

PHILADELPHIA SECTION of the IEEE

Membership in these counties: Bucks, Chester, Delaware, Montgomery, Philadelphia, (PA)
Burlington, Camden, Gloucester (NJ)

Almanack



Vol. 59, No. 6 www.ieeephiladelphia.org

June 2014

NO IEEE NIGHT June July or August 2014

Meetings resume Sept. 16

Amazon Tour August 1

CONET meets August 5

June 3rd - IEEE/ ASCE / AIA Young

Member Social

6:45 P.M. - 9:30 P.M.

Location: Yards Brewery in Northern Liberties.

For registration information email the section office at sec.philadelphia@ieee.org.

Coordinated by Phil Gonski Flyer on page 14.

Inside the Almanack.

Chair's Message	2
Introduction to MATLAB	3, 4, 5
Employment Network	5, 6
Engineers' Club	7
Spotlight Series	8
Section Notes	9
Continuing Education Program	10
CONET	11
Ernest's Page	11, 12
Amazon Tour	13
Yards Tour	14

June 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3 Young Professionals Tour	4	5	6	7 Matlab Course Part 2
8	9	10 Adcom	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26 Employment Network	27	28
29	30					



Chair's Message

By Philip Gonski, P.E.

When most people think of the profession that is most important to public health and safety, the most common answer is medical practitioners and first responders. Without a doubt, their contributions to our lives are critical, and I am certainly thankful to have personally benefited from their handiwork.

Overlooked is the contribution and reliance on engineers and architects, upon which the public entrusts nearly every day with their lives and property. Civil Engineers are tasked with ensuring our water is safe and our highways are designed properly. Without architects, buildings would be made of improper materials, and not be functional based on the needs of the occupant. For our own part, without a qualified electrical designer, lives and property would be lost due to fires or electrocution.

So much so, that people take it for granted that the lights will turn on when

they flip the switch, that buildings will have restrooms, and that the water will properly drain during a storm.

Coordination amongst these three disciplines certainly does have room for improvement. Quite a few libraries come to mind, where the functional usage of the floors was not conveyed to engineers, and top floors were not designed to support bookshelves. The Thompson Center in Chicago also is a prime example of a lack of coordination, where the architect removed multiple engineers who told him the building could not have a functional HVAC system. The result is a building that serves as a realistic simulator of being on the surface of Mercury in the summer and Neptune in the winter.

For my part, if I designed buildings, they would more than likely be concrete rectangles, and have half of the building devoted to electrical equipment.

To help us open up a better dialogue, I am pleased to announce our upcoming ASCE/AIA/IEEE Young Member Social on June 3. The event will feature a discussion about the functional space of the brewery, the process side of brewing, as well as the instrumentation and electrical systems that deliver the final product.

Whether young in age or young at heart, I encourage you to visit our website and sign up for this exciting network opportunity!

The Flyer is on page 14



Unbelievable prices!



Hands on Introduction to MATLAB

Presented by Thomas Chmielewski, Ph.D

Hosted by Drexel University Electrical and Computer Engineering Department

May. 31st and June. 7th, 2014

9AM – 4:00PM

(Successive Saturdays)

This IEEE Philadelphia Section ***Hands on Introduction to MATLAB*** is a tutorial to both, introduce MATLAB to those who have not used it, and to demonstrate its features to those who have some exposure to this valuable tool. Each student will be given access to a pc with MATLAB and its toolboxes.

MATLAB[®] by The MathWorks[™] Corporation is both a computer language and a set of tools for designing and simulating systems in diverse areas such as Bioinformatics, Controls, and Signal Processing. It also includes facilities for converting a system prepared in MATLAB code into hardware.

This Workshop will introduce the participants to MATLAB Computational and Graphics capabilities by means of hands on tutorials and exercises. In addition to elements of the language, participants will be introduced to the use of cell mode for rapid code development, testing and as means of publishing their results. An introduction to various toolboxes including the Symbolic Toolbox (for symbolically solving equations); the Controls Toolbox, the Signal Processing Toolbox and the Image Processing Toolbox will also be included. Demonstrations with problem solving will include: control system design (with Simulink), computing the FFT with windowing, digital filtering design and reading data from Excel files.

The course will consist of a set of assignments organized to develop the participant's knowledge in an incremental method. A sequence of projects will be available to guide the student through important features of MATLAB, but additional projects will be provided for those wishing to develop a different set of skills as well as demonstrations of advanced functionality. **Staff will include the presenter and teaching assistants to work closely with the participants and help with frustrating problems so common in computer use.**

Presenter: *Thomas Chmielewski* is owner of TAC Consulting Co. LLC which specializes in modeling and simulation of control systems. He received his Ph.D. from Drexel University where he is also an Assistant Teaching Professor.

