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, February 19th 2016**

TIME: **7:30 p.m.**

PLACE: **Copernicus Center**
Kings Hall
5216 W. Lawrence Avenue
Chicago, Illinois

SPEAKER: **Łukasz Krzymień, PhD**

TOPIC: **Wireless Networks: Past, Present, & Trends for the Future**

Łukasz Krzymień, PhD

Łukasz Krzymień was born in Poznań in 1978. In 2002 he graduated with a Master's degree from the Department of Electronics and Telecommunications at Poznań University of Technology. His Master's thesis concerned receiver design for GSM systems. In 2003 he started the Doctoral program at the University of Alberta, Canada and graduated in 2011, with his PhD Thesis on iterative receivers for interference dominated scenarios. Most of 2011 he spent as a post-doc at McGill University in Montreal. In November 2011 he joined Huawei Technologies in Rolling Meadows, IL. His research interests include multiple access methods, receiver design, coding theory, channel access and most recently channel modelling for next generation wireless systems.

ABSTRACT

Wireless networks and their impact on our lives is growing at an unprecedented pace, especially in recent years. The number of wireless devices has already exceeded those of wireline. It is envisioned that by 2020 mobile traffic will increases 1000-fold. Therefore the questions arise how did this technology develop and what are the most important fundamentals behind it, that actually allow it to work. This presentation provides some answers by giving a broad overview of wireless networks and systems. Rather than concentrating on a specific subject, the main ideas and concepts behind the growth of wireless communication will be explained. First, some of the most important historical facts will be briefly discussed. Then the present state of the art will be presented. Finally, an attempt at indicating the most suitable solutions and most possible avenues for the future of this discipline will be made.

<u>PAEA Announcements</u>

2016 MEMBERSHIP DUES

Please note that the dues schedule for 2016 has not changed. **Dues are $50 per year, senior citizens and students $25 per year.** We strongly encourage you to pay your dues as soon as possible. Membership Cards will be provided to all those who paid their dues. As of the beginning of February, we have 28 paid Memberships.

Questions? You may inquire at the meeting or send an email to: administration@polishengineers.org

You may send your dues directly to our Treasurer:

Mrs. Diana Kukawski
940 Beau Dr., Apt 209
Des Plaines IL 60016

You may also pay your dues at our meetings, and receive your Membership Card immediately.

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PAEA Web Page

Some time ago, a Members Section of our web page was created, which requires a password to access (sent to all paid Members). This section includes Minutes from our meetings, as well as Job Postings from Members (listed in the spirit of mutual support- not promoted explicitly by the PAEA).

The section has not been updated for some time; and the Administration will be taking on the task of making it more current (thanks in large part to our great Webmaster, Krzysztof Kompiel), along with updating other parts of our web page. And a new password for 2016 will be sent to paid Members shortly.

In order to maximize the potential benefit to Members, please send us any Job Postings you would like to make Members aware of, to: contact@polishengineers.org.

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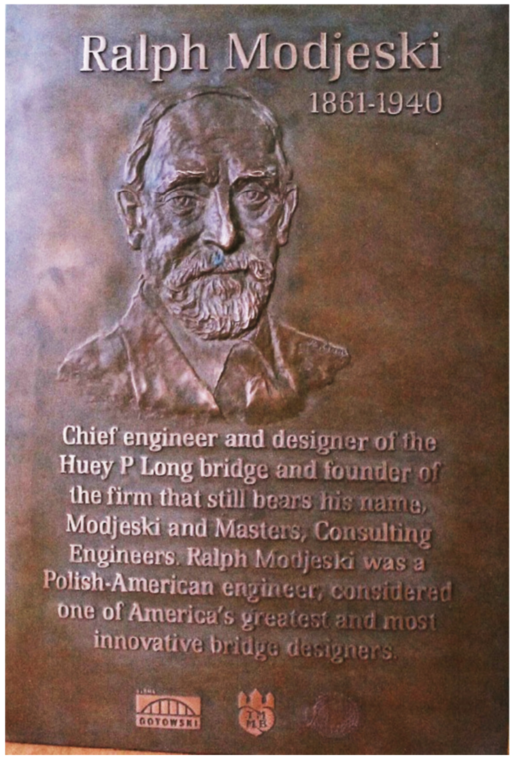
Rudolf Modrzejewski (Ralph Modjeski) Plaque Dedication - Huey P. Long Bridge

The Council of Polish Engineers in North America invites all PAEA members and sympathizers to the unveiling of a Ralph Modjeski's plaque on Huey P. Long Bridge in New Orleans, tentatively scheduled for October 2016, The plaque is ready (see photograph below). It was cast in Poland using a special metal alloy, sponsored by The Gotowski firm in Bydgoszcz (Poland) and The Council has permission of the bridge owners (Mr. Carl Kocur, Vice President of Engineering, New Orleans Public Belt Railroad).

