

Xie, Dunjian

Date of Birth: 7th May 1994 **Gender:** Male

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1. EDUCATION

- **Jul. 2019 – Pres., Ph.D. Candidate** in Electrical and Electronic Engineering

School of Electrical and Electronic Engineering, Nanyang Technological University (NTU), Singapore *GPA: 4.58/5.00*

Supervisor: Prof. Yan Xu

Thesis title: Stability-Constrained System Restoration for Resilient Power Systems

- **Sep. 2016 – Mar. 2019, Master of Science** in Electric Power System and its Automation

College of Electrical Engineering, Zhejiang University (ZJU), Hangzhou, China *GPA: 3.85/4.00*

Supervisor: Prof. Yi Ding

Thesis title: Demand Response Evaluation and Coordinated Optimization of Thermostatically Controlled Loads

- **Sep. 2012 – Jul. 2016, Bachelor of Engineering** in Electrical Engineering and its Automation

College of Electrical Engineering, Zhejiang University, Hangzhou, China *GPA: 3.86/4.00*

Supervisor: Dr. Zhihong Xiao (Enterprise) and Prof. Hao Wu

Thesis title: The Distributed Model of Magneto-glass Optical Current Transformer

2. EXPERIENCE

- **Aug. 2020 – Pres., Research Associate** in Rolls-Royce @ NTU Corporate Lab, Singapore
 - Health modelling of the aerospace electric machines.
 - Sensor and instrumentation systems for health monitoring on aerospace systems.
 - Health management algorithm development and test validation.
- **Jul. 2019 – Aug. 2020, Research Associate** in Energy Research Institute @ NTU, Singapore
 - Health modelling & remaining life evaluation for electrical equipment assets.
 - Reliability simulation and maintenance plan for diesel generators in microgrids.
- **Nov. 2015 – Aug. 2016, Intern student** (under Excellent Engineer Training Program of Ministry of Education of China) in State Grid Economic and Technological Research Institute, Beijing, China
 - Modelling of linear birefringence for magneto-glass optical current transformers

3. PUBLICATIONS

- **Dunjian Xie**, Yi Ding*, et al. Operating reserve capacity evaluation of aggregated heterogeneous TCLs with price signals. *Applied Energy*. Vol.216, pp.338-347, 2018.
- Yi Ding, **Dunjian Xie***, Hongxun Hui, Yan Xu and Pierluigi Siano, "Game-Theoretic Demand Side Management of Thermostatically Controlled Loads for Smoothing Tie-Line Power of Microgrids," in *IEEE Transactions on Power Systems*, vol. 36, no. 5, pp. 4089-4101, Sept. 2021
- **Dunjian Xie**, Yan Xu*, Sivakumar Nadarajan, Viswanathan Vaiyapuri and Amit Gupta, "Transparent data-Driven Stability-Constrained Load Restoration Considering Multi-Phase

- Cold Load Pickup Effects," submitted to *IEEE transactions on power systems* (3rd round review)
- **Dunjian Xie**, Yan Xu*, Sivakumar Nadarajan, Viswanathan Vaiyapuri and Amit Gupta, "Dynamic Frequency-Constrained Load Restoration Considering Multi-Phase Cold Load Pickup Behaviors," submitted to *IEEE transactions on power systems* (2nd round review)
 - **Dunjian Xie**, Yan Xu*, Sivakumar Nadarajan, Viswanathan Vaiyapuri and Amit Gupta, "Robust Stability-Constrained Load Restoration Considering Uncertain Dynamic Loads," submitted to *IEEE transactions on power systems* (1st round review)
 - **Dunjian Xie**, Yan Xu*, Cuo Zhang, "Robust Service Restoration of Distribution Systems towards Coordinated Parallel Network Reconstruction and Cold Load Pick-Up," submitted to *IEEE transactions on sustainable energy* (1st round review)

4. AWARDS

- Silver Excellence Award, awarded by Rolls-Royce Singapore, Dec. 2021
- Rolls-Royce @ NTU Corp Lab PhD Scholarship, awarded by Rolls-Royce @ NTU Corp Lab, Oct. 2020
- Wang Guosong Scholarship, the highest honor in the College of Electrical Engineering of Zhejiang University, Dec. 2018.
- Award of Honor for Graduate, Merit Graduate, awarded by Zhejiang University, Dec 2018.
- Outstanding Scholarship, awarded by Huawei Technologies Co., Ltd., Dec. 2018.
- Outstanding Graduates, awarded by Zhejiang University, Jun. 2016.
- The honor of an excellent student of the Thomas Edison Experiment-oriented Honors Program, awarded by Zhejiang University, Jun. 2016
- Outstanding Scholarship, awarded by Bosch (China), Dec. 2015.
- First Scholarship for Excellence in Research and Innovation, awarded by Zhejiang University Dec. 2015

5. PRIZES

- Highest Prize in national finals of the Freescale Cup (now renamed as NXP Cup) National University Student Intelligent Car Race, Aug. 2015.
 - Meritorious Winner in the 2015 Mathematical Contest in Modeling (MCM), sponsored by the Consortium for Mathematics and Its Application (COMAP). Feb. 2015.
 - First Prize of the Higher Mathematics (Calculus) competition for college students, by Zhejiang Higher Mathematics Teaching Research Association. Jul. 2013.
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