
POLISH-AMERICAN ENGINEERS ASSOCIATION

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

DATE: **Friday, October 21st, 2011**

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

PLACE: **Polish National Alliance**
6100 North Cicero Ave.
Chicago, Illinois

SPEAKER: **Professor Andrew Nowak, PhD**
Robert W. Brightfelt Professor of Engineering
Interim Chair of Department of Civil Engineering
University of Nebraska

TOPIC: **Security of Bridges and Tunnels**

Professor Andrew Nowak PhD Biography

Dr. Nowak is Robert W. Brightfelt Professor of Engineering and Interim Chair of the Department of Civil Engineering at the University of Nebraska since 2005, after 25 years at the University of Michigan. He received his MS and Ph.D. from the Warsaw University of Technology in Poland. His area of expertise is structural reliability and bridge engineering, and major research accomplishments include the development of a reliability-based calibration procedure for calculate ion of load and resistance factors. The procedure was successfully applied on calibration of AASHTO LRFD design code for bridges, ACI 318 Code for Concrete Buildings, Canadian Highway Bridge Design Code, and British Standard BS-5400. He made important contributions in the area of bridge diagnostics and evaluation, including analytical load models used for prediction of extreme load events for bridges and buildings and the development of efficient experimental procedures for weigh-in-motion measurement of truck loads, dynamic loads on bridges and fatigue load spectra. In the area of materials, Dr. Nowak has developed a design guide for self-consolidating concrete (SCC), including field applications. Dr. Nowak has authored over 450 technical publications, and chaired a number of committees associated with professional organizations such as: ASCE, ACI, TRB IABSE and IABMAS. He is an Honorary Professor of the Warsaw University of Technology and Krakow University of Technology, and a Fellow of ASCE, ACI and IABSE. Prof. Nowak received the ASCE Moisseiff Award, IFIP WG 7.5 Award, Bene Merentibus Medal, and Kasimir Gzowski Medal from the Canadian Society of Civil Engineers.

Abstract of the presentation

Bridges and tunnels constitute a very important component of the national transportation system, providing the support for more than 20% of the gross national product (GNP). Therefore, they require special protection measures to reduce the exposure to risk. Until recently, bridge and tunnel owners (government agencies) have focused on natural disasters such as earthquakes, collisions (vessels and vehicles), floods and major storms. It is now clear that bridges and tunnels are vulnerable to hazards like negligence and improper maintenance,

intentional acts of vandalism, and terrorist attacks. Safeguarding against terrorism is a new and challenging task. Objective of the presentation is to present the current risk analysis procedures, results of computations for selected bridge structures, load models including extreme events and their combinations, as well as risk control methodology. Advanced computer simulation techniques allow for identification of the most vulnerable structural components and connections and verification of strengthening procedures. Special protective design approach can efficiently control risk of failure due to extreme events, including a terrorist attack.

ADMINISTRATION UPDATES

We are very happy and also very proud that **Mr. Louis Koncza**, a long time member of PAEA and at the same time a highly distinguished member of the Chicago engineering community **was selected by Polish American Congress to be the recipient of the Lifetime Achievement Award**. Mr. Koncza held a prestigious and very responsible position of the Chief Engineer of City of Chicago. He was instrumental in founding of the Copernicus Center and was involved in numerous activities aimed at enhancing the image of Polonia in the Chicago area. Copernicus and Kosciuszko monuments at Solidarity Drive are just a few of the examples. Foremost he was instrumental in placing numerous fellow Polish American engineers in various engineering firms located in Chicago. He will be honored during an October 16th PACIL banquet. We are hoping that PAEA will be represented at this event. It appears that we will have two tables of PAEA members who know Louis Koncza and want to participate in the event. We are encouraging others to join as well.

One of the main projects that Board of Directors (“BOD”) is currently tackling is **History of PAEA**. Any documents pertaining to the last 76 years will be very welcome. Dr. Plachta met with historian Marian Burtan to discuss strategy for the development of the above publication.

Scholarship Committee reviewed applications received for 2011 Ralph Modjeski Stipends and finalized their decision. Four **recipients were identified**. In alphabetical order they are:

- Maurice Chojecki - University of Illinois at Chicago,
- Andrew Czynszon - University of Michigan Ann Arbor,
- Emilia Czynszon - Purdue University,
- Krzysztof Lukasik - Rutgers University.

One of the recipients, Mr. Chojecki will attend our October meeting. Each of the finalists will receive a \$600 one time stipend. This is not mandatory but desirable.

Messieurs’ Roman Korczak and Tad Hofkin have been selected to review our **Constitution and By-laws** to make them current. We have been promised an update during the October meeting.

PAEA approved \$250 renewal of our membership in **Polish Museum of America**.

Preparations for the **November 12th Banquet** are underway. We will be honoring five members of PAEA which have supported our organization over the past twenty years: Joan Jacobs, Prof. John Dykla, Dr. Joe Wojciak, Tom Karasiewicz, and Adam Czynszon. We will also recognize nine professionals who provided very interesting presentations during the past year. We expect a number of guests from Polish Academia and sister US and Canadian organizations. Preceding the banquet there will be meeting at Polish Consulate in Chicago. We are hoping that members will support our biannual event.

Our speaker on November 18th will be Dr. Fred Leya. Dr. Leya’s presentation will cover engineering aspects of cardiovascular medical treatments.

We are planning to have a social event at **Chopin Theatre on November 26th**. Details are forthcoming.

P.A.E.A. MEMBERSHIP DUES. PAEA fiscal year began in January. **Please plan to pay your 2011 dues during the next meeting.** Dues remain unchanged for 2011 and are \$50 per year; senior citizens (over 65 years of age) and students \$25 per year. Questions? You may send an email to: paea.info@gmail.com

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