, SB (MIT), Ph.D (U.Texas, Austin), IEEE Global Education for Microelectronic Systems and former Boston Section Chair; and Dr. Ken Laker, B.E. (Manhattan College), M.S. and Ph.D. (New York University), IEEE Life Fellow and past President of IEEE.

The panel is moderated by five-time Boston/New England Emmy Award-winner and television personality and star of "The Folklorist," John Horrigan. These video programs with presentations and discussions can be accessed at the IEEE Boston Section video portal at <https://vimeo.com/user18608275>.

We are looking for any IEEE members that would like to appear on the program in the role of presenter or discussion expert. Simply reach out to Robert Alongi at the Boston Section at, ieeebostonsection@gmail.com.

Call for Course Speakers/Organizers

IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity. The IEEE Boston Section, its dedicated volunteers, and over 8,500 members are committed to fulfilling this core purpose to the local technology community through chapter meetings, conferences, continuing education short courses, and professional and educational activities.

Twice each year a committee of local IEEE volunteers meet to consider course topics for its continuing education program. This committee is comprised of practicing engineers in various technical disciplines. In an effort to expand these course topics for our members and the local technical community at large, the committee is publicizing this CALL FOR COURSE SPEAKERS AND ORGANIZERS.

The Boston Section is one of the largest and most technically diverse sections of the IEEE. We have over 20 active chapters and affinity groups. If you have an expertise that you feel might be of

interest to our members, please submit that to our online course proposal form on the section's website (www.ieeeboston.org) and click on the course proposal link (direct course proposal form link is

<http://ieeeboston.org/course-proposals/> . Alternatively, you may contact the IEEE Boston Section office at ieeebostonsection@gmail.com or 781 245 5405.

- **Honoraria can be considered for course lecturers**
- Applications oriented, practical focused courses are best (all courses should help attendees expand their knowledge based and help them do their job better after completing a course)
- Courses should be no more than 2 full days, or 18 hours for a multi-evening course
- Your course will be publicized to over 10,000 local engineers
- You will be providing a valuable service to your profession
- Previous lecturers include: Dr. Eli Brookner, Dr. Steven Best, Colin Brench, to name a few.

Entrepreneurs' Network – 7:00PM, Tuesday, January 4

Product Development for Tech and Life Sciences Startups

Location: Online Webinar

Our expert panelists will discuss product development from concept to commercialization, address today's hot topics of logistics, supply chains, and cargo ships along with their impact on a building and scaling a startup. Panelists will also talk about making life changing decisions while pursuing their passions.

Since making a product can be easy, but its management, marketing, and monetization can be hard, these experts will share steps to develop a variety of products from conception to commercialization and share sage advice and words of wisdom from their personal entrepreneurial journeys, all in an effort to help entrepreneurs navigate the often rocky product development path and avoid product development pitfalls.

Wherever you are on your entrepreneurial journey with product development, please join this important conversation to hear about startup case studies, to learn about important lifestyle considerations and decisions for founders, and how the ongoing pandemic affects the product development in a startup's business.

Event Schedule

7:00 pm: Introduction - ENET Chairperson's announcements

7:10 pm: eMinute Pitch Up to 3 Startup pitches

7:25 pm: Expert Panel - 4 expert speakers on the night's topic

8:10 pm: Q & A - Moderator and Audience Q & A with the speakers

8:30 pm: Networking - Panelists will be available afterward for responses to individual questions.

Speakers

Manasi Chaubal



Product Development and Applications Engineer; Chasm Advanced Materials
Manasi received her Master's Degree, Nanoscale Physics from Rice University and a Bachelor of Technology, Chemical Engineering from Nirma Institute of Technology. Manasi is a self-motivated individual with a

zeal to contribute in innovative materials technologies. She is results-oriented with attention to detail and passionate to learn and apply her engineering skills and experience in advancing upcoming next-gen technologies. She has 6 years of engineering and research experience in various advanced materials start-ups related to Nanotechnology, Printed Electronics and Water Purification.

Interested in material science research areas such as printed electronics, water remediation/ desalination, energy storage, polymer coatings/ adhesives, automation, construction and enhanced oil recovery applications.

Tim Looney



President at Northeast Biomedical - Medical Device Product Development and Contract Manufacturing Services

Mr. Looney has over 25 years of hands-on experience with technology projects including scope definition, design & development, schedule management, risk management, requirements gathering, and resource planning. Over his career he has held a wide range of duties within engineering, product development, medical device design, international operations, executive management, marketing, finance, and quality management systems.

In addition to his industrial experience, he has written several textbooks and teaches courses in computer-aided design and new product development at the University of Massachusetts – Lowell's College of Engineering and Graduate School of Management.

Stephen Karasek



Founder and CEO of Parallel Pipes

Stephen is passionate about simplifying product development so that anyone with a clear set of design goals and a CAD model of their design can go from concept to marketization.

Stephen Karasek founded Parallel Pipes af-

ter his experiences in industry made him realize the dire need for effective product development using both automation and Artificial Intelligence (AI) for analysis, virtual prototyping and design optimization. His goal is to reduce time to market and the cost and risk associated with product launch utilizing auto-generated simulation, and generative design with both primitives and topology optimization. Currently Parallel Pipes' software platform specializes in design workflows for drones and robotics, but can service other verticals as well.

Prior to founding Parallel Pipes, Mr. Karasek spent 12 years as an engineer across several industries including Draper Labs, MathWorks, Thoratec, and MIT Lincoln Labs. He has architected and developed supervised machine learning models for simulation and model-based design, and led development on physics-based simulations for analysis, system execution, prediction of behavior and viability, and he has developed algorithms for imaging and sensing, optical systems, guidance, and navigation. Mr. Karasek has a master's degree from Northeastern University College of Engineering.

