



LEHIGH VALLEY CHAPTER
 PENNSYLVANIA SOCIETY OF
 PROFESSIONAL ENGINEERS

Lehigh, Northampton, Monroe, and Carbon Counties
(Organized 1935)

Valley Engineer Newsletter

SEPTEMBER-OCTOBER 2021

President's Message

President – Jeff Kutz, EIT

As the world continues to adapt and change to the realities of a long-term fight with the effects of the pandemic we at the LVPSPE are also trying to adapt and find our way. The good thing is, we are engineers, and we always persevere! So, with that in mind, we have been looking forward to this coming year of activities with hope and creativity that we can pick up where we left off in what seems like so long ago with having some get-togethers to support the Lehigh Valley Chapter of Pennsylvania Society of Professional Engineers. Our expectation is to push forward in a safe and responsible manner and to be reaching out to you this year with some interesting events and the potential for re-instating our banquets. We encourage all our members to be active but also encourage you to stay safe and use your own best judgement and preference for what you would like to attend.

As our group continue to continue to adapt to the virtual world, with holding many meetings virtually, our intent is to keep the chapter informed to many of the functions we are still engaged in. For this purpose, we have been focusing on our social media platform through LinkedIn to share updates about recent events, interesting commentary and upcoming chapter sponsored activities. I encourage our members to follow us on LinkedIn in addition to being on the mailing list.

Our Chapter has the honor to nominate the annual Engineer of the Year and Young Engineer of the Year, presented by the Lehigh Valley

Continued on page 2



**PENNSYLVANIA SOCIETY
 OF
 PROFESSIONAL ENGINEERS**

**LEHIGH VALLEY CHAPTER
 (ORGANIZED 1935)**

CARBON, LEHIGH, MONROE, & NORTHAMPTON COUNTIES

Engineering Council at the LVEC banquet in February. If you know someone who deserves this honor, please have them submit an application. The Nomination Form is on our found on our Website at www.lvpspe.org/page-1505987.

Throughout the pandemic, engineers have been required possibly now more than ever to keep industries and our lives running, often sitting in the background with little notice or recognition. With that being said, it is a pleasure to recognize an individual in our organization whose merits have been recognized by other organizations in the community.

Our long-standing Secretary Chris Williams PE, LEED AP of Barry Isett & Associates Inc. has demonstrated he has more talents than merely taking notes at Chapter meetings. Lehigh Valley Business has included Chris in its 2021 Forty Under 40 Awards. The award is to "Recognize Lehigh Valley's leaders who are under 40-years old based on their professional accomplishments, community service and commitment to inspiring change".

"The 2021 Forty Under 40 honorees are an accomplished group of leaders who share a commitment to business growth, professional excellence and to the Greater Lehigh Valley community," said Suzanne Fischer-Huettner, senior group publisher of Lehigh Valley Business. "They are making headlines in their fields and beyond, and Lehigh Valley Business is pleased to celebrate their accomplishments."

"This year's Forty Under 40 are a dynamic group of leaders who are dedicated to their professions and to community service. They are committed to inspiring change and to making the Greater Lehigh Valley area a great place to live and work. We are pleased to recognize these young leaders and look forward to their future accomplishments."

Chris was nominated by Barry Isett & Associates Inc.

Thank you. Stay safe and stay active.

Diplomacy is the art of telling people to go to hell in such a way that they ask for directions.
-Winston Churchill

A Weekend in the Desert

Alfred Gruenke, PE

Egypt was my first foreign assignment. To say that I suffered from cultural shock is an understatement, but I learned to adapt.

I arrived in Egypt in February 1982, and remained on assignment until June 1984, a period of almost two and a half years building and starting up a cement plant. I was not there continuously; every three months or so I came home for two weeks of R&R. Also, my wife and two-year old daughter visited for six weeks.

I will not go into problems with the assignment other than to say that problems lay with almost everything associated with the project, from engineering to startup. It was a USAID project, a gift from the United States and part of the peace settlement between Israel and Egypt. Israel received an air base in the Negev Desert, Egypt received a cement plant. We all felt that Israel got the better part of the deal.

The first year we lived in a guest house Helio- polis, (Masra Gedida, New Egypt in Arabic) a suburb of Cairo. The site was in the Eastern Desert 60 km south of Suez. We rode the ninety miles to the site daily. Thereafter we lived on site, under so-so conditions in housing we lovingly referred to as "Siberia".



The loneliness of the desert. The cement plant is in the background. Yes, it gets cold in the winter.

