



# Valley Engineer Newsletter

MARCH, 2017

## UPCOMING PROGRAMS

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- April 22, 2017, Clover Hill Vineyards & Winery, Breinigsville, PA
- May 7-9, 2017, 24 PDH Boot Camp Central, Sheraton Harrisburg Hershey Hotel, Harrisburg, PA
- May 11, 2017, Installation of Officers and Scholarship Awards, DeSales University, Center Valley, PA
- June 25-27, 2017, PDH Boot Camp East, Valley Forge Casino Resort, King of Prussia, PA

## PRESIDENT'S MESSAGE

Alfred Gruenke, PE  
 March, 2017

MATHCOUNTS® was a huge success this year, both for us as a Chapter but much more so for our student participants. In the state competition in Harrisburg our top student from the Lehigh Valley, Daniel Li of Nitschmann Middle School, finished #1 after the testing, and #2 after the countdown round. He will go on to represent Pennsylvania on May 14-15 at the 2017 Raytheon MATHCOUNTS National Championship held in Orlando, FL.

I had the privilege of presenting Daniel awards in 2015, 2016, and of course this year. Besides being sharper than a tack, he's a good kid.



**PENNSYLVANIA SOCIETY  
 OF  
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**LEHIGH VALLEY CHAPTER  
 (ORGANIZED 1935)**



Daniel Li

The Nitschmann Middle School team did well also, placing 9<sup>th</sup> in a field of 25 teams. Our congratulations to Daniel, the team, and their coach Nadine Novatnak.

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I never tire of MATHCOUNTS. Such nice kids, with so much smarts! I didn't have much to do this year other than hand out the trophies and get my picture taken numerous times with the winners, so I had the opportunity to just sit back and observe.

It seems that more schools than ever are showing considerable enthusiasm, displaying their pride by wearing t-shirts with their school's name. Not surprisingly the individual overall winning team, Nitschmann Middle School, had matching t-shirts with their school's name proudly displayed. East Hills Middle School and The Swain School had similar shirts. The Moravian team had t-shirts that said, "Moravian Academy MATHCOUNTS". Easton Area Middle School did it one better, with the first names of all ten team members! Now that's pride!

My award for overall support was Saucon Valley Middle School. Even some of the parents wore team t-shirts!

I'm waiting for cheerleaders to accompany the teams. Why not?

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As spring is upon us and the weather is getting warmer our Scholarship and MATHCOUNTS fundraising is coming to a close. This year we raised \$14,615.00, a record amount, thanks to a couple of surprise contributors. Lutron increased their contribution to \$2,000.00, and PPL donated \$2,000.00! The latter was especially gratifying; we have been attempting for years to become recipients of their largesse. Our thanks to all contributors. Fundraising is always interesting, since it reflects on the economic well-being of the contributors. Based on our observation, the business outlook for our community is good.

Our scholarship team of Al Dezubay and Brian Kutz has received 21 applications. This promises to be a bumper crop. Al read some of their qualifications (SATs of 780 and 800) and

we could only marvel. The finalists, and the amount of each scholarship, will be determined in April. The Scholarships will be awarded during the installation of officers in May.

Our Chapter is a member of Lehigh Valley Consortium of Professional Organizations. On May 22, 2017, at 4:30 PM at the Barristers Club, 1114 W. Walnut St., Allentown, PA. There will be a Panel Discussion from leaders throughout the region. Topic: How Will the New Administration's Policies Affect Business? RSVP by 5/18/17 to kmesch@thebarristersclub.com.

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### Notes from Scholarship Recipients

**Michaella Hoffman - Chemical Engineer** -  
University of South Carolina - Class of 2017  
Recipient of LVPSEP Scholarship Award - 2013

Four years ago, I was preparing to move to South Carolina and start College. I was understandably nervous. As I face my upcoming move after graduation, I am excited to be starting a career, living in a new place, and meeting new people. This move comes with a different attitude, one shaped by my last four years as a chemical engineering student.

Each new experience has helped me to continue to explore and learn through life. After my freshman year classes I found confirmation that engineering was the career for me through my internship with PPL, as an Asset Management intern working to identify high priority transmission lines and monitor substation battery life. I enjoyed the engineering aspects of my internship.

During my sophomore year I became a brother of Theta Tau, a chemical engineering fraternity. Older brothers and alum introduced me to companies and career paths that could take me around the world. I completed my second internship with ExxonMobil where I worked to develop a heat exchanger design. I learned the importance of being confident as a female engineer. My manager showed me the value of having strength and conviction and how those attributes can change the way others "at the table" value me.