Cliff Emmons



Boston Harbor Angel Investor, CEO at IloT-Oxys

Cliff is an active member of Boston Harbor Angels, a group of proven business leaders interested in investing a portion of our assets in high-growth, early-stage companies.

Since 2004, our portfolio has included companies in information technology, life sciences, consumer products, business products, services, specialty materials, aviation and more. We believe we contribute more than just money to the companies we fund. We welcome the opportunity to work with entrepreneurs who are open to taking advice, yet have the smarts and determination to make their company successful.

He is also CEO of IloT-Oxys, a company at the intersection of IloT, AI/ ML, and Healthcare Operations, to enable Pharma, Biotech, and Medical Device manufacturing organizations in gaining actionable insights from their operations-generated data.

Cliff is a passionate visionary executive leader with extensive prior experience at Medtronic in creating, building, and transforming businesses in the USA, India, and

China. He has led organizations with over 200 employees and multi-million USD budgets.

Moderator & Organizers

Dan Skiba



VP Printed Electronics Chasm Advanced Materials, Vice-Chair Boston ENET

As a Product Development Company Executive, I provide strategic leadership in product innovation and managing global teams, delivering award-winning products to the international market. My ability to problem solve, direct the entire product development lifecycle, and gain commitment to a common goal have driven faster release of products and market penetration. By building synergies across all Product Life Cycle disciplines, we have delivered products that result in 100% product utilization and seamless integration into customer environments. My skills in optimizing international resources have significantly reduced costs and streamlined production, delivering product excellence.

Kristin King



MBA. Vice President, Corporate Development & Strategy, Defibtech, LLC

Kristin is an accomplished MedTech executive, serial intrapreneur, investor and strategic advisor to startups developing biotech solutions.

With over 20 years spanning technical, marketing, and proud member of Boston Harbor Angels, she offers multi-discipline expertise transforming technologies from early concept to successful global divisions at leading Medical Device companies and startups.

Maureen Mansfield



ALM CSO, MANSFIELD LAW ~ Protect Your Passion ~ Vice-Chair, IEEE Boston Entrepreneurs' Network (IEEE Boston ENET)

Maureen is passionate about protecting passions and implementing strategies to protect, build, scale, and commercialize startups, inventions, and early-stage companies with MANSFIELD LAW ~ Protect Your Passion ~.

Her experience helps entrepreneurs build innovative products and services, often with cutting-edge technologies. Maureen co-founded and bootstrapped a startup

to a funding event that launched during her graduate studies. After sharing her startup story at ENET, Maureen was asked to volunteer and now serves as a Vice-Chair, Alliance Partners. After starting her career with her dream job, she has helped companies, from family-owned businesses to Fortune 50s, on projects of local, national, and international scope, in both the public and private sectors. During this journey, many companies enjoyed their most successful years to date as Maureen initiated and implemented systems that improved business processes, analytics, and contract compliance, often discovering new, profitable markets while building efficiencies for both the companies and their clients, saving time and money to bottom lines. Through prior board appointments at nonprofits,

Maureen co-founded two charities that continue today. Maureen holds several BAs in selective programs from The University of Iowa and earned a Masters with honors from Harvard University. Scholarships and Dean's Lists enabled Maureen to complete her degrees. Also, Maureen holds certificates in Project Management.

You can follow Maureen on Twitter @MaureenManALM.

Register NOW! - <https://bostonenet.org/events/product-development-for-tech-and-life-sciences-start-ups/>

Free for ENET members.

Join now >> \$10 for general public

Call for Course Speakers/Organizers

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- Your course will be publicized to over 10,000 local engineers
- You will be providing a valuable service to your profession
- Previous lecturers include: Dr. Eli Brookner, Dr. Steven Best, Colin Brench, to name a few.

Computer Society, GBC/ACM and BostonCHI, 6:50PM, Thursday, January 20

Reframe Agile to Deliver Great UX

Jared M. Spool, Maker of Awesomeness at Center Centre - UIE

Location: Online only this year via Zoom



Admission is free, but you must register at <https://jaredspooljan2022.eventbrite.com/?aff=ieeesecc>

Much of what holds us back is outdated thinking about what both UX and Agile are.

We're stuck in 2001 when Agile was first conceived, and today's UX practices were in their infancy. We've learned so much in the last two decades. We know how to do better.

Agile and UX ****can**** work together. To do that, we need to reframe some misconceptions about how we put them together. We need to replace old, dysfunctional habits with state-of-the-art techniques and processes. That's what we'll talk about in this presentation.

About Jared Spool

Jared M. Spool is a Maker of Awesomeness at Center Centre - UIE. Center Centre is the school he started with Leslie Jensen-Inman to create industry-ready User Experience Designers. UIE is Center Centre's professional development arm, dedicated to understanding what it takes for organizations to produce competitively great products and services.

In the 43 years he's been in the tech field, Jared has worked with hundreds of organizations, written two books, published hundreds of articles and podcasts, and tours the world speaking to audiences everywhere.

When he can, he does his laundry in Andover, Massachusetts.

For 23 years, Jared was the conference chair and keynote speaker at the now retired annual UI Conferences and UX Immersion Conferences; Jared still manages to squeeze in a fair amount of writing time. He is a co-author of *Web Usability: A Designer's Guide* and *Web Anatomy: Interaction Design Frameworks that Work*.

You'll find Jared's writing at uie.com. You can also follow his adventures on Twitter at [@jmspool](https://twitter.com/jmspool), where he tweets daily about UX design, design strategy, design education, and the wondrous customer service habits of the airline industry.