The first year on-site had issues but the last few months were not so bad. Every other weekend we went to the Sonesta hotel in Nasser City near Cairo to talk to home. A phone call home costs

Continued on page 3

\$5.00 a minute, but if the call originated in the States it was only \$1.00 a minute. So, we set up schedules and had our wives call us. Besides the call home it was always a pleasure to eat at a nice restaurant instead of the on-site cafeteria.

On alternate weekends we went "fosseling", looking for fossils in the desert. This part of the Eastern Desert had been under the sea sometime in the distant past so it had lots of fossils imbedded in the limestone. The mountains and the area close to the plant were almost 100% rather soft limestone, good for cement plants and digging for fossils.

Fossils could often be found just lying on the ground. This section of the Sahara was covered mostly with rocks, with the sand blown into depressions. It had once been a military reservation where the Egyptian army practiced their craft. Exploding ordnance put small holes in the ground exposing all kinds of stuff, from snails to petrified wood.



Pieces of petrified wood lying on the ground



A snail shell lying on the ground.



No, not a critter from then Red Sea, but a shell fired by a tank.

But it was more fun to search for them in the wadis in the area. Wadis are dry streambeds, anywhere from a few feet to a dozen feet high and a few yards to up to a hundred yards across. It doesn't rain much in the desert but when it does the wadis fill with torrents of water, eroding the banks, exposing all sort of things. According to various sources more people drown in a desert than die of thirst. I can believe that. I've seen a half inch of rain cause flash floods, wiping out roads and anything else in the way.



Our transport.

The steed for our escapades was an orange Chevy pickup, with front wheels that could be engaged if necessary. One of our colleagues cautioned us about four-wheel drives. Never go

Continued on page 13

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 any amount – please send your TAX-DEDUCTIBLE donation to PA ENGINEERING FUND. Donations should be mailed to:

LVPSPE
PO Box 195
Northampton, PA 18067

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

PSPE SCHOLARSHIPS

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

Undergraduate

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

Upperclassman

- \$2,000 Pennsylvania Engineering Foundation Grant

Applications and guidelines are on-line now at <http://www.pspe.org/scholarships>

2020 – 2021 LVPSPE SCHOLARSHIP DONORS

Graduate

American Society of Civil Engineers
Lehigh Valley ASCE, Bethlehem, Pennsylvania.
Lutron Electronics Co., Inc.
Coopersburg, PA
Victaulic Company
Easton, PA

Senior

FLSmidth, Inc.
Bethlehem, PA

Junior

Barry Isett & Associates
Allentown, Phoenixville, Hazleton, Wilkes-Barre,
Mechanicsburg, Wyomissing, Stroudsburg,
Furlong, PA
Mary Rooney/EnviroAce
Allentown, PA
The Pidcock Company
Allentown, PA
Alfred Gruenke, PE
Wescosville, PA
H.T. Lyons
Allentown, PA

Sophomore

Dreyer Consulting
Allentown, PA
Jeffrey Johnson, P.E., FLSmidth Inc
Allentown, PA
Morgan Stanley
Allentown, PA
Hanover Engineering Associates
Bethlehem, PA

Freshmen

Deilen Development
Kohn Engineering
Macungie, PA
Dezubay Engineering Services
Colliers Engineering & Design
Allentown, PA

Contributors

Mike Basta, PE
William Erdman, PE
Keystone Consulting Engineers
Bethlehem, Wescosville, Kresgeville, PA
Ray Szcuzucki PE

Engineering firm of choice since 1972



KEYSTONE CONSULTING ENGINEERS

Three Regional Locations

East Office
Bethlehem, PA
610-865-4555

West Office
Wescosville, PA
610-395-0971

North Office
Kresgeville, PA
610-681-5233

www.KeystoneConsultingEngineers.com

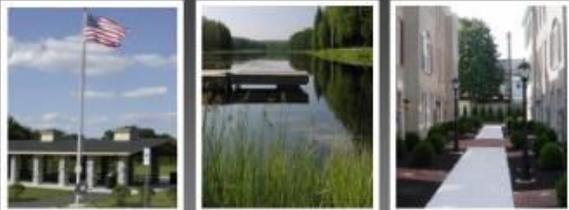


Colliers Engineering & Design

Custom Solutions

Formerly Maser Consulting
colliersengineering.com

50 YEARS Hanover Engineering



HanoverEng.com

- Municipal Engineering & Planning
- Subdivision & Land Development
- Stormwater Management
- Transportation Planning
- Utility Line Design & Permitting
- Structural Engineering
- Environmental Services
- Surveying
- 3D Laser Scanning
- GIS Services

