



IEEE Crosstalk



The Newsletter of the Mid-Hudson Section of the IEEE

Volume XLVI, No 5, September 2007

Chairman's Corner

This has been a busy fall for IEEE Mid-Hudson Section and we have several more events planned. I would like to thank Major Paul Patterson, the Faculty Advisor for the IEEE Student Branch at West Point for organizing a wonderful boat ride on the Hudson a few weeks ago. The food was great and the company was very interesting – a nice mix of students, IEEE Mid-Hudson Section members, and members from the North Jersey Section. Even the weather was perfect!

We have a newly-formed GOLD affinity group under the leadership of Ravi Todi, who presented some great facts about GOLD in the last newsletter (see <http://www.ewh.ieee.org/r1/mid-hudson/cross.htm> to review).

I would now like to take the opportunity to welcome Mr. Mike Spector who has volunteered to take over the Power Engineering Society. Mike has planned an event at Central Hudson's Rifton Training Center that combines both a technical presentation on the Sturgeon Pool hydroelectric facility and fun! See p. 2 for details.

Upcoming Events

October 16th, 2007 @ 5:30PM: IEEE PES meeting at the **Sturgeon Pool Dam** and Rifton Training Center. Dinner provided – RSVP to Mr. Michael Spector required by October 9th. See p. 2 for details.

October 23rd, 2007: Computer and Education Societies' meeting at West Point: "Serious Games and Virtual Worlds for Education and Training." RSVP required. See p. 4 for details.

November 2nd, 2007: 4th Annual IEEE/SUNY Fall Workshop. This year's theme is Engineering Education. CEUs will be awarded and the section will cover the registration fee for members who pre-register. See p. 5 for details.

December 7th, 2007: International Electron Devices Mini-Colloquium to be held at IBM East Fishkill from 8:15 AM to 1:15 PM. There will be at least four talks given by EDS Distinguished Lecturers including Prof. Hiroshi Iwai of Tokyo Institute of Technology. Breakfast and a working lunch will be provided to all attendees. As the details are finalized a detailed program will be made available later. Do not hesitate to contact Fernando Guarín (guarinf@us.ibm.com) or Ravi Todi (rmtodi@us.ibm.com) for more details.

Mid-Hudson Section Leadership

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Electron Devices:	Fernando Guarín
Power:	Michael Spector
WIE Affinity Group:	Rebecca Gott
GOLD Affinity Group:	Ravi Todi

Student Activities	Robert Kewley
Membership:	Casimer M. DeCusatis
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Engineer's week:	* opening
Webmaster:	Larry Winkler



Mid-Hudson Section Website

<http://www.ewh.ieee.org/r1/mid-hudson/index.htm>



Mid-Hudson Section General Contact

otism@engr.newpaltz.edu (845) 257-3827



Power Engineering Society Meeting

Pinning the Sturgeon Pool Dam

A technical presentation and tour followed by refreshments

Michael Hogan, Central Hudson Gas & Electric Corp.

Date: Tuesday October 16th, 2007

Time: 5:30 to 7:30 PM

Where: Central Hudson Gas & Electric Corp's Training and Recreation Facility in Rifton, NY

RSVP required by October 9th to Michael Spector (845) 486-5469 or mspector@cenhud.com

Abstract

The Sturgeon Pool Dam is a gravity dam built in 1922. It is 109 feet at its highest point and the overflow spillway is 500 feet long. The total drainage area upstream for the Sturgeon Pool Dam is about 783 square miles and is used to power a three-unit hydroelectric facility that totals 15 MW. Extensive analysis of the watersheds that feed the area and the stability of the dam under extreme conditions concluded that 47 post-tension anchors would be necessary to bring the dam into compliance with the newer dam design criteria. The project will also include an additional drain that will allow water to bypasses the turbines, also required to meet the newer safety criteria mandated by the New York State Department of Environmental Conservation Dam Safety Division. The final stage of the project will install a rubber crest gate system that will maximize energy output and provide safer operations at the facility. Currently there are 9 anchors installed and the schedule is to continue into the winter as long as conditions allow. In total the project will cost will be approximately \$11-12 million.