Continued on page 3

In my Junior year I worked in a research group on fuel cells. I also worked as a teaching assistant in physics to face and overcome my fear of public speaking. I worked for Nestle at the Tombstone pizza factory in Wisconsin improving recycling standards and audit compliance.

As I approach graduation, I look back at my experience and can only be grateful that I could afford to go to USC, thanks to scholarships and the support of family. Due to the opportunities I have had, I am a completely different person than I was for years ago. I am ready and thrilled to be moving to Utah to continue working with Nestle. Unlike the last move, I do not fear the future; I am ready to embrace it!

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### **Things Seen, and Not Seen**

Alfred Gruenke, PE

Recently I borrowed a book from the library entitled "In an Antique Land, History in the Guise of a Traveler's Tale", by Amitav Ghosh. It interested me because the subject matter is Egypt in the 1980s, especially documents from a synagogue in Old Cairo. I couldn't finish the book in the time the library allowed me, so I bought a copy from Amazon.com. Now I could study it as a textbook, not merely a story.

The story is intriguing. A young man from Calcutta, India, learns Arabic and lives with various fellaheen families in the Nile Delta while researching the life and times of a 12<sup>th</sup> Century Jewish merchant, Abraham Ben Yiju, who lived in Mangalore, on the Malabar Coast in Southeastern India. His communications with his mentor, Madmun ibn al-Hasan ibn Bundar (Madmun, son of Hasan, son of Bundar) and Khalaf ibn Ishaq (Khalaf, son of Ishaq) stationed in Aden, found their way to the depository of sacred texts in the Synagogue of Ben Ezra in Old Cairo. They were part of a trading network that reached from Spain, Southern Europe, the Middle East, the Arabian Peninsula, onto the Malabar Coast of India and further East. The writings provide a valuable insight into not only the extent of the mercantile world but also into 12<sup>th</sup> Century life. This was the century of the Crusades, thus was a tumultuous period.

In the latter part of the 19<sup>th</sup> Century scholars from England and other places discovered this cache and dispersed it to museum and universities around the world for translation and study. The language was mostly Aramaic and Arabic, written in Hebrew. Amitav Ghosh found that the Arabic was very close to the dialect spoken by the fellaheen, so was able to translate the texts quite easily.

I was on assignment in Egypt for about 2 ½ years in the early 1980s and had visited Old Cairo three or four times. The name for this area since the 7<sup>th</sup> Century Moslem conquest was Fustat, and was the center of the Coptic Christian and Jewish communities. Before that, it was a Roman fortress called the Hanging Gardens of Babylon. Cairo was founded in the 10<sup>th</sup> Century.

There is some dispute as to the name Hanging Gardens of Babylon. It was explained to me that it meant that the present structures are all elevated, but Amitav Ghosh suggests that Bab el Lon means that Gate of Lon in Arabic. My limited Arabic prefers the latter.

Parts of the original Roman structures still stand, the foundation of the Coptic Museum and Al-Moallakah Church.

To get to Old Cairo was not an easy thing. I could, of course, take a taxi, but I preferred a cheaper alternative. I took the trolley from our guest house in Heliopolis (Masr Gedida, New Egypt in Arabic) to Ramses Station in Cairo. Change trolleys and go to the center of Cairo, Midan Tahrir (Freedom Square). Walk a few blocks to Bab el Louk (Gate of Louk) train station, get on a rather modern train that was so crowded the flies had to exit. Old Cairo was the third station. The return trip could be the reversal of above, or one could take a water "bus" on the Nile to mid-town Cairo, then proceed home on the trolleys. The total cost of the trip was \$0.85. When I took my wife and two year old daughter I arranged for the company driver take us. Cairo public transport was no place for the genteel!

Continued on page 16

## **SCHOLARSHIP SPONSORS**

A great way to be involved in the LVPSPE Chapter is to contribute to the **LVPSPE SCHOLARSHIP FUND**. Please Contact the Valley Engineer Editor to sponsor scholarships for the remainder of the calendar year.

If you would like to contribute in any amount – please send your TAX DEDUCTIBLE donation to PA ENGINEERING FUND. Donations should be mailed to:

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Please note “LVPSPE Scholarship Fund” on the comment line.

Or, you may also contribute via the LVPSPE website <http://www.lvpspe.org/Donations>.

