



IEEE Crosstalk



The Newsletter of the Mid-Hudson Section of the IEEE

Volume XXX, May 2009

Chairman's Corner

The official IEEE anniversary date is 13 May 2009. Throughout the year, the society is celebrating 125 years of innovation and ingenuity. It has set aside special events online and across the globe. For more information, please visit <http://www.ieee125.org/celebrate/index.html>.

In April, we had two technical events: Power and Energy Society invited Dr. Mohammad Zunoubi (Senior Member of IEEE and Associate Professor at SUNY – New Paltz) to talk on the Radiation Hazards from Wideband over Power Lines and discuss the effects on utility linemen from the combination of ELF and RF radiation. The second talk was sponsored by the Computer Society titled "From Entertainment to Education: The Role of Video Cards in Electromagnetics Education". The speaker, Dr. Atef Z. Elsherbeni, is a Fellow of IEEE and Professor of Electrical Engineering at University of Mississippi. Both events were well attended.

In March, the IEEE student branch at SUNY -- New Paltz invited Bala Prasanna, IEEE R1 SPAC Coordinator, to give a talk on "Essential Skills to Survive and Thrive in Present Day Workplace in 21st Century".

Congratulations to our recent elevated Senior Members:

Mukeh Khare, Giuseppe Larosa,
Hasan Nayfeh, Antonio Rotondaro,
Stefan Zollner.

In order to provide opportunities for our membership to be elevated to Senior Member grade, we are organizing a senior membership elevation night in conjunction with our Summer Dinner event on June 16, 2009 at 5:00 PM. If you plan to participate, kindly RSVP and email your resume to me (Baback Izadi) by June 10th, 2009. Information on Senior Member elevation can be found at <http://www.ieee.org/organizations/rab/md/smforms.htm>.

Finally, to support the efforts of our Mid-Hudson IEEE members who have lost their jobs and are looking for new one, we will accept and post free business card size job seeking ads in the next issue of Crosstalk.

Upcoming Events

June 16th, 2009: Section 2009 Summer Dinner and Senior Membership Drive

In this crosstalk

- Tribute to the late George Krembs
- MGA Achievement Award
- Outstanding Young Engineer Award
- Hudson Valley FLL Report from World Expo
- IEEE Mid Hudson Science Fair Winners

Mid-Hudson Section Leadership

Chair:	Baback Izadi
Immediate Past Chair:	Lisa Shay
Vice Chair:	Greg Kilby
Treasurer:	Brett Arteta
Secretary:	Ravi M. Todi
Members-at-Large:	Larry Boland Robert Atkins David Dittmann II
Program Chair:	Kwok Soohoo

Society Chairs:

Computer:	Open
Education:	Fernando Guarin
Electron Devices:	Subramanian Iyer
Power:	Michael Spector
WIE Affinity Group:	Open
GOLD Affinity Group:	Joseph Ervin

Student Activities	Open
Membership:	Casimer M. DeCusatis
Awards Chair:	Lisa Shay
Newsletter Editor:	Brett Arteta
Associate Editor:	Open

PACE Chair:	Larry Winkler
Publicity Chair:	Open
Engineer's week:	William Ma
Tech Societies Liaison	Open
Webmaster:	Larry Winkler



Mid-Hudson Section Website

<http://www.ewh.ieee.org/11/mid-hudson/index.htm>



Mid-Hudson Section General Contact

Baback Izadi izadi@computer.org (845) 257-3823

IEEE Mid- Hudson Section 2008 Summer Dinner

DATE: Tuesday, June 16th, 2009

TIME: Social Hour 5:30 PM, dinner served at 6:30 PM

LOCATION: River Terrace Restaurant, 2 Beekman St., Beacon, NY. (845) 831-5400

COST: \$10 for IEEE members and 1 guest, \$30/person for additional guests.

RSVP to Lisa Shay (845-938-5581) or lisa.shay@ieee.org by June 11

Maximum Capacity is 45 people so RSVP early to save your spot!!

RSVP with your meal choice (Eggplant Parmesan, Chicken Francese, or Filet Mignon)

Menu: Meal includes salad, penne ala vodka, Meal Choice, Dessert and coffee/tea/soft drinks.

GUEST SPEAKER: Colonel Barry L. Shoop, Ph.D.

Deputy Department Head,

Department of Electrical Engineering

and Computer Science,

United States Military Academy, West point, New York

Education: The Foundation of a Nation

Throughout history, nations have mobilized to address a critical national need. On numerous occasions, this has been a national call for technical specialists to address specific scientific and technical needs. In 1776, John Adams declared that “Engineers are very scarce, rare, and dear ... we want many and seem to have none.” In 1802, Congress established the U.S. Military Academy at West Point to meet the nation’s critical need for military and civil engineers. Graduates of West Point played key roles as the nation expanded westward and developed the infrastructure of our nascent nation. During World War II, the nation mobilized scientists and engineers to support the Manhattan Project to meet another critical need – bringing an end to a world war. In 2003 after the fall of the Taliban, the government of Afghanistan identified engineering and technical competency as a critical national need to rebuild their nation, selecting the West Point model for their National Military Academy of Afghanistan to educate their future military leaders. Today, our nation again faces challenges relating to technical education from inspiring our next generation to pursue scientific and technical careers so that the United States can maintain a technical advantage in a global economy to defeating improvised explosive devices as weapons of strategic influence, worldwide.

