



The Beacon



The Newsletter of the IEEE Maine Section
www.ewh.ieee.org/r1/maine/me_ieee.html

June 15, 2017

Annual Meeting in Belfast

The IEEE Maine section had its annual outing on Friday May 19 at the University of Maine's Hutchinson Center in Belfast. After networking and luncheon, our speaker was Dr. Rafael Grossman. Dr. Grossman is an exciting internationally known speaker who is a trauma surgeon at EMMC. He innovatively uses technology extensively in his practice. For example, he was the first to use Google Glasses in surgery. He spoke on the importance of technology to healthcare for better patient results and lower costs. Following his presentation we toured the Front Street Boat Shipyard in Belfast. The yard caters to the needs of every type of vessel ranging from small recreational boats to commercial vessels and super yachts with services ranging from routine maintenance to refitting and construction.

2017 University of Maine Student Research Symposium



As part of the section's efforts to better participate in the general community and to encourage students to major in electrical and computer engineering the Section was a sponsor of and had a booth at the 2017 University of Maine Student Research Symposium held on April 24th at the Cross Center in Bangor.



Ali Abedi, Symposium Co-chair, Dr. Ronald Brown, IEEE Maine Section Chair, Armando Ayes, Chitra Manjanai, and Dr. Susan Hunter, UMaine President. *Picture courtesy of University of Maine, Marketing & Communications.*

Congratulations go to **Armando Ayes** (undergraduate) and **Chitra Manjanai** (graduate) who received the IEEE Maine Section Top ECE Student awards at the 2017 University of Maine Student Research Symposium. (see photo above)

Region 1 Board of Governors Meeting

The IEEE Region 1 Board of Governor Annual Meeting was held June 10th at the Radisson Hotel in Nashua NH. Ron Brown as Section Chair represented the Maine Section and presented our activities. Also in attendance from Maine was Ali Abedi. Aside from the normal reports on the health of the Region (generally good) a major message was that we as a profession need to be more involved for the benefit of both the IEEE and its future in

society, but also because our profession benefits society. All of the reports presented can be found at: <http://sites.ieee.org/r1/r1-bog-meeting-materials-reports/>. The Maine Section report which highlights most of our accomplishments is at: <http://sites.ieee.org/r1/2017/05/02/e2-maine-section-report/>. The password for each is: R1BOG.

Are There Webinars in our Future?

The ExCom is considering having webinars for the benefit of our membership and for the general community. We see this as a potential way to better serve our membership and to reach out to the general community. Webinars would be free to all. What topics would be of interest to you? Technology overviews? In depth technology tutorials? Economic development presentations? Other? Please let us know both the general categories and specific topics that appeal to you and let us know. Send your ideas and thoughts to ron@ronaldobrownconsulting.com

Next Year's Officers

It's time to think about next year's Maine Section officers. If any of you are interested in a position, please let us know. A list of the officer positions can be found at: http://www.ewh.ieee.org/r1/maine/me_officers.html. Contact any officer about any interest you have. Their emails are at the website. Many hands make light work!

Future Leaders Forum

The IEEE has a future leaders training session for graduating and recently graduated members. It's a great learning experience and a way to jump-start a career. Last year the Section sponsored two members and we plan to do so again this year. Are you interested? Do you know someone who would be a good candidate? FMI: <http://futureleaders.ieeeusa.org/resources/> or contact ron@ronaldobrownconsulting.com.

Senior Membership

Have you been an IEEE member for at least 10 years? Demonstrated significant performance? If so you may be eligible for Senior Membership and deserve the distinction it brings. There is no additional charge for senior membership. And the section receives an additional rebate for Senior Members. FMI: https://www.ieee.org/membership_services/membership/senior/index.html.

L31 Meeting Reports

L31 meeting reports are how our various groups receive credit for meetings and in turn receive our full share of rebates which fund our activities. The process is actually much less daunting that many say it is. So please make sure your meetings are reported. The steps are:

1. Google IEEE L31 filing, or directly go to
2. http://www.ieee.org/societies_communities/geo_activities/required_reporting/meeting_form.html
3. Sign in to your IEEE account
4. About half way down the page, click on Report Meetings
5. On the left side, click on Create New Report
6. Fill in the blanks and submit.

IEEE Brings Solar Power to a Village in Nepal

As an example of the IEEE's outreach, our work to bring power to a village in Nepal was documented in a National Geographic Channel program. The program gave the IEEE national recognition for our work. If you missed it and would like to see it, go to: <http://channel.nationalgeographic.com/breakthrough-series/videos/bringing-power-to-the-himalayas/>

Wind Power in Maine

Wind power is an example of a technology that cuts across many fields of engineering. Maine Aqua Ventus I, GP, LLC, is leading a demonstration project called New England Aqua Ventus I, a 12 MW floating offshore wind pilot project to develop a renewable energy source off Maine's shores. Project participants include Emera Inc., Cianbro Corporation, the University of Maine, and DCNS.

This demonstration project will deploy two 6 MW turbines on [VolturnUS](#), the floating concrete semi-submersible hull designed by UMaine, south of Monhegan Island, off the coast of Maine. Each floating hull/turbine is held in position in the ocean by three marine mooring lines securely anchored to the seabed, with the electrical generation connected by subsea cable to the Maine power grid on shore.



The floating offshore wind turbine platforms and column segments will be fabricated and assembled at an existing industrial facility adjacent to the Penobscot River in Hampden. Turbine components will be assembled on the hull in Searsport and subsequently towed to the [UMaine Deepwater Offshore Wind Test Site at Monhegan Island](#).

An interconnection alternate current (AC) cable will join the turbines, and then connect to a 34.5 kilovolt (kV) subsea power cable extending from the test site to a proposed onshore transition point. Several routes to the mainland are currently being evaluated.

Once installed, the turbines are expected to produce clean renewable energy for the duration of a 20-year power purchase agreement (PPA).

Offshore wind development will:

- Start a new industry; create jobs in engineering, construction, manufacturing, maintenance, navigation, and other areas.
- Reduce Maine's reliance on imported fossil fuels (nearly \$6 billion per year); keep more of our energy dollars in Maine.

For more than 10 years, UMaine has led development of the patented VolturnUS floating concrete hull technology that can support wind turbines in water depths of 150 feet or more, and has the potential to significantly reduce the cost of offshore wind.

States to the south of Maine are working to build their offshore wind industries: MA, RI, NY, and MD have major projects in the works attracting billions of dollars in local investments.

Harnessing the clean, renewable wind energy from our deep ocean waters will contribute to the transformation of Maine's energy sector to renewable sources, and keep energy dollars within the state.

Is Your Company Looking for Qualified Staff?

There are a number of new Mainers in the ECE, ME, and CE fields with significant technical education and training who are looking for work. Their credentials have been verified and they are legal to work. Ron Brown with support of Uli Stewart of MTUG and Vantage Point Recruiting have been working with Portland Adult Education to help them improve their job search skills and will vouch that they are clearly highly skilled and have tremendous hustle. FMI: ron@ronaldobrownconsulting.com or Sally Sutton at Portland Adult Education, suttos@portlandschools.org

The Next Beacon:

Are you having an event of interest to Maine Section Members you would like to publicize? Done something exciting? Read an article of interest to our members? Attended a conference or published a paper or article? Quoted in the press? Know something else of interest to our members? Please pass it on so it can be included in the next **Beacon!** Send it to ron@ronaldobrownconsulting.com