Envisioning and Engineering sustainable, cost-effective, and environmentally responsible projects for a half-century

Bethlehem 610.691.5644	Allentown 610.395.9222	Poconos 570.688.9550	Lancaster 717.721.7444	Wellsboro 884.893.3931
---------------------------	---------------------------	-------------------------	---------------------------	---------------------------

Dreyer Consulting

Paul L. Dreyer, P. E.
Forensic Engineering

112 Elm Rd.
Allentown, PA 18104

484-343-2559 cell

610-395-3816 fax
pldreyer@rcn.com

Patricia Peoples, CFP®, ChFC®, CLU®
*Vice President
Financial Advisor*

Wealth Management
515 W. Hamilton Street
7th Floor
Allentown, PA 18101

direct 610 398 6505
fax 610 395 0694
toll free 800 433 4200

Morgan Stanley

NMLS # 1285326
www.morganstanley.fa.com
patricia.peoples@morganstanley.com

Alfred Gruenke, PE

**Jeffrey Johnson, PE,
FLSmith Inc.**

THE PIDCOCK COMPANY

**CIVIL ENGINEERING
LAND PLANNING
ARCHITECTURE
LAND SURVEYING**

FOUNDED 1924

Oxford Drive at Fish Hatchery Road
2451 Parkwood Drive
Allentown, Pennsylvania
18103-9608

TELEPHONE: 610-791-2252
TELEFACSIMILE: 610-791-1256
EMAIL: info@pidcockcompany.com
WEBSITE: www.pidcockcompany.com



**KOHN
ENGINEERING**

FIRE PROTECTION CONSULTING

**Donald J. Kohn, P.E.
Principal**

4220 Mountain Road
Macungie, PA 18062

KohnEngineering@ptd.net www.KohnEngineering.com

Phone 610-967-4766

Fax: 610-967-6468



deilen
DEVELOPMENT

"Achieve More"

Coaching, Training and Consulting

deilendev.com 484-893-0085

Michael F. Basta, PE

**Dezubay Engineering
Services**

William Erdman, PE

Ray Szczuzucki, PE



*Design • Print • Copy • Posters • EDDM
Mailing Services • Promo Products • Post Office*

BLUEPRINTS
New Service!

D Size Prints
\$1.50

ALLENTOWN
1801 West Tilghman Street
Allentown, PA 18104
484.223.3311
M-F 8am-6pm Sat 8am-2pm

BETHLEHEM
123 East Broad Street
Bethlehem, PA 18016
610.865.9946
M-F 7:30am-5:30pm

EASTON
661 South 25th Street
Easton, PA 18045
610.923.9266
M-F 8am-6pm Sat 8am-2pm

DESALES UNIVERSITY
2755 Station Ave
Center Valley, PA 18034
610.282.1100 x1201
M-Th 9am-5pm Sat 9am-4pm

WWW.MMPLV.COM



**UNITED STATES
POSTAL SERVICE.**

**FULL SERVICE
CONTRACT UNITS**

NOW AT OUR ALLENTOWN & EASTON STORES



TOP LOCAL PLACE
THE MORNING CALL

**Proud to be named
a top workplace
6 years in a row**

Allentown • Phoenixville • Doylestown
Hazleton • Wilkes-Barre • Stroudsburg

 barryisett.com/current-openings

**BARRY
ISETT &
associates inc.**
MULTI-DISCIPLINE ENGINEERS AND CONSULTANTS

 **EnviroAce**

Certified WBE

Mary Rooney, P.E.
Environmental Consultant

2940 Fairfield Drive
Allentown, PA 18103
Rooney@EnviroAce.com

610-437-0701
(fax) 610-437-0703

H.T. LYONS

contractors | engineers

An **ENGIE** company

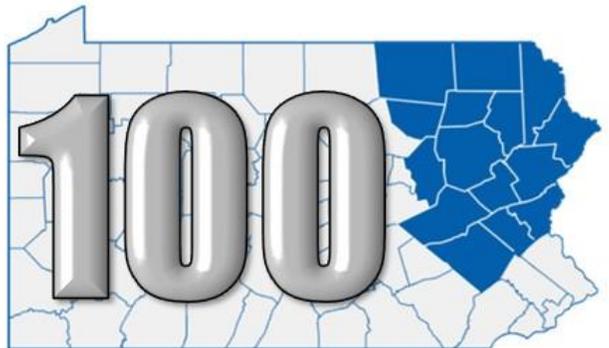
“We make your building a better place.”