This presentation will provide a historical context for technical education and address the need for technical education in the current environment.

Directions:

Take Rt. 9D south from I-84 – it’s about 1 mile on 9D from I-84 to the restaurant (the street name for 9D changes from North to Ferry to Park to Wolcott, but just look for the 9D route signs). Continue on Rt. 9D passing the turn to the train station on the right (the train station is at one end of Beekman St., but it is quicker to take 9D to the other end). Go straight through the intersection where Main St (Rt. 52) goes off to the left at a stoplight. Look for the ‘River Terrace’ sign to the right and turn right just past the sign onto Beekman St. The entrance to the parking lot is immediately on your right.

Tribute to the late George Krembs

Life Member

Section Program Chairman

Dr George Krembs was a Senior Engineer at IBM Kingston and Poughkeepsie. His career spanned many technologies and products, but he was best known for his in-depth knowledge of Displays and Monitors and his analysis of SuperComputing applications. If he was asked about a technology he was unfamiliar with he immediately researched it and was soon a significant contributor to the art. George was seldom seen without his portfolio of technical analyses and projections on the challenge of the day. He was a source of inspiration to the teams around him, always asking “why not?” Two examples of new capabilities that did not exist at the time were color displays and video streaming to the workstation. The world was still using teletype and IBM had just ventured into the ‘green screen’ era. But George was pushing for color. In the Lab a new communication loop had been developed, so George assembled a prototype system to provide video streaming along with normal display screen data. At the time most folks were asking ‘what would you use that for?’ but today we call it Webcam and Youtube, so it’s clear George knew what could be done when the bandwidth was available.

He was never at a loss for some new idea to pursue and ways to knock down technical obstacles in his view of the future. When IBM began to downsize in the 1990’s George turned some of his energy to the Mid Hudson Section becoming its Program Chair. When the calendar year began George would outline the year’s program, listing the committed speakers and dates. George always seemed to be part of the presentations due to his knowledgeable interaction with the guest speaker. He used his many contacts to create unique Section meetings, ranging from site visits to a Ferrite factory in Wallkill.... to the Cardiac Catheter Lab at Vassar Hospital in Poughkeepsie , all sites where George was the most curious. He initiated a Life Member Chapter by bringing Life members from the Boston Section to Show-and-Tell. George participated in the ABET program, established and funded a competitive innovation award for West Point students, was active in his Church and Community. He was the consummate engineer, a credit to his family, his friends, his profession, and the Institute. Dr Krembs died in March in Hurley, NY.

Lawrence Boland
Don Grice
Larry Winkler

MGA Achievement Award

Ravi Todi, our Section Secretary, was presented with the 2008 MGA Achievement Award for his outstanding leadership and sustaining contributions to IEEE GOLD, Students, and to the Electron Device Society activities. This award consists of a cash prize of \$250 and a plaque. IEEE Region-1 Director Dr. Howard Michel presented the Award to Ravi. Congratulations Ravi!!



Ravi Todi and Howard Michel

- by Lisa Shay

Outstanding Young Engineer Award

Congratulations to Dr. Madhusadan K. Iyenger, thermal engineer in Poughkeepsie, for earning the Outstanding Young Engineer (OYE) Award from the IEEE's components, packaging and manufacturing technology society. IEEE spokespersons said Madhusadan's exceptional and sustained technical innovations over the last five years have resulted in cutting edge cooling technology, products with realizable benefits to the IT industry and its' clients and resulted in patents and referred publications.

- by Robert G. Atkins

Hudson Valley FLL report from World Expo

This year marks the first time that Hudson Valley FIRST Lego League has sent a team to the FLL World Expo at the Georgia Dome and World Congress Center in Atlanta, Georgia, which was held April 15-18. The Hudson Valley championship team, Robo Rexasaurus, coached by Dr. Satry Duri of IBM, just returned from this event, which was attended by the top 84 FLL championship teams from around the world. The theme of the 2008-2009 challenge was "Climate Connections", featuring themes such as global warming, energy conservation, flood protection, carbon sequestration, and more.

We're very proud to report that our Hudson Valley team received third place overall in teamwork, out of 84 of the top teams from around the world !

Congratulations to Robo Rexasaurus, who represented the Hudson Valley for the first time at the FLL World Expo !