This is a joint event of GBC/ACM, the Boston Chapter of the IEEE Computer Society, and BostonCHI. This meeting will be held online only due to the ongoing pandemic.

Up-to-date information about this and other talks is available online at <https://ewh.ieee.org/r1/boston/computer/>. You can sign up to receive updated status information about this talk and informational emails about future talks at <https://mailman.mit.edu/mailman/listinfo/ieee-cs>, our self-administered mailing list.

For more information contact Peter Mager (p.mager@computer.org)

IEEE Boston Section Social Media Links:

Twitter: <https://twitter.com/ieeeboston>

Facebook: <https://www.facebook.com/IEEEBoston>

YouTube: <https://www.youtube.com/user/IEEEBostonSection>

LinkedIn: <https://www.linkedin.com/groups/IEEE-Boston-Section-3763694/about>

Entrepreneurs' Network – 7:00PM, Tuesday, January 18

Marketing Guru Jack Derby Talks About Marketing and Sales

Location: Online Webinar

Last year we discussed the fundamentals of marketing and selling in a pandemic. This year we'll discuss:

- o the new norms in Marketing and Sales,
- o how the pandemic has changed the sales process
- o how to create customer relationships when you are not in the same room,
- o how to create a Marketing and Sales process that can easily monitored
- o and how to close the deal.

We are featuring Jack Derby, Mass High Tech All-Star, co-founder of 9 companies, an investor in 54 companies, and Professor of Entrepreneurship. Bring your questions, your startup challenges, and learn the steps required to drive your startup success.

Event Schedule

7:00 pm: Introduction - ENET Chairperson's announcements

7:10 pm: eMinute Pitch - Up to 3 Startup pitches

7:25 pm: Expert Panel - 4 expert speakers on the night's topic

8:10 pm: Q & A - Moderator and Audience Q & A with the speakers

8:30 pm: Networking - Panelists will be available afterward for responses to individual questions.

Speakers

Jack Derby



Director, Tufts Entrepreneurship Center, Cummings Family Professor of Entrepreneurship

Jack is responsible for the Tufts University Entrepreneurship Center. He teaches two courses and manages a highly engaged and active center of professors and students, constituting the largest minor on campus. The Center hosts 20+ entrepreneurship events each year, culminating in the \$100K New Ventures Competition ranked by Forbes as one of the leading university competitions in the U.S. Jack is passionate about Tufts and its students and has received the Henry and Madeline Fisher Award voted by the students as the most highly ranked teacher on campus.

Prior to forming a management consulting firm, Jack served as CEO of Mayer Electronics, President of CB

Sports, President of Litton Industries Medical Systems, CEO of Datamedix, and President of Becton Dickinson Medical Systems. For his work as an entrepreneur, co-founding nine companies, Jack was named to Mass High Tech's All-Star Team. He received the Pro Bono Publico award from the Smaller Business Association of New England, the Meritorious Service Award from the Association for Corporate Growth, and the Vincent Fulmer Distinguished Service Award from the MIT Enterprise Forum where he served as Chairman.

He's an active board member in several companies and with a long investing history as an early-stage investor as General Partner at Kestrel Ventures, Chairman of Common Angels, and a General Partner at Converge Ventures.

Moderator & Organizer

Dan Skiba



Managing Director Skiba Advisory Associates, VP Printed Electronics Chasm Advanced Materials, Vice-Chair Meetings Boston ENET

As a Product Development Company Executive, I provide strategic leadership in product innovation, and managing global teams, delivering award-winning products to the international market. My ability to problem solve, direct the entire product development lifecycle, and gain commitment to a common goal have driven faster release of products and market penetration. By building synergies across all Product Life Cycle disciplines, we have delivered products that result in 100% product utilization and seamless integration into customer environments. My skills in optimizing international resources have significantly reduced costs and streamlined production, delivering product excellence.

Registration:

ENET Member - Free; General Public – \$10.00

Registration for this event will close on Tuesday, January 18 at 3 PM. All times are USA Eastern Standard time.

Registration: <https://bostonenet.org/events/marketing-guru-jack-derby-talks-about-marketing-and-sales/>

Engineering in Medicine & Biology Society - 12:00PM, Thursday, January 20

Intelligent ICU for Patient Monitoring Using Pervasive Sensing and AI

Parisa Rashidi of University of Florida



While monitoring patient status through manual assessments and diagnoses is still considered the gold standard, manual methods impose severe time and personnel resources limitations. Many critical care indices are currently repetitively assessed by overburdened ICU nurses, e.g., physical function. Other essential information about patients and their environment

are not captured or captured in a non-granular manner, e.g., sleep disturbance factors such as bright light, loud background noise, patient agitation, or excessive visitations. This talk will discuss how to build the foundation of an intelligent ICU by developing and validating real-time and assessment tools using novel pervasive sensing and AI technologies.

While monitoring patient status through manual assessments and diagnoses is still considered the gold standard, manual methods impose severe time and personnel resources limitations. Many critical care indices are currently repetitively assessed by overburdened ICU nurses, e.g., physical function. Other essential information about patients and their environment are not captured or captured in a non-granular manner, e.g., sleep disturbance factors such as bright light, loud background noise, patient agitation, or excessive visitations. This talk will discuss how to build the foundation of an intelligent ICU by developing and validating real-time and assessment tools using novel pervasive sensing and AI technologies.

Dr. Parisa Rashidi is currently an associate professor at the J. Crayton Pruitt Family Department of Biomedical Engineering (BME) at the University of Florida (UF). She is also affiliated with the Electrical & Computer Engineering (ECE) and Computer & Information Science & Engineering (CISE) departments. She is the director of the "Intelligent Health Lab" (i-Heal), and the co-director of the Intelligent Critical Care Center (IC3). Her research aims to bridge the gap between machine learning and patient care.

