UCONN COLLEGE OF ENGINEERING
CONNECTICUT POWER ELECTRONICS CENTER OF EXCELLENCE

2025 Northeast Power Electronics Symposium (NEPES) - Nov. 13-14, 2025

Nov. 13, 2025 — **Day 1 Agenda**

Time	Description	Location
7:30 AM	**Registration**	IPB Lobby
7:30 AM	**Arrival, coffee, pastries**	IPB 317
8:30 AM	**Welcome** Prof. Ali Bazzi, UConn Dean JC Zhao, UConn	IPB 317
8:45 AM	**Industry Tutorial 1: Wolfspeed** *Key Testing Considerations for Migrating from Silicon to Silicon Carbide*	IPB 317
10:15 AM	**Coffee Break**	IPB 317
10:30 AM	**Keynote 1: Dr. Suman Dwari, RTX Technology Research Center** *Opportunities in Power Electronics for the Current and Future Aerospace and Defense Industry*	IPB 317
11:00 AM	**Keynote 2: Dr. Igor Cherepinsky - Sikorsky/Lockheed Martin** *VTOL Aircraft Revolution Fueled by Electric Propulsion*	IPB 317
11:30 AM	**Keynote 3: Prof. Jian Sun, Rensselaer Polytechnic Institute** *Subsynchronous Oscillation is not Necessarily a Subsynchronous Problem*	IPB 317
12:00 PM	**Lunch**	IPB Lobby
12:45 PM	**Introduction to the Center for Advanced Engineering Education (CAEE) at UConn**	IPB 317
1:00 PM	**Industry Tutorial 2: Mathworks** *Power Electronics Control - A Brushless Motor Case Study*	IPB 317
2:30 PM	**Coffee Break**	IPB 317
2:45 PM	**Industry Tutorial 3: Safran** *Secure Converter and Substation Timing Synchronization with White Rabbit*	IPB 317
3:30 PM	**Keynote 4: Prof. Charles Sullivan, Dartmouth College** Improving high-frequency power magnetics for applications ranging from chip scale to ship scale	IPB 317
4:30 PM	**Reception & Poster/Demo Session**	IPB Lobby
6:00 PM	**Panel 1: Recap of NEPES Day 1** *Moderator: Mr. John Noon, OTIS & IEEE PELS CT Chapter*	IPB 317

WI-FI	**Connect for free to "UCONN-GUEST" or "eduroam" if applicable**
Parking	**Free on both sides of IPB except for vehicle charger fees**

UNIVERSITY OF CONNECTICUT 1881 · Wolfspeed · MathWorks · SAFRAN · pels IEEE POWER ELECTRONICS SOCIETY Powering a Sustainable Future

Nov. 14, 2025	Day 2 Agenda	
Time	**Description**	**Location**
7:30 AM	**Registration**	**IPB Lobby**
7:30 AM	**Arrival, Coffee, Pastries**	**IPB 317**
8:15 AM	**Welcome** Prof. Ali Bazzi, UConn	**IPB 317**
8:30 AM	**Keynote 5: Dr. HanJong Kim, Carrier** *Carrier power electronics for HVAC & transport Refrigeration*	**IPB 317**
9:00 AM	**Keynote 6: Mr. Bill Welsh, Sikorsky/Lockheed Martin** *Helicopter Electrical Technology: To Infinity and Beyond*	**IPB 317**
9:30 AM	**Panel 2: The Path to the 1 MW Server Rack** *Moderator: Mr. Brian Zahnstecher, PowerRox*	**IPB 317**
10:15 AM	**Coffee Break**	**IPB 317**
10:30 AM	**CONPEX Updates**	**IPB 317**
11:15 AM	**Keynote 7: Dr. Shashank Krishnamurthy - OTIS** *PCB Embedded Power Packaging*	**IPB 317**
11:45 AM	**Keynote 8: Dr. Joseph Kozak - Applied Physics Lab, Johns Hopkins University** *Challenges Developing a Motor-drive System for Deep-space Applications*	**IPB 317**
12:15 PM	**Lunch**	**IPB Lobby**
1:00 PM	**Expert Presentations:** **1. Prof. Georges Pavlidis, UConn** *Package to Device Thermal Considerations of Wide Bandgap Semiconductors* **2. Prof. Jiangbiao He, University of Tennesee - Knoxville** *Towards High-Reliability Electric Propulsion Drives* **3. Prof. Shan Zuo, UConn** *Super Safe and Resilient Control Framework for Networked Microgrids*	**IPB 317**
2:00 PM	**Panel 3: Immersion and Advanced Thermal Management of Power Electronics** *Moderator: Dr. Arshiah Mirza, Shell Techworks*	**IPB 317**
2:45 PM	**Coffee Break**	**IPB 317**
3:00 PM	**Expert Presentations:** **1. Prof. Sam Coday, MIT** *Enabling Ultra-Dense Buck–Boost Converters with Monolithic Bidirectional GaN* **2. Prof. Sung Yeul Park, UConn** *Impedance-Based Diagnostics for Batteries, Solar PV, and Power Systems* **3. Prof. Anhar Bhuiyan, University of Massachusetts Lowell** *Ga2O3 Power Electronics: CVD Growth, Plasma-Free Etching, Devices, and Diamond Integration* **4. Prof. Liwei Zhou, University of Texas at Arlingron** Optimization-based control and estimation for scalable energy conversion of distributed energy resources	**IPB 317**
4:15 PM	**Panel 4: Power Electronics Enabling Extreme Environments** *Moderator: Mr. Stefan Bilyk, Triumph*	**IPB 317**
5:00 PM	**Lab Tours**	**Selected Labs**
5:45 PM	**Reception & Poster/Demo Session**	**IPB Lobby**