
POLISH-AMERICAN ENGINEERS ASSOCIATION

FOUNDED



IN 1934

P.O. Box 241, Northbrook, IL 60065-241, USA • www.polishengineers.org

All members and friends of Polish-American Engineers Association are cordially invited to attend our meeting.

- DATE:** Friday, March 19th, 2021
- TIME:** Business Meeting begins 8:00 p.m.; Presentation immediately following
- PLACE:** virtual meeting via Zoom: <https://auburn.zoom.us/j/85101941648>
Or Telephone: Meeting ID: 851 0194 1648
Dial: +1 312 626 6799 (US Toll)
- SPEAKER:** Mr. Michael Banasiak, P.E.*, SPRAT III, ADCI Sup.
- TOPIC:** Merging Drone Photogrammetry and Underwater Multi-Beam Scanning for Scour Critical Bridges
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Mr. Michael Banasiak

Mr. Michael Banasiak is a professional engineer with over 11 years of experience leading inspection teams on specialized above and below water structural inspections. He has performed thousands of structural inspections and is proficient in rope access climbing, non-destructive testing methods, underwater imaging, and commercial diving techniques. His capabilities are supplemented by being SPRAT Level III, ADCI Commercial Air Diving Supervisor, NDT Level II certified in UT/MT, and a FAA Drone Pilot. He currently serves as a Group Manager of Collins Engineers, Inc. Denver, CO Office.

ABSTRACT

The presentation covers a case-study example of using drone photogrammetry imaging in tandem with underwater multi-beam sonar imaging to produce a single interactive point cloud in which the channel and surrounding shorelines of scour critical bridges can be examined. Additional technologies (UAV LIDAR, Bathymetric LIDAR) will be touched on, but the focus will be on cost effectiveness and efficiency of integrating these two technologies particularly in the realm of scour critical underwater inspections.

There's massive potential in the collaboration with drone surveying and bridge inspection, particularly underwater inspection. This presentation will hopefully create a dialogue (and maybe fire up some Photogrammetry vs. LIDAR debates) in which surveying and UAV professionals can bring their ideas and expertise to the world of infrastructure management and bridge inspection. The session should have interest with transportation engineers and consultants alike as it presents an alternative and effective way to showcase scour issues at a bridge, a topic of increasing concern at the federal level.

The three main learning objectives will be as follows:

1. The presentation will take the audience through a case study of a few scour critical bridges in Montana and how our bridge inspection team used both drones and Blueview multi-beam sonar to assemble an above and below water navigable map to highlight the effects of scour.
2. The mechanics of underwater 3D imaging will be described and explored including challenges and barriers. Also, the importance of detailed underwater inspections for scour critical bridges will be touched on to set a baseline for those unfamiliar.
3. Finally, though this won't be the main objective, the differences between UAV LIDAR and Photogrammetry (advantages, disadvantages, cost, accuracy), will be illuminated as well as the optimal situational use of both technologies.

PAEA Announcements

MEETING LOCATION

Due to the current situation with COVID-19, our February meeting will be held virtually, via Zoom:

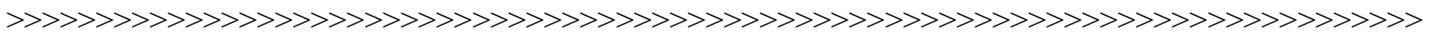
<https://auburn.zoom.us/j/89740457576>

Connect using Computer/Device audio if possible.
 Or Telephone: Meeting ID: 897 4045 7576
 Dial: +1 312 626 6799 (US Toll) or +1 646 876 9923 (US Toll)

We are back to Zoom, after some people had issues with Skype. But this time we will not have a 40-minute time limit (thanks to Dr. Nowak).

The meeting can either be accessed via:

1. a **browser**, by clicking on the link and choosing ‘download & run Zoom.’ You should then get an option to ‘join from your browser.’ Note: using Zoom through a browser has limited capabilities- it is recommended to download the Zoom application for the best experience. Also note: if you already have the Zoom application on your computer, you will not get the option to ‘join from your browser;’ but the link will launch the Zoom application.
2. the **Zoom application**- needs to be installed on the computer (<https://zoom.us/support/download> or the meeting link above to download ; https://zoom.us/download#client_4meeting for download options for platforms in addition to PC). More instructions are available at: <https://support.zoom.us/hc/en-us/articles/201362193>. Note: you do not need to sign up for a (free) account to join via the Zoom application.



2021 Membership Dues

Thanks you to those who have already mailed in their dues!

There is no change in dues for 2021: **\$70 per year, senior citizens and students \$35 per year.**



Jan Czochralski- the Father of Modern Civilization

During this lecture, our speaker from Polish Academy of Sciences will discuss accomplishments of Polish chemist Jan Czochralski. He invented the Czochralski method in 1916, which is used for growing single crystals and semiconductors. Fast forward to 2021, laptop computers, mobile phones, watches and a host of other electronic devices would not exist without semiconductors.