Dr. Rashidi is a National Science Foundation (NSF) CAREER awardee, the National Institute of Health (NIH) Trail Blazer Awardee, Herbert Wertheim College of Engineering Assistant Professor Excellence Awardee, and a recipient of the UF term professorship. She is also a recipient of UF's Provost excellence award for assistant professors; with more than 500 tenure-track assistant professors at UF, Dr. Rashidi is one of only 10 to receive this award. She was invited by the National Academy of Engineering (NAE) as one of only 38 outstanding US engineers under 45 to participate in the 2017 EU-US Frontiers of Engineering (FOE) Meeting. To date, she has authored 120+ peer-reviewed publications. She has chaired six workshops and symposiums on intelligent health systems and has served on the program committee of 20+ conferences. Dr. Rashidi's research has been supported by local, state, and federal grants, including awards from the National Institutes of Health (NIBIB, NCI, and NIGMS) and the National Science Foundation (NSF).

Registration: <https://events.vtools.ieee.org/m/297026>
Registration opens January 7, 2022

Join Zoom Meeting

<https://us06web.zoom.us/j/87628304084?pwd=TEtlSU-0xVWRtQmNRVkw5Rm1ydXpadz09>

Meeting ID: 876 2830 4084

Passcode: 453768

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Find your local number: <https://us06web.zoom.us/j/ko1OYARcm>

Net-Zero Co2 with H2, Nuclear, & Geothermal...Will These Save us by 2050?

Summary of a Video by Paul H Carr

The intermittent electrical energy that wind and solar generate can be stored as green hydrogen, H₂. It is generated by the electrolysis of water, H₂O. In France, some Hydrogen fuelcell powered electric trains have replaced dirty, carbon-emitting diesels.

Since 1989, Cold Fusion, the electrolysis of heavy water to produce nuclear energy, fizzled. We need small modular nuclear fission reactors to generate green electricity 24/7. They will be mass produced to lower costs by 2030. Their new designs are safe, shutting down without operator intervention. Bill Gates' company, TerraPower, and GE Hitachi Nuclear are starting to use small modular fission reactors to replace the dirty coal fired furnaces that were used to generate electricity in Wyoming.

The MIT spin-off, Commonwealth Fusion Systems, has demonstrated the world's most powerful electromagnet, 21 Tesla, 210,000 Gauss, using new high-temperature superconducting magnet wire made of YBCO. Such

record-high magnetic fields make hot nuclear fusion reactors smaller and cheaper. Bill Gates, George Soros, and others have invested \$1.8 billion in this new company. It has broken ground at Ft Devens, MA to demonstrate the commercial viability of generating electricity with hot-nuclear fusion by 2025 to 2030. It has no radioactive waste and carbon emissions.

Deep geothermal is poised for a breakout similar to the horizontal drilling that made natural gas cheaper than coal.

Paul H. Carr, BS, MS, MIT; PhD Brandeis U, IEEE Life Fellow, led a branch of the Air Force Research Laboratory that developed the SAW (Surface Acoustic Wave) filters used in cell phones and radar. He has debated climate change, presented "Electric Vehicles, Fun Saving our Planet" at IEEE meetings, and authored "Beauty in Science and Spirit (2006)". His web page www.MirrorOfNature.org

IEEE Boston Section Social Media Links:

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LinkedIn: <https://www.linkedin.com/groups/IEEE-Boston-Section-3763694/about>

CALL FOR PAPERS

2022 IEEE International Symposium on Phased Array Systems and Technology

Revolutionary Developments in Phased Arrays



11–14 October 2022

The Westin Waltham Boston
Waltham, Massachusetts, USA

www.array2022.org



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About the Symposium

Phased array systems continue to be a rapidly evolving technology with steady advances motivated by the challenges presented to modern military and commercial applications. This symposium will present the most recent advances in phased array technology and present a unique opportunity for members of the international community to interact with colleagues in the field of Phased Array Systems and Technology.

Suggested Topics

- Array Design
- Array Measurements
- Beamforming & Calibration
- T/R Modules
- Radar Systems
- Communications Arrays
- Metamaterial Phased Arrays
- Array Signal Processing
- mmWave and Terahertz
- Wideband Arrays
- Dual Polarized Arrays
- Weather Radar Arrays
- Automotive
- MIMO

See webpage for more details

Special Session Proposals

Please provide suggestions for special sessions to the Technical Program Chair at info@array2022.org

Publication Information

All paper submissions must be in IEEE dual-column format and must be 2 pages (minimum) to 8 pages (maximum) in length including figures, and must be submitted in PDF format via the symposium website (www.array2022.org/call-for-papers). Additional instructions are on the website. All papers will be peer reviewed. Authors of papers presented at ARRAY 2022 conference will be invited to submit an expanded version to the IEEE T-MTT Mini-Special Issue.

Important Dates

- | | |
|---|---------------|
| • Full paper submission (2-8 pages including figures) | 12 March 2022 |
| • Author notification | 30 April 2022 |
| • Conference registration deadline for accepted authors | 01 Sept 2022 |

Introduction to Quantum Software Development

Web-based Course with live Instructor!

Times & Dates: 6 - 8PM ET, February 8, 9, 10, 15, 16, 17, 22, 23, 24

Speakers: Joe Clapis, Richard Preston, MITRE Corporation

Course Format: Live lectures interspersed with lab exercises in Visual Studio



This course is organized by the MITRE Corporation and being offered as part of the IEEE Boston Section's professional development program.