CONGRATULATIONS SCHOLARSHIP RECIPIENTS!

ASCE

LEHIGH VALLEY SECTION



Celebrating One Hundred Years of Civil Engineering Excellence

1922



2022

COUPLING INNOVATION WITH CONFIDENCE



Since 1919, Victaulic has been the world's leading producer of pipe joining solutions. Our products are used in the most recognizable landmarks, from the Hoover Dam to Egypt's Alexandria Library, making bold designs possible.

Backed by 1,800+ patents, Victaulic is committed to our customers' needs, providing solutions for your design challenges. We draw it, train on it and certify the installation, all while utilizing best-in-class technology. From concept through construction, we ensure your project runs efficiently as possible.

Engineering Solutions:

- Construction Piping Services (CPS) helps reduce risk and increase reliability for a smoother project experience.
- BIM Software keeps communication and collaboration in sync.
- Proprietary truck loading software saves time and confusion on the job with phased product schematics.

victaulic.com



VICTAULIC IS A REGISTERED TRADEMARK OF VICTAULIC COMPANY.
© 2014 VICTAULIC COMPANY. ALL RIGHTS RESERVED.



Develop Your Career with Us

“I’ve been a part of Lutron for 3½ years.”

Jamie McMahon (Electrical Engineering Major)
Design and Development Engineer

At Lutron, we’ve been designing and manufacturing energy-saving light control solutions since 1961.

Our success depends on your success. Join Lutron’s Innovation Leadership Program and you’ll develop the skills and knowledge needed to win in the world of innovation.

- Immediately join an engineering development team
- Receive formal mentor support
- Collaborate regularly with business unit managers and directors
- Acquire real-world experience through field assignments
- Foster relationships with Lutron’s global customers

Key opportunities include:

Engineering—Electrical, Mechanical, Computer, Software, Manufacturing, Industrial, Architectural
Science—Physics, Chemistry, Math

Opportunities are also available in sales leadership and field engineering leadership—**hiring all majors.**



To learn more about how you can be a part of our future visit

www.lutron.com/careers



▲ Dynamic keypad in Black



©2010 Lutron Electronics Co., Inc. | P/N 3058-2717 REV.B

Proud to Honor our Engineers in the Lehigh Valley & Around the Globe



Engineering is what we do at FLSmidth. As a world leader in providing equipment and services to the cement and minerals industries, our success begins with our engineers who plan and design the systems and equipment for which our customers rely.

2040 Avenue C · Bethlehem, PA 18017 · www.flsmidth.com

Internet Addresses

National Society of Professional Engineers

www.NSPE.org

Pennsylvania Society of Professional Engineers

www.PSPE.org

Lehigh Valley Chapter – PSPE

www.LVPSPE.org

2019 – 2020 State Officers

State officers

State Director – Mike Basta, PE

Directors@LVPSPE.org

Alt State Director – Angelika Forndran, PE

Directors@LVPSPE.org

VP Northeast:

Marleen Troy, PE, PhD 570-408-4615

Board of Direction Meetings

The monthly Board of Direction meetings are 6:00 PM on the second (2nd) Monday of each month. Open to all members; they are held via Zoom meetings in 2021 until further notice.

2021 – 2022 Chapter Officers

Chapter Officers

President – Jeff Kutz, EIT

President@LVPSPE.org 215-325-1303

Vice President – Alexa Rooney, EIT

VicePresident@LVPSPE.org 610-774-6011

Treasurer – Ray Szczucki, PE

Treasurer@LVPSPE.org 610-614-1245

Secretary – Chris Williams, PE, LEED AP

Secretary@LVPSPE.org 610-398-0904

Past President – Al Dezubay, PE

PastPresident@LVPSPE.org 610-597-2007

Chapter Directors

Director – Mary Rooney, PE

Directors@LVPSPE.org

Director – Frank Walsh, PE

Directors@LVPSPE.org



Embracing Digital Transformation

Whether it's for Mobile Applications, Machinery Applications and Engineering, or Factory Automation, companies worldwide trust Bosch Rexroth to provide innovative components, complete system solutions, and expert services, drawing on our portfolio of precise, proven, energy-efficient hydraulics, electric drives and controls, and linear motion and assembly technologies. It's what we do. **We Move. You Win**

Congratulations to all of the LVPSPE scholarship recipients!

rexroth
A Bosch Company

www.boschrexroth-us.com



MASER
CONSULTING P.A.

