



PAC World Conference 2023

Presentation Schedule

Glasgow, Scotland, UK, June 26-29, 2023

Last Updated: June 15, 2023

Tuesday Morning

TUM01	Vulnerability Management in the Power Grid - Challenges and Solutions	A. Klien, OMICRON, Austria
TUM02	Standardised Approach to Merged Process and Station Bus Network and Configuration	C.J. Edwards, J. K. Mackenzie, C. Fundulea, SP Energy Networks, UK
TUM03	Advanced Usage of Process Information for Power Utilities Asset Performance Management	I. Strnad, I. Višić, Pro Integris, Croatia; N. Mugoša, Montenegrin Transmission System Operator - CGES Montenegro
TUM04	Challenges Faced in the Development of Digital Substations	D. Binon, F. Soyez, T. Sterckx, Elia, Belgium
TUM05	Dynamic Functional Tests of an Out-of-Step Protection for Synchronous Generators	M. Ambroggi, R. Marzani, Thytronic SPA, Italy
TUM06	Centralizing Remedial Action Systems History and Outlook	J. Greene, SISCO, Inc., USA
TUM07	The Teleprotection Service on New Communication Channels	D. G. Donate, M. S. Ranaldi, ZIV, Spain
TUM08	Remote Testing Automation in a Digital Substation	I. Ferrero, i-DE, Spain; L. Guerrero, A. Alonso, System-on-Chip engineering S.L., Spain
TUM09	Adoption of IEC 61850 Top-Down Engineering Practices in HVDC Control System	E. Vundekari, M. Nandula, GE Grid Solutions, UK
TUM10	First Steps with OpenSCD - an OpenSource System-Configurator	S. Baumgartner, C. Ruopp, TransnetBW, Germany

Tuesday Afternoon

TUA01	Application of Line Differential Protection in MV Distribution Lines	R. Cimadevilla, J. García-Villalobos, ZIV Automation, Spain
TUA02	Selective Auto-Reclosing of Mixed Circuits using Multi-Zone Differential Protection and Distributed Sensing	K. Kawal, University of Strathclyde, UK; S. Blair, Synaptec, UK; Q. Hong, P. N. Papadopoulos, University of Strathclyde, UK

* Paper was not available at time of publishing

TUA03	Keeping Power and Traffic Flowing: a Look at Modernizing the Electric System of a Bridge	J. George, Uplink Consulting Inc., Canada; R. Westphal, G&W Electric, USA
TUA04	Deployment Considerations for Virtualized Protection and Control Applications	E. Kettunen, J. Valtari, ABB Oy, Finland; A. Sivesind, VMware, USA; D. Baradi, ABB Inc., USA
TUA05	Testing in the New Digital Protection Era	J. Ruiz, Doble Engineering, USA; D. Gueret, Altanova, France; B. Gwyn, Doble Engineering, USA
TUA06	Precision Timing in the Infrastructure as a Foundation for Better PAC Systems.	F. Steinhauser, OMICRON, Austria
TUA07	Need for Grid-forming Units in the Distribution Grid and their Impact on Protection, Automation and Control	T. Reimann, Fraunhofer IEE, Germany; B. Oliver Winter, elenia – TU Braunschweig, Germany; W. Heckmann, Fraunhofer IEE, Germany
TUA08	Power System Measurements – an Overview of Techniques & Applications	A. Madhyastha, AMETEK Power Instruments, India
TUA09	Dependability of Transient-Based Line Protection Elements and Schemes	B. Kasztenny, Schweitzer Engineering Laboratories, Canada
TUA10	DSAS Application Improvements Leveraged By Optimized Synchrophasors Deployment	J. Peres, D. Correia, R. Jorge, Efacec, Portugal
TUA11	Assessment of Low Frequency Demand Disconnection Impact On Network Operability	B. Feizifar, I. Abdulhadi, F. Coffele, Power Networks Demonstration Centre (PNDC), University of Strathclyde, UK; C. Scoble, UK Power Networks, UK; C. Jardine, Scottish & Southern Electricity Networks, UK
TUA12	Operational Experience of Adaptive Auto-Reclose in 400KV Transmission Lines in Southern Regional Grid in India	T Muthu Kumar, V. Ballikonda, A. Sahaya Rones V, T Srinivas, S P Kumar, Grid Controller of India Limited, India

Wednesday Morning

WEM01	Distribution Management System: Moving Towards 61850 Implementations	S. Meliopoulos, G. Cokkinides; Georgia Institute of Technology, USA
WEM02	DSO's PAC Roadmap 2023	R. Troost, S. van der Heijden, Stedin, NL
WEM03	Implementation and Optimization of MV Bay Monitoring with One Box Solutions	R. Simon, Schneider Electric, Germany; P. Brun, V. Kraynov, Schneider Electric, France

