

陈俊儒



- 工作职位：新疆大学电气工程学院 电气工程及其自动化系
- 副教授 博导 硕导
- 研究方向：新能源并网与控制技术，电力系统稳定性分析，电力电子建模、控制与稳定性分析，综合能源控制系统，时域仿真软件开发
- 办公地址：新疆乌鲁木齐市水磨沟区华瑞街 777 号
- 新疆大学（博达校区）电气工程学院
- 邮政编码：830017
- 工作邮箱：junru.chen@xju.edu.cn

常年招收硕士、博士和博士后，欢迎各位学生提前联系、咨询、报考！

欢迎具有电气、数学、控制、计算机等专业背景的学生报考博士和硕士研究生，尤其欢迎富有钻研探索精神、对电力电子/电力系统/大数据/软件开发等交叉学科有浓厚兴趣的学生报考。

个人简介

男，博士，国家高层次青年人才，新疆大学电气工程学院副教授，博士研究生导师。于 2019 年 12 月获爱尔兰国立都柏林大学博士学位，2016 年 5 月获爱尔兰国立都柏林大学硕士学位；2019 年在爱沙尼亚塔林科技大学和 2018 年在德国基尔大学博士交流。以第一作者身份发表论文 20 余篇，其中 SCI 收录 10 余篇（一区 8 篇），《Converter-Based Dynamics and Control of Modern Power Systems》章节作者，获批 2021 年国家高层次海外优秀青年（西藏新疆）项目，获“2019 年国家优秀自费留学生”由国家留学基金管理委员会颁发，获 2019 年电力系统国际年会 IEEE PES General Meeting 最佳会议论文，获 2019 年欧盟优秀博士后资助计划。

工作经历

- 2021/12-至今，新疆大学，电气工程学院，副教授
- 2020/9-2021/12，新疆大学，电气工程学院，讲师
- 2020/1-2020/9，爱尔兰国立都柏林，电气工程学院，高级研究员
- 2020/3-2020/6，丹麦奥尔堡大学，能源系，访问学者

论文、专著与专利

作为第一作者发表论文 24 余篇，其中 SCI 收录 14 篇，中科院 SCI 一区论文 8 篇。

1、专著

[1] 《Converter-Based Dynamics and Control of Modern Power Systems》, Chapter 7 - Architectures for frequency control in modern power systems, Elsevier, Chapter Author, ISBN978-0-12-818491-2.

2、期刊论文(近五年按时间排列)

- [1] **J. Chen***, M. Liu, H. Geng, T. O'Donnell and F. Milano, "Impact of PLL frequency limiter on Synchronization Stability of Grid Feeding Converter", in *IEEE Transactions on Power Systems*, 2022 (JCR Q1, 新大一区, 中科院一区 TOP, 6.663).
- [2] **J. Chen***, M. Liu, T. O'Donnell and F. Milano, "Modelling of Smart Transformers for Power System Transient Stability Analysis," in *IEEE Journal of Emerging and Selected Topics in Power Electronics*, 2021 (JCR Q1, 新大一区, 中科院一区 TOP, 4.472).
- [3] **J. Chen**, M. Liu* and F. Milano, "Aggregated Model of Virtual Power Plants for Transient Frequency and Voltage Stability Analysis," in *IEEE Transactions on Power Systems*, vol. 36, no. 5, pp. 4366-4375, Sept. 2021 (JCR Q1, 新大一区, 中科院一区 TOP, 6.663).
- [4] **J. Chen***, R. Zhu, I. Ibrahim, T. O'Donnell and M. Liserre, "Neutral Current Optimization Control for Smart Transformer-Fed Distribution System Under Unbalanced Loads," in *IEEE Journal of Emerging and Selected Topics in Power Electronics*, vol. 9, no. 2, pp. 1696-1707, April 2021 (JCR Q1, 新大一区, 中科院一区 TOP, 4.472).
- [5] **J. Chen***, M. Liu, R. Guo, et. al., "Co-ordinated Grid Forming Control of AC-side-connected Energy Storage Systems for Converter-Interfaced Generation," in *International Journal of Electrical Power and Energy System*, 2021 (JCR Q1, 新大二区, 中科院二区, 4.630).
- [6] **J. Chen***, M. Liu, G. De Carne, R. Zhu, M. Liserre, F. Milano and T. O'Donnell, "Impact of Smart Transformer Voltage and Frequency Support in A High Renewable Penetration System," in *Electric Power Systems Research*, vol. 190, 2021 (JCR Q2, 新大二区, 中科院三区, IF 3.414).
- [7] **J. Chen***, M. Liu, T. O'Donnell and F. Milano, "Impact of Current Transients on the Synchronization Stability Assessment of Grid-Feeding Converters," in *IEEE Transactions on Power Systems*, vol. 35, no. 5, pp. 4131-4134, Sept. 2020 (JCR Q1, 新大一区, 中科院一区 TOP, IF 6.807).
- [8] **J. Chen***, M. Liu, F. Milano and T. O'Donnell, "100% Converter-interfaced Generation using Virtual Synchronous Generator Control: A case study based on the Irish System," in *Electric Power Systems Research*, vol.187, 2020 (JCR Q2, 新大二区, 中科院三区, IF 3.414).
- [9] **J. Chen***, M. Liu, F. Milano and T. O'Donnell, "Adaptive Virtual Synchronous Generator Considering Converter and Storage Capacity Limits," in *CSEE Journal of Power and Energy System*, 2020 (JCR Q1, 新大二区, 中科院二区, IF 3.938).
- [10] **J. Chen***, F. Prystupczuk and T. O'Donnell, "Use of voltage limits for current limitations in grid-forming converters," in *CSEE Journal of Power and Energy Systems*, vol. 6, no. 2, pp. 259-269, June 2020 (JCR Q1, 新大二区, 中科院二区, IF 3.938).
- [11] **J. Chen***, F. Milano and T. O'Donnell, "Assessment of Grid-Feeding Converter Voltage Stability," in *IEEE Transactions on Power Systems*, vol. 34, no. 5, pp. 3980-3982, Sept. 2019 (JCR Q1, 新大一区, 中科院一区 TOP, IF 6.807).
- [12] **J. Chen*** and T. O'Donnell, "Parameter Constraints for Virtual Synchronous Generator Considering Stability," in *IEEE*

