Association for the Advancement of Cost Engineering

AACE GREAT LAKES SECTION

Meeting Topic

A Case Study on the Usage of Data Analytics and Machine Learning to Measure Schedule Health

SPEAKERS

Presenters:

Kaylyn Mickelsen, MBA, PSP
Joseph Lozada, MBA, MSc
Stephanie Zerkel

MEETING LOCATION:

Virtual Meeting Only

DATE / TIME

Wednesday May 26th, 2026

◊ **6:30-7:30 – Program**

Virtual Attendance:

To access the meeting virtually, you will need to register by clicking the link below and an email with the meeting information will be emailed to you.

LINK FOR VIRTUAL ATTENDANCE

LinkedIn Page CLICK LINK
New Website: CLICK LINK

Abstract

Exploration of the case study into the use of data analytics and machine learning as tools that can be combined with industry standards for schedule health analysis. Utilizing machine learning (ML) algorithms, schedule health data can predict future project schedule outcomes. The concepts presented are combined with current market tools for business intelligence reporting, scheduling, and model creation. The software used in this case study includes Microsoft Power BI, Oracle Primavera P6, and Microsoft AutoML to deliver high-quality schedule health data and forecasted performance on projects in a portfolio. The intent of using these techniques is to make data easily accessible and understandable to allow for enhanced decision-making capabilities throughout an organization.

This analysis supports AACE's proper schedule development adherence [1] and criteria for constructability reviews [2].The authors will show how machine learning is a natural next step in the data analytics process when building a schedule health dashboard. In this paper, the authors explain the typical machine learning process and compare it to Microsoft's AutoML machine learning tool, which is available as part of their Power BI analytics platform, where the advantages of AutoML are highlighted.

Kaylyn Mickelsen, MBA, PSP
Sr. Regional Director, Midwest & BI Operation

Kaylyn has over 20 years of industry experience and expertise in Project Controls, Capital Project Management, and Business Intelligence. Throughout her career, she has held roles in consulting, government, commercial nuclear and high-voltage substation, transmission, and distribution industries.

Being a subject matter expert in software applications such as Primavera P6 and Power BI, Kaylyn is successful in taking the time to understand client requirements to enhance project delivery and transform their data with Business Intelligence to guide them in making informed business decisions. She holds a bachelor's in business management as well as a master's in business administration. She has also obtained her Planning and Scheduling certification (PSP) from AACE International and serves as an AACE Co-chair for the Data Science & Advanced Analytics (DSAA) subcommittee.

Bios Continued on Page 2

You may claim up to 0.25 Continuing Education Units (CEU) by attending this meeting

OUR VISION

To be the gathering place and source of thought leadership for professionals who drive successful project and program delivery.

Association for the Advancement of Cost Engineering

AACE GREAT LAKES SECTION

Meeting Topic

A Case Study on the Usage of Data Analytics and Machine Learning to Measure Schedule Health

SPEAKERS

Presenters:

Kaylyn Mickelsen, MBA, PSP
Joseph Lozada, MBA, MSc
Stephanie Zerkel

MEETING LOCATION:

Virtual Meeting Only

DATE / TIME

Wednesday May 26th, 2026

◊ **6:30-7:30 – Program**

Virtual Attendance:

To access the meeting virtually, you will need to register by clicking the link below and an email with the meeting information will be emailed to you.

LINK FOR VIRTUAL ATTENDANCE

LinkedIn Page CLICK LINK
New Website: CLICK LINK

Bios Continued

Joseph Lozada, MBA, MSc
Director, Business Intelligence

Joseph Lozada is a data scientist and technology expert with nearly 15 years of experience in data analytics. He leads a multidisciplinary team delivering advanced data and technology solutions for complex infrastructure and energy projects and his expertise spans business intelligence, data engineering, AI and machine learning, enterprise data strategy, and cybersecurity. He holds an MBA and a Master of Science in Data Science and is currently pursuing a Doctor of Science in Cybersecurity with research focused on AI neural networks for threat detection. Joseph is an adjunct instructor of data analytics at the Community College of RI and is professionally involved with the Association of Data Scientists, ISACA, the InfraGard AI Cross-Sector Council, and the EPRI Open Power AI Consortium.

Stephanie Zerkel
Program Manager, Midwest

Stephanie has over 8 years of experience in Project Controls scheduling and in the Business Intelligence space and is serving as a Program Manager driving best practice. She has nuclear experience supporting Palo Verde Nuclear Generating Station in large project execution and refueling outage operations. Managing project controls on projects such as polar crane replacements, low pressure feedwater heater replacements, and cooling tower repair programs from project initiation to closeout.

Stephanie was a key SME in developing a customized health check tool and was a top contributor to a case study submission to AACE for The Usage of Data Analytics and Machine Learning to Measure Schedule Health for review to present at the AACE Conference in 2024 as well as Using Advanced Analytics and Data Visualization for KPI Development in Project Delivery at the AACE Conference in 2025.

You may claim up to 0.25 Continuing Education Units (CEU) by attending this meeting

OUR VISION

To be the gathering place and source of thought leadership for professionals who drive successful project and program delivery.