ENGINEERS & DESIGN PROFESSIONALS

Customer Loyalty through Client Satisfaction
877.627.3772 | maserconsulting.com

off-roading with four-wheel drive. If you get stuck, you're stuck. Instead, go with only two-wheel drive. If you get stuck, engage the front wheels and drive out. We followed this advice, and never had a problem.

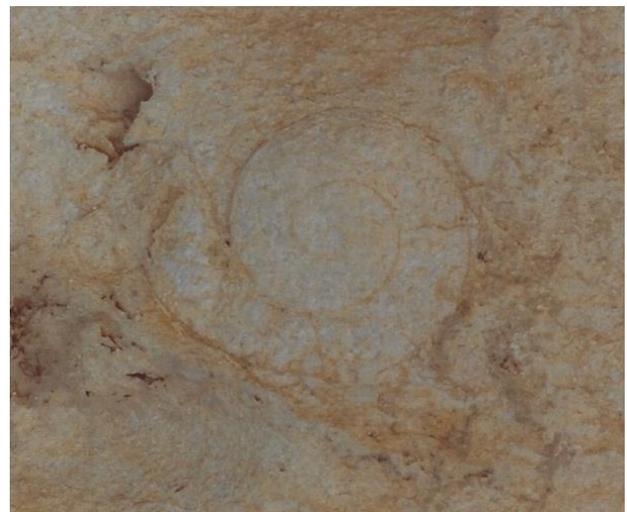
The most amazing thing! Drive into the desert for a few miles with no vegetation except a few scrubby bushes, yet we were surrounded by flies. Where did they come from? What did they eat when there were no people around? They couldn't have come with us, we were driving too fast, yet here they were! The only conclusion we came up with is that the rocks were edible to flies.



Overlooking a wadi.



Digging for fossils. Note bottle of "desert survival fluid."



Close up of a snail shell imbedded in the limestone on a wadi wall.



Not sure what this is. Probably a snail, but we conjectured that it was petrified whale poop.



Egyptian chakoosh

A hammer welders use to remove slag from a weld made excellent chipping hammers to dig out the fossils. We also used an Egyptian "chakoosh", a hammer fabricated from 1¼" rebar welded to a 1" conduit handle. Worked well.

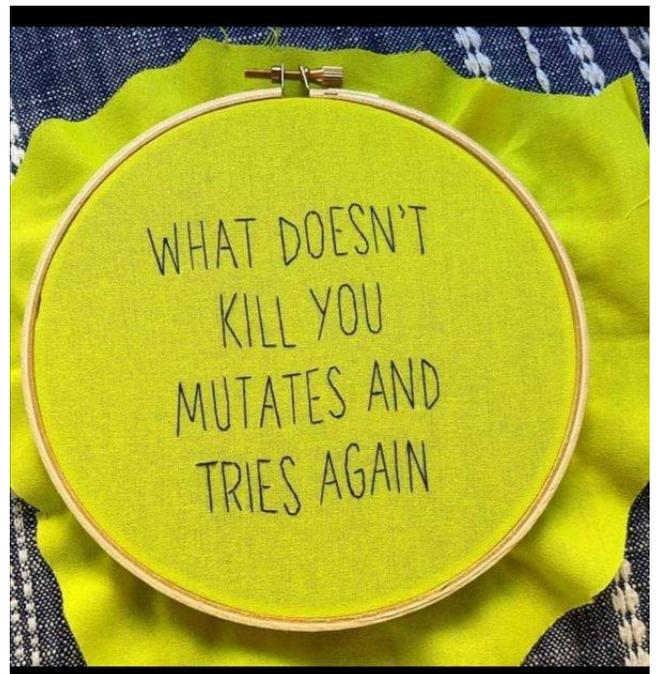
None of us were knowledgeable enough to identify what we found. They looked like snails, so I guess that's what they were, but we never went beyond this trying to identify them.

I brought a bunch home, then proceeded to give them to my grandchildren to take to science class in school. They were always a hit! Actual fossils!



Upper left and right: Petrified wood. Lower left: looks like imprint of seaweed. Lower right: No idea. Looks like a round stone ball inside a round hole in stone.

Our time in Egypt wasn't always stressful or exasperating. Sometimes it was exciting, and sometimes fun.





