

# IEEE PES BOSTON PRESENTS A TECHNICAL MEETING ON:

**IEEE PES  
Distinguished  
Lecturer**

## ***Enabling Cyber-Power Grid Resiliency with IoT Services***

**Speakers:** Dr. Anurag K Srivastava, FIEEE  
**Date:** Monday, October 27<sup>th</sup>, 2025  
**Time:** Refreshments start at 6pm, talk begins at 6:30pm  
**Location:** Wentworth Institute of Technology, Building: Beatty Hall (Room: Beatty 426)  
550 Huntington Ave, Boston, MA 02115 (Free parking at **West Parking Lot**)

*\*For those interested in PDH certification, a \$5 fee is required to issue the certificate*

### **Abstract:**

The growing integration of Internet-of-Things (IoT)-enabled edge devices, such as Electric Vehicles (EVs) and Distributed Energy Resources (DERs), is reshaping the modern electric grid into a highly connected cyber-physical-human system. These IoT-based edge devices can play a critical role in supporting grid resilience and critical loads including hospitals, airports, and emergency services, during extreme weather events and cyber disruptions. However, their connectivity also introduces new attack surfaces and operational complexities that must be addressed to maintain grid security and resilience. This talk focuses on enabling cyber-power grid resilience with IoT services by combining advanced analytics, and human-centered decision-making. Key topics include: a) Physics-aware machine learning techniques for anomaly and event detection and estimation algorithm to provide real-time situational awareness for IoT-connected DERs and EVs, b) Operator training and cognitive flexibility enhancement to improve human decision-making during emergency, c) Formal resilience metrics that incorporate a trust score for edge devices and control systems to guide operational and investment decisions, and d) A cyber-physical-human testbed for validating resilience strategies under realistic operating conditions. The presentation will highlight how metrics, anomaly detection, IoT-enabled services, real-time monitoring, and operational tools can collectively enhance grid resilience.

### **Biography:**



**Anurag K. Srivastava** holds the Raymond J. Lane Professorship and serves as Chairperson of the Computer Science and Electrical Engineering Department at West Virginia University. Additionally, he is an adjunct professor at Washington State University and a senior scientist at the Pacific Northwest National Lab. He earned his Ph.D. in electrical engineering from the Illinois Institute of Technology in 2005. Dr. Srivastava's research focuses on data-driven algorithms and tools for cyber-resilient electric energy systems. His impactful research projects have resulted in the implementation of tools at utility control centers, supported by over \$66M in funding from entities such as the US Department of Energy, National Science Foundation, Siemens Corporate Research, Electric Power

Research Institute, Schweitzer Engineering Lab, Power System Engineering Research Center, Office of Naval Research, and various National Labs. Over the years, he has held visiting positions at organizations including Réseau de transport d'électricité in France, RWTH Aachen University in Germany, PEAK Reliability Coordinator, Idaho National Laboratory, PJM Interconnection, Schweitzer Engineering Lab (SEL), GE Grid Solutions, Massachusetts Institute of Technology, and Mississippi State University. He is an IEEE Fellow, recipient of IEEE PES Pete Sauer Educator Award, numbers of best papers award, leading multiple IEEE technical subcommittee/ WGs (Power System Operation, Resiliency, Microgrid, voltage stability, distributed optimization), and the author of over 400 technical publications, 3 books, and 3 patents.

*Free and Open to the Public; RSVP is appreciated*  
Visit our web page to RSVP and for further details – [IEEE PES Boston](https://www.ieee-pes.org/boston)

***For any questions regarding this presentation or any IEEE PES Boston Technical Meetings, please contact:  
PES Boston Technical Meetings Chair: Chris Sweeny ([christopher.sweeny@1898andco.com](mailto:christopher.sweeny@1898andco.com))***

## Parking Directions:

Address: 550 Huntington Ave, Boston, MA 02115

