 **Minutes of the 02/18/2014 IEEE Tampa Bay RAS Meeting**

 (Prepared by Sean Denny, Recording Secretary)

Location: DeVry University at 5540 W. Executive Drive,

Tampa, FL, 33609

Room: 210

Date: February 18, 2014

Time: 6:20pm to 7:50pm

The Tampa Bay Chapter of IEEE’s Robotics and Automation Society held the February meeting at DeVry University in Tampa. The IEEE RAS Chapter plans to execute on the Vision of the Chapter’s Founder, George Schott to “Learn, Do, Teach”.

There were a total of 7 people made of 6 IEEE members and One Teacher. No Students or other guests were present.

OFFICER ROLL CALL:

o Chairman – Sean Denny

o Treasurer – Jim Cavanaugh

PRESENTATIONS: No Formal Presentations

NEW BUSINESS:

1. Robotic Competitions:
2. The meeting began with an Informal discussion of all the Robotic Competitions like BEST, FIRST, and Robofest. Ken Fiallos who was the head design judge at McLane Middle School for a VEX Robotics Competition offers some quick insights into the various programs. VEX is a 2 minute competition with a 15 second autonomous portion. VEX games tend to be more of a sporting competition than being tied to an industry practice. VEX Game competitions stress team work while BEST games involve more an industry meme. FIRST has the best comprehensive program relative to staging competition.
3. Robofest-March 15, 2014

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| **2014 Robofest Qualifying Competition**  | **March 15, 2014** **9:00 am – 1:00 pm**  | **Site Host: N i e l s e n** **501 Brooker Creek Blvd, Oldsmar, FL 34677**  |

Emma Alaba is requesting help to judge the Regional Competition. The competition is open to grades 4 to 12 (plus college). There is a Symposium at the World Competition on May 16-17 at Lawrence University at Southfield, MI.

1. **Bill Waggener’s: Energizing the RAS for 2014**

 There is a need to energize and re-invigorate the Tampa Bay RAS to increase attendance and interest. First, some organizational issues:

 How many meetings should the RAS have during the year? My suggestion would be, eight, September, October, November, January, February, March, April, May. Perhaps, an additional bimonthly meeting in the summer. The rationale for this schedule is based on the timing of robotic competitions, FIRST, BEST, Robofest.

 What does "Learn, Teach, Do" really mean? My definition of the scope of each topic is:

Learn:

 Bring in outside speakers to talk about new and relevant technology. In many cases, the current members have diverse backgrounds and could talk about technology in their field of interest. Perhaps, we could also get representatives from companies such VEX, Lego and others to present their robotic technology.

 Arrange field trips to local area industries where possible. Promote join meetings with other IEEE sections such as the IEEE Life Members Section.

Teach:

 Continue and expand workshops on robotics with emphasis on Arduino, C programming, First Lego League robot design and programming. In the near future add Raspberry Pi with Python and Scratch programming.

Do:

 Encourage members to bring in home projects and share experiences. Provide technical support to school system STEM projects and, as a group, create a robotics oriented STEM project. While encouraging individual members to participate in school STEM projects, the Sections interests should largely be directed toward robotics applications

Some Possible Topics For 2014 Meetings:

BEST Review (March or April Meeting)

 A review of the BEST projects, what were the best ones and what is the current level of technology. Note, this is strictly a technology review and not "how we could organize better, plan better, etc."

New FIRST Lego League Technology, (May ?)

 Advances in FLL technology, EV3 software, additional hardware capabilities, and anticipated challenges.

Robotic Technology Review with Application to BEST, Robofest Competitions (September 2014)

Home Brew---Version 2015, Part One, Hardware (Fall 2014)

 In the 1970's the Home Brew clubs were the incubators for the personal computing revolution. Prior to that time, the majority of home hobbyists were pursuing, either, amateur radio or high fidelity audio systems. With the advent of very inexpensive Arduino and Raspberry Pi processor boards there is a resurgence of interest in home computing. Unlike the prior Home Brew projects these new technologies are very software intensive. This meeting reviews these technologies and demonstrates some applications.

Home Brew---Version 2015, Part Two, Software (Fall 2014)

 Since the Raspberry Pi operating system is based on Linux, there are a variety of open source programming languages which can be installed and used for development. Two languages are supported with the basic Raspberry Pi, Python and Scratch. Python is introduced and some simple programs are demonstrated. Scratch is introduced in a separate meeting.

Robofest Review (January 2015)

 A review of the 2015 Robofest competition

Open Mike (February 2015)

 An informal meeting for members and guests to interact and discuss home projects or other technology issues.

Software Simulation Using Scratch, with Applications to FLL (Bill Waggener) , Spring 2015

 The open source, graphical programming language Scratch, offers FLL participants an inexpensive means to learn the basics of programming which can be applied to the Lego robots. Furthermore, various control programs can be simulated with errors simulating the inaccuracies of the real robot. Scratch programs can directly control some Lego motors and can be used to develop some types of robotics which could apply to Robofest applications.

Summary

 I have proposed an ambitious plan but I think it is doable given sufficient lead time. For example, I am hoping to do some work with the Raspberry Pi processor this summer and I am sure that there are others in the IEEE community who are working with the Raspberry Pi. The key to success is to publicize the meeting well in advance and see that all of the IEEE groups are aware of the meetings as well USF Engineering School students and faculty and those involved with the various robotics programs. Vendors should also be given the opportunity to participate (maybe fund refreshments, etc.)

1. RAS CHAPTER CALENDAR

The Chapter Meeting dates for the remainder of 2014 are:

March 18, 2014: BEST Robotics Review from Fall 2013 (Tentative ROBOFEST Review, Depending on Emma Alaba’s availability.) Jim Anderson plans to discuss IEEE membership.

April 15: Robofest Review

May 20: New FIRST Lego League Technology

June 17

July 15

August 19

September 16

October 21

November 18

December 16

***Note: Announcements in the IEEE Signal Newsletter are due two months before the event.***

1. Gulf Coast Maker Fair at FL State Fairgrounds on April 5 &6. Registration due February 28th.
2. Engineering Expo at USF on February 22. There will be Physics Displays, Electrathon Races, Balsa Wood Bridge Making, and Jr. Solar Sprint Races.
3. TAMPA BAY ENGINEERS WEEK BANQUET-February 21, 2014

Safety Harbor Resort and Spa at 7pm.

OLD BUSINESS:

The Motion to approve the January Minutes as published was made by Ken Fiallos; Seconded by Craig Ross. There was no discussion and the motion passed unanimously.

Treasurer Jim Cavanaugh reported we had a previous balance of $4.52 based on information from FWCS Treasurer Jim Howard. Tonight we collected $80.00 bringing the balance to $84.52.

We used $5561.68 out of the $7500 from the Wallace Grant. The remaining $1938.32 is pending payment. FWCS Chair Serge Beauzile is taking care of the $900 promised to Osceola High School’s FIRST Robotics Program. Ken Fiallos said that $1000.00 was promised to Hillsborough County Schools.

Adjourned at 7:50 pm by Craig Ross; Seconded by Ken Fiallos.

Respectfully submitted by

Sean Denny,

Tampa Bay IEEE RAS Chapter Chair

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