

## 2026 Electromagnetic Transient Simulation Workshop

**Organizers:** Aung Thant (NERC), Suman Debnath (ORNL), Alireza Ghassemian (DOE)

**Place:** Hilton, Rockville, MD

<b>Event contact</b>	Suman Debnath, 865-341-1467 (office); debnaths@ornl.gov	
<b>Time</b>	<b>Event</b>	<b>Chair(s)</b>
<b>August 18, 2026 (Day-1)</b>		
7:30-8:00 am	<b>WELCOME AND BREAKFAST</b> Badging and Introductions	
8:00-8:30 am	Opening Remarks <b>Initial Introduction:</b> Suman Debnath, Aung Thant NERC, ORNL – TBD	Aung Thant (NERC)
8:30-9:00 am	<b>Keynotes:</b> DOE – TBD	Alireza Ghassemian (DOE)
9:00-9:15 am	Break	
9:15-11:00 am	<b>Industry Keynotes:</b> Casey Cathey, SPP Latrice Harkness, NERC Industry speakers – TBD	Aung Thant (NERC)
11:00 am – 12:00 pm	<b>WORKING LUNCH:</b> Demo Sessions	Laura Touton (ORNL)
12:00 pm-1:00 pm	<b>Initiative Overview:</b> Alireza Ghassemian, DOE Aung Thant, NERC Suman Debnath, ORNL	Suman Debnath (ORNL)

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<b>August 18, 2026 (Day-1)</b>		
<b>Time</b>	<b>Event</b>	<b>Chair(s)</b>
1:00 pm – 2:45 pm	<b>Technical Session 1:</b> <ul style="list-style-type: none"> <li>“WG1 Activities Overview &amp; Large Load Integration Process White-Paper Review – Summary of Large Load Integration Process”, Marcelo Elizondo, PNNL</li> <li>NERC Updates on Large Load Integration</li> <li>“EMT Studies in ISO-NE w/ Large Loads”, Ricardo Orfei, MEPPi</li> <li>“Challenges with Large Load Integration &amp; EMT Needs”, Spencer Coffman, SPP</li> </ul>	Marcelo Elizondo (PNNL), Harvey Scribner (SPP)
2:45 pm – 3:00 pm	Break	
3:00 pm – 4:30 pm	<b>Technical Session 2:</b> <ul style="list-style-type: none"> <li>“WG2 Activities Overview &amp; Large Load Models/Benchmark Models”, Nilanjan Ray Chaudhuri, PSU</li> <li>“CIM-Lite for EMT”, Glen Halley, City Utilities of Springfield</li> <li>“RE-INTEGRATE Database &amp; CIM Architecture”, Peter Hoang, ORNL</li> <li>“Benchmark Models”, Quan Nguyen, PNNL</li> </ul>	Nilanjan Ray Chaudhuri (PSU), Shamim Hasan (ORNL)
5:00 – 7:00 pm	Evening Social and Poster Session	

Time	Event	Lead
<b>August 19, 2026 (Day-2)</b>		
7:30-8:00 am	<b>WELCOME AND BREAKFAST</b> Badging and Introductions	Laura Touton
8:00-9:15 am	<b>Technical Session 2:</b> <ul style="list-style-type: none"> <li>• “Model Requirements &amp; Needs”, Mostafa Sedighizadeh, SPP</li> <li>• “Large load models &amp; disturbance challenges observed”, Dominion Energy</li> <li>• “Data Center Models”, PNNL</li> <li>• “RE-INTEGRATE: Large Load Models”, Shamim Hasan, ORNL</li> <li>• “Advanced Data Center Model”, Maryam Saeedifard, GIT</li> </ul>	Nilanjan Ray Chaudhuri (PSU), Shamim Hasan (ORNL)
9:15-9:30 am	<b>Break</b>	
9:30-10:30 am	<b>Industry Session: Regulatory/Compliance Updates</b> <ul style="list-style-type: none"> <li>• MOD-32/FAC-2/TPL</li> <li>• EMT WG 6</li> </ul>	<i>Industry Members</i>
10:30 am-12:30 pm	<b>WORKING LUNCH:</b> Demo and Poster Sessions	
<b>Afternoon session only for attendees registered for tutorials</b>		
12:30-2:20 pm	<b>Tutorial: Basics &amp; Advanced (Parallel Sessions)* - Session-1</b>	
2:20-2:30 pm	Break	
2:30-4:30 pm	<b>Tutorial: Basics &amp; Advanced (Parallel Sessions)* - Session-2</b>	
4:30-5:00 pm	Wrap Up	

\* Basic tutorial will include material on fundamentals of EMT simulations, EMT component models, inverter models (PSCAD)

\* Advanced tutorial will include material on model quality, parallelism, advanced automation, and system-level simulations (PSCAD)

Each session will have different content in tutorials and all tutorial registered participants are encouraged to attend all the sessions.