Agenda:

Day 1

1. Basics of Matlab
 - command window
 - workspace
 - directory
 - “calculator mode”
 - reserved words
 - variables (numeric and character)
 - built in functions
 - vectorized operations
 - plotting
 - help facility
2. Creating programs
 - mfiles
 - cell mode
 - debugging with cell mode
 - creating functions
3. Programming constructs
 - for loops
 - if then else
 - switch/case
4. Command line input output
 - display
 - input
5. Basic reading and writing to EXCEL files and txt files
 - reading and writing an EXCEL file
 - writing data to txt files
 - fprintf

Day 2

6. Symbolic Toolbox Introduction
 - Defining symbolic variables
 - Solving linear equations
 - Solving differential equations
 - Creating functions from symbolic results
7. Engineering Examples
 - linear regression of data, curve fit
 - solution of differential equation
 - computing the FFT with windowing
8. Brief overview of toolboxes
 - image processing example
 - control system example
 - Simulink
 - IIT/FIR filter design tools
9. Final class exercise
 - Students may choose to solve one or more of a selected set of problems

Intended Audience: The course is designed for practicing engineers who wish to learn MATLAB. The applications covered are mostly from areas in Electrical Engineering.

Location, Hours and Lunch: Drexel University Bossone Research Center, Suite 605

Market Street (between 31st and 32nd Sts.), Philadelphia, PA 19104, from 9:00 AM to 4:00 PM. Lunch (12:00 PM to 1:00 PM) is on your own and is available from several venues on and off campus.

REGISTER ON-LINE at www.ieeephiladelphia.org or complete the attached form.
Continuing Education Credits will be granted pending the IEEE approval.

REGISTRATION FORM - IEEE-Philadelphia Section: Introduction to MATLAB
 (Questions? Call 484.270.5136) Registration includes notes. Lunch and parking are not included, but they are available nearby.

REGISTER ONLINE at www.ieeephiladelphia.org or complete attached form:

	Payment received before May 23, 2014	Payment received after May, 23 2014
IEEE Member	<input type="checkbox"/> \$150.00	<input type="checkbox"/> \$175.00
IEEE Non-Member*	<input type="checkbox"/> \$225.00	<input type="checkbox"/> \$250.00

*Non-members are encouraged to sign up for IEEE membership to receive the member price.

REGISTRATION INFORMATION:

Name(s) _____ Company _____

—

Address, City, State, Zip _____

Email _____ Phone _____

IEEE Member # _____

BILLING INFORMATION:

Enclosed is a check in the amount of \$ _____ Payable to “IEEE-Phila”, or charge \$ _____ to my

___ Visa ___ MasterCard ___ Amex ___ Discover Exp. Date _____ CSV # _____

Credit card # _____

Name on Card _____

Billing Address, City, State, Zip _____

Billing Telephone# _____

Email to the Section at sec.philadelphia@ieee.org or mail to: IEEE Philadelphia Section
 11 Bala Avenue Bala Cynwyd, PA 19004 Questions? Tel: 484-270-5136
www.ieeephiladelphia.org.

IEEE Philadelphia Employment Network Group

Date: Thursday, June 26th, 2014

Time: 7:00 - 9:00 PM

Topic and Speaker: IEEE Employment Network - Job search topics, open discussion roundtable and professional networking – Moderated by George Butts

Location: Drexel University Campus

Building: Bossone Enterprise Center - 7th Floor

Room Number: Room 709, 7th Floor

3128 Market Street, Philadelphia, Pennsylvania 19104

Cost: No Charge, snacks will be served, everyone is on their own for drinks.

Parking: Parking: Nearby lots: (1) On the left side of Market Street just before 31st Street; (2) on the right side of Market Street, just past 31st Street; (3) from Market make Left on 36th to University City Sheraton garage. Public Transportation: SEPTA (Rail: 30th-Street Station; Subway and Trolley: The Market-Frankford Line (the Blue Line) stops at 30th and 34th Streets and all trolley trains (the Green Lines) stop at 30th and 33rd Streets.)

Click to register for this event:

https://meetings.vtools.ieee.org/meeting_view/list_meeting/26353

Paid Ad

ILLUMINATE PHILADELPHIA
A LIGHTING EDUCATIONAL CONFERENCE

LIGHT NOW!