Sturgeon Pool Dam Project Presentation

1. History of Project
2. Background on Dam Failure and Stability Analysis
3. Conclusions from Analysis
4. Breakdown of steps involved in Anchoring
5. Site Tour (weather and construction permitting)

About the Speaker

Michael Hogan currently works for Central Hudson Gas & Electric as the Production Operations Superintendent responsible for operation and maintenance of generating plants; construction maintenance at electric substations; and is responsible for in-house mobile crane operations. Mike graduated in 1983 with a Bachelor of Engineering degree in Mechanical Engineering from Manhattan College. In 2000 he obtained a Masters of Science degree in Management (Construction) from Polytechnic University. During his 24-year career he has worked for Central Hudson Gas & Electric Corporation as well as Metro-North Commuter Railroad. He has held various positions related to engineering and project management. At both Central Hudson and Metro-North he is/was project manager for projects totaling upwards of over \$10 million per project.

Directions to Central Hudson's Training and Recreation Facility at Rifton, NY

From the North:

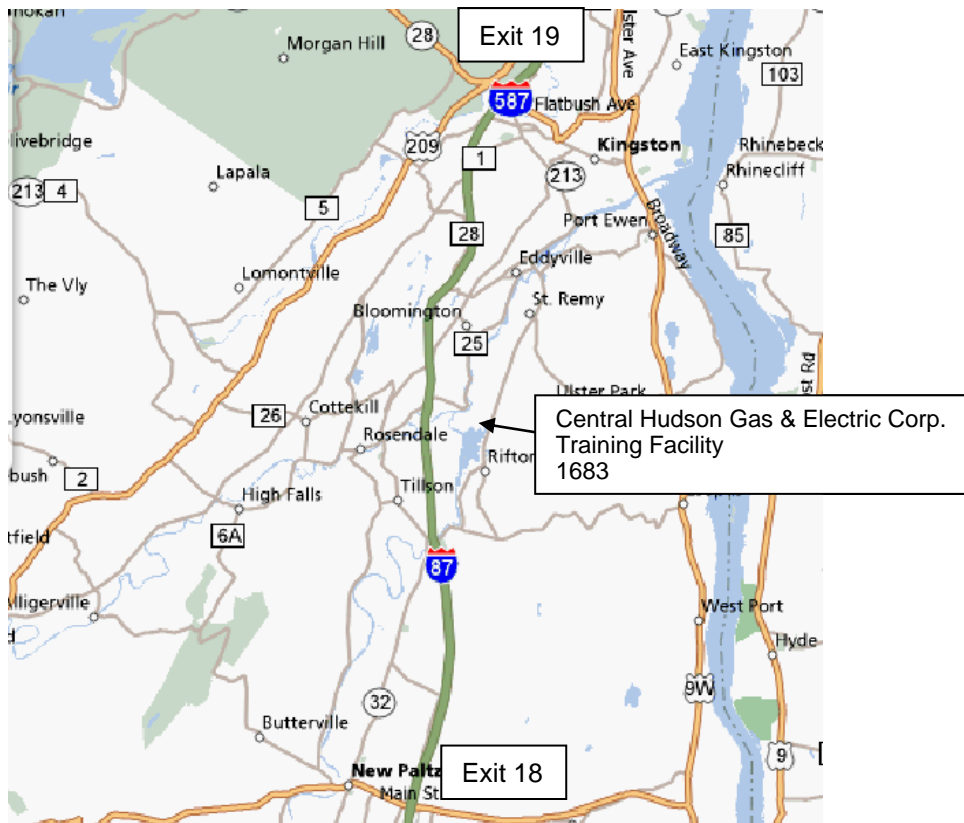
1. Take NY State Thruway to Exit 19 (Rt. 28, Kingston)
2. At the traffic circle, take Washington Avenue (2nd exit)
3. Stay on Washington Ave to the end (9 traffic lights)
4. At the second red blinking right, make a right on Rt. 32 South
5. Continue on Rt. 32 South to Rosendale. Go straight through the traffic lights and get on Rt. 213 East. Go over the first iron bridge.
6. The next town in Tilson. Go through Tillson to the next iron bridge. Slow down as Rt. 213 makes a left just past the bridge.
7. Stay on Rt. 213 for 3 miles past the bridge. You will pass a lake on the left, Coffee Systems on the right and #1683 will be the next driveway on the left with a chain link fence and gate. There is a sign:

Central Hudson Gas & Electric Corp.
Training Facility
1683

From the South:

