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## COLLOQUIUM SERIES

**Challenges and research opportunities of  
real-time simulation in modern power sys-  
tems Ha Nguyen**

Post Doc Researcher

Technical University of Denmark

### WHEN

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**March 13th 2020**

**12:00 PM - 1:00 PM**

### WHERE

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**IPB Room 203**

### LIVE STREAM

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<http://s.uconn.edu/ipb203webex>

### CONTACT

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# ABSTRACT

## **Challenges and research opportunities of real-time simulation in modern power systems**

Real-time simulation application is well recognized as an effective approach for modeling, developing and testing components in power systems with high accuracy, low cost and more flexibility before field deployment. This talk first presents some experience in real-time simulation of large-scale power systems with different power electronic components and hardware-in-the-loop simulation for testing devices. Then, the challenges of real-time simulation in renewable-based grids are analyzed. The talk will conclude with research opportunities for real-time simulation in renewable-based systems, which require more research for modern power systems.

## Biography

**Ha Thi Nguyen** received the B.Sc. and M.Sc. degrees in electric power systems from the University of Science and Technology, Danang, Vietnam in 2010, and National Cheng Kung University, Taiwan in 2014, respectively. After working as a lecturer at the Department of Electrical Engineering, University of Science and Technology in Danang, Vietnam, she pursued her Ph.D. degree at the Center for Electric Power and Energy at the Technical University of Denmark (DTU) from 2015 to 2018. In 2017, she was a visiting Scholar at the Centre Energy Research, University of California San Diego, USA. Currently, she is working as a Postdoctoral Researcher at the Center for Electric Power and Energy at DTU. Her research interests are power system modeling, operation and control, geographically distributed real-time co-simulation, hardware-in-the-loop simulation, frequency stability and control, and renewable energy integration.