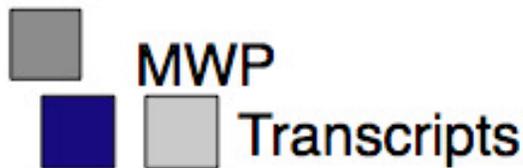
the HUB
@CIRA CENTRE

Join the IES Philadelphia for our one day lighting education conference and exhibit. The event will feature accredited seminars given by top lighting experts. Learn about the latest research & trends, energy codes updates, case studies, and more...

The latest challenges, research & creativity in lighting design

LEARN MORE:
WWW.ILLUMINATEPHILADELPHIA.ORG
WWW.IESPHL.ORG

THURSDAY, OCTOBER 9, 2014



Audio and Visual Transcription

- Engineering, Medical, Legal and Business Conferences
- Seminars, Focus Groups
- Documentaries, Interviews
- Online Forum Downloads
- Word Processing
- Meetings
- Executive Summaries
- Writing, Editing, Proofreading



Moorestown Word Processing [MWP]. We do it right. The first time.

Patricia M. Thierry, PRESIDENT
214 Flynn Ave., Suite 206, Moorestown, NJ 08057
phone: 856-234-4226 fax: 856-234-1645
pat@mwptranscripts.com
mwptranscripts.com
ftp.mwptranscripts.com

Interesting Meeting of the Engineers' Club of Philadelphia

Restoration and Preservation on Capitol Hill: Networking, Presentation by the Architect of the Capitol, and Engineers' Club Annual Meeting - June 19

The Engineers' Club of Philadelphia, the American Institute of Architects, Philadelphia Section, and Construction Management Association of America, Mid-Atlantic Chapter are pleased to jointly sponsor an evening with Stephen T. Ayers, FAIA, LEED AP, Architect of the Capitol.

As the stewards and caretakers of the iconic buildings of Capitol Hill, the Architect of the Capitol (AOC) is responsible for maintaining and preserving the seat of American democracy. Mr. Ayers will provide an engaging and informative presentation where participants will learn what it takes to keep this "city within a city" operating efficiently and effectively.

The AOC's roles and responsibilities will be explored and an overview of ongoing preservation and restoration initiatives will be discussed. Current and recently completed projects will be described, including the Dome Restoration project, the Capitol Visitor Center and the Supreme Court Modernization project.

The need for strong leadership by engineers and architects in the public sector will be discussed and lessons learned from the political battlefield at the AOC will be

revealed. New and innovative ways of prioritizing work requirements will be reviewed and explored.

This event is anticipated to qualify for 1 PDH and 1 AIA/CES CEH (pending).

DATE: Thursday, June 19, 2014

SCHEDULE:

4:30: Club's Annual Business Meeting (Guests can skip this)

5:30: Cash Bar and Networking

6:30: Dinner

7:30: Presentation by Stephen T. Ayers, FAIA, LEED AP, Architect of the Capitol (AOC)

COST: \$60 ECP/AIA/CMAA Members / \$70 Non-Members (on or before Thursday, June 12)

\$70 ECP/AIA/CMAA Members / \$80 Non-Members (after Thursday, June 12)

LOCATION: Sonesta Hotel, 1800 Market Street, Philadelphia, PA

RSVP DATA:

Online:<http://enrclub.org/to/AnnMtg/>

Email: reservations@enrclub.org

Call: 215-985-5703

Mail: Make checks payable to Engineers' Club of Philadelphia and send to Engineers' Club of Philadelphia, 215 S. 16th Street, Suite 16, Philadelphia, PA 19102

Reservations after June 12 will be on a space-available basis.

Menu selections are: Parmesan Herb Crusted Chicken Breast (vegetarian option available upon request)

Discounted parking (\$12) is available at the Sonesta parking garage.

For questions, call 215-985-5703 or email reservations@enrclub.org

We will strive to accommodate walk-ins, but cannot guarantee a seat.

Due to catering commitments, payment will be expected for all reservations regardless of attendance.

IEEE Philadelphia Section

SPOTLIGHT SERIES



The Delaware Valley contains a large number of highly accomplished electrical engineering design firms.

A power plant fueled by chicken litter. A building that is LEED certified. A renovated historical building turned into a state of the art facility.

Exciting projects are going on all around our area that need to be showcased to both members and to students. This is your chance to showcase your projects to all in the area.

