



# RICHMOND CHAPTER OF IEEE PES

## PES OFFICERS

Alan Ott – (804)257-4823  
Brian King – (804) 320-8005  
Dev Walia – (804) 928-8095  
Hung-Ming Chou – (804) 418-0598  
Tin Nguyen – (804) 257-4999  
Mahesh Karki – (804) 801-3955

## *Insight to Action – Grid Analytics Journey*

**Date:** THURSDAY, December 14th, 2023. 11:00 to 12:45pm

**Place:** Online

### Abstract:

Exelon's Infrastructure and Safety Analytics team is helping develop analytic insights to support Distribution, Transmission, Operation optimizations to drive reliability, resiliency, cost benefits for grid investments and enhancing organization safety by moving from lagging to leading indicators. This webinar will focus on a T&S Advanced Analytics project, to showcase the importance of investment during project ideation on adoption strategy, creating actionable insights, empowering business/ engineers to lead and take active role in analytic projects, how to identify change management and external dependencies upfront as part of analytics prioritization. Utilities have been heavily reliant on subject matter knowledge in the last century to drive preventive maintenance (PM) program and schedule PM for a variety of assets. Our engineers are experts in the industry and have leveraged their and industry knowledge of asset measurements and inspection results to manage these programs, however, as human beings, we are limited in terms of considering a variety of factors and assessing the distribution of each factor. This is where data driven approaches shine and enables subject matter experts with checking million to billion combinations to come up with the best model to predict future. These models can then be used to supplement engineer knowledge, and support industry-wide acceptance of a systematic approach to transition to condition-based maintenance programs. Latest model was validated against business-as-usual to provide 85% accuracy using success criteria developed for this project. PECO team is quantifying and confirming the benefits of model output to extract technical and data science success, including that model can be used in the real world “what would be do differently”.

### Seminar Outline:

11:00 am to 10:10 am	Opening Remarks
11:10 am to 12:30 pm	Insight to Action – Grid Analytics Journey
12:30 pm to 12:40 pm	Question and Answer
12:40 pm to 12:45 pm	Chapter Announcement

### Online link:

Microsoft Teams meeting  
**Join on your computer, mobile app or room device**  
[Click here to join the meeting](#)  
Meeting ID: 283 355 525 190  
Passcode: V4vNo6  
[Download Teams](#) | [Join on the web](#)

**PDHs:** 2 professional development hours (PDHs) will be issued for completing this course. A PDF Certificate will be sent out for all attendees following the seminar.

**Questions? Contact the following:**

[PESRichmond@ieee.org](mailto:PESRichmond@ieee.org)

[alan.ott@dominionenergy.com](mailto:alan.ott@dominionenergy.com)

### Speaker Bios:



**Po-Chen Chen** received his B.Sc. and M.Sc. degrees in electrical engineering from Polytechnic Institute of New York University, Brooklyn, NY, in 2010 and 2012, respectively. His expertise include distributed generation, power system protection and control, voltage quality and stability studies, geographical information system, machine learning and AI technologies, and big data applications.

Mr. Chen is currently a data science manager in Exelon's Infrastructure and Safety Analytics team. He is responsible for collaborating with various internal stakeholder and external partners to understand business needs and deploy analytics-based solutions, focusing on premier customer experience, operating performance improvement, and increasing safety practices.

In Mr. Chen's most recent role at Sentient Energy, he focused on agile product development to develop predictive analytics using waveform classification for outage detection. At Duke Energy, as a data scientist lead expert, his team developed advanced data analytics for load research and rate design and developed models for behavioral demand response programs and winter peak analysis for energy modeling. At Oncor Electric Delivery, he helped architect HDFS and data lake ecosystems on IBM cloud and developed AI solutions on Spark-Hadoop and GPU platforms for their T&D customers.

Mr. Chen's publications include 19 conference proceedings, 5 journal articles and 1 book chapter. He is also an elite reviewer for more than 16 journals and have been recognized by IEEE Transactions societies with 4 exceptional reviewer awards.