Summary:

In recent years, there has been an enormous surge of interest in quantum computing. Government, academic, and commercial organizations have spent billions of dollars attempting to create reliable, general-purpose quantum computers. These systems leverage the unusual properties of quantum mechanics to perform computations that could never be performed on conventional computers in our lifetime. Such calculations have a wide range of applications, including:

- Breaking certain cryptographic algorithms
- Engineering new materials
- Simulating how systems behave in extreme environments
- Finding new medicines that target specific diseases
- Building secure transmission channels that cannot be eavesdropped

How do quantum computers accomplish these bold claims? How could we use this technology to tackle our most difficult challenges? And how do programmers like you access it? In this course, we will explore the answers to these questions and help you unlock the ability to write quantum software and simulate quantum algorithms. Students should bring some basic programming experience and an open mind as we delve into a new computing paradigm.

Format: Live virtual lectures with self-paced exercises.

Target Audience: Practicing software engineers.

Objective: Develop the practicable skills needed to implement and study quantum algorithms in software.

Prerequisites:

Students are assumed to have exposure to the following concepts:

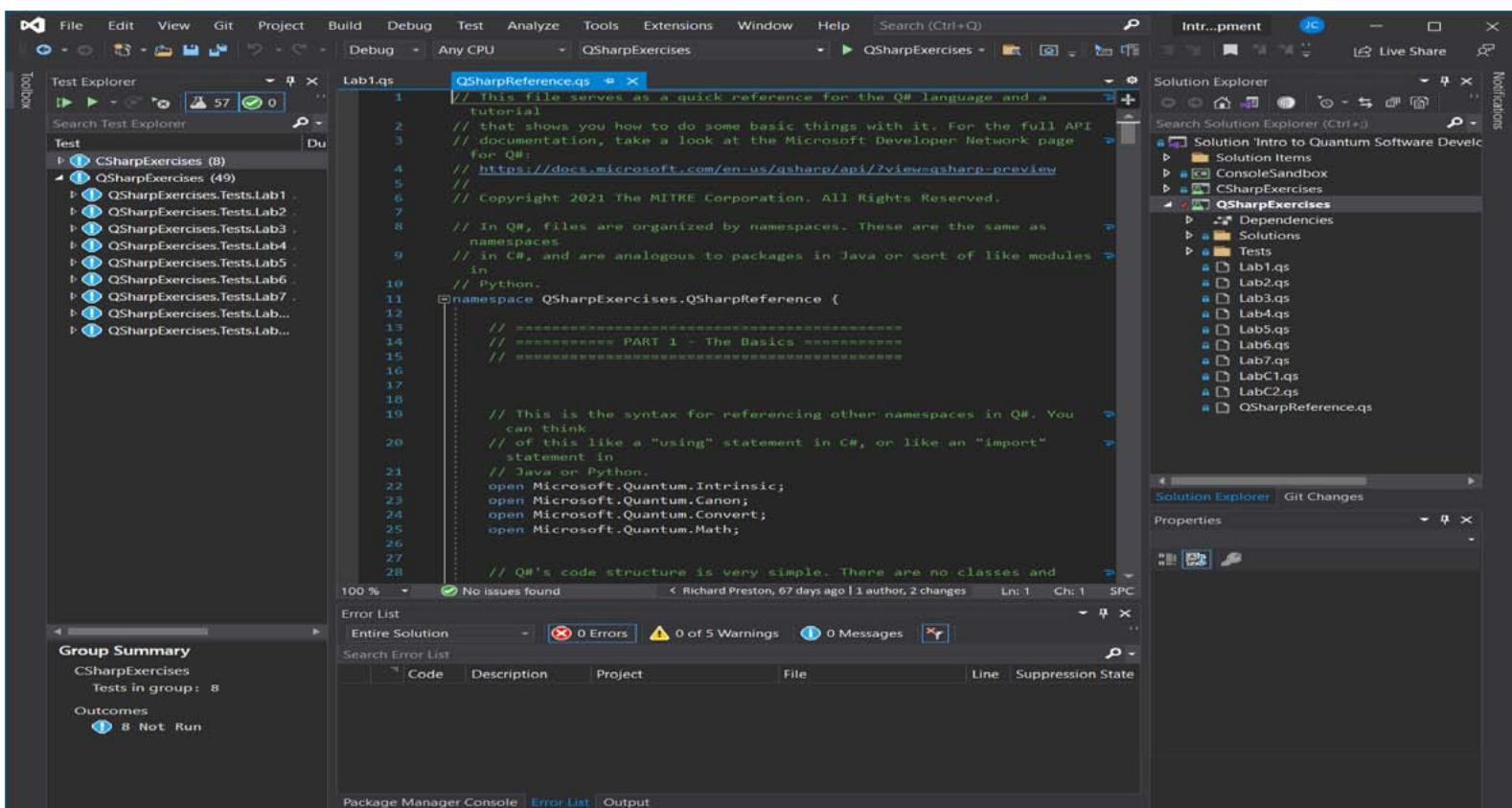
- Complex numbers
- Vectors & Matrices
- Bra-ket and tensor notation
- Digital information
- Endianness
- Digital logic
- Low- and high-level programming
- Visual Studio

Learning materials covering the course prerequisites will be provided in advance. This way, students can fill in any gaps in their knowledge and everyone starts on the same page on day 1.

Outline:

The course consists of live lectures interspersed with lab exercises in Visual Studio. All the materials are available in the form of an online course guide, so students can learn at their own pace both during and outside of class time. To mitigate technical difficulties, each student is provided remote access to a virtual machine with a preconfigured environment. The following topics are covered:

- Qubits and quantum gates
- Multi-qubit systems
- Quantum circuits
- Quantum protocols
- Quantum algorithms
- Q# programming



The Visual Studio exercises are Q# operations that must be implemented correctly for a unit test to pass. This approach allows students to get immediate feedback on how well they understand a concept. We use the Discord platform as a course forum, where students can ask questions at any time and collaborate on solving the coding challenges.