If your company has a project to present, email the Philadelphia Section office at sec.philadelphia@ieee.org.

Section notes

IEEE PHILA. SECTION OFFICERS

Chair: Philip Gonski, P.E., pgnski@gmail.com

Vice Chair: Adam Fontecchio, Ph.D., sec.philadelphia@ieee.org

Treasurer: Richard Primerano, Ph.D., sec.philadelphia@ieee.org

Secretary: Leonardo Urbano, sec.philadelphia@ieee.org

Past Chair: Mark Soffa, msoffa@kns.com

Main Office: 11 Bala Avenue, Bala Cynwyd PA 19004, 484.270.5136

sec.philadelphia@ieee.org

Adcom meets second Tuesday of the month (June 10.) at the Sheraton University City. Members are welcome to attend. Reserve a seat by calling the office by the Friday before.

Almanack Staff

Publisher: Philip Gonski, P.E.

Editor: Peter Silverberg

Asst. Editor: Janet English-Cartwright, jenglish@fi.edu

News and notices contact psilverberg3@comcast.net or 856.461.6615 or fax 509.461.6617

Deadline for the September issue is August 12, 2014. We do not have a July or August issue. New & improved web site: www.ieeephiladelphia.org

ADVERTISE IN THE ALMANACK:

The Philadelphia Section of the IEEE encourages placement of technical, professional, promotional and commercial advertisements in the Almanack. The Almanack is published ten times a year and is read by more than 4,000 members with an average annual salary of over \$70,000 in over 150 key industries. For more information, contact Peter Silverberg at 856.461.6615 or psilverberg3@comcast.net

Rates:

Full Page: 7.5x10: \$100

3/4 Page: 7.5x7.5: \$75

1/2 Page: 5 x 5: \$50

1/4 Page: 2.5 x 5: \$25

1/8 Page: 2.5 x 2.5: \$12.50

YOU CAN STILL ADVANCE TO SENIOR MEMBER

It matters not if you missed the workshop. You can apply to be a Senior Member at any time. All you need is the proper forms that are on the IEEE web site under membership. If you need references, contact Robert Lawson rclawson@ieee.org 215.327.6217 .

Senior Members and Fellows who would like to join a panel as part of a vacation trip, here is the schedule for the rest of 2104. Peter Silverberg will research precise locations if you think you will participate.

June 14 – Providence RI

September 13 – Toronto, Ontario

July 12 – Minneapolis MN

October 18 – Buenos Aires, Argentina

August 9 – Berlin, Germany

November 22 – New Brunswick, NJ



CONTINUING EDUCATION PROGRAM

Suggest events, topics, or even submit a proposal to teach a course.

The IEEE Philadelphia Section is one of the largest and most active sections of the 350 IEEE sections worldwide. The local IEEE Philadelphia Section supports over 4,000 members - which organizes and offers free technical chapter talks, short courses and conferences each year.

One of the many goals of the Philadelphia Section is to provide the local technical community with quality, affordable, state-of-the-art professional development training. The courses should be organized with an applications oriented focus and have specific, immediate benefits to help the attendee perform their job better.

Our courses range from 1 hour to as many as 13 hours (multi-days). Many factors determine the format of the course; the instructor's schedule, how the subject matter is best learned by the attendees, etc. Also, being a 501(c)(3) non-profit, and keeping a close eye on costs, the IEEE can offer its courses at a lower fee than many other associations and almost all for-profit organizations. We do offer an honorarium to those speakers that make a request.

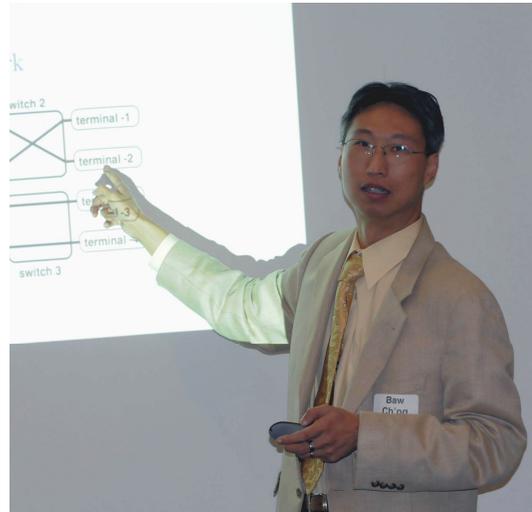
All course proposals are reviewed by the Education Committee for appropriateness, technical merit, and to offer recommendations to help structure and focus the course to be more beneficial to our audience, before being offered as part of our continuing education program. We seek instructors that can provide the technical skill, knowledge and experience in their specific field to benefit the local working professionals.

