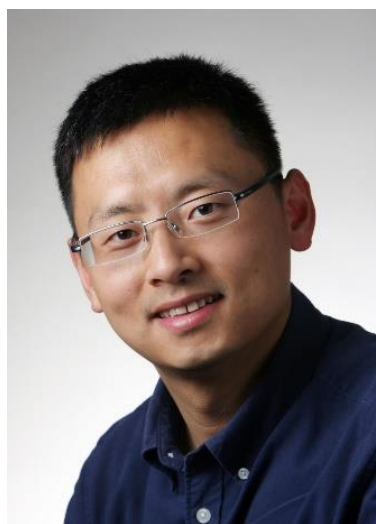


## 王小宇教授學術報告

報告標題：頻率振蕩引起的分布式發電系統孤島檢測誤跳研究

**Investigation of Frequency Oscillation Caused Distributed Generation Nuisance Trips**

報告人單位：加拿大卡爾頓大學 Carleton University



**摘要：Rate-of-change-of-frequency (ROCOF) relay is commonly used in distributed generation (DG) to detect islanding conditions. According to the field tripping records of an investigated ROCOF relay in a biomass power plant in Canada, most of the false trips were caused by frequency oscillations. The impact of relay parameters on the ROCOF relay nuisance trips caused by frequency oscillation disturbances is investigated in this work. These parameters include the trip level, the measuring time window, the pickup time delay, and the trend of frequency change. The investigation was conducted using the simulation and field recorded data. In addition, the impact of DG parameters and status on the ROCOF relay performance is also studied. Finally, a set of principles is proposed to guide ROCOF relay settings to reduce the nuisance trips from frequency oscillation disturbances.**

**個人簡介：Dr. Xiaoyu Wang is an Associate Professor in the Department of Electronics at Carleton University, Ottawa, Canada. Prior to joining Carleton University in 2012, he was a faculty member of the Department of Electrical Engineering at Tsinghua University, China. Dr. Wang received his Ph. D. degree from the University of Alberta in 2008, M. Sc. and B. Eng. degrees from Tsinghua University in 2003 and 2000, respectively. Dr. Wang's research interests include power electronics, power system operation and planning, grid integration of renewable and distributed energy resources, power quality, power system real-time simulation, and smart grid applications. He is leading the Carleton Smart Grid Laboratory to conduct the state-of-the-art research on interconnection of renewable and distributed energy resources into modern power grid. Dr. Wang serves as the chair of the IEEE Power and Energy Society (PES) Working Group on Modelling and Analysis of System Transients using Digital Programs and the IEEE PES Task Force on Interfacing Techniques for Simulation Tools. He is an associate editor of the journal IET Generation, Transmission & Distribution. He is a recipient of the Ontario Early Researcher Award in 2017 and the Faculty Research Award of Carleton University in 2018.**

時間：2019-10-23 星期三下午 1:30

地點：電機工程樓 301 室

歡迎大家參加！