

**April 2009**See us on the WEB at: <http://www.ewh.ieee.org/r2/susquehanna>**April 2009 Section Meeting****"Signal Integrity Symposium"**

**Date:** Tuesday, April 14, 2009  
**Time:** Registration: 8:30 AM  
Symposium: 9:00 AM – 4:40 PM  
**Place:** Capital Union Building (CUB), Penn State Harrisburg, Middletown, PA 17057  
**Lunch Cost:** \$20  
**Contact:** To register and for additional information (and direction), contact Brenda Firestone at 717-948-6538, [blf3@psu.edu](mailto:blf3@psu.edu), Aldo Morales [awm2@psu.edu](mailto:awm2@psu.edu), or Sedig Agili [ssa10@psu.edu](mailto:ssa10@psu.edu).

**Note that lunch cost gives access to lunch with the opportunity to interact with speakers. It does not provide access to the talks.**

Penn State Harrisburg's Center for Signal Integrity will host the Central Pennsylvania's Third Symposium on Signal Integrity. The schedule of talks are as follows: "Jitter," by Dr. Ransom Stephens, "USB 3.0 Electrical Challenges and Solutions," by Dr. Howard Heck from Intel, "Gems: A General-Purpose Electromagnetic Solver For EMI/EMC Problems Arising In Electronic Packages," by Dr. Raj Mittra from Penn State University, "Via and Via Array Modeling on Crosstalk," by Dr. Jun Fan from Missouri University of Science and Technology, and "Improved De-embedding Techniques for Highly-coupled Multiport Fixtures," by J. Martens from Anritsu. More information on the Symposium can be found in the Center's website at <http://www.hbg.psu.edu/csi>. Note that the symposium is co-sponsored by IEEE Susquehanna Section.

Signal integrity involves the quality of electrical signals passing through connectors used in electronic devices like computers or cellular phones. Known as the "connector capital of the world," the Harrisburg metropolitan area is home to more than 25 electrical connector companies. Dr. Sedig Agili and Dr. Aldo Morales, electrical engineering faculty members at Penn State Harrisburg, estimate that the region holds 80 to 90 percent of the U.S. connector market and about half of the market worldwide.

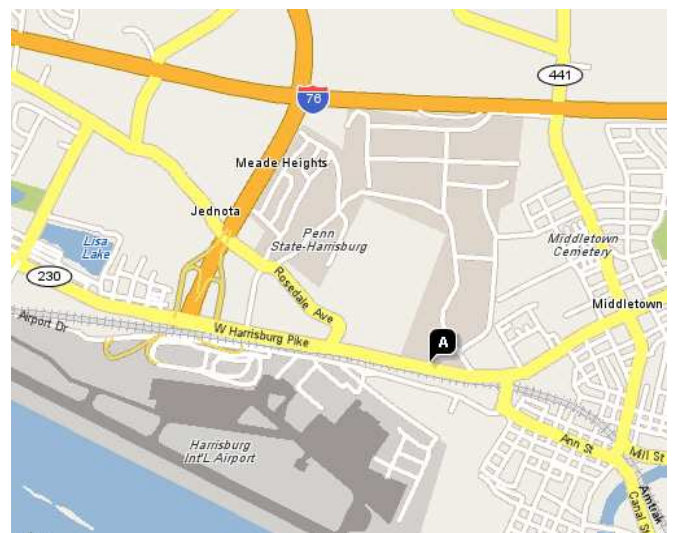
The Center for Signal Integrity assists Central Pennsylvania's numerous connector companies with product development by fostering collaboration between them and the college's engineering faculty and students.

**Direction**

The entrance to Penn State Harrisburg is located on PA 230, west of Middletown. Proceed to the library (across the west side of Olmsted Building, to the south) and park in the lot. Arrangements will be made to avoid parking tickets. Further information will be provided when your reservation is confirmed.

**From PA Turnpike (I-76):** Get off at exit 247 (Harrisburg East). Follow PA 283 East toward the Harrisburg International Airport. Follow signs for the airport and the college. Before entering the airport complex, take the exit for PA 230. Turn left at the junction of 230. Proceed on 230 East for approximately 1 mile. The college entrance is on the left.

**From Lancaster and Points East:** Take Route 283 West toward Harrisburg. Follow signs for the airport and the college. Before entering the airport complex, take the exit for PA 230. Turn left at the junction of 230. Proceed on 230 East for approximately 1 mile. The college entrance is on the left.



