**Minutes: 05/17/2011**

There were 6 IEEE members and 7 guests present

|  |  |  |  |
| --- | --- | --- | --- |
| George Schott | RAS Chairman | Sean Denny | RAS Secretary |
| Jim Melton | Speaker/RAS | Ken Fiallos | RAS Vice Chairman |
| David Figueroa | RAS | Scott Mead | Guest Speaker |
| Emma Alaba | Guest | Juanita Andrews | Guest |
| Roberto Guerra | Guest | Ralph Painter | IEEE |
| Craig Ross | Guest | Jason DoLittle | Guest |
| Fred Sellers | Guest |   |   |

**IEEE ROBOTICS AND AUTOMATION SOCIETY (RAS)**

Location: DeVry University at 5540 W. Executive Drive, Tampa, FL 33609
Room: 210
Date: May 17, 2011
Time: 6:30pm to 9:00pm

The May 2011 Meeting of the RAS Society was called by Chairman George Schott.  It was a discussion of Robotics between 6:30 pm and 9:00 pm.  George reminded that participants need to RSVP via an email to the Chairman.George Schott revealed that the RAS April 2011 Minutes can only be read in non-Microsoft applications like I-Phones, Unix, and Linux.Otherwise it only shows the title of the Chapter where the minutes should be.The Webmaster has been asked to fix this issue.Therefore, the April Minutes were not able to be voted upon. Treasurer Reijo Hiltunen was not present therefore no report this month.

The following are the main topics from that meeting:

* First order of business was to invite James (Jim) Melton to discuss Unmanned Autonomous Flying Vehicles (UAVs).He brought in a Quadcopter to demonstrate that he could program the flight patterns into a Linux OS.The “C” Programming control was for the Electronic Speed Control Interface and the central flight control module of the UAV’s.
* An interesting sub-discussion surrounded the life of the LiPo (Lithium Battery) which is used to power the flying machine and the cameras.Jim said the Quadcopter was sold as a kit by Parrot for $400.00.Then the 802.11 WiFi apps can be downloaded for free using an iPhone.The iPhone apps were not used in Jim’s demonstration.  The ARDrone cannot be controlled by the iPhone after being linked to a laptop.  The programming controlled the flight of the UAV and was dynamically interrupted when the joystick was moved.  That is an important difference and why it did not require me to constantly control the UAV while it was in flight.  It took off by itself and landed by itself.  When no input was given from the joystick it maintained its current x, y, z axis. The video cameras attached at the front and bottom of the UAV have video stream frame rate set to 15Hz.Finally, Jim amazed the crowd by flying the Quadcopter with his phone and a joystick.It also transmitted flight data and video to Jim’s laptop so that we could see what it was doing.
* Vice Chairman Ken Fiallos spoke on a Push Button Scoring System for the Electrathon Racing called “Touch & Tally” The system had a successful test this past weekend at a Race at Brooks County High School in Quitman, Georgia. It collects lap count data through Hyperterminal and displays real time race standings on a large screen monitor. The data can also be imported into MS Excel for subsequent analysis. This is one of (4) Student Project Kits being developed to introduce students to Automation, Telemetry and Instrumentation in Electrathon Racing. Ken reminded everyone of ElectrathonOfTampaBay.ORG’s upcoming event at the FL State Fairgrounds in Tampa the Green STEM Electrathon Festival event on May 21st.Everyone is welcome to attend this free admission event ($5 Parking).
* Scott Mead, Teacher at Middleton High School, invited us to the Engineering Design & Development and Advance Technology Applications in Aerospace on May 26th at 8AM-2PM at the Middleton HS Auditorium to the hearMiddleton’s Student Presentations of their Capstone Projects. These Capstone Projects are similar to Senior Design Projects required of graduating Engineering Students.
* Steve Nies was not present; therefore no report.
* Under Old Business, George Schott discussed the RAS grant of $2,000 for next year.We need to fill out the application, bid for the request, and allot $500 per Lego Robotics teams.We can draw up a proposal to create a STEM Robotics club and pitch it to the School Boards.
* Under New Business, Ken and George explained the Chapter needs By-laws for Operating Consistency and to define officer responsibilities.Jim Melton mentioned that next month’s meeting would have two doctoral candidates from SFU at our next meeting: “Motion and Force Learning from Demonstration by Yun Lin” and “Autonomous Mobility and Manipulation of a 9-DoF WMRA by William Pence.”

The meeting dispersed around 8:50pm with a motion to adjourn by David Figueroa and Seconded by Ken Fiallos.  The next meeting is June 21, 2011 at 6:30pm.

Respectfully submitted by

Sean Denny,

Tampa Bay IEEE RAS Chapter Secretary