DNP Users Group Workshop Series

Trends in Technologies for OT Cybersecurity

Identifying and Addressing Gaps with Conventional/Common Cybersecurity Methods

Thursday, October 31, 2024, 3:00 - 4:30 PM ET

This workshop is offered at no charge to our members and non-members.

Register

Description

The DNP Users Group (DNP-UG) is launching a series of informative workshops, open to the public, with industry leaders addressing important topics relevant to our members and the industry. Workshops will generally be followed by related tutorials and training courses for our members.

OT cybersecurity is an area that is receiving increased attention with a growing consensus that vulnerabilities exist that must be addressed. However, numerous challenges make achieving comprehensive defense-in-depth OT cybersecurity in mixed networks of IP and serial communications difficult if not unlikely, especially considering the many other priorities utilities face. In addition, typical IT security solutions do not address the requirements of the SCADA environment. Significant efforts are underway to develop new standards that will address many of the unique requirements of OT cybersecurity and facilitate broad adoption.

This panel will feature five industry leaders discussing design, engineering, standards and technology approaches. Our speakers are from DHS CISA, Idaho National Labs, EPRI, Xanthus Consulting and the DNP Users Group.

DNP Users Group Workshop Series

Topics will include secure communications, Secure by Design, zero trust for OT, Cyber Informed Engineering, DOE supply chain cybersecurity principles, SBOMs to enhance security, vulnerability testing for OT, key threats, challenges in deploying OT security, DOE, UL, IEEE standards, DER and IBR cybersecurity, gaps with conventional/common methods, unique aspects of the pending SAv6 & AMP standards including, novel enrollment methods and steps toward zero trust architecture.

Ample time will be allotted for audience participation and discussion.

Speakers (see bios below)

- John McDonald, Panel Chair, JDM Associates
- Matthew Rogers, DHS CISA
- Ginger Wright, Idaho National Labs
- Ben Sooter, EPRI
- Frances Cleveland, Xanthus Consulting
- Grant Gilchrist, DNP Users Group, Tesco Automation

To receive periodic updates and news, click here: **Enroll**

The DNP-UG is a non-profit group with the mission to actively support measures to improve interoperability and cybersecurity in DNP systems by developing technologies and standards, implementing a conformance program, and providing education to the industry. Utilities and vendors benefit significantly with reduced project and development costs and risks due to a broadly adopted, well managed, highly interoperable and secure protocol (if implemented).

To participate and support our work please join us! Click here: **Membership Guide** or **Join**

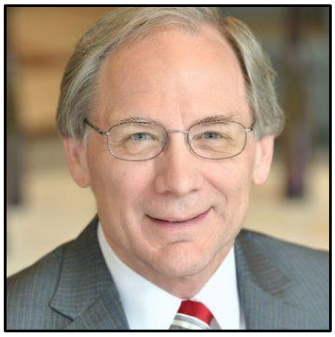
For more information click here: **dnp.org home**

Follow us on **LinkedIn**

For assistance or more information, contact us at dnpusers.membership@gmail.com

DNP Users Group Workshop Series

Speaker Pictures and Short Bios



John D. McDonald, P.E., Founder & CEO of JDM Associates, LLC, Panel Chair

John D. McDonald has 50 years of experience in the electric utility transmission and distribution industry. John received his B.S.E.E. and M.S.E.E. (Power Engineering) degrees from Purdue University and an M.B.A. (Finance) degree from the University of California-Berkeley.

John is a Life Fellow of IEEE (member for 53 years), member of IEEE-HKN (inducted 53years ago) and Tau Beta Pi (inducted 51 years ago), member of the Delta Sigma Phi Fraternity, and was awarded the IEEE Millennium Medal, the IEEE Power &Energy Society (PES) Excellence in Power Distribution Engineering Award, the IEEE PES Substations Committee Distinguished Service Award, the IEEE PES Meritorious Service Award, the 2024 CIGRE US National Committee (USNC) Philip Sporn Award, the2016 CIGRE Distinguished Member Award, the 2016 CI GRE USNC Attwood Associate Award, the 2021 CIGRE Honorary Member Award, the Smart Energy Consumer Collaborative (SECC) Lifetime Achievement Award, and the Delta Sigma Phi Fraternity Career Achievement Award.

John received the 2009 Purdue University Outstanding Electrical and Computer Engineer Award and the 2023 Purdue University Distinguished Engineering Alumni Award. John teaches Smart Grid courses at the Georgia Institute of Technology and the University of Tennessee at Chattanooga, and Smart Grid courses for various IEEE PES local chapters as an IEEE PES Distinguished Lecturer (since 1999). John has published one hundred fifty papers and articles, has co-authored five books and has one US patent

DNP Users Group Workshop Series

Matthew Rogers, PhD, ICS Cybersecurity Expert, Office of the Technical Director, Cybersecurity and Infrastructure Security Agency, Panelist

Matthew Rogers, PhD, is an Industrial Control Systems (ICS) Cybersecurity Expert in the Office of the Technical Director at CISA and the lead for the Secure by Design initiative for Operational Technology (OT). He received his PhD in securing legacy OT networks in vehicles from the University of Oxford on a Rhodes Scholarship. Matthew worked as the founding engineer at a vehicle and weapons system cybersecurity startup before pursuing broader ICS cybersecurity efforts at MITRE. Matthew's focus at CISA is on how ICS Research & Development efforts can be transitioned to effective tools for Critical Infrastructure sectors.