Counties Served: Adams, Cumberland, Dauphin, Franklin, Juniata, Lancaster, Lebanon, Mifflin, Montour, Northumberland, Perry, Snyder, and York.

## March Section Meeting

About 33 members and guests attended an outstanding tour of the new WITF facility for our March meeting. Art Straub was our WITF volunteer tour guide who did a tremendous job of fielding some very good questions from our group. The meal at Gilligans was excellent too!

WITF followed up with the answers to a couple of questions that were asked by the members. One of the questions was whether the cameras in the studio are able to capture and output a 1080 pixel resolution, and whether WITF digital system is able to transmit at that resolution. The response was that the cameras are capable of outputting 1080i format via software switching. However, the format of choice right now is 720p. The second question was whether helicopter traffic interferes with the microwave link to the transmitter, and whether there is some specific way that WITF deals with such a problem. In response, it was mentioned that they had never had any interference problems from helicopter traffic. Finally, one of the engineers was wondering whether the microwave repeaters used to link WITF with other public stations around the state were still in use, and if not, what is taking the place of those links (satellite?). The answer was that instead of microwave repeaters, they currently use an OC3 (fiber) ring to the other stations.

## 2008 Tentative Schedule of Events

Tuesday, May 12  
 Tuesday, September 8  
 Tuesday, October 13  
**Free for students**  
 Tuesday, November 10  
 Tuesday, December 8

### Useful Information Column

#### Susquehanna Section Chair

Sedig Agili  
 Telephone: 717-948-6109  
 FAX: 717-948-6352  
 E-mail: [ssa10@psu.edu](mailto:ssa10@psu.edu)

#### Vice Chair (Programs)

Robert Gray  
 717-948-6636  
 E-mail: [rxg31@psu.edu](mailto:rxg31@psu.edu)

#### Newsletter Editor

Mohammad-Reza (Soheil) Tofighi  
 Telephone: 717-948-6112  
[mtofighi@psu.edu](mailto:mtofighi@psu.edu)

#### Webmaster

David Sarraf  
[david.sarraf@paonline.com](mailto:david.sarraf@paonline.com)

#### Q/A-C Column

Do you have any questions or comments? Call, email or FAX it to our Chair at the above address.

#### Newsletter Mailing or WEB Page Notification

If you do not receive your Newsletter, please notify AB Shafaye [mes121@psu.edu](mailto:mes121@psu.edu) or Soheil Tofighi [mtofighi@psu.edu](mailto:mtofighi@psu.edu). If you would like to convert from paper copy mailing of the Newsletter to WEB page delivery, please notify AB Shafaye, who serves as our Publisher.

#### Address Changes and Updates

There are several ways to correct member information with IEEE. They update their directory from the information you provide, and pass the changes to us monthly. Keeping your address information up to date will ensure accurate mailings.

There is a WEB based interactive "change of address" form at: <http://services1.ieee.org/membersvc/coa/intro.htm>

You can send an email to: [address-changes@ieee.org](mailto:address-changes@ieee.org)

Call IEEE Member Services at 1-800-678-IEEE

Mail changes to:

IEEE  
 445 Hoes Lane  
 P.O. Box 1331  
 Piscataway, NJ 08855-1331  
 FAX changes to 1-732-981-9667

#### Advertisements

Card Size: \$15/month  
 Page: \$75/month

<p><b>Current Officers</b>  <b>Chair</b>                      Sedig Agili  <b>Vice Chair - Program Chair</b>                      Robert Gray  <b>Treasurer</b>                      Hossein Jula  <b>Secretary</b>                      Vittal Balasubramanian  <b>Newsletter Editor</b>                      Mohammad-Reza Tofighi</p>	<p><b>Awards</b>                      Ernest Guenin  <b>Central PA Engineers Week Council Representatives</b>                      Bob Horst / Aldo Morales / AB Shafaye                      Bob Klingner  <b>Educational Activities</b>                      Aldo Morales  <b>GOLD Coordinator</b></p> <p><b>Local Professional Activities</b>                      Bob Klingner  <b>Webmaster</b>                      David Sarraf  <b>Member at Large</b>                      Arthur Van Gelder</p>	<p><b>Membership Development</b></p> <p><b>PACE</b>                      Roy Hoffer  <b>Program Committee</b>                      Bob Klingner                      Dave Sarraf                      Larry Brown                      Troy McBride  <b>Newsletter Publisher</b>                      AB Shafaye  <b>Student Activities</b>                      Marjorie Rawhouser  <b>Student Representative</b>                      William F. Maney IV</p>
--	---	---