

AEWG-64 Agenda
 September 26-28, 2023
 Crown Plaza Hotel-Witherspoon C (2nd Floor)
 Princeton NJ

Monday, September 25, 2023, Mistras Group HQ. Princeton Junction, NJ

Primer 2:00-5:00 PM	Practical On-line Monitoring in the Power, O&G, and Infrastructure Industries
6:00-8:00 PM	Social at “Stumpy’s Hatchet House” Princeton

Day 1 - Tuesday, September 26, Crown Plaza Hotel, Princeton, NJ

7:30-8:30 AM	Breakfast & Coffee (Please proceed to Waterfront- Lower Level)
8:30-8:45 AM	Welcome and Introductions <i>Valery Godinez, Chair of AEWG</i> Welcome Remarks by Mistras Group
8:45-9:30 AM	Keynote Presentation- Dr. Andy Foden-HNTB Corporation “Values and Challenges of Structural Monitoring for Bridges”
9:30-10:00 AM	Coffee Break (Hallway) <i>AEWG Awards Committee Meeting (by invitation)</i>

10:00 -12:00 PM Session 1 – AE applications in Infrastructure	
10:00-10:20 AM	Richard Gostautas and Jon Watson – Practical Implementation of SHM for In-Service Bridges
10:20-10:40 AM	Seyyedmaalek Momeni – Automatic and high-precision microseismic monitoring of progressive failure prior, during, and after tunnel excavation
10:40-11:00 AM	Eloy Gasperin – Acoustic Emission Monitoring Installations – The Good, the Bad, and the Ugly
11:00-12:00 PM	AE in Infrastructure - Panel Discussion
12:00-1:20 PM	Lunch (Please proceed to Waterfront- Lower Level)

1:20-3:20 PM Session 2: Adrian Pollock Student Paper Submission	
1:20-1:40 PM	Sarah Malik (Drexel University) – Towards Real-time and Artificial Intelligence Assisted Acoustic Emission Analysis
1:40-2:00 PM	Tonghao Zhang (University of Illinois at Chicago) – Acoustic Emission Behaviors of the BFRP Reinforced Concrete Slabs Depending on Reinforcement
2:00-2:20 PM	Pedram Bazrafshan (Drexel University) – Delamination detection using an entropy-based probabilistic model for RA value-average frequency
2:20-3:00 PM	Coffee Break (Hallway) <i>AEWG Executive Committee Meeting (by invitation)</i>

3:00-5:20 PM Session 3: AE Diverse Applications	
3:00-3:20 PM	Marvin Hamstad – Trailing AE waves in thicker plates generated by buried in-plane dipoles: comparing a narrow and a broadband bandpass
3:20-3:40 PM	Essa Al Amari – Defect Detection in Lithium-Ion Batteries using Acoustic Emission
3:40-4:00 PM	Jun Young Song – Crack detection using Acoustic Emission sensors in Additive Manufacturing
4:00-4:20 PM	Obdulia Ley – Acoustic monitoring seam welds subjected to creep in the laboratory
4:20-4:40 PM	Li Ai – Transfer Learning for Acoustic Emission Zonal Localization on Steel Plate-Like Structures
4:40-5:20 PM	Manoj Rijal – Acoustic Emission Monitoring of Stainless Steel Three-point bend Specimens
5:20 PM	Adjourn Day 1
6:00-8:00 PM	Banquet and Awards - Seasons 52 Restaurant Princeton

Day 2 - Wednesday, September 27, Crown Plaza Hotel, Princeton, NJ

7:30-8:30 AM	Breakfast & Coffee (Please proceed to Waterfront- Lower Level)
8:30-8:45 AM	Recap Day 1 and Announcements <i>Antonios Konstos, Vice-Chair of AEWG</i>
8:45-9:30 AM	Keynote Presentation- Professor Tomoki Shiotani - Kyoto University "Consortium of Innovative Technologies for Infrastructure and RILEM Recommendations on AE Applications for AE Evaluation of Concrete Bridge Decks"
9:30-10:00 AM	Coffee Break (Hallway)

10:00 -11:40 AM Session 4 – AE Applications in Composite Materials	
10:00-10:20 AM	Gerd Manthei – Simulation of acoustic emission wave propagation in a large-scale concrete laboratory specimen
10:25-10:40 AM	Sena Tayfur – Feasibility Assessment of Embedding MEMS AE Sensors for Crack Monitoring of Concrete Structures
10:40-11:00 AM	Travis Obie-Rolle – Monitoring Damage Development in Carbon /Thermoplastic Matrix Composite Materials
11:00-11:20 AM	Jiannan Zhang – Lamb Wave Propagation in Unidirectional Fiber Reinforced Plastic (FRP) Plates for Nondestructive Testing and Condition Monitoring
11:20-11:40 AM	Sulochana Shrestha – Study of attenuation characteristics of guided waves in wind turbine blade material
11:40-12:20 PM	Vendor Commercial Presentations
12:20-1:20 PM	Lunch (Please proceed to Waterfront- Lower Level)

1:20-3:20 PM Session 5 – AE Sensors and Calibration	
1:20:1:40 PM	Harmut Vallen – About ISO 24543 – Verification of the sensitivity spectra of acoustic emission sensors
1:40:2:00 PM	Miguel Gonzalez – Modal AE: Exemption form End-to-End Sensor Calibration
2:00-2:20 PM	Raguez Taha – Novel Packaging Strategies for MEMS Acoustic Emission Sensors: Performance Evaluation and Analysis

2:20-2:40 PM	Marvin A. Hamstad – Signals from a “shear” sensor (two different couplants) and two different sensor types excited by in-plane pencil lead breaks
2:40-3:00 PM	Yongfang Li – Piezoelectric MEMS Acoustic Emission Sensors
3:00-3:40 PM	The Future of AE Sensors- Panel Discussion
3:40-4:10 PM	Coffee Break (Hallway)

4:10-5:30 PM Session 6: Business Meeting	
4:10-5:30 PM	AEWG Business Meeting
5:30 PM	Adjourn Day 2

Day 3 – Thursday, September 28, Crown Plaza Hotel, Princeton, NJ

7:30-8:30 AM	Breakfast & Coffee (Please proceed to Waterfront- Lower Level)
8:30-8:40 AM	Recap Day 2 and Announcements <i>Obdulia Ley, secretary of AEWG</i>

8:40-12:00 PM Session 7– AE in the Power Industry	
8:40-9:00 AM	Gerrit Gloth – Acoustic Emission Monitoring System for Power Plants
9:00-9:20 AM	Andrew Pollock – Continuous Condition Monitoring of High Energy Piping Utilizing Acoustic Emission
9:20-9:40 AM	Obdulia Ley – Acoustic Characterization of Damage onset and propagation due to shear-web disbonding in wind turbine blades
9:40-10:00 AM	Kye Drobac – Identifying relative wind turbine blade health using acoustic emissions.
10:00-10:30 AM	Coffee Break
10:30-11:30 AM	Keynote Presentation-Arturo Nuñez - Domain Expert Director Convergence of Data and Power-Southwire Company “Challenges in the Power Industry and Existing Technologies to Overcome Them, Commercial Considerations, and use of AI/ML Tools to Accelerate their Implementation”
11:30-12:00 PM	Final Remarks <i>Valery Godinez, Chair of AEWG</i> AEWG64 Adjourns
12:00-1:20 PM	Lunch (Please proceed to Waterfront- Lower Level)

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