This lecture will be conducted in Polish language.

March 20, 2021, 1pm ET. RSVP: thekfphiladelphia@gmail.com

Pic: J. Czochralski, ok. 1910 (Wikipedia)

Jan Czochralski- Polak ojcem współczesnej cywilizacji

Wykład w języku polskim (20 marca 2021, godz 1pm ET)

Prelegent: Dr. Paweł Tomaszewski, INTiBS- Polska Akademia Nauk

RSVP: thekfphiladelphia@gmail.com

Zoom Link będzie wysłany do osób które zrobią RSVP na powyższy email

Referat jest przypomnieniem osoby i dzieła prof. Jana Czochralskiego, nazywanego "Kopernikiem elektroniki." Minione lata pozwoliły na dokonanie wielu nowych odkryć i wyjaśnić niektóre zagadki z życia tego największego współczesnego polskiego uczonego. Jego pierwsze odkrycie z 1916 r., dziś uważane za największe, stało się podstawą dla dzisiejszej cywilizacji elektronicznej. Metoda wytwarzania monokryształów, zwana popularnie Metodą Czochralskiego ma zastosowanie w układach elektronicznych w komputerach, odtwarzaczach MP3, telefonach komórkowych oraz zegarkach.

Pic: Akademia Super Bohaterów



Dr. Paweł Tomaszewski - Od ponad 35 lat zbiera dokumenty i publikuje materiały o życiu i działalności prof. Jana Czochralskiego. Autor publikacji i książek, oraz referatów wygłoszonych w kraju i zagranicą. Występował w radiu i telewizji, oraz kilku filmach, w tym w dwóch pełnometrażowych filmach dokumentalnych o Janie Czochralskim. Jest członkiem Komisji Historii Nauki Polskiej Akademii Umiejętności, jest też członkiem Polskiego Towarzystwa Fizycznego i Polskiego Towarzystwa Krystalograficznego.

Serdecznie zapraszamy w imieniu organizatorów:



You Can Be My Angel Easter Basket Fundraiser

The You Can Be My Angel Foundation sent us information about their Easter Basket fundraiser, to support their mission of helping children get treatment for cancer. They are distributing Easter Baskets in three sizes- 11" (\$50 suggested donation); 13" (\$75 donation); and 16" (\$100 donation). The baskets include sweets, hand-crafted Easter items, and surprises!

To for more information or to order, one can call 773-225-9749, send an email to foundation@youcanbemyangel.com; or check out their Facebook page:

https://www.facebook.com/pg/YouCanBeMyAngel/fundraisers/?ref=page_internal

Lira Ensemble Chopin's Songs CD & New Video of Polish Song & Dance

The Lira Ensemble is looking for sponsors as well as customers for their upcoming Chopin's Songs CD, to be released in late April. The new CD features Lira's top soloists as well as the Ensemble's new accompanist, Marta Pasek, who holds a doctorate in piano from the Krakow University of Music (formerly the Krakow Academy of Music), one of the best music schools in Poland.

The Lira Ensemble has also made a new video of Polish song and dance available (for \$5 for 30-day unlimited viewing).

For more information on both, please see the Lira Ensemble website:

<https://liraensemble.org/>

Kosciuszko Foundation Staying Connected On-Line Program

The Kosciuszko Foundation announced their Staying Connected program, which is a series of on-line events, including conversations with prominent public figures, discussions, and lectures by distinguished scholars, authors, and leading experts, as well as music performances that are to be streamed via Foundation's social media channels. For more information please see:

https://www.thekf.org/kf/events/KF_Online_Programs/

Kosciuszko Foundation Accepting Applications for Scholarships

Applications accepted through March 21, 2021

The Kosciuszko Foundation has made us aware that they are now accepting applications for two scholarships as part of the 2021-2022 edition of the KF Exchange Programs to Poland for American students and researchers. The deadline for applications is March 21st, so don't delay if interested.

The Year Abroad in Poland program is an opportunity to learn Polish at the Jagiellonian University – one of the oldest continuously operating universities in the world, dating back to 14th century! The KF scholarship includes a tuition fee waiver & a living expenses allowance. ELIGIBILITY: US citizens, undergraduate sophomore, junior, senior and graduate students with a minimum GPA of 3.0. For more information, or to apply please see:

<https://www.thekf.org/kf/scholarships/exchange-poland/year-abroad/>

The Graduate Study & Research Program enables students to study full-time or conduct research at leading Polish universities and research institutions. The KF grant includes an allowance for housing and living

expenses in Poland. ELIGIBILITY: US citizens, graduate-level students, or university faculty members. For more information, or to apply, please see:

<https://www.thekf.org/kf/scholarships/exchange-poland/research/>

Polish American Medical Society Annual Academic Scholarships

Applications accepted through March 31, 2021

The Polish American Medical Society (PAMS) awards over a dozen academic scholarships every year to students of Polish origin from the Chicago area who are studying medicine, dentistry, or veterinary medicine at universities in the USA or in Poland. Students are assessed on the basis of their academic performance (GPA over 3.0), achievements, interests, and participation in the Polish community. For more information, or to apply please see:

