MINUTES: 9/20/2011

There were 6 IEEE members, 1 Student, and 3 guests present

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| Ken Fiallos | RAS Vice Chairman | Sean Denny | RAS Secretary |
| Jonathan Mohlenhoff | Guest Speaker IEEE | Michael Scherer | Guest Speaker IEEE |
| Shelley Kappeler | Guest | Ralph Painter | IEEE |
| David Schiereck | Guest | Adriana Schiereck | Student |
| Craig Ross | IEEE | Emma Alaba |  Guest |

Location: DeVry University at 5540 W. Executive Drive, Tampa, FL 33609
Room: 210
Date: September 20, 2011
Time: 6:40pm to 8:50 pm

 The September 2011 Meeting of the RAS Society was called by Vice Chairman Ken Fiallos.  It was a discussion of Robotics between 6:30 pm and 8:30 pm.  There were 10 participants: 6 IEEE members, 1 Student, and 3 guests present.

Ken reminded our motto is “Learn, Do, and Teach.”  Although Jim Anderson was not present to speak about IEEE membership, Ken encouraged all to participate in the IEEE because it improves our lives through the technology we support.  Ralph Painter had just taught Ohm’s Law an IB Physics Lab Class at St. Pete High School.  He said that very few knew who the IEEE was.

Ken Fiallos mentioned the August Minutes have been posted on the web.  Jonathan Mohlenhoff motioned to accept the minutes with the corrections, seconded by Craig Ross.  The motion passed.

Treasurer Reijo Hiltunen was not present therefore no official report this month.  Ken mentioned we collected $65.00 and had no expenses at our August meeting.  Jonathan Mohlenhoff moved that Ken’s Report be submitted as the Interim Treasury Report.  It was seconded by Craig Ross.  The motion passed.

 Under Recognitions, Shelley Kappeler was recently named FIRST Lego League Coach of the Year.

 First order of business was to invite Jonathan Mohlenhoff and Michael Scherer who were both members of the University of Central Florida (UCF) Robotics Club.  Jonathan gained working knowledge and experience in the field of intelligent robotic platforms through the Robotics Club and joined the ACTIVE Lab in August of 2008.  Michael works in the area of Human-Robot Interaction (HRI) to improve the conditions of communicating with heterogeneous semi- and fully-autonomous robotic platforms.  Mr. Scherer joined the ACTIVE Lab in 2011, building off of his involvement with the Robotics Club at UCF and another research position at the university where he was involved in training and control systems for medical robots.

Jonathan said their Robotics Club, [http://robotics.ucf.edu](http://robotics.ucf.edu/), is made of 85 undergraduate and graduate students.  They have a Diverse set of disciplines: Electrical, Computer, and Mechanical Engineering.  It gives the students the opportunity to learn and apply their skills.  They have great lab space at the Institute for Simulation & Training in UCF’s Research Park.  The facility includes workbenches, lab computers, Electronic Tools (Oscilloscopes, multimeters, soldering stations, & power supplies), and Machining Tools (CNC Mill, band-saw, table-saw, drill press, & hardware tools).  All of the systems developed are completely autonomous (self-navigating).  They meet the challenges of Path planning, computer vision, Artificial Intelligence, Control Systems, Team Management of six to eight people, and systems engineering.  Most robots are programmed in C++.

Intelligent Ground Vehicle Competition ([www.igvc.org](http://www.igvc.org/)) has been around for 18 years.  It is hosted by the Association for Unmanned Vehicle Systems International (AUVSI).  The Navigation Challenge is for the robot to drive to Waypoints and practice Obstacle Avoidance.  The Autonomous Challenge contains Lane Line detection, obstacle avoidance, and decision making.  The Joint Architecture for Unmanned Systems (JAUS) Challenge focuses on Systems Architecture.  Jonathan and Michael’s College based team histories with IGVC includes these robots with the following awards:

1)      Black Knight (2002-2004)

2)      RDB3K (2003-2005)

3)      Calculon (2004-2006) Note: In 2005, they won 4th Place Overall, 3rd in Design, 8th in Navigation, and 12th in Autonomous.

4)      Gamblore (2005-2007) Note: 3rd Place in Design

5)      Automaton (2010 to Present) Note: 2nd Place Overall, 2nd Navigation, 6th Autonomous, and 2nd JAUS 2011.

Autonomous Surface Vehicle Competition is hosted by AUVSI.  Fifteen competing schools battle for $20,000 in Prize Money.  They judge the channel navigations, waypoint and obstacle avoidance.  Their histories with ASVC include:

1)      Boatname 2007 Note: First Place

2)      Son of a Boatname 2008; First Place

3)      SS Boatname 2009; First Place

4)      Boatname the Brave 2010; Second Place

5)      Boatname the Brave 2011; Second Place

Autonomous Underwater Vehicle Competition is held at SSC Pacific TRASDEC in California.  Twenty eight schools compete to demonstrate computer vision and underwater navigation at 16 to 30 feet in a pool or the ocean.  Their histories with AUVC include:

1)      ORB-They won Fourth Place in Design in 2004.

2)      Scout 2007

3)      Citronaut 2009 (4th Place)

4)      Cthulhu 2010 (8th Place)

5)      Hippocamp 2011

IEEE Southeast Con Hardware Competition changes every year.  Universities from across the Southeast compete every year.  Their histories with IEEE include:  Moonin’ Knight; Knight Cycle (Recycling Robot ’09); Knight Bright (Solar Powered Vehicle ’10); UCF Robot (Search & Rescue and Threat Detection Robot ’12).  Southeast Con 2012 is being hosted by the Orlando Section of the IEEE.  UCF will host the hardware competition.  Members volunteer for FIRST, FIRST Lego League and attend the Orlando Science Center’s OTRONICON.  More information is at [www.southeastcon2012.org](http://www.southeastcon2012.org/).

UCF will have on campus events like E-Week and Open House.  They are always looking for varying levels of sponsorships.

NEW BUSINESS:

       George Schott is trying to secure the $2K Grant for elementary schools from RAS.  He needs contacts from all schools.  Ken said he could provide George with that information.  The By-Laws are still being worked on.  RAS Chapter Officer Elections are upon us.  A Treasurer, Webmaster, and Photographer are needed.  Please contact Nomination Chairman Jim Melton if you want to be nominated.  Emma Alaba asked for engineers to mentor Robofest on December 10, 2011.  They will have workshops at local St. Petersburg Libraries.

     Craig Ross made a motion to adjourn; Seconded by Ralph Painter at 8:23pm. The next meeting is October 18, 2011 at 6:30pm.

PS: After the meeting was adjourned Jonathan and Michael demonstrated their robot outside in the parking garage.

Respectfully submitted by
Sean Denny,
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