

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Baltimore Section

**October Executive Committee Meeting Report
15 October 2018**

This report summarizes the proceedings of the IEEE Baltimore Section Executive Committee (ExCom) meeting held on Monday, 15 October 2018, at the National Electronics Museum (NEM, <http://www.nationalelectronicmuseum.org>), Linthicum, MD.

1. CALL TO ORDER (@ 6:45 p.m.)

2. INTRODUCTIONS

3. ATTENDEES

Sherwood Olson (Baltimore chair)
Barin Nag
Bill Semancik
Neville Jacobs
Michael Pearse
Boris Gramatikov
Dave Kisak
Tim Cash
Syed Ahmad
Alex Miu (UMBC's IEEE student chapter president)

4. APPROVAL OF PRIOR EXCOM MINUTES

Motion was presented to approve June 2018's and September 2018's minutes. Motion passed to approve minutes from both months and they will be posted.

EXECUTIVE REPORTS

University of Maryland Baltimore County (UMBC) presented a report on their activities for the past year. They have an upcoming event called the Halloween Workshop where they will be assembling various electronics projects.

Chair:

The chair presented the Baltimore Section's annual museum donation to the director of the National Electronics Museum (NEM).

Region 2 has asked Baltimore Section to promote the Rebooting Computing Week, which is being held locally (Tyson, Virginia). More discussion and the motion are presented in the New Business section.

The Brain-to-Computer-Interface (B2CI) Committee held its monthly meeting. There will be a B2CI event on November 3rd at Capitol Tech University where attendees will be able to review the competition activities and meet the judges. The competition will be held at the National Electronics Museum on 2 March, 2019.

Baltimore Section's annual picnic was held on 6 Oct at Hammond Park Pavilion in Laurel, MD. The event helped to celebrate IEEE day, which was observed on 2 October.

Baltimore Section Nominee's for 2019 were sent to the section membership through an eNotice released on 11 Oct.

Vice-Chair:

Nothing to report.

Treasurer:

The treasurer submitted the monthly budget report through email. Nothing significant to report.

Secretary:

Nothing to report.

5. COMMITTEE/SOCIETY/AFFINITY REPORTS

Committee Reports:

Student Activities (Neville Jacobs): Neville provided his monthly report on the Robot Competition, which is provided in the appendix. The Robot Committee is working on increasing the strength of the rods used for the robot legs and has requested that Region 2 PACE be approached to help defray the cost of this new development. Chair agreed to approach the Region PACE committee about this.

Webmaster (Sherwood Olson): Section messages were posted to the website. B2CI webpage was created and is being populated with events. IEEE corporate and Region 2 voting results were published on the website and Baltimore Section's nominees for 2019 were also posted.

Society Reports:

Computer Society: Barin mentioned that Rebooting Computing Week conference is being held in November.

Affinity Reports:

Young Professionals will be holding a technical event on 1 December at Capitol Technology University. The topic is Synthetic Intelligence.

6. OLD BUSINESS

NTR

7. NEW BUSINESS

Barin motioned (as requested by the chair) to be reimbursed by the section to attend the Rebooting Computing Week conference being held in Tyson, VA on November 5 – 9. This request was irregular as it is not customary for the section to cover costs of attending a conference as an attendee (the section has covered costs for members who attend conferences as members of a committee.) However, there were several factors that the Executive and Administrative Committees weighed in approving this motion:

1. Region 2 asked that the Northern VA, Washington D.C., and Baltimore Sections advertise and promote this conference since it is local and will reflect on the area's commitment to technical conferences. Since the conference is local there are no travel costs.
2. Baltimore Section has a vested interest in having appropriate representation from an official committee or society position.
3. The attendee is the Computer Society Chapter Chair who is being requested by the section to attend.
4. The budget could support an unplanned expenditure of \$200.

The motion to pay \$200 for the Computer Society Chapter Chair to attend the Rebooting Computing Week Conference passed by a vote of five for and one against. The person against the motion was concerned that this might set a precedent for members to request conference registration reimbursement in the future. Therefore, the four factors above are expressly stated on why this motion was approved and to provide guidance for approving any future requests.

The committee motioned to support the February Fourier Talks 2019 (FFT2019) at the Norbert Wiener Center of the University of Maryland. The motion carried and the Baltimore Section will provide \$250 to FFT2019. Since FFT2019 typically requests money early in January, the section may not have an approved budget; the motion allows the section to provide the money outside of an approved budget.

Section received an email from Member and Geographic Activities Board that the Annapolis Subsection of the Baltimore Section is about to be dissolved due to lack of activity. This action was discussed and it was decided to allow the Annapolis Subsection to dissolve.

8. MEETING ADJOURNMENT

Motioned to adjourn the meeting at 8:25 p.m. The next ExCom meeting is 19 November.

9. APPENDIX

Draft List of funds and Treasurer Report may be requested from the Baltimore Section Secretary by Email.

Status, Student Activities 10-15-18, Neville Jacobs' report:

1. It is still very early, but we've had 2 requests for kits, from Seneca Valley High School (3 kits) and from the Corey's Gang, who want to move up to automation this year. We did not have any orders at this time last year.
2. A 9000-piece mailing was sent out by the Baltimore Museum of Industry last week with information on all the Maryland Engineering Challenges, and since we appear on both High School and Middle School lists, we should get some good exposure.
3. We currently have 18 kits in storage, and 5 kits at the BMI (though they will need some minor updates), so we should be OK till about mid-November, when we should start receiving additional kits from Kelvin. Originally, these should have arrived in mid-October, but 3 technical problems have caused us to delay their shipments – fortunately, without ill effects.
4. The first problem was with the plastic parts that Kelvin was purchasing in China and then reworking at their facility. Ironically it appears that the rework was causing more damage than benefit to the parts, and their jigs and fixtures will need to be refurbished. The problem was detected during examination of the 3 sample kits we always order prior to shipment, and could have resulted in half the robots becoming inoperable because of stripped threads.
5. The 2nd and 3rd problems are related to our attempts to implement the recommendations of the Teachers Survey that was conducted earlier in the year – namely to strengthen the robot's legs. As mentioned in last month's report, two approaches were tried, toughen the 2-56 threaded rods, or thicken them, using 4-40 threaded rods instead. They both sounded like suggestions that would be easy to implement, but that did not turn out to be the case. John Dentler worked with me to try to find workshops that would be willing to cut threads in 17-4PH Stainless Steel, and Peter Wang (one of our Team Leaders) has been running experiments to determine whether our robots can operate with 4-40 threaded rods.
6. Over 50 manufacturers were contacted, but turned us down for the 2-56 threaded rods, partly because the order was too small (400 pieces), and partly because they had never used this material before for this purpose. However, the GM of a large operation in Tennessee suggested we try a totally different approach using a local machine shop and rotary button dies. We located such a facility about 5 blocks from the BMI, I got hold of the dies and fixtures, and they have just let us know their results. Based on their decision, we will either adopt or discard this approach.
7. Peter's first attempt with the 4-40 threaded rods was to determine whether our existing motors have enough torque to drive 4-40 legs, and he determined that they did not. He then tried a motor from a different supplier that worked fine but was significantly more expensive, and another motor from the Kelvin inventory that was less expensive, but would require a change in assembly procedure. Both options would require an additional machining operation to the #3 plastic part. He will also need to determine what effect these motors would have on battery life.
8. These issues will need to be resolved by November 9 so as to receive the kits in time to distribute them during the 11- 14-18 Training session. Also updating the manual.
9. Expenses this month were \$307.39. Some of these expenses can be considered development costs and should be referred to PACE for partial reimbursement.