Scholarship application is at <http://www.lvpspe.org/Scholarships>. Any questions regarding scholarships can be directed to

Alex Dezubay, PE  
610-597-2007  
[Scholarship@LVPSPE.org](mailto:Scholarship@LVPSPE.org)

## **PSPE SCHOLARSHIPS**

The Pennsylvania Engineering Foundation currently administers the following scholarships for engineering students:

### **Undergraduate**

- \$1,000 PEF Grant: (Two awards)

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The monthly Board of Direction meetings are 6:00 PM on the second (2<sup>nd</sup>) Monday of each month. Open to all members; they are held at the office of Barry Isett & Associates, 85 South Route 100, Allentown, PA.

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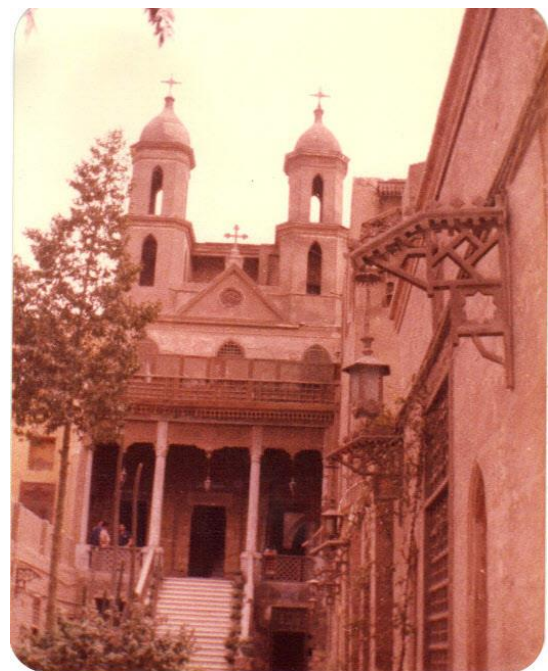
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Old Cairo is an area only 200 meters x 200 meters. A thousand years ago it was on the banks of the Nile; since then river has moved about 300 meters to the west. Due to a rising water table the foundations are under water.

The district is a rabbit warren of narrow streets and walkways, with houses literally built on top of each other. I would not be surprised if all the buildings were over a thousand years old. Surprisingly, there were few tourists, and none of the ubiquitous jewelry shops so prevalent in much of Cairo. There was a garbage heap close by which permeated the area with odorous vapors, and pools of water in the dirt streets suggest a problem with the sewage system. Maybe that detracted from its appeal.

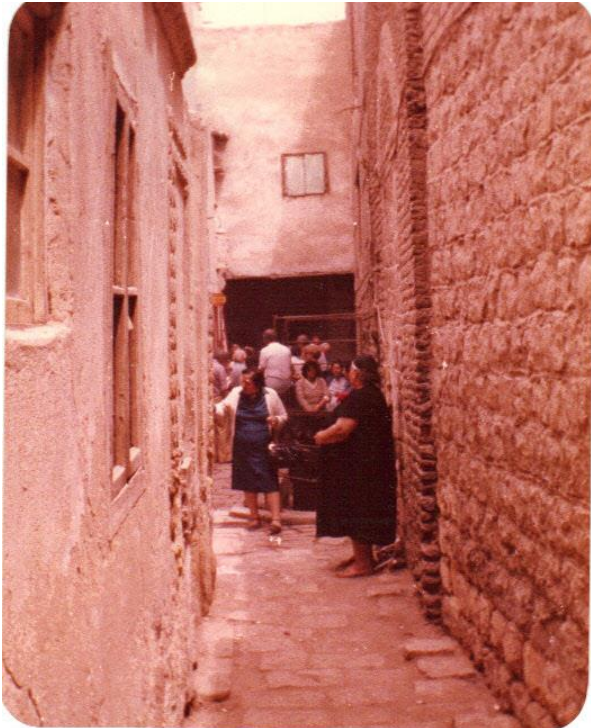
A took a couple of photos, though not enough. Not so good processing and thirty years in a shoe box have deteriorated them somewhat. However, I had the foresight to purchase postcards at the Coptic Museum, which aged better.



