



TEXAS A&M UNIVERSITY

Department of Electrical  
& Computer Engineering

**Friday, February 18, 2022 | 9:35 a.m. – 10:00 a.m. CST**

Location: ETB 1020

## **Situational Awareness for Reactive Power Management In Large-Scale Electric Grids**

### **Abstract**

Enhancing situational awareness of reactive power is a critical research topic in interpreting the results of studies evaluating the impact of geomagnetic disturbances or high levels of renewable generation on the grid. This presentation reviews existing reactive power management schemes and visualization strategies from the industry. Then, it introduces a newly developed visualization tool, VAR Ready Reserves (VRRs), that can be adapted to display the dispatch, injection, and absorption capability of reactive power devices in either a chart view (VRR charts) or with an integrated system view (VRR GDVs). It helps users to recognize reactive power capability and dispatch throughout a simulation or spatially.



### **Juhee Yeo**

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Juhee Yeo received her B.E. degree in electrical engineering from Sangmyung University, Seoul, South Korea in 2017. She is currently working toward the Ph.D. degree in Electrical Engineering at Texas A&M University, College Station, TX. Her research interests include power system modeling, simulation, and synthetic electric grid realism validation. She is with TAMU IEEE-PES-IAS-PELS student member, where she served as sponsorship committee member for the 2020 IEEE Texas Power and Energy Conference (TPEC).