

the Beacon

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Hope to see
you at the An-
nual Meeting!

The Newsletter of the Maine Section, IEEE www.ieee.org/maine

IEEE Maine Section

Annual Meeting

Topsham and Bath, Maine

Friday, June 26, 2009

This year's Annual Meeting will take place in a southern coastal area of Maine. We will start the meeting with a tour of a hydro electricity generation plant in Topsham and then have lunch and technical presentations at the Bath Country Club. There will even be an opportunity for those who play golf to enjoy a round of 9 holes to close out the day's activities! The technical presentations seem to be particularly appropriate for this age of intense interest in renewable energy sources. A detailed schedule of activities follows below.

Activity Schedule

10am - 11am	Tour at Topsham Hydro
11am - 11:30am	Travel to Bath Country Club - 20 minute drive
11:30 am - 12:00 noon	Lunch - Surf and Turf
Noon - 1pm	Technical presentations (Each 30 minute session will include 10 - 15 minutes for Q & A)
Session 1	Tidal Current Power Generation - Trials and Development
	Presented by: <i>Christopher Sauer</i> , Ocean Renewable Power Co., LLC
Session 2	Wind Power Generation on Deep Sea Floating Platforms
	Presented by: <i>Ray Dackerman</i> , Blue H USA, LLC
1pm - 1:30pm	Open Discussion
1:30pm - 5pm	Nine hole Golf Scrimmage/Networking

Registration and Cost

To make reservations or ask questions, please contact Ted Britt at: 207.623.7500 or TBritt@MaineIndustrial.com. Please note that IEEE members and guests should register before **May 1, 2009** to ensure availability. Car pooling is recommended and encouraged.

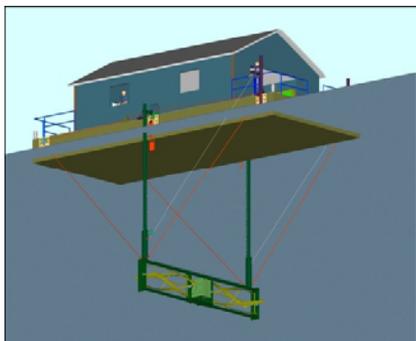
Meeting, Hydro tour, Surf and Turf lunch: \$15 for IEEE members, \$30 for non-members, and \$10 for children

The above, plus 9 holes golf w/cart: \$30 for IEEE members, \$60 for non-members, and \$20 for children

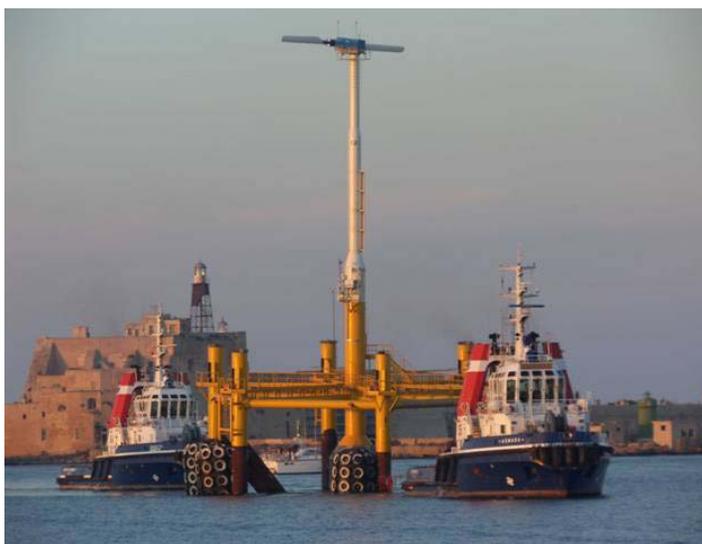
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Speaker Information

Session 1: *Chris Sauer*, P.E., President & CEO, Ocean Renewable Power Company, LLC, Portland, ME. ORPC is committed to producing emission-free electricity from the world's rivers and seas. The pictures below show the demonstration Commercial Floating project. The size of the unit is designed to fit in a standard 40 foot shipping container to facilitate transport to remote locations. FERC pilot process licensing is on schedule for tidal and river sites early 2010.



Session 2: *Ray Dackerman*, General Manager, Blue H USA, LLC, Boston, MA. In 2008, Blue H installed the world's first large scale floating wind prototype 11.5 nautical miles off the coast of southern Italy in energy deepwater (371 ft). Blue H is now constructing its first commercial unit for installation off the southern Italian coast in 2009. Ray Dackerman will discuss Blue H's technology, provide an overview of the company's activities in Europe, and summarize Blue H USA's activities in Maine & Massachusetts.



Tour Information

Topsham Hydro—Independent Energy is located at 110 Pejepscot Village Main St., Topsham, ME. Their generating capacity is 13,000 KVA, 12,500 V, rotating at 81.8 RPM. We will be treated to a guided, walking tour of an operating Siemens Hydro generator. On the tour, components and how they interrelate will be discussed.