Instructor Bios:

Joe Clapis is a Lead Software Systems Engineer at The MITRE Corporation. He has over 10 years of experience in a variety of software domains, from machine vision to virtualization, and now currently works on quantum software systems. His latest research involves bridging the gap between quantum algorithm theories and their practical implementations.

Richard Preston is a Network Analytics Group Leader in the Infrastructure and Networking Innovation Center at MITRE. He also serves as Co-Chair of MITRE's STEM

Council, a group that supports STEM education initiatives across the company. He has been collaborating with Joe on quantum software research since 2019 and seeks to raise awareness and proficiency around this new technology.

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**Decision (Run/Cancel) Date for this Course is
Tuesday, February 3, 2022**

| | |
|--------------|-------|
| IEEE Members | \$250 |
| Non-members | \$325 |

<https://ieeeboston.org/event/ieeequantumsoftware>

VHDL Circuit Design, Simulation and FPGA Programming Using VIVADO

Web-based Course with live Instructor!

Times & Dates: 11AM - 12 noon ET, February 15, 17, 22, 24, March 1, 3, 8, 10, 15, 17

Speaker: Orhan Gazi, Cankaya University, Ankara-Turkey

Course Format: Live Webinar, 10, one hour, sessions

Introduction: In this course VHDL circuit design language will be taught. VIVADO Platform will be used for VHDL coding, simulation and FPGA programming. The attendee should have basic knowledge of digital circuit design. VHDL language is an hardware design language. Its popularity is increasing in years. It is used to program FPGA devices. It is not exaggerating to say that most of the future electronic systems will include FPGA devices in their structures since FPGA devices are flexible, reconfigurable platforms for hardware designs. The attendee taking this course will learn VHDL language and he or she will be able to make digital circuit design using VHDL language. Besides, the attendee will learn how to program FPGA devices for circuits designed using VHDL.

Prerequisite: The one who is interested in taking this course should have basic knowledge of digital logic design. He or She should be familiar with the terms binary encoders, decoders, multiplexers, counters, registers, etc.

Topics:

Entity, Architecture and VHDL Operators
Project Creation Using VIVADO, Schematic, Synthesis
Internal Structure of FPGAs, LUTs, Slices
Combinational Logic Circuit Design and Concurrent Coding in VHDL
Testbench Writing and Simulation of VHDL Codes Using VIVADO
Constraint Files and FPGA Programming with VIVADO
User Defined Data Types in VHDL
Sequential Circuit Implementation in VHDL
Frequency Division in VHDL
Testing Sequential Logic Circuits on VIVADO
Packages, Components, Functions, and Procedures in VHDL
Fixed and Floating Point numbers in VHDL
Target Audience: Electronic and Communication Engineers, electronic engineers, computer engineers, engineers working in communication industry

Benefits of Attending Course:

- 1) The participant will learn how to design digital circuits using VHDL.
- 2) The participant will learn how to create projects and make simulations in VIVADO.
- 3) The participant will learn how to program an FPGA device.
- 4) The participant will have an idea about the architecture of FPGA device.

Speaker Bio: Prof. Orhan Gazi is the author of the book "A Tutorial Introduction to VHDL Programming" <https://www.springer.com/gp/book/9789811323089>

Prof. Orhan Gazi is the author of 10 books written in electrical engineering subjects. He is also one of the authors of the book "State Machines using VHDL: FPGA Implementation of Serial Communication and Display Protocols" which can be reached from <https://www.springer.com/gp/book/9783030616977>

The research area of Prof. Orhan Gazi involves "channel coding", and "digital communication subjects". Recently, he focuses on over capacity data transmission using polar codes. He is also interested in practical applications of communication systems involving FPGA devices. He is delivering courses with titles "VHDL circuit design", "interface design using VHDL for FPGA devices" and "system on chip design".

Materials to be included: Lecture slides will be provided.

Decision (Run/Cancel) Date for this Course is Tuesday, February 8, 2022

| | |
|---------------------|--------------|
| IEEE Members | \$250 |
| Non-members | \$300 |

State Machines and Timed State Machines in VHDL: FPGA Implementation of RS232, SPI and I2C Serial Communication Protocols

Web-based Course with live Instructor!

Times & Dates: 11AM - 12 noon ET, March 22, 24, 29, 31, April 5, 7, 12, 14, 19, 21

Speaker: Orhan Gazi, Cankaya University, Ankara-Turkey

Course Format: Live Webinar, 10, one hour, sessions

Introduction: State machines are used to characterize the behavior of digital electronic circuits. State machines are widely used in industrial applications. For instance, they are used in factories for control applications. State machines are also used in communication technology. It is essential for an electronic engineer to have knowledge of state machines and their practical implementations. In this course, we first provide information about state machines, and then teach the implementation of state machines in VHDL language. We use VIVADO platform for development, simulation and FPGA programming purposes. For practical applications, we implement serial communication protocols such as RS232, SPI, I2C in VHDL. We consider the VHDL implementation of SPI protocol for AD7303 device, and also we implement I2C protocol for ADT7420 Digital Temperature Sensor.

Prerequisite: Basic knowledge of VHDL circuit design.

