



The Beacon



The Newsletter of the IEEE Maine Section

September 25, 2019

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UP-COMING AI SECTION MEETING

The IEEE Maine Section, Maine WIE, and PES/IAS will present *The use of Autonomous Artificial Intelligence in re-imagining the Electrical Grid* on October 15, 2019 at 6PM in Barrows Hall's Hill Auditorium at the University of Maine. The presenters are Jill Schoof, recently retired professor at MMA after 50 years as an early woman engineer and Kay Aikin, CEO of Introspective Systems in Portland.

The electrical grid is the most complex machine on Earth, changing not only physically with the addition of large amounts of variable renewable energy, but in the use of new intelligent control algorithms. The current grid was not designed to accommodate the diversity of renewable energy sources and their variability creates control challenges. The Department of Energy has spent billions in research into grid modernization and AI technologies are poised to revolutionize the electrical grid with new distributed control technologies

The building blocks of this technology is the expansion of AI-enabled microgrids, or small-scale distribution networks that can be built up into larger and larger networks. This presentation will discuss some of the challenges in distributed AI controls and our and other efforts at improving the state of the art in distributed control methods for the electrical grid.

An eNotice will follow shortly.

MAINE SECTION SEMINAR/MEETING

The section is in the process of finalizing plans for subject for a Seminar on Artificial Intelligence and Autonomous Systems. It will be held on November 9 in the Portland area at a venue to be determined. The specific agenda is being finalized at this time and will be sent to members by eNotice.

MEET YOUR SECTION CHAIR!

Section Chair Walter Rawle is planning a road trip to meet with small groups of members with the objective being to reach out to less active members, especially those in more rural areas.. Tentative locations include Portland, Augusta, Bangor, Machias, and Houlton.. Current plans are that these will be Saturday morning breakfast meetings. Is there a nearby group of you who would like to meet with Walter? Let him know. (wrawle@gmail.com) The schedule is not cast in concrete.

IT'S ELECTION TIME!

Have you ever thought about participating in your Maine Section? What do you think might interest you? The section has many opportunities that are educational, fun, help you develop professionally -- and we're a congenial group. If you would like to discuss how you might participate, contact Section Chair Walter Rawle (wrawle@gmail.com, or Ron Brown (ron@ronaldobrownconsulting.com.) or any other ExCom member.

IEEE EVO CONFERENCE

Section Chair Walter Rawle attended EVO, and IEEE leadership development chair in Pittsburgh on August 2 and 3. His expenses were supported by funding from the IEEE Maine Section and Region 1, and IEEE USA. His full report is appended to the end of this **Beacon**.

REGION 1 STUDENT CONFERENCE -- R1 STUCon

The University of Maine Student Chapter is proposing to host the IEEE Region 1 StuCon next year. The IEEE Region 1 Student Conference (StuCon) is the premier annual event where student branches from IEEE Region 1 – Northeastern United States (*CT, MA, ME, NH, Northern NJ, NY, RI and VT*)

The conference objective is to encourage lively student engagement and provide opportunities for students to network and learn from other students from across Region 1 while applying practical engineering knowledge in the various competitions. StuCon also provides a great opportunity for student members to work in teams and to network with Industry Professionals and IEEE Leaders.

PES ENGINEER OF THE YEAR AWARD

The IEEE Maine PES chapter is soliciting nominations for their 2019 Engineer of the Year award. As in past years, a year end joint PES/Section December awards dinner is planned to recognize the recipient.

STEM EDUCATION IN RURAL MAINE

STEM education is important to the long term success of our profession and to the IEEE and it is recognized that it is weak in western Maine. The 4-H Foundation, which focuses on rural economic development, not just agriculture, is working to convert the Magic Lantern Theater in Bridgton into a STEM education center. This project has the support of the King Foundation. The section is discussing what role we can play in this developing this potential resource. Stay tuned for more on this exciting opportunity.

SECTION FINANCES

Ron Brown, Curt Beveridge, with section Treasurer Stan Koski conducted an audit of the section's books on September 13, 2019. They found the books in good condition and our thanks to Stan for his good work as section treasurer.

THE NEXT BEACON

Did you do anything that might be of interest to your fellow ECEs? Or know of something that might be of interest to them? If so, please send an email to Ron Brown (ron@ronaldobrownconsulting.com).

VUCA and Disruption – IEEE USA’s 2019 Leadership Conference. EVO 19

IEEE USA converged in Pittsburgh over the weekend of August 2 and 3 to celebrate EVO 19, its annual leadership and networking conference. The theme for this year’s event “The Evolution of You” focused on strategies, tactics, motivation, and the practical guidance necessary to navigate our current VUCA environment: an environment characterized by volatility, uncertainty, complexity, and ambiguity. IEEE USA assembled a phenomenal group of speakers that truly delivered on the goals of the conference. And a terrific social program provided extensive opportunity for networking, catching up with old friends, and making many new acquaintances.

The formal event program kicked off with a presentation from Mr. Bran Ferren, former president of Walt Disney Imagineering and currently president, Applied Minds Inc. Mr. Ferren delivered mesmerizing and powerfully impactful message focusing on disruption in the current global geopolitical environment. He challenged the audience to think about where the competition was coming from, and cited Blackberry and the printing industry as two salient examples of companies, or industries, that had been blindsided by unconventional innovation. He also drew strong parallels between design – art – and engineering, and certainly relied upon his experience at Walt Disney to bring home this message. Mr. Ferren closed his talk by itemizing seven attributes required of an innovative leader: vision/passion, talent, the ability to tell a compelling story, the ability to garner trust, the ability to reduce complexity, the ability to execute quickly, and the ability to focus on the truly important.



Mr. Bran Ferren, Applied Minds and Dr. Walter Rawle, IEEE Maine at EVO 19

The opening keynote was followed by a series of presentations organized along two tracks: Evoskills, and Evolead, focused on providing practical advice to a spectrum of career progressions among participants. The skills portion of the program focused principally on soft skills development while the lead portion focused on diversity, inclusion, and providing leadership in an uncertain environment.

Day two of the conference continued the Evoskills and Evolead themes while adding a third element: Evoinspire. The highlight of this third element was a “fireside chat” with Sonita Lontoh, Global Vice President, Hewlett Packard. Sonita challenged the audience to realize that the world is in its fourth industrial revolution – and posed the question “Will you be a victim of change or an agent of change?” Again, a truly inspiring presentation for a world class successful innovation leader. The Evoskills and Evolead tracks on Day two focused on skills required to embrace change for early and mid career attendees and a discussion around innovation management for participants transitioning into leadership roles.

IEEE USA EVO 19 closed at the end of the day on August 3, 2019, leaving in its wake a spectrum of engaged, informed, and motivated IEEE members. The conference’s message was clearly imprinted upon the mind of each and every participant. Old friendships were rejuvenated. New friendships were established. And a promise for a brighter future, delivering technology for the benefit of humanity, was carried away by all.

Dr. Rawle wishes to sincerely thank IEEE USA, IEEE Region 1, and the IEEE Maine Section for providing the financial support that allowed him to attend this event.