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WEM04	Qualitrol TWS fault locator on the Hungarian Grid	F. Rákóczi, R. Szedlák, S. Eitzenberger, G. Zoltán, MAVIR Hungarian Independent Transmission Operator Company, Hungary
WEM05	Enhancing Timekeeping in the Power Industry Through Multi-Constellation Global Navigation Satellite Systems	C. Seibel, NovaTech Automation, Germany; J. Anderson, NovaTech Automation, USA
WEM06	MLOps Practice: Overcoming the Energy Efficiency Gap, Empirical Support Through ecoKI Platform in the Case of German SMEs	F. Rani, V. Khaydarov, Technische Universität Dresden, Germany; D. Bode, Bremen Institute for Production and Logistics GmbH, Germany; I. Mutlu, L. Urbas, Technische Universität Dresden, Germany
WEM07	Integration of Renewable Sources in the Electric Grid	J. Gers, L. Palacios, GERS USA, USA
WEM08	Solving Complex Feeder Protection Challenges and Reducing Wildfire Risks with Remote Measurements	B. Kasztenny, SEL, Canada; S. Blair, N. Gordon, P. Orr, Synaptec, UK; C. D. Booth, University of Strathclyde, UK
WEM09	The Application of Frequency Supervised Rocof for Loss of Mains Protection	J. Xing, Schneider Electric, China; P. Vivers, Schneider Electric, UK
WEM10	Protection and Control Challenges Associated with the Transformation of 3Φ Double-Circuit Lines into 6Φ High-Capacity Transmission Feeders	S. Shen, B. Cao, P. Crossley, Z. Wang, University of Exeter, the UK; Xiaolin Ding, National Grid, UK
WEM11	Power Plant Controller (PPC) – Application and Challenges in Cybersecurity for Italian MV-Connected Users	E. Botti, A. Borghi, Thytronic spa, Italy
WEM12	Multi IEDs with GOOSE Message Coordination as High Voltage Busbar Protection System	H. Prasetia, M., I. Firdaus, Y. Nugroho, M. M. Nurfaizi, R. M. Utami; PT PLN (Persero); Indonesia

Wednesday Afternoon

WEA01	Honoring the Standards, A Digital Substation for Dummies Design Journey	G. Wilson, Southern Company, USA
WEA02	A Novel Approach for Fully Automated Testing of Interlockings	B. Tahincioglu , T. Schossig – OMICRON electronics GmbH, Austria; B. Heimisson, Landsnet, Iceland
WEA03	Performance Analysis on Securing Routable GOOSE	R. Schimmel, P. Pourebrahim, DNV, The Netherlands
WEA04	Pilot Testing of an AI Algorithm To Identify Fault Category and Fault Cause From DFR Records	F. MacLeod, Scottish Power, UK; M. Diamond, Qualitrol, UK; A. Acton, Fortive Corporation, USA; D. Cole, Qualitrol, UK

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WEA05	Digital Twin-Based Grid Monitoring Framework for Rural Distribution System Operators	O. Gomis-Bellmunt, M. Cheah-Mañe, E. Prieto-Araujo, CITCEA-UPC, Spain; F. Rossi, CITCEA-UPC, Italy; Y. Castellón-Lalanza, iGrid T&D, Spain; I. Glenny-Crende, iGrid T&D and CITCEA, Argentina-Spain
WEA06	Steering the Industry Towards the Implementation of a Flexible, Efficient and Standardized IEC61850 Engineering Process	T. Sterckx, D. Binon, F. Soyez, Elia, Belgium
WEA07	Anomaly Intrusion Detection System for SCADA Based Substation Network.	C. Emenike, Manchester University, UK
WEA08	Basic Application Profiles - What They Are and Why We Need Them?	C. Brunner, it4power, Switzerland
WEA09	Centralised Protection Based on Process Bus	R. Loken, N. Hurzuk, Statnett SF, Norway; C. Gebs, K.Eide Pollestad, Elvia, Norway; R. Hodnebrug, G. Nett, Norway
WEA10	Use of Profiles and Templates to Achieve Interoperability in Protection Automation and Control Systems	M. Merley, F. Fousseret, J.E. Lemaire, Y. Leloup, G. Duverbecq, S. Mamodaly, RTE, France
WEA11	Test Bed Design To Validate a Goose Via Vxlan Based Virtualised Loss of Mains Protection Scheme	D. Shaji Kumar, I. Abdulhadi, PNDC, University of Strathclyde, UK; B. Yazadzhiyan, R. Dantas, C. Scoble, UK Power Networks, UK; A. Kulmala, O. Raipala; ABB, Finland
WEA12	High Impedance Fault Detection in MV Distribution Networks	R. Cimadevilla, A. Moreno, ZIV Automation, Spain

Thursday Morning

THM01	A Heuristic Approach for Optimal Placement of Shunt Reactors in Transmission System of Southern Regional Grid of India	S. Naidu J, A.Sahay Rones V, T. M. Kumar, SP Kumar, Grid India, India
THM02	Time Synchronization in the Power Industry: Exploring Signal and Protocol Considerations	J. Anderson, NovaTech Automation Pennsylvania, USA; C. Seibel, NovaTech Automation Berlin, Germany
THM03	Integration of Time-Critical IEC 61850 Communications in a Centralized Protection and Control Solution for Substation Automation Systems	A. C. Aleixo, Efacec, Portugal; J. P. Barraca, M. Antunes, D. Gomes, R.Carvalho, Instituto de Telecomunicações, Portugal; J. Ventura, R. Dias Jorge, F. Gomes, L. Antunes, Efacec, Portugal
THM04	Simultaneous Placement of Capacitor Banks and Dispersed Cogeneration System in Distribution System Networks	A. O. Idris Adam, AL-Ain Distribution Company, United Arab Emirates -Abu Dhabi
THM05	Case Study: Implementing a Zero-Touch Deployment Methodology Using SDN To Improve the Security, Reliability, and	D. Bordon, ELES, d.o.o., Slovenia; S.Dayabhai, Schweitzer Engineering Laboratories, Inc., UK; J. Dearien, R. Meine, Schweitzer Engineering Laboratories, Inc., USA

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Engineering of Substation Automation Systems in Slovenia

THM06	Comprehensive Assessment of Small Batch Advanced Metering Infrastructure Utilization On Java Region To Support Indonesian Smart Grid Systems	M. Helmi Prakoso, F. Irawan, A. Muiz Sufianto, PLN, Indonesia
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Followed by the “Ask the Experts” Panel

Backup Papers

Backup01	LPIT-Designed Protection IED Testing	H.Grasset, Schneider Electric, France
Backup02	Functional Security - a New Way To Protect the Grid	A. Apostolov, PAC World, USA

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