Minutes for the September 13, 2021 BOARD OF DIRECTORS MEETING 6:06 pm Meeting

Attendees: In person – Jeff Kutz, Ray Szczucki, Frank Walsh. Online – Al Gruenke, Mary Rooney, Chris Williams, Al Dezubay, Angelika Forndran and Mike Basta.

Call to Order: Al Dezubay called the meeting to order at 6:08 PM

Discussion:

- PSPE Conference is virtual this year. September 14th, 15th, 20th and 21st. A lot of webinar PDHs available. On PSPE website you can register for individual events, whole days, entire conference, etc. Jeff will post on LinkedIn.
- LVASCE golf outing on October 1st
- Jeff mentioned the need to keep our eye on the COVID landscape and whether tours and the winter banquet will make sense.
- Al Gruenke mentioned Haines Mill as a possible tour location. Al will reach out to see if they can accommodate a tour group.
- Al Gruenke will continue putting the newsletter together this year. His efforts are much appreciated by all!
- MATHCOUNTS – No update on in person vs. virtual
- Fundraising – Frank usually starts in late October. Will share master list of businesses we solicited in the past. Encouraged all to reach out to any contacts they have. Frank will prepare a solicitation email/letter in October.
- Frank mentioned P.O. Box is about to expire. After discussion, he will renew.
- Al mentioned reaching back out to prior scholarship winners. Could be nice to post an update on where they are now.
- Treasurer – Ray Szczucki:
 - As of August 31st
 - Checking \$1,196.92
 - Savings \$13,766.15
 - Paid invoices for caterer, Gebhardts (awards), supplies
 - Checks for scholarships have been cashed
 - Check for \$1,350 was deposited late, will count towards this year
 - Received dues payment from PSPE, \$772.50
 - Dues disbursement was filed
- State Director – Angelika Forndran
 - BOD Sept 25th, holding in-person in Harrisburg and remote
 - Bylaw changes to be voted on. Some highlights:
 - Loosening up old language that was too restrictive, like schedules related to swearing officers in
 - Annual state conference still, but no longer tying it to a specific month
 - Opening things up to virtual communications
- Jeff will work with Tracy to get website updated with last year's EOY & YEOY

- Jeff mentioned updating website. Need to keep an eye on fundraising and see when it makes sense to make the investment.
- Jeff will keep pushing content on LinkedIn to promote the Chapter.
- Will continue with 2nd Monday of each month for Board meetings. In person at Bridge Gap and online.
- Email addresses need to be updated. Jeff will coordinate with Tracy.

Adjournment at 6:56 on a motion by Angelika, seconded by Mary, all in favor.

Minutes for the October 11, 2021 BOARD OF DIRECTORS MEETING 6:00 pm Meeting

Attendees: In person – Jeff Kutz, Ray Szczucki. Online – Al Gruenke, Mary Rooney, Chris Williams, Alexa Rooney.

Call to Order: Jeff Kutz called the meeting to order at 6:06 PM

Discussion:

- Activities
 - Jeff sent Grist Mill info to Alexa to schedule a tour.
 - Mary mentioned ASCE isn't doing any tours through January.
- Newsletter – Jeff will follow up with Al on newsletter article and chapter officers.
- MATHCOUNTS – Chris provided update that Kevin had conference call on Friday. MATHCOUNTS is pursuing an in-person event for the state and local events. Backup plans will be in place. Not sure how things will come together. Kevin will begin reaching out to schools to host shortly.
- Frank – No updates on fundraising, starting end of October/early November.
- Scholarships – Jeff mentioned this will be kicking off in January. Should get started on EOY/YEOY applications. We need to get to the right people who would nominate others at organizations. Jeff or Frank will update the request letter and circulate for us to send out with solicitations.
- Chris will circulate copy of Chapter bylaws.
- Treasurer
 - P.O. Box reimbursement went to Frank
 - Wild Apricot payment sent
 - Check was reissued to scholarship recipient (typo)
 - Balances as of 9/30
 - Checking: \$1,002.90
 - Savings: \$11,266.25
 - Some funds in PayPal as well, Ray will keep it as-is
- State Director – No report
- Past President – No report
- Updating website – Will revisit new site later. In the meantime, we should get bios updated and EOY/YEOY applications updated on our current website.
- Social media – Jeff will pick up pace with new posts on EOY and YEOY.
- Next meetings on 2nd Tuesday, November 8, 2021
- Mary mentioned LVEC is still planning to hold Engineer's Week Banquet in late February at Lehigh in late February

Adjournment at 6:54.