Topics:

State machines and Modeling of Mathematical and Physical Problems by State Machines

Mealy and Moore State Machines

VHDL Implementation of Finite State Machines, Example Implementations

Timed State Machines and Their VHDL Implementations, Example Implementations

RS232 Asynchronous Serial Communication and its VHDL Implementation

Simulation of State Machines Using VIVADO

Serial Peripheral Interface and Its VHDL Implementation

Sine Signal Generation and SPI Protocol Development in VHDL for Digital to Analog Converter (DAC) AD7303

Inter Integrated (I2C) Serial Communication Protocol and Its Implementation in VHDL

VHDL Implementation of I2C Communication Between FPGA and ADT7420 Digital Temperature Sensor

Target Audience: Electronic and Communication Engineers, electronic engineers, computer engineers, engineers working in communication industry

Benefits of Attending Course:

- 1) The participant will learn about state machines.
- 2) The participant will learn how to implement state machines in VHDL.
- 3) The participant will learn how to implement timed state machines in VHDL.
- 4) The participant will gain knowledge about serial communication protocols, RS232, SPI, and I2C.
- 5) The participant will learn how to use SPI, I2C protocols in VHDL for practical electronic devices AD7303 (DAC) and for ADT7420 Digital Temperature Sensor.

Speaker Bio: Prof. Orhan Gazi is one of the authors of the book "State Machines using VHDL: FPGA Implementation of Serial Communication and Display Protocols" which can be reached from <https://www.springer.com/gp/book/9783030616977>

He is also sole author of the book “A Tutorial Introduction to VHDL Programming”

<https://www.springer.com/gp/book/9789811323089>

Prof. Orhan Gazi is the author of 10 books written in electrical engineering subjects.

The research area of Prof. Orhan Gazi involves “channel coding”, and “digital communication subjects”. Recently, he focuses on over capacity data transmission using polar codes. He is also interested in practical applications of communication systems involving FPGA

devices. He is delivering courses with titles “VHDL circuit design”, “interface design using VHDL for FPGA devices” and “system on chip design”.

Materials to be included: Lecture slides will be provided.

Decision (Run/Cancel) Date for this Course is, Thursday, March 17, 2022

| | |
|---------------------|--------------|
| IEEE Members | \$250 |
| Non-members | \$300 |

https://ieeeboston.org/event/state-machines-and-timed-state-machines-in-vhdl-fpga-implementation-of-rs232-spi-and-i2c-serial-communication-protocols/?instance_id=3150

Call for Course Speakers/Organizers

IEEE’s core purpose is to foster technological innovation and excellence for the benefit of humanity. The IEEE Boston Section, its dedicated volunteers, and over 8,500 members are committed to fulfilling this core purpose to the local technology community through chapter meetings, conferences, continuing education short courses, and professional and educational activities.

Twice each year a committee of local IEEE volunteers meet to consider course topics for its continuing education program. This committee is comprised of practicing engineers in various technical disciplines. In an effort to expand these course topics for our members and the local technical community at large, the committee is publicizing this CALL FOR COURSE SPEAKERS AND ORGANIZERS.

The Boston Section is one of the largest and most technically diverse sections of the IEEE. We have over 20 active chapters and affinity groups. If you have an expertise that you feel might be of

interest to our members, please submit that to our online course proposal form on the section’s website (www.ieeeboston.org) and click on the course proposal link (direct course proposal form link is

<http://ieeeboston.org/course-proposals/> . Alternatively, you may contact the IEEE Boston Section office at ieeebostonsection@gmail.com or 781 245 5405.

- **Honoraria can be considered for course lecturers**
- Applications oriented, practical focused courses are best (all courses should help attendees expand their knowledge based and help them do their job better after completing a course)
- Courses should be no more than 2 full days, or 18 hours for a multi-evening course
- Your course will be publicized to over 10,000 local engineers
- You will be providing a valuable service to your profession
- Previous lecturers include: Dr. Eli Brookner, Dr. Steven Best, Colin Brench, to name a few.

Introduction to Practical Neural Networks and Deep Learning (Part I)

Web-based Course with live Instructor!

Times & Dates: 9AM - 12:30PM ET, Saturday, March 19

Speaker: CL Kim

Course Format: Live Webinar, 3 hours of instruction!

Series Overview: From the book introduction: “Neural networks and deep learning currently provides the best solutions to many problems in image recognition, speech recognition, and natural language processing.”

This Part 1 and the planned Part 2, (to be confirmed) series of courses will teach many of the core concepts behind neural networks and deep learning.

More from the book introduction: Reference book: “Neural Networks and Deep Learning” by Michael Nielsen, <http://neuralnetworksanddeeplearning.com> “We’ll learn the core principles behind neural networks and deep learning by attacking a concrete problem: the problem of teaching a computer to recognize handwritten digits. ...it can be solved pretty well using a simple neural network, with just a few tens of lines of code, and no special libraries.”

“But you don’t need to be a professional programmer.”

The code provided is in Python, which even if you don’t program in Python, should be easy to understand with just a little effort.

Benefits of attending the series:

- * Learn the core principles behind neural networks and deep learning.
- * See a simple Python program that solves a concrete problem: teaching a computer to recognize a handwritten digit.
- * Improve the result through incorporating more and more core ideas about neural networks and deep learning.
- * Understand the theory, with worked-out proofs of fundamental equations of backpropagation for those interested.
- * Run straightforward Python demo code example.

The demo Python program (updated from version provided in the book) can be downloaded from the speaker’s GitHub account. The demo program is run in a Docker container that runs on your Mac, Windows, or Linux personal computer; we plan to provide instructions on doing that in advance of the class.

(That would be one good reason to register early if you plan to at-

tend, in order that you can receive the straightforward instructions and leave yourself with plenty of time to prepare the Git and Docker software that are widely used among software professionals.)