Do you have a topic to teach? If the answer is yes, go to www.ieeephiladelphia.org and click the Submit Course Proposals Tab, top right navigational bar.

CONET Meeting News

The IEEE Philadelphia Consultants Network (CONET, www.PhilaCONET.com) held a meeting on Tuesday, May 6. The next CONET meeting shall be on **Tuesday, August 5**.

The May 6 meeting featured a presentation by Mr. Baw Ch'ng of BAWMAN LLC on Quality of Service (QoS) in Networking and Telecommunications. Mr. Ch'ng specializes in wireless telecommunications & networking. Mr. Ch'ng's presentation covered the motivation for QoS, its concepts & principles, its applicability under different circumstances, its academic origins & theoretical underpinnings, its techniques & standards, its impact on consumers, commercial products, and regulations & policies. Mr. Ch'ng also shared his thoughts and insights on future research & development for QoS as technologies, applications, and consumer expectations evolve. Mr. Ch'ng's presentation, and other past CONET presentations, may be accessed at www.PhilaCONET.com.



Meeting attendees were also regaled by a real-world tale of consulting contributed by Mr. Roger Boyell, CONET's former chairman and a forensic engineer. The tale concerns how a local government and one of its technology vendor entered into a dispute over whether said vendor has fulfilled its technology supply obligations and whether the local government should compensate the vendor depending on whether the vendor has fulfilled its contractual obligations. Mr. Boyell described how professional consultants contributed to the resolution of that dispute as expert witnesses for either party.

Next Meeting: The next CONET meeting will be held on **Tuesday, August 5**. The August 5 meeting is expected to feature Michelle Christian, a Regional Manager of The Company Corporation. Ms. Christian is expected to talk about business structures and legal entities (primarily S-Corp and LLC) as they pertain to the consulting business.

Kindly visit www.PhilaCONET.com for information on membership, up-coming meetings, past meeting presentations, and to learn more about the wide range of consulting services offered by CONET consultants from CONET's online Consultant Directory.

(Ernest's Page)

Memories

by Ernest Cohen , Ph.D.

Being almost 82 years old, I have a lot of memories, some relating to science and technology. My father was a self-taught mechanical engineer and inventor. A few years before I was born, he came up with the invention that meant the most to him, although it never became commercial: it was a vending machine for lighted cigarettes. Not finding backers in America, he went to Europe. I have a photograph of my father standing in front of the prototype. A souvenir of this trip was the 1928 volume of the British magazine *Television*, which I voraciously read as a teen.

He then started the Hilton Tool and Machine Company, which made frames for garment bags. The first factory I remember was located on the second floor of a loft building in downtown Manhattan. The individual machines were powered by belts from line shafts, and the whole system was powered by a single large electric motor; nineteenth century technology, but what I learned from that I applied very many years later at Cornell University. One Sunday, I helped install a doorbell at the factory. This left me with a very large coil of bell wire. The impedance was sufficient that when plugged into a wall socket, it did not blow the fuse, but served as an air core magnet. It was fun to magnetize iron objects.

Our parents bought a house in 1942, and my brothers and I got into more things. My older brother studied chemical engineering and then got a Ph.D. in Physical Chemistry. He had a chemistry lab in the attic, and used to set off exotic exothermic reactions for July Fourth. My other brother, who spoke at a section meeting about a year ago, had an electrical lab, which included a large motor generator to produce DC (an example of nineteenth century electric technology). He studied electrical engineering at Cornell University. My brothers installed a telegraph line between their bedrooms. I took apart bicycle hubs. We had machine tools in the attic. I was proficient with the drill press. Not everything worked out: when I was making a rubber-band-powered toy boat from the wood of cheese boxes, the knife slipped, and I cut deeply into my knuckle, which became infected. If not for, which had just become available, I would have only nine fingers today.

In junior high school, I entered a hobby show by playing records backwards. To do that, I cut the shading coils on the motor. The turntable was not self starting any more, but it would go whichever way you turned it. I won a fountain pen for this “hobby,” and then restored the shading coils with copper wire.

I always was fascinated by rail transit systems. I rode all the subway and elevated lines in Manhattan and the Bronx, and most of the trolley lines. I particularly remember enjoying the Third Avenue El, gone some half century now. I would stand at the front, and watch the track and everything else. I was too young to ride the other Els in Manhattan. As an adult, I have ridden on all four of the most unusual transit operations in the world: the San Francisco cable cars, the Morgantown, West Virginia people mover, the underground funicular in Haifa, Israel, and the hanging monorail in Wuppertal, Germany.