<http://www.zlpchicago.org/scholarship-application-2/>

Kosciuszko Foundation Teaching English in Poland On-Line Program

Applications accepted through April 1, 2021

The Kosciuszko Foundation has also made us aware that they have extended the deadline for applications to their Teaching English in Poland On-Line program till April 1st. For more information, or to apply please see:

<https://www.thekf.org/kf/programs/teaching-english-in-poland/2021-teip-application/>

COVID-19 Vaccination Information (thanks to the PACIL)

The Polish American Congress, IL Division published the following information on January 26th, also to the PAEA (as a member of the PACIL). We are grateful to the PACIL for this information, especially as we try to move past this pandemic.

Links to information related to Covid 19 vaccinations and registration.

PLEASE NOTE; THE SITUATION IS DYNAMIC, AND INFORMATION CAN CHANGE DAILY.
PLEASE CHECK THE WEBSITES SHOWN BELOW FREQUENTLY.

COOK COUNTY, IL. RESIDENTS (Except for Chicago, Evanston, and Skokie):

<https://vaccine.cookcountyil.gov/>

CHICAGO RESIDENTS IN 1B CATEGORY (65 or Older, or Frontline Workers):

https://www.chicago.gov/city/en/sites/covid19-vaccine/home/ways-to-register.html?fbclid=IwAR23xX6LiVIZwaqjdoob8yqxzfJAfRuvbFflGVYQBUTlc_PGGVAPScF_BTg

LAKE COUNTY, IL RESIDENTS

https://allvax.lakecohealth.org/s/?language=en_US

KANE COUNTY AND DUPAGE COUNTY - As of today, do not provide registration website or information.

Polish American Medical Society - “We Vaccinate” Live Broadcast Documentary

We are grateful that the Polish American Medical Society shared with the PAEA the following information on a program about COVID-19 vaccination:

Dear Members and Friends

We are proud to share with you a link to the Expert Panel Discussion about SARS-CoV-2 vaccination that took place Sunday, January 24, 2021. Many of us who watched the extraordinary event had a feeling of time well spent in gaining knowledge and perspective on this very controversial topic. The Polish American Medical Society has been a proud supporter of the meeting and we are happy to be a part of such a wonderful experience.

<http://www.zlpchicago.org/2021/01/27/we-vaccinate-live-broadcast-documentary/>

New Book (in Polish) about Tadeusz Kosciuszko on the 275th Anniversary of His Birth

Our sister organization in Canada, the Association of Polish Engineers in Canada, has informed us about a new book about Tadeusz Kosciuszko, published this year- the 275th Anniversary of his birth. The book (in Polish), by Andrzej Wawryniuk entitled, “Droga do chwały. Młodość i krąg rodzinny Tadeusza Kościuszki,” is hailed both for the completeness of its coverage of Kosciuszko’s life before leaving for the United States, as well as the huge number of original documents which the author was able to find and include.

The book can be browsed, and even downloaded (with permission of the Author) from, the SIP Canada website:

<http://www.polisheng.ca/k/tadeusz-kosciuszko/>

We are grateful to our fellow Polish Engineers in Canada for this information, and access to such an interesting and timely book.

Copernicus Foundation Request for Support

The Copernicus Foundation is requesting Polonia support for their bid to purchase a property adjacent to theirs, from the City of Chicago. Below is the content of an email we recently received, with more details about what each of us can do to help (by signing their petition).

Please consider supporting them (in the spirit of mutual support, as is part of our mission); as they support many Polonia organizations; and hosted our meetings for many years.

Dear Polish Engineers,

As you might know, the Copernicus Foundation is trying to buy the abandoned firehouse at 4841 N. Lipps from the City of Chicago in a negotiated sale. The Foundation would renovate the property keeping its historic façade and having it be part of our campus. The Copernicus Foundation is willing to pay \$300,000 for the property which the city appraised at \$208,000.

Sadly, the city appears to be accepting an offer from an outside developer, 4841 N. Lipps LLC (Ambrosia Homes) who will only be paying \$1 for the property. There are a number of steps that have to be taken before that sale is final, so we are asking for your support in trying to stop the sale.

Please sign our petition at www.FightForTheFirehouse.com and express your support of the Copernicus Foundation. The site will also allow you to send an e-mail directly to your Alderman asking him not to vote for the negotiated sale of the firehouse to 4841 N. Lipps LLC.

Please pass this information along to any of your friends and colleagues and share it on your *social media!* This will show Mayor Lightfoot and the Aldermen that our community supports the Copernicus Foundation in its endeavor to develop this property in the best interests of the many communities we serve.

Thank you,

Alina Bosak
Event Coordinator
Copernicus Foundation
773-313-3893



www.polishengineers.org