MINUTES: 6/19/2012

There were 2 IEEE members, 8 Students, and 8 guests present

Location: Hillsborough Community College, 10414 E Columbus Drive, Room BADM 116/117, Brandon, FL 33619;
Date: June 19, 2012
Time: 6:30pm to 8:15pm

The June 2012 Meeting of the RAS Society was called by Vice Chairman Ken Fiallos at Hillsborough Community College. There were a total of 18 people made of 2 IEEE members, 8 Students, and 8 guests present.

OFFICER ROLL CALL:

o     Chairman – George Schott-Excused

o    Vice-Chairman – Ken Fiallos

o     Treasurer - George Schott-Excused

o       Secretary – Sean Denny

o       WEB Master – Victor Basante-Absent

o       Membership Coordinator –Jim Anderson-Absent

o       Facilities Coordinator – Robert Franklin-Absent

o       Publicity coordinator – Jim Melton-Excused

o       Programs coordinator – Jim Melton-Excused

o       Chapter Photographer – George Schott-Excused

MINUTES: The April and May Minutes need to be approved at a future meeting when enough IEEE or RAS members attend.

 Other parts of the meeting were postponed for the presentation: Treasurer Report, Recognitions, New Business.

PRESENTATION:

            Ken Fiallos introduced Dr. Michael Kozdras, North American Solar Professional, who spoke about Solar Energy.  People buy Solar Photovoltaic (PV) Systems because it is a renewable energy source, sustainable, embedded, infinitely scalable, and invest their money in an energy producing improvement.  He played videos of Tony Seba discussing the economics of Solar Power; How Solar Panels are constructed by the Conergy Company in Germany; Ultra High Voltage Direct Current Transmissions via Silicon Control Rectifiers known as Thyristors, and How China is generating power from their Mountain Range to the heavily populated cities on the coast.  Solar Energy can be harnessed through Storage Inverters, Trackers, Optics, and Rooftop Panels.  It can be used for Thermal Energy in Industry, Hot Water Heating, Residential, and Pasteurization.  Solar Power can help Food Production through Urban Rooftop Greenhouses, Irrigation, Hydroponics, CC Food Production, Cooking, Food Drying, Sterilization, and Pasteurization.  The advantages for Solar-Transportation include the High Speed Rail, Electric Vehicles, Charging Stations, Fencing and Sound Barriers.  Electric Motor Propulsion will be less than 90% by 2050.  Solar will help Intensive Energy Industries which include Forest Products, Petroleum, Refining, Mining, Glass, Chemicals, Aluminum and Metal Casting.  Oil companies are investing in Solar Power.

The Five Pillars of Energy are:

1)     Shift to renewable energy

2)     Buildings as power plants

3)     Deploying hydrogen and other storage

4)     Using Internet Technology to transform the power grid

5)     Moving transport fleet to energy

Dr. Kozdras concluded with a quiz:

1)     Current World Electricity Consumption is **20,000 TerraWatt Hours (TWH)**.

2)     The Year 2030 World Energy Consumption is **200,000 TWH**.

3)     LCOE means **Levelized Cost of Energy**.

4)     Residential Electricity Rates have risen **4%**.

5)     The current module price is **$0.85 per Watt**.

6)     PV Array area required to power **675,000 acres** with 250,000,000 registered vehicles at 50 miles per day.

            ANNOUNCEMENTS:

Ken and Sean participated in Camp Steam at Pinellas Park Middle School on June 15th.  Camp Steam is an opportunity for motivated, energetic middle school students interested in the application of mathematics in a fun and exciting way.  They demonstrated the Laws of Conservation of Energy using a Kinematic Tube, Trigonometry, lasers, and an Arduino Board.  Ken and Sean demonstrated how it worked for the Teachers and Students present.

Adjourned at 8:15pm by Ken Fiallos; Seconded by Sean Denny.

Respectfully submitted by
Sean Denny,
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