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Time	Event	Lead
<b>August 20, 2026 (Day-3)</b>		
7:30-8:00 am	<b>WELCOME AND BREAKFAST</b> Badging and Introductions	
8:00-9:15 am	<b>Industry Session: Regulatory/Compliance Updates</b> <ul style="list-style-type: none"> <li>• EMT WG 9, 10, LLWG</li> </ul>	<i>Industry Members</i>
9:15-9:30 am	<b>Break</b>	
9:30-11:00 am	<b>Technical Session 3: Solvers</b> <ul style="list-style-type: none"> <li>• “WG3 Activities Overview &amp; Solvers/Integrators Way Forward”, Carol Woodward, LLNL</li> <li>• “Solvers in RE-INTEGRATE”, Phani Marthi, ORNL</li> <li>• “Integrators in RE-INTEGRATE”, Francis Joseph, ORNL</li> <li>• “SuperLU &amp; Its Impact in EMT”, Sherry Li, LBL</li> </ul>	Carol Woodward (LLNL), Phani Marthi (ORNL)
11:00 am-12:30 pm	<b>WORKING LUNCH:</b> Demo	
<b>Afternoon session only for attendees registered for tutorials</b>		
12:30-2:20 pm	<b>Tutorial: Basics &amp; Advanced (Parallel Sessions)* - Session-3</b>	
2:20-2:30 pm	Break	
2:30-4:30 pm	<b>Tutorial: Basics &amp; Advanced (Parallel Sessions)* - Session-4</b>	
4:30-5:00 pm	Wrap Up	

\* **Basic tutorial will include material on fundamentals of EMT simulations, EMT component models, inverter models**

\* **Advanced tutorial will include material on model quality, parallelism, advanced automation, and system-level simulations**

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Time	Event	Lead
<b>August 21, 2026 (Day-4)</b>		
7:30-8:00 am	<b>WELCOME AND BREAKFAST</b> Badging and Introductions	Laura Touton
8:00-9:15 am	<b>Technical Session 4: Features</b> <ul style="list-style-type: none"> <li>• “Roadmap for WG4 &amp; Impact”, Amarsagar Reddy, ASU</li> <li>• “LLM in EMT”, Yousu Chen, PNNL</li> <li>• “Control Design in EMT”, Nilanjan Chaudhuri, PSU</li> </ul>	Amarsagar Reddy (ASU)
9:15-9:30 am	Break	
9:30-11:00 am	<b>Technical Session 5:</b> <ul style="list-style-type: none"> <li>• “Parallel Multi-Step Solvers in EMT”, Amarsagar Reddy, ASU</li> <li>• “Performance Analysis &amp; Approximate Solvers in EMT”, David Gleich, Purdue University</li> <li>• “Stiffness Detection Method”, Nilanjan Ray Chaudhuri, PSU</li> <li>• “Stiffness Detection Method”, David Gardner, LLNL</li> </ul>	<i>Academic Members</i>
9:30-11:00 am	<b>Technical Session 6:</b> <ul style="list-style-type: none"> <li>• “Grid Strength &amp; Analytics”, Venkataramana Ajjarapu, ISU</li> <li>• “Model Verification”, Maryam Saeedifard, GIT</li> </ul>	<i>Academic Members</i>
11:00 am-12:30 pm	<b>WORKING LUNCH:</b> Demo and Poster Sessions	
<b>Afternoon session only for attendees registered for tutorials</b>		
12:30-2:20 pm	<b>Tutorial: Basics &amp; Advanced (Parallel Sessions)* - Session-5</b>	
2:20-2:30 pm	Break	
2:30-4:30 pm	<b>Tutorial: Basics &amp; Advanced (Parallel Sessions)* - Session-6</b>	
4:30-5:00 pm	Wrap Up	

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