Speaker Biography Page

Joe Zhou, Black & Veatch

Linkedin: https://www.linkedin.com/in/mjzhou/

Presentation Title: Keynote Speaker

Bio:

Serving as the global leader for Black & Veatch Digital Advisory group, Mr. Zhou focuses on the Infrastructure Modernization and Digital Transformation initiatives for electric, gas, water/wastewater utilities and distributed energy infrastructure owners. He provides executive level strategic advisory and thought leadership services for Grid Transformation, Electrification & Decarbonization, Resiliency and Security, and Sustainability initiatives. As a past co-chair of the first OpenFMB task force within the North American Energy Standards Board, Mr. Zhou was very active in leading several smart grid interoperability standards. Today, he continues to work collaboratively across technology vendors, service providers and energy and utility companies as we embark on the journey to the "clean energy infrastructure of the future".

Abstract:

With the passage of both the Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA), There will be much accelerated growth in both renewable energy resources and electrification investments. This will force significant changes to the structure and operation of the electric grid. Utilities will need to seek solutions to transform its grid infrastructure through innovative technologies that can both scale and perform. Standards such as OpenFMB can play a significant role in achieving the decarbonization and grid transformation goals.

This keynote will explore the past, present and future of grid interoperability standards such as OpenFMB, analyze market demands for both In Front of the Meter (IFM) and Behind The Meter (BTM) use cases, and articulate value propositions of using OpenFMB for both utilities, energy prosumers, and technology solution providers. With mass deployment of grid technologies rapidly accelerating, time is now to work collaboratively and expeditiously across our industry to ensure greater awareness and adoption of OpenFMB. OpenFMB is as an open and extensible framework that can provide the necessary “connective tissue” between all parties playing the eco-system we call the “Grid of the Future”. There is greater need now for OpenFMB, let’s work together to make it happen.

Jedidiah Bartlett, Schweitzer Engineering Laboratories

Linkedin: https://www.linkedin.com/in/jedidiah-bartlett-13920358/

Presentation Title: Grid Architectural Requirements - Dynamic Distributed Energy Resources Require Distributed Control

Bio:

After a circuitous early career providing broad technical and business experience over several industries, Jedidiah Bartlett was attracted to the innovation and values embodied by Schweitzer Engineering Laboratories and joined the SEL family in 2008. There he developed a passion for innovating within the multi-faceted and deeply impactful critical infrastructure and energy sector, beginning work in the protection engineering services group developing

specialized protection schemes and test models to validate them. He refined and re-framed the technologies and approaches deployed by SEL Engineering Services under the PowerMAX brand today to control some of the most demanding power systems around the world. Jedidiah moved to SEL R&D, recognizing that incorporating Distributed Energy Resources required new products to be introduced to the industry to enable different approaches, and began efforts to accelerate the efficiency of engineering and rollout of solutions, both in the field and the internal product development teams, to accelerate the pace of innovation to meet industry needs as we embark on an exciting energy revolution. Since then, he has been awarded patents for novel approaches to computing the state of the power-system, driven the development of several new product enhancements surrounding the SEL RTAC and Horizon product lines, he's now focused on propelling adoption of modern architectures for the grid of the future with industry partners, manifesting as a Development Lead Engineer for the SEL Blueframe platform and its application ecosystem.

Abstract:

As the number of sources of energy connected to our grid continues to grow, driven by continued population growth, per-capita energy consumption, and replacement of traditional, large, centralized energy generation sites with smaller and more plentiful renewables, our engineering assumptions and consequent approaches historically used to monitor, control, operate, and maintain our electrical infrastructure are challenged. This presentation will show how rising to meet those challenges is best served by a distributed intelligence approach that embraces the dynamic, disparate, and increasingly investor-owned or consumer-controlled energy sources to achieve maximum grid resiliency.

Michael Burck, Open Energy Solutions

Linkedin: https://www.linkedin.com/in/michaelburck/

Presentation title: The OpenFMB Deployment Journey

Bio:

Michael Burck is the VP of Services for Open Energy Solutions, a technology-based company providing solutions and services to enable value from advanced and emerging technologies for grid operation. He has close to 25 years of industry experience of leading a broad spectrum of initiatives that focus on digitization and transformation of electric delivery and grid operations. Mr. Burck is now responsible for project execution and customer solutions across OES' portfolio, including but not limited to the integration and deployment of OES' products.

Cuong Nguyen, U.S. National Institute of Standards and Technology

Linkedin: https://www.linkedin.com/in/cuong-nguyen-86aa99b1/

Presentation title: Testing & Certification Updates and Role of the Assessor

Bio:

Cuong Nguyen joined the National Institute of Standards and Technology (NIST) in 2010 and leads the Smart Grid Testing and Certification Project in the Smart Grid Program of the Communication Technology Laboratory. He works with industry to support standards-based interoperability test programs to help accelerate smart grid deployments, and he manages the NIST Smart Grid and Internet of Things (IoT) Infrastructure Testbeds. Cuong is the chair of the Smart Electric Power Alliance (SEPA) Testing and Certification Working Group (TCWG). In addition, Cuong coordinates international outreach efforts through bilateral and multilateral engagements.