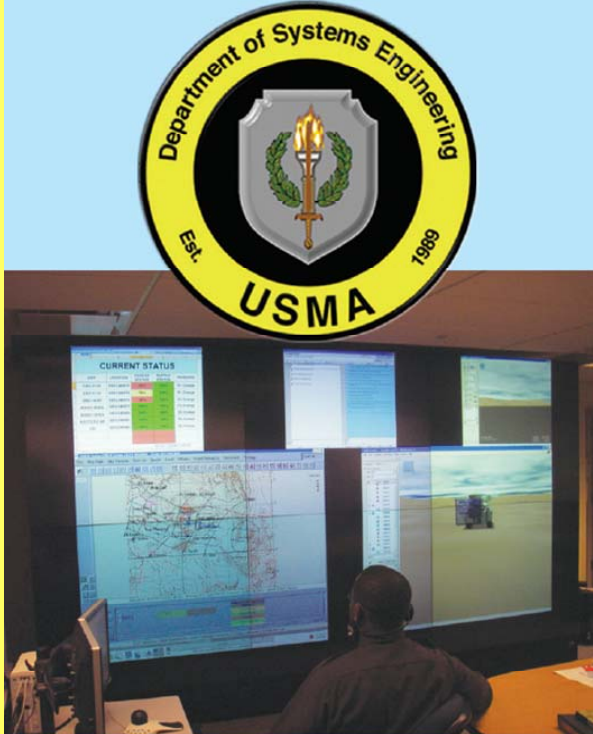
1. Take NY State Thruway to Exit 18 (Rt. 299, New Paltz)
2. At the traffic light turn left onto Rt. 299 West
3. At the 3rd traffic light, follow signs for Rt. 32 North
4. After approximately 6 miles, turn right onto Rt. 213 East (before the bridge)
5. Stay on Rt. 213 for 3 miles. You will pass a lake on the left, Coffee Systems on the right and #1683 will be the next driveway on the left with a chain link fence and gate. There is a sign:

Central Hudson Gas & Electric Corp.
Training Facility
1683



Serious Games and Virtual Worlds for Education and Training

Presented by IEEE Education and Computer Societies – Mid Hudson Section

	
<p>Department of Systems Engineering Combat Simulation Lab</p>	<p>Department of Military Instruction Warfighting Simulation Center</p>

23 October 2007 - 6:00 pm to 9:00 pm

Pizza and Drinks Included

Cullum Hall, 605 Cullum Road, West Point, NY

For directions see: <http://www.usma.edu/visiting.asp>

<p>IEEE Members Only Open to first 60 respondents RSVP with name and member number to Rob Kewley (Robert.Kewley@usma.edu)</p>	<p>Virtual instruction given at USMA Experience virtual, scenario based learning</p>
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IEEE Mid-Hudson Section Workshop on Engineering Education

Sponsored by:

The Mid-Hudson Section of the IEEE and the IEEE Education Society
The Engineering Department of the State University of New York, New Paltz campus

When: Friday, November 2, 2007

Where: The Terrace Lounge and Meeting Room, SUNY New Paltz campus (all campus facilities are fully accessible and comply with the Americans with Disabilities Act).

Registration Fee: \$20 per person - free to Mid-Hudson IEEE members or students with valid ID (includes coffee breaks and buffet lunch, plus CD ROM with presentation materials and invited papers). Advance registration payments (checks drawn on a U.S. bank only) may be made out to the Mid-Hudson Workshop, c/o The State University of New York, New Paltz, NY 12180. Attendees may also register at the door on the day of the workshop.

Scope and Purpose:

At a time when technology leadership is increasingly tied to economic growth and the advancement of society, we face a crisis in engineering education. The impact of this disturbing trend is being felt here in the Mid-Hudson Valley, from major corporations and universities to the elementary school level. In this workshop, we've invited a number of distinguished speakers with first-hand experience in the development of technical education initiatives in the Hudson Valley to describe some exciting programs and resources available to help address these issues. The emphasis will be on practical programs which have demonstrated results through increasing student participation in engineering disciplines. Public school programs under way at large school districts will be described, as well as roadmaps for revamping the curriculum through efforts such as Project Lead The Way. Extra-curricular programs using robotics, solar powered vehicles, roller coaster design, and other hands-on efforts will be discussed; the speakers will tell you how to get started with similar efforts in your area. Education efforts specific to our area needs will be outlined, including the unique challenges of gifted child education, military training, and supporting the public utility infrastructure. A panel discussion on current trends and directions in this field will also be included.

