Zhengrong Chen

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EDUCATION

Georgia Institute of Technology Sept 2020- Present

PhD in Electrical and computer Engineering

Advisor: Prof. A.P. Sakis Meliopoulos

Georgia Institute of Technology May 2019-Aug 2019

Research assistant, working with Prof. A.P. Sakis Meliopoulos

University of Wisconsin Milwaukee Sept 2018-May 2019

M.S. in Electrical Engineering

GPA: 4.0/4.0, Double degree, Advisor: Prof. Lingfeng Wang

North China Electric Power University Sept 2017- Apr 2020

M.E. in Control theory and control engineering

GPA:4.0/4.0, Ranking: 1/39, Advisor: Prof. Jizhen Liu

North China Electric Power University Sept 2013-Jun 2017

B.E. in Automation

GPA: 3.77/4.0, Ranking: Top 5%

PUBLICATIONS

[1] **Zhengrong Chen**, Yang Hu, "Two-stage Photovoltaic Power Forecasting based on Extreme Learning Machine and Improved Pointwise Mutual Information", IEEE APPEEC 2019.

[2] G. Xiao, B. Zhou, K. Lou and **Z. Chen**, "Value Iteration Based Continuous-time Nonlinear Constrained Optimal Tracking Controller Design," 2020 Chinese Automation Congress (CAC).

[3] **Zhengrong Chen**, Zhaoxi Liu, Lingfeng Wang, "A Modified Model Predictive Control Method for Frequency Regulation of Microgrids under Status Feedback Attacks and Time-delay Attacks", International Journal of Electrical Power and Energy Systems (Under review).

WORKING EXPERIENCES

Zhejiang Lab | Research Intern | Hangzhou, China

Apr 2020-Jul 2020

- Designed continuous-time nonlinear constrained optimal tracking controller based on reinforce learning.
- Modeling large-scale networked microgrid including PV, wind turbine, diesel generator, battery, PHEV and controllable loads.
- Built up a close-loop hardware simulation to study cybersecurity issue towards power system.
- Assisted in writing a standard about industrial security testbed and industrial internet application.

National power grid global energy Internet Research Institute | Power Electronics Intern | Beijing, China Oct 2016-Jan 2017

- Assisted in a HVDC transmission substation project and 10KV Power Electronic Transformer research project.
- Provided modelling design assistance to build smart city when considering the optimization of energy management.
- Installed control cabinets and boards; helped to draw the circuit diagram; tested the corresponding control code.
- Calculated the optimal power flow in the protection of DC distribution network and proposed helpful suggestion on reliability analysis.

TEACHING EXPERIENCES

2021 Spring: ECE-2020 Digital System Design, Georgia Institute of Technology, Teaching Assistant 2020 Fall: ECE-2036 Engr Software Design, Georgia Institute of Technology, Teaching Assistant

AWARDS

- Outstanding graduate student at North China Electric Power University, Beijing, China, 2020
- Chancellor's Graduate Student Award, UWM, Milwaukee, WI, 2018
- Outstanding Student Leader at North China Electric Power University, Beijing, China, 2018
- Outstanding Graduates of Beijing, China, 2017, 2020
- Mathematical Modeling for Electrical Cup, The second prize, China, 2016
- Internet Innovation Competition, The third prize, Beijing, 2016
- Mathematical modeling of American College Students, Honorable Mention, 2015
- Beijing Undergraduate Electronic Design Contest, The third prize, 2015
- First class award scholarship and Outstanding Student Leaders Award, Beijing, China, 2013-2017

SKILLS

Language: Fluent in English; Mandarin (native)

Programming: Python, C/C++, Matlab, JAVA, SQL, HTML, CSS Other Applications: Microsoft Office, PowerWorld, PSS/E, PSCAD