Michael McMaster, Arizona Public Service

Linkedin: https://www.linkedin.com/in/michael-mcmaster-909a40179/

Presentation title: APS's DERMS Journey and Considerations

Bio:

Michael McMaster serves as the engineering lead for the Technology Assessment team at Arizona Public Service (APS). Michael has been with APS for over 5 years and serves, focusing on leading the APS DERMS strategy and evaluating emerging technologies and its potential to support APS's transition to clean energy solutions.

Curtis Kirkeby, Avista Utilities

Linkedin: https://www.linkedin.com/in/curt-kirkeby-66262511/

Presentation title: Vision for a Single Utility Asset

Bio:

Curtis has over 40 years of utility experience and has been instrumental in the modernization of the Avista utility grid. He is a registered professional engineer in the State of Washington. His expertise includes renewable generation, energy storage, grid controls and automation, geographic information systems, AMI and DMS. Under his guidance Avista developed in-house electric OMS, Engineering Design, Analysis, Gas Compliance and Asset Management applications that, when delivered, were best in class. He also has been instrumental in the structuring of and successful award of numerous U.S. Department of Energy and Washington State Department of Commerce grants including one that established a DMS across a large portion of Avista's service territory, another involving a vanadium flow energy storage system, as well as one establishing a shared energy economy for management of Microgrids. He received his B.S.E.E. from Montana State University and a Masters in Engineering Management from Washington State University.

Rosanna Kallio, Consumers Energy

Linkedin: https://www.linkedin.com/in/rosanna-kallio-312a2a12/

Presentation title: Consumers Energy Grid Edge Interoperability Initiatives

Bio:

Rosanna Kallio has over 25 years of utility experience. She currently leads grid modernization projects around DER integration. Rosanna represents Consumers Energy in many industry groups within SEPA, EPRI, IEEE, UCA and other industry initiatives around grid modernization and DER integration.

David Lawrence, Duke Energy

Linkedin: https://www.linkedin.com/in/david-lawrence-b421061/

Presentation title: Zero-Trust Application Grid

Bio:

David Lawrence is a Technology Development Manager with Duke Energy in the Emerging Technology Office. In this role, he provides leadership on technologies for the Future Grid. He works to define and execute technology evaluations, and provides change management support. Mr. Lawrence is currently focused on Microgrids, DC Services, and Cybersecurity.

Kevin Schneider, Pacific Northwest National Laboratory

Linkedin: https://www.linkedin.com/in/kevin-schneider-66327097/

Presentation title: Networked Microgrids to Support Decarbonized and Resilient Operations

Bio:

Kevin P. Schneider is currently a Laboratory Fellow at the Pacific Northwest National Laboratory, Manager of the Distribution and Demand Response Sub-Sector, and a Research Professor at Washington State University as part of the PNNL/WSU Advanced Grid Institute (AGI). His main areas of research are distribution system analysis and power system operations. Dr. Schneider is also an Affiliate Associate Professor at the University of Washington and a licensed Professional Engineer in Washington State. He received his B.S. degree in Physics and his M.S. and Ph.D. degrees in Electrical Engineering from the University of Washington.

Ben Ollis, Oak Ridge National Laboratory

Linkedin: https://www.linkedin.com/in/ben-ollis-94b88685/

Presentation title: COMMANDER multi-microgrid testbed

Bio:

Ben Ollis is a researcher at Oak Ridge National Laboratory in the Power and Energy Systems group. He began working at ORNL as a student in 2013 and joined the lab as a full time staff member in 2014. He graduated with his BS and MS in electrical engineering from the University of Tennessee. Ben worked as a distribution system operator in college and also in system planning for transmission and distribution systems at Duke Energy. His research interests include microgrids, battery energy storage, distribution market design, and renewable generation integration and control.

Dr. Kumaraguru Prabakar, National Renewable Energy Laboratory

Linkedin: https://www.linkedin.com/in/kumaraguru-p-a8515214/

Presentation title: Remote Hardware-in-the-Loop setup to evaluate OpenFMB-enabled FLISR

Bio:

Kumaraguru Prabakar is a Senior Research Engineer with Power Systems Engineering center, the National Renewable Energy Laboratory, Golden, CO, USA. He leads research projects targeting improvements in distribution system protection, and interoperability of distribution system assets. He is a technical contributor in multiple microgrid controller evaluation projects, and advanced distribution management systems evaluation projects. His research work focuses on the controller hardware-in-the-loop, power hardware-in-the-loop, and remote hardware-in-the-loop experiments. He received the M.S. degree from Arizona State University, Tempe, AZ, USA, in 2011, the Ph.D. degree from The University of Tennessee, Knoxville, TN, USA, in 2016, the M.B.A. degree from the University of Colorado, Boulder, CO, USA in 2021.