Course Background and Content: This is a live instructor-led introductory course on Neural Networks and Deep Learning. It is planned to be a two-part series of courses. The first course is complete by itself and covers a feedforward neural network (but not convolutional neural network in Part 1). It will be a pre-requisite for the planned Part 2 second course. The class material is mostly from the highly-regarded and free online book “Neural Networks and Deep Learning” by Michael Nielsen, plus additional material such as some proofs of fundamental equations not provided in the book.

Outline:

Introduction to Practical Neural Networks and Deep Learning (Part 1)

Feedforward Neural Networks.

- * Simple (Python) Network to classify a handwritten digit
- * Learning with Gradient Descent
- * How the backpropagation algorithm works

- * Improving the way neural networks learn:
 - ** Cross-entropy cost function
 - ** Softmax activation function and log-likelihood cost function
 - ** Rectified Linear Unit
 - ** Overfitting and Regularization:
 - *** L2 regularization
 - *** Dropout
 - *** Artificially expanding data set
 - *** Hyper-parameters

Pre-requisites: There is some heavier mathematics in learning the four fundamental equations behind backpropagation, so a basic familiarity with multivariable calculus and matrix algebra is expected, but nothing advanced is required. (The backpropagation equations can be also just accepted without bothering with the proofs since the provided Python code for the simple network just make use of the equations.) Basic familiarity with Python or similar computer language.

Speaker Background: CL Kim works in Software Engineering at CarGurus, Inc. He has graduate degrees in Business Administration and in Computer and Information Science from the University of Pennsylvania. He had previously taught for a few years the well-rated IEEE Boston Section class on introduction to the Android platform and API.

**Decision (Run/Cancel) Date for this Course is
Monday, March 14, 2022**

| | |
|---------------------|--------------|
| IEEE Members | \$110 |
| Non-members | \$130 |

https://ieeeboston.org/event/neural-networks/?instance_id=3181

Call for Articles

Now that the Reflector is all electronic, we are expanding the content of the publication. One of the new features we will be adding are technical, professional development, and general interest articles to our members and the local technology community. These will supplement the existing material already in our publication.

Technical submissions should be of reasonable technical depth and include graphics and, if needed, any supporting files. The length is flexible; however, a four to five page limit should be used as a guide. An appropriate guide may be a technical paper in a conference proceeding rather than one in an IEEE journal or transaction.

Professional development or general interest articles should have broad applicability to the engineering community and should not explicitly promote services for which a fee or payment is

required. A maximum length of two to three pages would be best.

To ensure quality, technical submissions will be reviewed by the appropriate technical area(s). Professional/interest articles will be reviewed by the Publications Committee for suitability. The author will be notified of the reviewers' decision.

The Reflector is published the first of each month. The target submission deadline for the articles should be five weeks before the issue date (e.g., June 1st issue date; article submission is April 27). This will allow sufficient time for a thorough review and notification to the author.

We are excited about this new feature and hope you are eager to participate!

**Submissions should be sent to;
ieeebostonsection@gmail.com**

CALL FOR PAPERS

2022 IEEE International Symposium on Phased Array Systems and Technology

Revolutionary Developments in Phased Arrays



11–14 October 2022

The Westin Waltham Boston
Waltham, Massachusetts, USA

www.array2022.org



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About the Symposium

Phased array systems continue to be a rapidly evolving technology with steady advances motivated by the challenges presented to modern military and commercial applications. This symposium will present the most recent advances in phased array technology and present a unique opportunity for members of the international community to interact with colleagues in the field of Phased Array Systems and Technology.

Suggested Topics

- Array Design
- Array Measurements
- Beamforming & Calibration
- T/R Modules
- Radar Systems
- Communications Arrays
- Metamaterial Phased Arrays
- Array Signal Processing
- mmWave and Terahertz
- Wideband Arrays
- Dual Polarized Arrays
- Weather Radar Arrays
- Automotive
- MIMO

See webpage for more details

Special Session Proposals

Please provide suggestions for special sessions to the Technical Program Chair at info@array2022.org

Publication Information

All paper submissions must be in IEEE dual-column format and must be 2 pages (minimum) to 8 pages (maximum) in length including figures, and must be submitted in PDF format via the symposium website (www.array2022.org/call-for-papers). Additional instructions are on the website. All papers will be peer reviewed. Authors of papers presented at ARRAY 2022 conference will be invited to submit an expanded version to the IEEE T-MTT Mini-Special Issue.

Important Dates

- Full paper submission (2-8 pages including figures) 12 March 2022
- Author notification 30 April 2022
- Conference registration deadline for accepted authors 01 Sept 2022

Conference Committee

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Vice Chair:

Wajih Elsallal, MITRE

Technical Program Chair:

David Mooradd, MIT LL

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Glenn Hopkins, GTRI

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Tutorials Chairs:

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Arrangements/Finance:

Robert Alongi, IEEE Boston

Website:

Pierre Dufile, MIT LL

Kathleen Ballos, Ballos Associates

Advisors:

Alan J. Fenn, MIT LL

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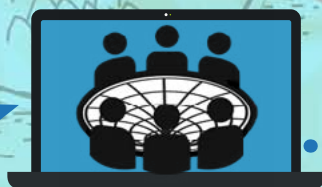
Microwave Journal



Learn How Ericsson and Voi Are Maximizing IoT to advance Micromobility

Frequency Matters Holiday Episode Featuring Best Products of the Year

Learn How WiGL Will Wirelessly Charge Your Mobile Devices All The Time



VIRTUAL PANEL SESSIONS

Additive Manufacturing and 3D Printing Technologies for RF/Microwave Application

Jan 19

11am ET

MEMS

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