Directions to Topsham Hydro: Take I-295 Exit 31B onto ME-196 N (New Lewiston Rd). Go 2.5 miles toward Lewiston, then turn left onto River Rd. Go 0.2 mile, then turn right onto Pejepscot Village Main St. Go 0.3 mile and arrive at 110 Pejepscot Village Main St. on the left.

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The Topsham Hydro power generation plant on the Androscogen River

The Bath Country Club Lunch and Golf Outing

Surf and Turf Lunch: The lunch will consist of a 1.25 lb lobster, 6 oz. sirloin steak, corn on the cob, garden salad, potato salad, rolls, strawberry or blueberry shortcake and iced tea or lemonade. Cash bar available.

Golf particulars: Golf includes nine holes with a riding golf cart. Tee-times begin around 1:45pm (give or take 15 min) until 3pm. Play your own ball or scramble format based on participation and input. Rental clubs are available at a cost of \$25 per set and the player needs to purchase their own golf balls and accessories. Players must be off the course by 5pm because of a scheduled tournament. Players who wish to continue on to the back nine can make arrangements with the Pro Shop for an additional \$15.00 per person.

Directions (per BCC web site): From the north or south, take Route One to the New Meadows Road Exit in West Bath (one exit south of Bath and north of Cook's Corner). From either direction, turn right at the end of the ramp onto New Meadows Road. Follow New Meadows Road to a stop sign, and then travel straight across the intersection onto Ridge Road. Follow Ridge Road for about a mile, until it turns sharply to the right, at which point Bath Country Club will be on your left. Parking and Clubhouse are at the top of the hill on the left.



Maine Section Annual Holiday Social Event a Great Success

The Section holiday social event was held last December 13 in Portland. Over forty Section members and their families enjoyed a social hour followed by a buffet dinner at Maria's Italian Restaurant on Cumberland Ave. Following the dinner most everyone walked the few blocks from Maria's to Merrill Auditorium, located in the Portland City Hall, to hear the Magic of Christmas concert performed by the Portland Symphony Orchestra. I think it is fair to say that everyone thoroughly enjoyed the show put on by the PSO. There was enough variety from orchestral music to choral presentations, to Christmas stories and ballet to please

anyone. Attending the Magic of Christmas as part of a social event used to be an annual activity but the Section had moved on to other types of social gatherings during recent years. Returning to the MOC after several year's absence added a new sense of appreciation and enjoyment.

While the MOC concert is always a great event, your Section officers know that some variety both in terms of event and location is a good thing. Members with suggestions for a 2009 holiday social should contact their Section officers with their ideas. You will find the contact information in this newsletter. A location for a social event in or near Augusta might be more central for the membership.

Chairs's Column

by *Paul Villeneuve*, Section Chairman

It's always tough to begin a message to a broad audience that you know less than 10% of. So, I'll begin by saying that I'm excited to be the Chair of the Maine Section of IEEE. I learned a lot from our previous chair and hope that the lessons I learned will make for a smooth and productive year.

First, I'd like to thank all of the volunteers for IEEE. IEEE is primarily a volunteer organization and wouldn't exist without the many volunteers who spend hours without compensation. I know that I do it for the opportunity to connect with those interested in the electrical engineering profession. It provides me with great networking opportunities and many chances to learn new things. So to all the volunteers, a sincere thank you.

I also feel compelled to discuss maintaining membership in IEEE during these tough economic times. I share with many of you the concern about finances. However, I believe that my membership in IEEE is an investment into the future of the profession. At a recent Maine Section Executive Committee meeting, one of the committee members attended a Region 1 meeting. While reviewing the increases and decreases in membership, he noted that Region 1 (which Maine is a member of) has been losing membership while Regions 8, 9, and 10 are gaining membership. You'll note that those regions contain the Middle East, Africa, Latin America, and Asia. My major concern is that engineering jobs are being outsourced to countries where the cost of labor is very low. With a loss of engineering jobs, we are experiencing brain drain. Organizations like IEEE are working hard to promote

engineering so that the field grows in the US. There are also initiatives like Project Lead The Way and Science, Technology, Engineering, Mathematics (STEM). These initiatives are federally sponsored and have great momentum. However, they need more than money and government backing. They need to commitment of the engineering community to be successful. Without our support, I am concerned that we will lose our competitiveness as a nation. If you don't think it can happen, look at the domestic auto industry.

On a more positive note, I attended the 2009 Engineering Expo at the University of Southern Maine as part of the Engineer's Week activities. (See photos below) For those of you who have never heard of the Expo, it is an opportunity for organizations throughout the state to outreach to kids who are interested in engineering. Each organization puts on a booth with interactive things for kids. The event is well attended with 1024 kids in attendance. This is a great opportunity to interface with a large group of kids in a concentrated setting. The Expo will be in Orono next year so please consider being a part of this great event.