Attendees will have the opportunity to interact with the guest speakers through informal discussion breaks throughout the day, and a question/answer session will be held at the end of the panel discussion to assess those attendees wishing to apply for continuing education units under the New York State Professional Engineers program (there are no prerequisites for this workshop). Attendees will also have the opportunity to provide written feedback on the various sessions during the day. Invited papers and other presentation materials will be made available on CD as part of the registration package.

Agenda

8:00 – 8:45 On-site registration and coffee

8:45 - 9:00 Welcome (Dean , SUNY New Paltz; Chair, Mid-Hudson Section of the IEEE)

9:00 - 10:00 Diana Jensen-Dooling, Project Lead The Way

10:00 – 10:30 Val Suter, Curriculum Supervisor for Science & Engineering, Arlington School District &
John Merlino, District Coordinator for Science & Technology, Wappingers School District
(confirmed)

10:30 – 10:45 coffee break

10:45 – 11:15 Heather Ware, Cornell Cooperative Extension, “Technology Programs for grades 5-12” (confirmed)

11:15 – 11:45 Carolyn DeCusatis, SUNY New Paltz, “FIRST Lego League” (confirmed)

11:45 - 12:15 Buffet Lunch, The Terrace Lounge

12:15 – 1:45 Dr. Leah Akins, Dutchess Community College, Mid-Hudson Technology Council, “Scintilla Forum and Economic Development in Dutchess County” (confirmed)

1:45 – 2:15 Casimer DeCusatis, IBM, “Collaborative Education for Generation Y” (confirmed)

2:15 – 2:30 coffee break

2:30 - 3:30 Sheila Appel & Nasseer Siddique, IBM Corporation, “Mid-Hudson Education Excellence committee, E.X.C.I.T.E program, and Corporate Citizenship” (confirmed)

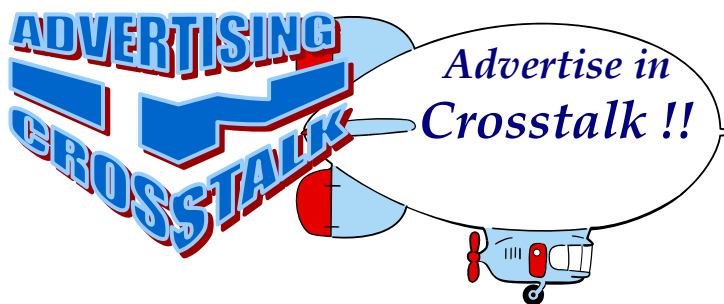
3:30 – 5:00 Panel Discussion, “Local initiatives in engineering education” (all invited speakers)

5:00 – 5:10 Concluding Remarks (Dean, SUNY New Paltz)

Continuing Education Units:

Attendees who register for this workshop are eligible for 0.7 Continuing Education Units (CEUs) under the New York State Professional Engineers License Program, for an additional fee payable either in advance or on the day of the workshop. The IEEE is an authorized CEU provider of the International Association for Continuing Education and Training, IACET provider # 1255.

For more information, please contact Dean of Engineering, SUNY New Paltz campus, (845) 432-9400 (jharrington@suny.edu) or Dr. Casimer DeCusatis, IBM Corporation, 2455 South Road MS P343, Poughkeepsie, NY (845) 435-7232 (decusat@us.ibm.com).



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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>

Congratulations to the recently elevated senior members:

Paul Patterson
Oliver Patterson
Murali A Padaparambil
Mohammad Zunoubi
Damu Radhakrishnan

New Member Grade: Graduate Student Member

New Member Grade for Grad Students – In 2007, a new Graduate Student Member (GSM) grade goes into effect, and the IEEE will make all the changes necessary for those who qualify. Essentially, GSMs continue to pay the low student dues rate, but will be able to vote in IEEE elections (unlike student members) and will be eligible to hold volunteer positions previously restricted to member grade or higher in IEEE sections, chapters, and the affinity groups of GOLD and Women in Engineering. If you have any queries, or for further details, contact IEEE Member Services (tel: +1 732 981 0060 or e-mail: member-services@ieee.org).