MINUTES: 7/17/2012

There were 7 IEEE members, 5 Students, and 6 guests present

Location: DeVry University at 5540 W. Executive Drive, Tampa, FL 33609 Room: 210
Date: July 17, 2012
Time: 6:30pm to 8:36pm

The July 2012 Meeting of the RAS Society was called by Acting Chairman Ken Fiallos at DeVry. There were a total of 18 people made of 7 IEEE members, 5 Students, and 6 guests present.

OFFICER ROLL CALL: Waived due to Program Length.

Meeting Background:

The IEEE Tampa Bay Robotics and Automation Chapter has been informally Researching the state of K12 Robotics TBART Area plus Polk and has estimated that perhaps less than 1% of the High School Students participate in Robotics Education in the Greater Tampa Bay Area (TBARTA Service Area plus Polk). The major hurtle to greater participation is cost exacerbated by shrinking budgets. In looking at various Robotics Programs we have determined that the BEST Robotics headquartered at Auburn University offers a virtually a "No Cost" Program with no "Entry Fees and Kit Costs" in contrast to some Programs which

have Entry Fees in excess of $5,000 for competitions.

PRESENTATION:

Dr. George Blanks, Executive Director of BEST, presented an overview of the Boosting, Engineering, Science and Technology (BEST) program.  BEST began in 1993 by Steve Marum and Ted Mahler in Sherman, Texas and is open to all schools.  The Mission is to “encourage, enable, and empower middle and high school students to pursue STEM-related careers through participation in a sports-like robotics program and competition.”  BEST is a Non-profit, volunteer-based organization based out of Auburn University, TX.

Dr. Blanks stated, “We accomplish this by providing students with a six-week long, fall robotics competition experience.  Enlist local industries and organizations to provide mentors-technical professionals and engineers-to help guide the students.  We’re about teaching students how to think through a problem (of any kind), analyze it, and solve it.  BEST creates a setting in which it’s okay and safe for students to fail and learn from it.”  Twelve schools make up one hub.  The program is student driven.  Free software and kits are loaned to the schools.  The Local hub raises the funds to build playing fields and the robots.  The robots are both remote and autonomous.  The students must assemble the Project Engineering Notebook.

Game Day at University of West Florida in Pensacola is scheduled for October 20, 2012.  Auburn University is hosting the Regional Robotics Championship over December 1-2, 2012.

MEMBERSHIP:

Jim Anderson described the IEEE as the World’s largest Professional Organization.  The cool thing is to belong to a society to network with other Engineers.  Cost is $0.50 per day and 50% discounts to teachers, students, and transitioning professionals.  The IEEE Solutionist Video and membership applications were distributed.

RECOGNITIONS and ANNOUNCEMENTS :

1.*The RAS Society was awarded a Chapter Development Grant* from the IEEE RAS to hold two workshops entitled “Learning Your ABCs”, Arduino Breadboarding Circuits to introduce (40) HS Students to basic electrical concepts of voltage, current, resistance, the use of a multimeter and breadboard, the fundamentals of Arduino Microcontrollers, simple hardware device interfacing  (LEDS, Relays and MOSFETS), and Arduino programming techniques.

2. August 15th RAS -HCPS Secondary Science Joint Workshop at Tampa Bay Technical High School. RAS will be the be testing out its “Kinematic Tube”, a IEEE TISP Lesson Plan with (27) Hillsborough County High School Science Teachers. The Workshop will be conducted by RAS Members, Engineering Students from USF and HCC. A “ Kinematic Tube “ is an inclined enclosed guide way  which uses successive laser beam interruption events as detected by an Arduino microcontroller to measure the transit time of a ball bearing rolling down the 4’ to 8’ guide way. The measured time is then compared against the calculated value based on the angle of tilt and the separation distance between the parallel laser beams at end of the guide way. The lesson plan involves, **S**cience with its application of the “Law of Conservation of Energy”, **T**echnology with the use of LASERS, PHOTOTRANSITORS and Microcontrollers, **E**ngineering with its use of 5V DC circuits and **M**ath with its use of the Sine Function to solve the physics of the tube.

The RAS Treasury Report was postponed.

 OLD BUSINESS:

The Motion to approve the February, April, May, and June Minutes as published was made by Sean Denny; Seconded by Albert Brown.  There was no discussion and the motion passed unanimously.

Adjourned at 8:36pm by Albert Brown; Seconded by Ken Fiallos

Respectfully submitted by

Sean Denny,

Tampa Bay IEEE RAS Chapter Secretary

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