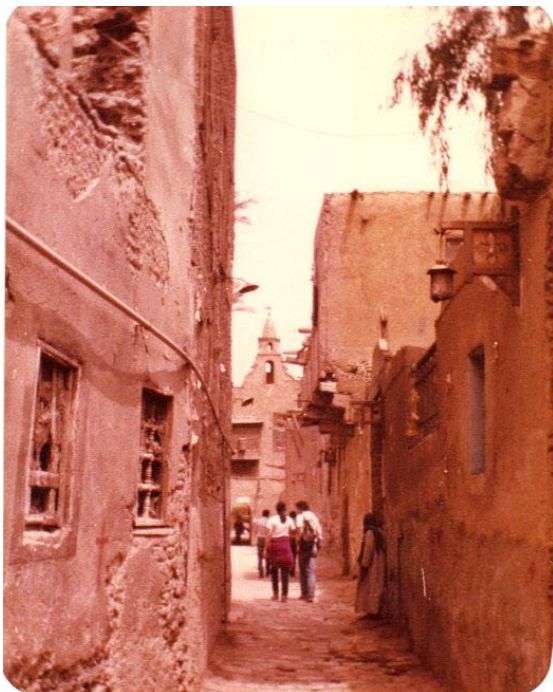
Church of Al-Moallakah

Continued on page 17





Street Scene, Old Cairo



More street scenes, Old Cairo

Old Cairo has a number of Coptic Christian churches which are among the oldest Christian churches in the world. The aforementioned Al-Moallakah Church was built in the 6<sup>th</sup> Century,

and the Church of Abu Serga was built in the 5th Century and rebuilt numerous times. Civil unrest and conflagrations are not a new phenomenon. Tradition has it that Mary, Joseph, and the baby Jesus rested in the grotto under the Church of Abu Serga after their flight to Egypt to escape the wrath of King Herod. I have to admit I had a tingle of awe-ness as I walked down the steps and past the Roman columns to the watery chamber. Fortunately, there were planks for us to walk.



The Grotto of the Church of Abu Serga. Note the water. From series of postcards from Coptic Museum.

Reading this book, I realized that I had been completely unaware of the Synagogue of Ben Ezra, or its significance. It certainly was not "advertised." Whether this was due to political reasons or whether I was just dull-eared I can't say. I did expend a lot of efforts to find the burial site of Moses Maimonides, a Sephardic Jew from Spain who, among other things, was a philosopher, moralist, and physician to Sultan Salah ad Din and leader of the Fustat Jewish community. Maimonides is one of the few people in history who was reputed to have known everything, a club which includes Aristotle, Goethe, and Thomas Young. I never found it, because he died in Egypt but was buried in Tiberius, Galilea.

Old Cairo had a lot to offer and I'm glad for the experience, but I wish I had known about the Synagogue. Opportunity lost.

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 Growing old is not for sissies.  
 --Dr. August Polinske



**Lehigh Valley Chapter**  
**Pennsylvania Society of Professional Engineers**  
*Lehigh, Northampton, Monroe and Carbon Counties*



Minutes for the March 13, 2017 Board of Directors Meeting  
6:00 pm at the office of Barry Isett & Associates, 85 S. Route 100, Allentown, PA

Attendees: Al Gruenke, Brian Kutz, Al Dezubay, Kevin Campbell, Angelika Forndran, Ray Szczucki, and Chris Williams

- A. Call to Order – Al Gruenke called the meeting to order at 6:00 pm.
- B. Activities – Brian Kutz
  - ‘Dream Big’ Movie: 1,100 students saw film during Engineers’ Week at SteelStacks; may try for 2,000 next year
  - March: Possible tour at end of month – National Museum of Industrial History in Bethlehem
  - April 22<sup>nd</sup>: Clover Hill Winery tour/tasting at 10am (Saturday)
  - May 11<sup>th</sup> (tentative): Banquet at DeSales, 6pm, full bar
- C. President – Al Gruenke
  - Al requested articles from several previous scholarship recipients.
  - If anyone has an interesting article, please provide to Al for inclusion in an upcoming newsletter.
  - Al has received \$14,615 in donations, including \$2,000 from PPL.
- D. Scholarships – Al Dezubay
  - Applications were due last night at midnight. Al has received 21 applications and will be requesting transcripts from schools.
  - Recommendations from the Scholarship Committee will be provided at the April 10<sup>th</sup> meeting and scholarship amounts will be determined then as well.
- E. MATHCOUNTS/Nominations – Kevin Campbell
  - Will send out final accounting for the event.
  - Kevin discussed the tentative nominees for each Chapter position.
- F. Treasurer – Ray Szczucki
  - Ray reviewed receipts/deposits.
  - Current balances:
    - i. Savings: \$18,536
    - ii. Checking: \$323
  - Ray suggested that we coordinate the PayPal account more regularly AND set up a yearly budget for the Chapter.
- G. Adjournment at 6:58 pm on a motion by Kevin, seconded by Chris, all in favor.