

WATT'S NEW
NEWSLETTER OF THE BALTIMORE SECTION OF THE IEEE

July 2014

The web site for the Baltimore section of the IEEE is:

<http://ewh.ieee.org/r2/baltimore>

The web site for the Baltimore section newsletters is:

<http://www.ewh.ieee.org/r2/baltimore/WattsNew/IndexWattsNew.html>

The web site for the Scanner is:

<http://www.ieee.org/escanner>

The web site for the full interactive digital version of the Scanner with multimedia content is:

<http://ewh.ieee.org/r2/capitalarea/eSCANNER/digital.html>

The Scanner is published six times per year in January, March, May, July, September, and November, and the email notice will be sent six times per year.

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1. The Electrified Pickle – Calling All Engineer Volunteers!



The Jewish Museum of Maryland (JMM) is looking for a few good engineers, who would like to share their expertise!

This summer 2014, the JMM is planning a visitor experience called **The Electrified Pickle**, a unique science/technology exhibition intended to appeal to budding engineers, artists, scientists, DIY-ers and anyone curious to learn about technological innovation and its connections to Jewish life. Our Feldman Gallery will be transformed into a participatory lab-style environment where visitors can discover the mystery behind scientific principles such as magnetism, electricity, solar power, and more through fun and engaging interactive activities. The National Electronics Museum of Linthicum, MD is a partner of the project and will be lending many of their interactive hands-on experiments as part of the laboratory experience. The gallery will serve as a community festival space where people can come to experiment, create, and learn from one another.

On five Sundays (beginning July 13), we will invite community members to come to the Museum and share their expertise and passion for specific fields such as engineering, crafts, robotics, electronics, and architecture with our visitors. Additionally, we will offer exciting hands-on workshops for people to try their hand at activities like robot building and rocket launching. In addition to experiments on the principles of science and engineering, we will be displaying a cross section of historic technologies from the collections of the Jewish Museum of Maryland that illustrate the impact of invention on everyday Jewish life - from sewing machines and kitchen implements to typewriters and phonographs.

WE NEED ENGINEERS, WHO WILL VOLUNTEER TO HELP our visitors make connections between the tools that changed the lives of our parents and grandparents and the high-tech gadgets that fill our lives today. The centerpiece of the gallery will be a

community art project in collaboration with a local artist that will continue to evolve over the summer with the help of visitor contributions.

To learn more about the volunteer opportunities at the JMM in connection with The Electrified Pickle, please contact Ilene Cohen, icohen@jewishmuseummd.org. For more information about The Electrified Pickle, please contact Ilene Dackman-Alon, Director of Education, idackmanalon@jewishmuseummd.org.

2. PES General Meeting – Volunteers Needed

Dates: July 26-31, 2014

Location: National Harbor, MD

This IEEE Power & Energy Society General Meeting will be held in National Harbor, MD, from July 27th – 31st, 2014, at the Gaylord National Resort & Convention Center. This meeting is expected to have over 2,500 attendees, and over 200 volunteers will be needed to perform a wide range of roles, including welcoming, directing people, assisting with sessions and coordinating. Volunteer opportunities are available from Saturday through Thursday, July 26-31.

Volunteer shifts will generally be four hours long, and volunteers will earn an hour of meeting attendance (excluding paid events such as the tutorials, dinners or receptions) for every hour of volunteer time! Lunch or dinner will be provided for volunteers taking two shifts back to back!

Please visit the Volunteer Information page at the General Meeting website for more information and online sign-up.

<http://www.pes-gm.org/2014/volunteer-information>

PES2014-Volunteers@ieee.org

3. IEEE PES – Plain Talk Conference

Location:

National Harbor, MD (Washington, D.C. Metro Area)

Co-located with the IEEE PES 2014 General Meeting

Dates:

July 29-31, 2014

Abstract:

One of our missions at PES is to provide education within the marketplace to people that work with, or in, the Power Industry, but are not necessarily formally educated in this technical discipline. The "Plain Talk About the Electric Power System" series was created to meet this educational need. These courses provide insights into the concerns of engineers, the demands of regulators and consumer groups, and the factors and trends that impact the operation of today's electric power systems. The courses are also beneficial for non-power engineers who are transitioning to the electric power industry. As you can see from the sampling of job titles that registered for the courses in 2013 the audience that is interested in gaining this knowledge is broad