More information will be forthcoming as it becomes available.



Huey P. Long Bridge – National Historic Civil Engineering Landmark

On September 28, 2012, the New Orleans Huey P. Long, has been designated a National Historic Civil Engineering Landmark. This honor places this Bridge in the company of Eiffel Tower, the Panama Canal, the Hoover Dam and the US Capitol Building. When it was completed in 1935 it was the first railroad highway bridge to cross the Mississippi River in Louisiana. It was the longest high-level, double truss railroad bridge in the world. The total length of the bridge is 22,996 feet between the railroad abutments. The navigational clearance is 135 feet above the high water river stage of +18 feet, to clear ocean-going vessels. It's an example of pioneering engineering. Prior to the bridge all trans-river rail commerce was handled by ferries. With the development of highway traffic and resulted increase in ferry traffic the need for improved crossing became very important. Port of New Orleans is considered one of the busiest in the world. It handles shipping lines reaching ports in Europe, South America and Asia. Additionally, the Mississippi barge lines traffic carries large tonnages for trans-shipment.

Due to difficult soil conditions in the delta of Mississippi, low lands, navigational clearances and strong river currents for a very long time, the best engineers in the country were unable to build a bridge in New Orleans. In 1930 Ralph Modjeski was engaged to prepare plans and specifications for a bridge to satisfy requirements of the Chief of Engineers of the United States Army. Bids were opened in 1931 and in December of 1932 construction started. Designing bridge piers Modjeski consulted with Karl Terzaghi, known for his outstanding foundations expertise. On the completion of the bridge, 15 December 1935, grateful New Orleans Morning Tribune called Ralph Modjeski the Greatest Bridge Builder in History of the Country. The Span was called Marvel of Engineering Skill and Artistic Beauty. Since completion it has been estimated that it carried 100,000 passenger trains and over 30 million freight cars. Bridge carries 34,000 vehicles daily.

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Sad News – Passing of Mr. Edward F. Blicharski

As mentioned at our January meeting, we regret to inform of the passing of one of our brothers, Mr. Edward F. Blicharski.

Mr. Blicharski was born in Chicago on January 21, 1927. He attended Crane Technical High School, earning a High School Diploma before turning 18 and entering the military service during World War II. He served in the US Army as a paratrooper from 1945 to 1946.

Upon receiving an honorable discharge, Edward attended the Illinois Institute of Technology for one and a half years, and four years at the University of Illinois in Champaign-Urbana. In 1952 he graduated with a BS Degree in Architecture. In 1956 he became a Registered Architect; and in 1960 opened his own office, and was a designer of the first McCormick Place Building.

The office of Edward F. Blicharski has produced plans for over 2,000 projects; predominantly designing office, commercial, institutional, residential and industrial buildings. Edward was a member of various Polish organizations, plus veterans and architectural clubs.

He dedicated much of his time to informing Polonia about derogatory attacks and lies about Polish people and history in the media. He received many awards, recognitions and honors in Architecture and Engineering; as well as for his voluntary community work.

In 2004 Edward Blicharski was honored by The Polish American Engineers Association with a Certificate of Recognition for his accomplishments in the field of Architectural and Engineering Design.

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Special Interest

Meet Author Jan Krawiec at the Polish Museum of America

Saturday, February 27, 2016, 3:00 pm, 984 N. Milwaukee Ave., Chicago, IL 60642
For details please see: www.polishmuseumofamerica.org

Official State of Illinois Observation of Gen. Pulaski Day

Monday, March 7 @ 9:00 am - 12:00 pm, Polish Museum of America, 984 N. Milwaukee Ave., Chicago, IL 60642
For details please see: www.polishmuseumofamerica.org

International Women's Associates Presentation at the PMA – Creators, Benefactors, and Treasures of the PMA

Saturday, March 12 @ 10:00 am - 12:00 pm, Polish Museum of America, 984 N. Milwaukee Ave., Chicago, IL 60642
For details please see: www.polishmuseumofamerica.org