Dr. Duri's team tells us that they had an outstanding experience at the Georgia Dome. For 3 days, teams were judged on their research projects, robot design, teamwork, and of course robot performance (best out of 3 tries at the robot game). Since this event hosts only the championship teams, judging is more strict than at our local qualifying tournaments; standards and expectations for the students are much higher. For example, after Dr. Duri's team was initially judged on Thursday, they were asked to return for a second round of teamwork evaluation on Friday with a larger audience of 8 judges. Given their performance under this pressure, we're especially proud of these students ! They also got to socialize with leading teams from around the world, including Europe, South America, Singapore, and many more. As Founder and Director of Hudson Valley FIRST Lego League, I'd like to personally thank Dr. Duri and his team for their hard work, IBM for supporting this activity, and the many volunteers who made this past season possible in our area.

Dr. Duri and his team are planning to continue their involvement in FIRST Lego League this coming season, when the theme will be "Smart Transportation". They are also available to mentor other teams in the area and help start new activities for Lego League. You can join them; Hudson Valley FIRST Lego League will once again be sponsoring qualifying tournaments this season, as well as hosting student and coach training, helping to start new teams, or just answering your questions about the program. If you'd

like to get involved as a tournament sponsor, coach, team member, or volunteer, please contact myself or anyone on the FLL executive committee; or for more information, please visit either our local website www.myspace.com/midhudsonfill or the international FLL website www.usfirst.org

Dr. Casimer DeCusatis
Founder and Director, Hudson Valley FIRST Lego League

IEEE Mid Hudson Section science fair winners



The Mid-Hudson section of the IEEE is proud to once again sponsor awards for the 50th anniversary of the Dutchess County Regional Science Fair. As the oldest all-volunteer science fair in the country, this event allows local students to explore their interest in science, math, and engineering, and provides senior division students an opportunity to qualify for an all-expense paid trip to the international science fair. To commemorate the 50th anniversary, students this year received a Certificate of Achievement from the science fair organizing committee, signed by Nobel laureate Dr. Ivan Giaver and NASA astronaut Stephanie Wilson, who will fly the next space shuttle mission in

February 2010. They were invited to participate in the Kids Expo parade on Sunday, April 5 at the Mid-Hudson Civic Center (see attached photo).

Each year, volunteers from Mid-Hudson IEEE sponsor awards for projects related to the IEEE's areas of interest. This year's student award winners were:

First Place (\$100 gift certificate) - Brandon Smith, 7th grade, St. Mary's Fishkill, "It's a big, big magnet"

Second Place (\$75 gift certificate) - Josephine Tai, 6th grade, Van Wyck Jr. High, "How much static charge is there ?"

Third Place (\$50 gift certificate) - Charisse Haruta, 7th grade, St. Martin de Porres, "Biorobotics"

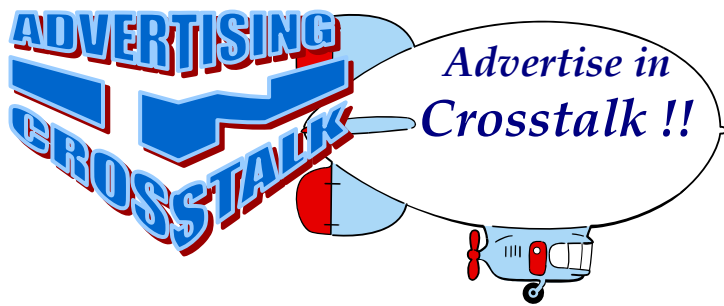
Honorable Mention - team project, Elena Sorrentino & Becky DeCusatis, 6th grade, LaGrange Middle School, "Electric Slot Cars"

Honorable Mention - Robert Verkuil, 9th grade, Roy C. Ketcham High School, "Saving energy with capacitors"

Honorable Mention - Annie DeCusatis, 10th grade, Arlington High School, "Speech recognition"

Many thanks to Bill Ma, Casimer DeCusatis, and Karol Wojnar who helped judge this year's science fair for the IEEE. Students or volunteers interested in the science fair can obtain more information from their website, www.dcsciencefair.org.

- Dr. Casimer DeCusatis



Reach over 900 engineers and professionals in the Mid-Hudson Valley. Place an ad with the Editor:

<i>Business Card:</i>	<i>\$ 30.00</i>
<i>1/4 Page:</i>	<i>\$ 50.00</i>
<i>1/2 Page:</i>	<i>\$100.00</i>
<i>Full-Page:</i>	<i>\$200.00</i>

Discounts available for long-term advertising.

Are you an IEEE Senior Member?

Becoming a Senior Member is not as difficult as you might think. According to the IEEE bylaws, "a candidate shall be an engineer, scientist, educator, technical executive or originator in IEEE-designated fields. The candidate shall have been in professional practice for at least ten years and shall have shown significant performance over a period of at least five of those years."

More information on Senior Member Elevation:
<http://www.ieee.org/organizations/rab/md/smforms.htm>