Who Should Attend:

Job titles of courses attendees include the following:

- Business Systems Analysts
- Marketing Professionals
- Assistant Risk Managers/Project Risk Administrators
- Business Development Managers/Directors
- Commodity Managers
- Compliance Coordinators/Engineers
- Enforcement Analysts/Engineers
- Industry Managers - Utilities
- IT Client Service Consultants/Solution Architects
- CIP Audits Managers
- Engineering Smart Grid Standards Managers
- Market Development and Intel Managers/Officers
- Risk Managers
- Switchgear Development Engineers

Check out the link to see the course schedules as well as much more:

[Plain Talk Conference](#)

Follow the link below to see more information:

<http://www.ieee-pes.org/meetings-and-conferences/conference-calendar/monthly-view/178-education/273-plain-talk-basics-series-in-national-harbor-md-july-29-31-2014-2014>

4. IEEE Baltimore Section – Robot Challenge

To all the volunteers at the 2014 Robot Challenge:

Thank you for doing a fantastic job on Saturday and Sunday. Thanks to a magnificent response from all of you, we deleted the 2nd session on Saturday, added a 2nd session to Sunday, and we finished up with 19 teams on Saturday and 32 teams on Sunday. That's 2 more teams than last year, but everything seemed to go far smoother. We even switched the lunch service to Sunday, and everyone was able to enjoy some nice food, served in-doors on a glorious day.

In previous years, we would see twice the number of teams participate on Saturday as compared to Sunday, but last year it was the reverse - 14 teams on Saturday and 35 teams on Sunday – which we attributed to the Spring Break coming right before our weekend. Following this year's Robotics Challenge, participants would be celebrating their Spring Break and decided that we would have more teams on Saturday rather than Sunday. However, due to the number of snow days and most teams playing catch-up, one week before the event we learned that many more teams wanted to use Sunday rather than Saturday. In any event with the help of our devoted volunteers, this event went off without a hitch. We even completed all Oral Presentations by 3:30 PM on Sunday, which was a record time, and were able to begin the Awards ceremony by 4 PM!

We would like to especially thank the judges. You, being the points of contacts with our students, make this experience particularly memorable to them. Thank you very much for all that you have done for them! Also, I would particularly like to thank Dave Boyd, who managed the Track events, and Brian Sequeira, who ran the Oral Presentations. Jay Gamerman, our co-Director, has been handling all contacts with our schools, supplying them with kits and arranging for mentors, and together with John Dentler, they have been doing all the complex Administrative tasks involved in running this event. Scott Goedeke has miraculously kept up with feeding data from all our judges to the computers that kept the monitor display alive and lively. Bill Semancik and his crew ran the PIT and also created of the complex software that provides the scores in real time to the audience; much to the delight of students and their parents. Jeff Friedhoffer is the keeper of our web-site, and not only posts the results of the Event and the photos, but

also keeps it current throughout the year. Finally, I'd like to thank my daughter Rachel, who kept the teams organized with good humor, and handed out the trophies (with Ariella) during the Awards Ceremony. It was a great couple of days! On behalf of the IEEE, thank you all so very much!

5. IEEE Baltimore Section Executive Committee - 2015 Elections

The IEEE Baltimore Section Executive Committee (ExComm) is seeking nominations for officers for 2015. The ExComm is responsible for managing and coordinating section activities and events, including conferences, continuing education courses, membership growth, & student outreach, just to name a few. For members seeking leadership and growth opportunities consider nominating yourself or someone else to head one of our society chapters or Affinity Groups. Comprising of 13 Society chapters and two Affinity Groups (Graduates of Last Decade or GOLD, and Women In Engineering, ie. WIE), the Baltimore Section encompasses many different members and many different disciplines. Members, who seek to hold a leadership position within the Baltimore section, can expect a great opportunity to learn and grow new skills that will be very rewarding in career paths and general life goals.

The upcoming IEEE November elections will be comprised of the following officer positions: Secretary, Treasurer, Vice-Chair, and Chair. The Baltimore Section will be gathering nominations throughout the summer for voting during the fall. If you are interested in filling any of these Chapter or Affinity group leadership positions or know of someone who might be interested, then please contact Dave at dkisak@ieee.org. The nominations process will need to be completed by mid-September in order to distribute candidate information and give our members enough time to complete the voting by November. Thank you for your support.