After the War, my father decided to go to the Midwest, to see some customers, and took me along. I enjoyed seeing rail transit in Cleveland and riding on the Chicago loop trains. After Chicago, we went north to Milwaukee, where I saw, but did not ride, the immense interurban rail cars. We crossed into Canada at Sault Saint Marie, and then turned east. Approaching Sudbury, Ontario, I was intrigued by suddenly noticing a trolley on tracks beside the highway.

As a city boy, I was not familiar with interurban trolley lines in rural areas. The region around Sudbury was the most desolate I have ever seen in my life: fumes from the nickel and copper smelters had killed all vegetation. Later, in the Niagara Falls region, I noticed that all the electric lights seemed to flicker. That was because the original power system still in use then, was only 25 Hertz.

Amazon Corp. Fulfillment Center Tour

COSPONSORED BY IEEE - DELAWARE BAY SECTION and PHILADELPHIA SECTION

Please be sure to read Amazon special notifications

Have you ever wondered what goes on inside the facility responsible for a majority of your Internet purchases? Now you can find out for yourself as an IEEE Philadelphia or Delaware Bay Member

The Amazon fulfillment center will be opened to 30 IEEE Members, to tour how packages are shipped and coordinated effectively to customers. This is one of the first times the warehouses are open to be toured

“I’m always amazed when I visit one of our (fulfillment centers), and I hope you’ll arrange a tour. I think you’ll be impressed,” - CEO Jeff Bezos

Location: Amazon Fulfillment Center

560 Merrimac Avenue.

Middletown, Delaware

Date: 01-August-2014

Time: 01:45PM to 03:15PM (1.50 hours)

Meeting contact: Philip Gonski, IEEE Philadelphia Chair (c) 630.363.0790

Registration: Use vtools in section website. No charge.

*****SPECIAL TOUR INSTRUCTIONS*****

You’re our VIP so we’ll have reserved parking spots for you at the front of our building near the main entrance. Please be sure to park in your reserved spot!

Here are some guidelines to help create the best possible experience:

- Safety is the top priority in our fulfillment network therefore we’re unable to accommodate children under the age of six. This includes infants being carried by their parents. All children age six and up should be accompanied by an adult and should be able to follow instructions from the tour guide.
- Please arrive 15 minutes prior to your tour start time. Note: If you are more than 10 minutes late for your scheduled tour, you will be unable to join the tour and will be asked to reschedule your tour for a later date.
- Please arrive early enough to use the restrooms prior to the start of the tour. There won’t be restroom breaks during the tour of the fulfillment center.
- You may bring your keys, your wallet and your cell phone on the tour. Please leave all other personal items at home or in your car, including bags, purses, briefcases, backpacks, pocketbooks, and binoculars. Amazon is a weapon-free workplace; we reserve the right to turn away a guest if they are unwilling to tour without a weapon.
- No cameras or other video equipment are allowed on the tour, although you may bring your cell phone so long as you do not use it to take pictures or videos.

- No food or drink is permitted on the tour and all participants must be free from the influence of alcohol or drugs during the tour.
- **IMPORTANT:** All guests must wear flat, closed-toe and closed-heel shoes (No sandals or high heels). We recommend wearing comfortable shoes/sneakers.
- Please stay with your tour guide, remain within the designated walkways or areas, refrain from touching any equipment or machinery, and follow the instructions of the tour guide at all times

Quizzo!

Quizzo!

Quizzo!

Date: Tuesday, June 3, 2014

Location: [Yards Brewery](#)
901 N. Delaware Avenue
Philadelphia, PA 19123
Near SEPTA Spring Garden Station (ID #2459)

Time: 7:30pm - 9:30pm (come earlier for Happy Hour)

Cost: \$10/person with RSVP
Price includes food and 2 drink tickets
You must be 21 or over to attend

RSVP: Due Thursday, May 29th
[Click here to RSVP](#)
Payments can be made immediately using PayPal

Quizzo: Test your trivia knowledge with your peers
Winning team will receive a prize!



Contact: Chris Gray, P.E.

cgray@timhaahs.com



Philadelphia Section

Contact: Philip Gonski, P.E.

philip.m.gonski@ieee.org



Contact: Allison Edmonds &
Kira Broecker

yafphilly@gmail.com