Dan Madey, Cisco

Linkedin: https://www.linkedin.com/in/danmadey/

Presentation title: Secure Application Hosting on Cisco Industrial Network Devices

Bio:

Dan Madey is a Principal Utilities Architect at Cisco Systems dedicated to the development of secure networking solutions for utility operational technology systems. His career focus has been on secure networking, applied physics, technical sales, and business operations. Dan has 20+ years of experience in advanced communications architectures for critical infrastructure systems. He joined Cisco's Industrial IoT team in 2014, after serving for 2 years on Cisco's Wireless & Mobility team. Prior to Cisco, Dan was VP of Technical Operations at the startup AirPatrol bringing innovative wireless security solutions to market, Technical Program Manager at Harris RF Communications overseeing cryptographic systems development, Technical Program Manager at Strategic Analysis managing DARPA wireless projects, and Research Engineer at General Electric Corporate R&D Center. Dan earned a Bachelors in Physics from Loyola University Maryland, a Masters in Materials Science & Engineering from Penn State University, and a Masters in Computer Science from Johns Hopkins University.

Fares Al Jajeh, Eaton Corporation

Linkedin: https://www.linkedin.com/in/faresaljajeh/

Presentation title: Distributed Grid-code Compliant DER Controller Platform

Bio:

Fares is a Lead Control Engineer at the Eaton Distributed Energy Resource Center of Excellence. At Eaton, Fares has been working on the software development and testing of grid code controls, including IEEE1547-2018 and other international standards for DERs interconnection. Prior to Eaton, Fares was an electrical modeling and simulation specialist working on HIL and power systems studies. Fares received his bachelor's degree in Electrical and Computer Engineering, from the American University of Beirut, Lebanon in 2017, and his master's degree in Electrical Engineering from McGill University, Canada in 2020.

Émile Grégoire, Eaton Corporation

Linkedin: https://www.linkedin.com/in/emile-gregoire/

Presentation title: Distributed Grid-code Compliant DER Controller Platform

Bio:

Émile Grégoire, P.Eng. is Principal Software Engineer at Eaton's DERMS Center of Excellence. He holds a bachelor's degree in software engineering from Université Laval in Canada. He worked for five years in the SCADA industry and electric utility power systems communication. He was one of the main contributors of the open-source OpenDNP3 protocol stack and also contributed to one of the first OpenFMB implementation. He is a licensed professional engineer of the Ordre des ingénieurs du Québec. He is located in Québec City, Canada.

Duncan Woodbury, Liberas

Linkedin: https://www.linkedin.com/in/duncanwoodbury/

Presentation title: Extending OpenFMB to the EV Charging Ecosystem

Bio:

Duncan Woodbury is a cybersecurity executive and critical infrastructure security professional. Duncan currently serves as CEO of Liberas, the premier distributed energy cybersecurity company focused on providing businesses and societies globally with equitable access to critical infrastructure cybersecurity technology. Duncan has been performing security research, penetration testing, and exploitation of automotive and transportation infrastructure systems for 10 years as PI and technical lead on commercial OEM, supplier, and US government programs. Duncan sits on the security and resilience committee of the world's largest unified electric grid as technical lead for a consortium of energy utilities and stakeholders representing 800,000,000MWh annually of securely delivered electricity and gas. Duncan is a regular speaker at leading industry forums for automotive and critical infrastructure security, including IEEE, SAE, DEF CON, and others.

Joe Stanley, Schweitzer Engineering Laboratories

Linkedin: https://www.linkedin.com/in/joseph-stanley-9b5b81113/

Presentation title: OpenFMB - Rites of Passage; Scaling for Commercial Adoption

Bio:

Joe Stanley is an Automation Engineer for Schweitzer Engineering Laboratories with a Master of Engineering in Electrical Engineering, Power-Systems/Automation Focus, from the University of Idaho.

Diana Tatem, Verizon Wireless

Linkedin: https://www.linkedin.com/in/diana-tatem-b114228/

Presentation title: Building the Utility Network Today for the Grid of the Future

Bio:

Diana Tatem is Product Leader, Verizon Business, leading product management across energy and utility segments. She is responsible for the Verizon Connected Utilities holistic smart grid product portfolio and its strategy and alignment with Verizon's Network-as-a-Service framework -- including edge compute, IoT and 5G services, utility private network solutions, security, and managed services. As a seasoned leader, Diana has extensive experience leading complex emerging technology initiatives, guiding successful transformations in utility, and manufacturing, products and services, including electric vehicle charging strategy. She has held a variety of leadership roles within Verizon, including an assignment in Boston to launch Verizon's 4G network technology, innovation program and Internet of Things (IoT) technology. She was instrumental in the global expansion of Verizon's IoT products and strategy, as well as the launch of breakthrough Verizon Grid Edge Platform services.