

SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
COLLEGE OF DESIGN AND ENGINEERING
Website: <https://cde.nus.edu.sg/ece>

Area: Power Energy Systems

Host: Asst Prof Peng, Chih-Hsien Jimmy

TOPIC	:	Resilience Of Microgrids In The Presence Of Cyber Attacks
SPEAKER	:	Mr. Zhang Jingqiu Graduate Student, ECE Dept, NUS
DATE	:	Friday, 15 July 2022
TIME	:	1.30PM to 2.15PM
WEBINAR	:	Join Zoom Meeting https://nus-sg.zoom.us/j/89674454303?pwd=aqTsRcmvHyC1xwGFEmBycFI9Vh5Ke9.1 Meeting ID : 896 7445 4303 Passcode : 434525

ABSTRACT

The adoptions of intelligent metering and monitoring devices and modern communication networks allow distributed control and optimization algorithms to be implemented in various types of microgrids, e.g., at the level of community, campus, or island. The distributed approach requires uniform allocation of computational resources across the network, and therefore is a modular approach that can be easily expanded over time than the traditional centralized framework. However, the lack of a centralized controller makes the distributed approach difficult to detect as well as mitigate cyber-attacks, which are challenging threats faced by modern power grids. We discuss the physical and economical influences of cyber-attacks on the microgrids, and propose countermeasures to recover from cyber-attacks.

BIOGRAPHY

Zhang Jingqiu is currently working towards his Ph.D. degree in electrical and computer engineering at the National University of Singapore, Singapore. His research interests include cyber security of power grids, distributed control and optimization in microgrids.

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