6. Calling All Engineers & Scientists – DataBay Innovation Challenge

When:

August 1-3, 2014

Where:

Smithsonian Environmental Research Center
647 Contees Wharf Rd,
Edgewater, MD 21037

Abstract:

Muster up your best design solutions to saving Maryland's most cherished jewel, the Chesapeake Bay, and come on down to Edgewater to compete in the DataBay "Reclaim the Bay" Innovation Challenge. The challenge, which Maryland governor Martin O'Malley has announced to aid in restoration of the Chesapeake Bay, is asking engineers, IT professionals, app developers, and "civic hackers" to design strategies to reverse the negative effects of pollution into our bay. Professionals will be broken up into groups and work with other team members to come up with their best ideas.

Finalists in the contest will have the opportunity to present their ideas to the Governor O'Malley and a panel of entrepreneurs, investors, and environmental scientists later in August. Whichever team has the best ideas will be given a cash prize and the "Governor's Cup."

If you have any questions or are interested in competing, then please visit the following website: <http://databay.splashthat.com/>

7. IEEE Signal Processing in Medicine and Biology Symposium (SPMB14)

When:

Saturday, December 13, 2014

Where:

Temple University, Philadelphia, PA

Abstract:

As advances in signal processing become ever more present, the significance of this field becomes more apparent in other engineering fields. This regional symposium, which expects 125 researchers to attend, will address how these advances will help the development of smarter technology in the field of prosthetics and bioengineering. At the event attendees can be assured of two plenary talks, two oral sessions and two poster sessions.

The conference is encouraging all to develop demonstrations or exhibits at the one day event. Presenters may choose to submit **either** of the following:

- An original 4 to 6 page paper for peer review. If the paper is accepted, then it will be submitted to IEEE Xplore and presented at the symposium.
- A one-page abstract describing recent or ongoing work. If the abstract is accepted, then it will be presented at the symposium in a poster session.

Important Dates:

Submission date: September 1, 2014

Notification date (if accepted): October 15, 2014

Early Registration: Nov. 15, 2014

For a list of all the topics presented at the symposium, please review the following charter from the symposium:

[IEEE SPMB 2014](#)

Please visit the website for more information regarding all the day's events, directions, dates at the following web address:

[IEEE SMPB 14 website](#)

8. IEEE Baltimore Section – IEEE WIE and Young Professionals Presentation

When:

July 26, 2014

Time:

11:00 AM -1:30 PM

Where:

National Electronics Museum
Pioneer Hall
1745 W. Nursery Rd.
Linthicum Heights, MD 21090

Presenter:

Dr. Raenita Fenner
Assistant Professor of Engineering
Loyola University Maryland

Abstract:

The presentation will discuss applied electromagnetics theory and focus on material characterization, the determination of electrical (permittivity) and magnetic (permeability) properties. Antenna design, wearable and adaptive antennas, will also be discussed.

Further Information:

Please see the below link to open to flyer for more information regarding this event:

[Overview of Free Space Material Characterization](#)

9. IEEE Baltimore Section, Engineering Medicine and Biology Society

When:

August 2, 2014

Time:

11:00 AM – 1:30 PM

Where:

National Electronics Museum
1745 West Nursery Rd,
Linthicum MD 21090

Presenter:

Dr. Lordanis E. Evangelou
*Research Faculty and Assistant Professor of Radiology & Pediatrics – Advance
Pediatric Brain Imaging Research Laboratory, Diagnostic Imaging and
Radiology Children’s National Medical Center at The George Washington
University School of Medicine and Health Sciences*

Abstract:

The first part of the presentation will discuss the Magnetic Resonance Spectroscopy and how this technology will help in unlocking biochemical processes in the developing brain.

The second part of the presentation will discuss the development of IEEE standards and what are the roles of the IEEE- Engineering Medicine and Biology Society Standards Committee in the developing these standards.

Further Information:

Please see the below link to open to flyer for more information regarding this event:

[Technical Colloquium and Professional Development Seminar](#)

10. IEEE Baltimore Section – Watts New - Editor

Dear IEEE Offices & Members,

If your chapter of IEEE Baltimore Section would like to contribute to the newsletter in the future months with articles, events or discussion topics to the newsletter, then please send [me](#) an e-mail. I look forward to working with all of you in the future and I appreciate the opportunity!

Ryan Klein
IEEE Baltimore Section Newsletter Editor