Transactions on Power Systems, vol. 34, no. 3, pp. 2479-2481, May 2019 (JCR Q1, 新大一区, 中科院一区 TOP, IF 6.807).

[13] **J. Chen***, T. Yang, C. O'Loughlin and T. O'Donnell, "Neutral Current Minimization Control for Solid State Transformers Under Unbalanced Loads in Distribution Systems," in *IEEE Transactions on Industrial Electronics*, vol. 66, no. 10, pp. 8253-8262, Oct. 2019 (JCR Q1, 新大一区, 中科院一区 TOP, IF 8.236).

[14] **J. Chen*** and T. O'Donnell, "Analysis of Virtual Synchronous Generator Control and its Response based on Transfer Functions," in *IET Power Electronics*, 2019 (JCR Q2, 新大二区, 中科院三区, IF 2.839).

3、会议论文选(近五年按时间排列)

[1] **J. Chen**, C. Ge and H. Ye, "Impact of the Feed-forward Compensation on the Synchronization Stability," The 10th International Conference on Renewable Power Generation (RPG), 2021.

[2] **J. Chen**, M. Liu and T. O'Donnell, "Replacement of Synchronous Generator by Virtual Synchronous Generator in the Conventional Power System," 2019 IEEE PES General Meeting, Atlanta, USA, August 4-8, 2019. (Best Paper award)

[3] **J. Chen**, M. Liu, F. Milano and T. O'Donnell, "Placement of Virtual Synchronous Generator Controlled Electric Storage combined with Renewable Generation," PowerTech, Milano, Italy, 23-27 June, 2019.

[4] **J. Chen**, A. Nouri, A. Keane and T. O'Donnell "Methodology for Assessment of the Impact of Smart Transformers on Power System Reliability," IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society, Lisbon, Portugal, 2019.

[5] **J. Chen** et al., "Smart Transformer Modelling in Optimal Power Flow Analysis," IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society, Lisbon, Portugal, 2019.

[6] **J. Chen**, R. Zhu, M. Liserre and T. O'Donnell, "Neutral current reduction control for smart transformer under the imbalanced load in distribution system," 2018 13th IEEE Conference on Industrial Electronics and Applications (ICIEA), Wuhan, 2018, pp. 2381-2386.

[7] **J. Chen**, M. Liu, C. O'Loughlin, F. Milano and T. O'Donnell, "Modelling, Simulation and Hardware-in-the-Loop Validation of Virtual Synchronous Generator Control in Low Inertia Power System," 2018 Power Systems Computation Conference (PSCC), Dublin, 2018, pp. 1-7.

[8] **J. Chen**, R. Zhu, T. O'Donnell and M. Liserre, "Smart Transformer and Low Frequency Transformer Comparison on Power Delivery Characteristics in the Power System," 2018 AEIT International Annual Conference, Bari, 2018, pp. 1-6.

[9] **J. Chen** et al., "Smart Transformer for the Provision of Coordinated Voltage and Frequency Support in the Grid," IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society, Washington, DC, 2018.

[10] **J. Chen**, C. O'Loughlin and T. O'Donnell, "Dynamic demand minimization using a smart transformer," IECON 2017 - 43rd Annual Conference of the IEEE Industrial Electronics Society, Beijing, 2017, pp. 4253-4259.