Virginia Wright, Cyber-Informed Engineering Program Manager, Idaho National Laboratory, Panelist

Virginia "Ginger" Wright is the program manager for Cyber-Informed Engineering (CIE) at the Idaho National Laboratory (INL). She leads INL's implementation of the National Strategy for Cyber-Informed Engineering developed by the Department of Energy. Ms. Wright has led multiple cyber research programs at INL including DOE-CESER's Cyber Testing for Resilient Industrial Control Systems (CyTRICS™) program, Software Bills of Material for the Energy Sector, critical infrastructure modeling and simulation, and nuclear cybersecurity. Ms. Wright has a Bachelor of Science in Information Systems/Operations Management from the University of North Carolina at Greensboro.

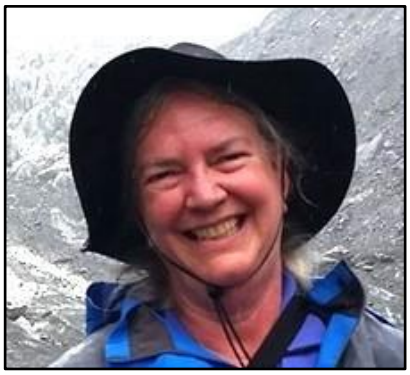
DNP Users Group Workshop Series

Ben Sooter, Program Manager - Cyber Security, Electric Power Research Institute, Panelist

Ben Sooter is the Program Manager of the Cyber Security for Energy Delivery & Customer Solutions program at the Electric Power Research Institute (EPRI), where he has worked since 2006.

Ben Sooter's current activities include managing the overall Cyber Security Program where he helps coordinate cyber security research for over 36 electric utilities. Ben also leads the Incident Management and Threat Management research areas. These research areas include Integrated Security Operations Centers (ISOC), Threat Automation, and Embedded Device Forensics. He leads the Cybersecurity Substation Research Lab (CSRL) in Knoxville, TN that evaluates cutting-edge technologies for their use in electric utility environments.

Sooter received a Bachelor of Science degree in Electrical Engineering from the University of Texas at Austin. He received a Master's of Science degree in Electrical Engineering, with a focus on Power Systems and Power Electronics, from the University of Tennessee at Knoxville.



Ms. Frances Cleveland, Principal Consultant, Xanthus Consulting International, Panelist

Ms. Frances Cleveland has managed and consulted on Cybersecurity, Smart Grid, and Distributed Energy Resource projects in the electric power industry for over 35 years. Her expertise has focused primarily on Smart Grid cyber security standards and specifications, resilience of the power grid, information interoperability for Distributed Energy Resources (DER), plug-in electric vehicles (PEV), Advanced Metering Infrastructures (AMI), Distribution Automation (DA), Substation Automation, SCADA systems, and Energy Market operations. In the IEC, she is convenor of IEC TC57 WG15 for IEC 62351 cybersecurity standards, the leader of the IEC SyC WG3 Cybersecurity Task Force, and the editor for IEC 61850-7-420 information standards for DER. In the IEEE she was the secretary for IEEE 1547.3: 2023 on cybersecurity recommendations for DER, and she is now participating in updating IEEE 1547:2018 on cybersecurity for DER systems and the necessary communications for grid resilience and interoperability. She is leading a California Public Utilities Commission (CPUC) working group on Operational Flexibility in the High DER Future and another CPUC working group on DER cybersecurity requirements. She is also a member of the DOE/NARUC steering committee on Cybersecurity Baselines for distribution systems and DER. Previously she has worked on projects for the National Institute of Standards and Technology (NIST), CEATI, Electric Power Research Institute (EPRI), Electricité de France (EdF), Hydro-Québec, and other utilities on cyber security requirements.

DNP Users Group Workshop Series

Grant Gilchrist, P. Eng., Systems Engineer, Tesco Automation. Founding Member of the DNP-UG Technical Committee, Panelist

Grant Gilchrist, P. Eng., is a Systems Engineer specializing in grid modernization for Tesco Automation. He is a member of several utility data communications standards groups including the IEC working groups for SCADA and utility protocol security. He is a founding member of the Technical Committee for the Distributed Network Protocol (DNP3) and was secretary of that committee for seven years. Grant is an active member of the Cybersecurity Task Force. He was editor and primary author of several standards documents, including the IEC 62351-5 standard for cyber-security of the IEC 60870-5 and DNP3 protocols, the award-winning IEEE 1815.1 standard for gateways between IEC 61850 and DNP3, and the DNP3 Application Note AN2018-001, soon to become IEEE standard 1815.2 (in collaboration with MESA), which describes how to use DNP3 to communicate with Distributed Energy Resources (DERs). He has helped several major utilities develop technical requirements for their Advanced Metering Infrastructures (AMI) and other grid modernization programs, including some of the original use case definitions for AMI. He specializes in visualizations of the Smart Grid and developed the NIST Smart Grid Framework "cloud" diagrams.