Another item I would like to share with you is what IEEE stands for. As most of you know, IEEE stood for the Institute of Electrical and Electronics Engineers. Not any more. They have removed the acronym so now, IEEE does not stand for anything.

Finally, I encourage all members to get with a colleague and tell them about IEEE. Tell them what it means to you and how it will help the profession. Tell them about the opportunities to network and to learn new skills. Tell them that IEEE works because of volunteers and that they can take a leadership role in the defining professional association for those working in the electrical field. Without new members, the future for IEEE as well as the nation looks bleak.



Expo '09 on the campus of the University of Southern Maine

IEEE Maine

Challenger of Maine Class Competition, 2009

by *Ted Britt*, Maine Section Secretary

There are many ways that IEEE members can enrich the lives of those around us. In fact, as the world's leading professional association for the advancement of technology, we are empowered to seek ways to inspire and encourage. The Maine Section of IEEE in collaboration with the Challenger Learning Center of Maine (CLCofME) is one such example of members reaching out to create a memorable and enriching experience for one lucky middle school class room in Maine.

This selected class will work together to develop, coordinate, simulate and imagine a space mission to the moon. The goal of the class is to inspire through experience each student in the fields of science, technology, engineering and mathematics (STEM). This may result in the student's selected career path and maybe even in a future IEEE member. STEM careers can be very rewarding and are essential to the future progress of our state, nation and the entire world. More information about STEM in Maine can be found at www.mainestem.org

The Return to the Moon™ mission that the class will participate in is set in the year 2015. This will be the first time that a crew of astronauts will return to the moon since the memorable encounter in 1972. The students are tasked with establishing a permanent base on the moon, which will be used to observe and explore, as well as test the feasibility of off-Earth settlements. Navigation their way into lunar orbit, students must construct and launch a probe and analyze a variety of data gathered from the lunar surface to select a site for establishing the permanent moon based.

The CLCofME is one center of a network of 50 centers around the world that were established to continue the educational spirit of the Teacher-in-Space project and to honor the crew of flight mission STS-51-L. The Teacher-in-Space project is an effort to better connect the American public with its space program. The CLCofME offers a variety of on-going programming for children grades K-10 and families. This includes bi-monthly free public science series, programs during all school vacations, after school programming, on and off-site science modules, and even educational birthday programs. To find out more about the CLCofME, you can visit their website, www.clcofme.org.



Maine Section Executive Officers

(Term End Date: 31-DEC-2009)

Editor's note: Listed below are the Maine section officers for 2009. Please feel free to contact anyone that you think might be able to answer a question or provide assistance. Also please give some consideration to serving as an officer in the future. We need your help!

Chair:

Paul L Villeneuve
69 Savage St
Bangor ME 04401-5946
Work: +1 207 581 2271
Home: +1 207 947 4614
Email: paul@eece.maine.edu

Educational Activities

Scott C Dunning
19 Frances Dr
Hampden ME 04444-1744
Work: +1 207 581 2349
Home: 207-581-2349
Fax: +1 207 581 2725
Email: scott@eece.maine.edu

Vice Chair:

John W Allen
Sensor Research And Development Corp.
17 Godfrey Dr
Orono ME 04473-3693
Work: +1 207 866 0100 x 244
Home: +1 207 285 7392
Email: jallen@srdcorp.com

Membership Development:

Stanley C Koski
64 Edison Dr
Augusta ME 04330-6008
Work: +1 207 623 7355
Home: +1 207 622 4124
Fax: +1 207 623 7380

Secretary:

Ted Britt
E-mail: tbritt@maineindustrial.com

Newsletter Editor and Awards Committee:

George H Elliott
106 Balsam Dr
Bangor ME 04401-2583
Home: +1 207 990 2350
Email: gelliott@eece.maine.edu

Treasurer:

David E Kotecki
431 Main St
Orono ME 04473-3448
Work: +1 207 581 2248
Home: +1 207 356 0168
Fax: +1 207 581 2220
Email: kotecki@eece.maine.edu

Professional Activities (PACE):

Nuri W Emanetoglu
Univ Of Maine ECE Dept
5708 Barrows Hall
Orono ME 04469-5708
Work: +1 207 581 2233
Home: +1 207 942 3137
Email: nuri.w.emanetoglu@ieee.org

Senior Member at Large:

Robert Desjardine
Email: rdesjardins@sgceng.com

Student Activities:

Edward (Spider) Williams
Email: spider@umit.maine.edu

Junior Member at Large:

Dan Chabot
Email: dchabot@ieaenergy.com

Webmaster:

Chris Morin
1638 Main St
Lewiston ME 04240-2619
Work: +1 207 623 3521
Fax: +1 207 623-7380
Email: Chris.Morin@cmpco.com

Junior Past Chair:

Ali Abedi
Email: abedi@eece.maine.edu

Senior Past Chair:

John Roberts
Email: stangrider66@YAHOO.COM