Wentao Zhang

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Education

Southeast University 2021/09 - 2025/06 (Expected)
Ph.D in Electrical Engineering Najing, Jiangsu, China
- 2023 Wiscom System Scholarship
- 1st Prize Academic Scholarship
- 2023 CIEEC Best Paper Award

Southeast University 2018/09 - 2021/06
Master in Electrical Engineering Najing, Jiangsu, China
- 2022 Outstanding Master Degree Theis in Jiangsu Province
- 1st Prize in IEEE IAS CMD Thesis Contest (non-Ph. D)

Southeast University 2014/09 - 2018/06
B.Eng in Electrical Engineering Najing, Jiangsu, China
- 2nd Prize in Southeast University Smart Car Competition

Research Publication

Transaction/Journal Paper 1st/Corresponding Author

- **W. Zhang**, W. Hua, Z. Wu, G. Zhao, Y. Wang and W. Xia, "Analysis of DC Winding Induced Voltage in Wound-Field Flux-Switching Machine With Air-Gap Field Modulation Principle," in **IEEE Transactions on Industrial Electronics**, vol. 69, no. 3, pp. 2300-2311, March 2022, doi: 10.1109/TIE.2021.3068684.
- **W. Zhang** et al., "Reduction of Open-Circuit DC Winding Induced Voltage and Torque Pulsation in the Wound Field Switched Flux Machine by Stator Axial Pairing of Tooth Tips," in **IEEE Transactions on Industry Applications**, vol. 58, no. 2, pp. 1976-1990, March-April 2022, doi: 10.1109/TIA.2022.3143777.
- **W. Zhang**, Z. Wu, Y. Fan, W. Hua and M. Cheng, "A Stable and Computationally Efficient Spatial Harmonic Model for Predicting the DC Winding Induced Voltage in WFSF Machine," in **IEEE Transactions on Industry Applications**, vol. 59, no. 4, pp. 3966-3977, July-Aug. 2023, doi: 10.1109/TIA.2023.3263163.
- **W. Zhang**; Y. Fan.; Z. Q. Zhu; Z. Wu; W. Hua; M. Cheng. Analysis of DC Winding Induced Voltage in Wound-Rotor Synchronous Machines by Using the Air-Gap Field Modulation Principle. **World Electr. Veh. J.** 2022, 13, 215. https://doi.org/10.3390/wevj13110215

Transaction/Journal Paper Other

- Z. Wu, Z. Q. Zhu, C. Wang, W. Hua, K. Wang and **W. Zhang**, "Influence of rotor iron bridge position on DC-winding-induced voltage in wound field switched flux machine having partitioned stators," in Chinese Journal of Electrical Engineering, vol. 7, no. 3, pp. 20-28, Sept. 2021, doi: 10.23919/CJEE.2021.000022.
- Z. Wu, Z. Q. Zhu, S. Cai, W. Hua and **W. Zhang**, "Enhancement of torque density in wound field switched flux machines with partitioned stators using assisted ferrites," in Chinese Journal of Electrical Engineering, vol. 7, no. 3, pp. 42-51, Sept. 2021, doi: 10.23919/CJEE.2021.000024.
- Z. Wu, L. Jin, W. Hua, **W. Zhang** and M. Cheng, "Harmonics Orders Modelling of DC Winding Induced Voltage Pulsation in Wound Field Switched Flux Machines under PWM Excitation," in IEEE Transactions on Transportation Electrification, doi: 10.1109/TTE.2023.3345361.
- Z. Wu, **W. Zhang**, Y. Fan, W. Hua and M. Cheng, "A Transient-State Lumped Parameter Thermal Model for Brushless Wound Field Switched Flux Machines," in IEEE Transactions on Transportation Electrification, doi: 10.1109/TTE.2023.3253170.
- Z. Wu, L. Jin, **W. Zhang**, Y. Fan, W. Hua and M. Cheng, "Influence of PWM Excitation on DC Winding Induced Voltage Pulsation in Wound Field Switched Flux Machines," in IEEE Transactions on Industry Applications, doi: 10.1109/TIA.2023.3327033.
- Z. Wu et al., "Analysis and Suppression of Induced Voltage Pulsation in DC Winding of Five-Phase Wound-Field Switched Flux Machines," in IEEE Transactions on Energy Conversion, vol. 34, no. 4, pp. 1890-1905, Dec. 2019, doi: 10.1109/TEC.2019.2938161.

Conference Paper

- **W. Zhang**, Z. Wu, W. Hua, Y. Fan, Z. Xu and M. Cheng, "Design Trandeoff between Flux Regulation Capability and DC Winding Induced Voltage in Hybrid Excitation Switched Flux Machine," 2023 IEEE Energy Conversion Congress and Exposition (ECCE), Nashville, TN, USA, 2023, pp. 5060-5066, doi: 10.1109/ECCE53617.2023.10362527.
- L. Jin, W. Hua, U. Akuru, Z. Wu, **W. Zhang** and M. Cheng, "Comparative Study on DC Winding Induced Voltage Pulsation of Wound Field Flux Modulation Machines Having Different Iron Core Structures," 2023 26th International Conference on Electrical Machines and Systems (ICEMS), Zhuhai, China, 2023, pp. 442-447, doi: 10.1109/ICEMS59686.2023.10344929.
- **W. Zhang**, Z. Wu, L. Jin, Y. Fan, W. Hua and M. Cheng, "Analysis and Multi-Objective Optimization of the Hybrid Excitation Switched Flux Machine," 2023 IEEE 6th International Electrical and Energy Conference (CIEEC), Hefei, China, 2023, pp. 3371-3376, doi: 10.1109/CIEEC58067.2023.10165699.
- M. P. Koroma, W. Hua, Z. Wu, L. Jin and **W. Zhang**, "Influence of Magnet Layer Numbers on Electromagnetic Performance of Interior Permanent Magnet Machines," 2023 26th International Conference on Electrical Machines and Systems (ICEMS), Zhuhai, China, 2023, pp. 696-700, doi: 10.1109/ICEMS59686.2023.10345078.
- **W. Zhang**, Z. Wu, W. Hua, Y. Fan and M. Cheng, "Influence of the End-Effect in Wound Field Switched Flux Machine," 2023 26th International Conference on Electrical Machines and Systems (ICEMS), Zhuhai, China, 2023, pp. 1223-1227, doi: 10.1109/ICEMS59686.2023.10344668.
- X. Yan, Z. Wu, W. Hua, **W. Zhang** and M. Cheng, "A Mathematical Model for Wound Field Switched Flux Machine Considering Inductance Harmonics of Field and Armature Windings," 2023 IEEE International Electric Machines & Drives Conference (IEMDC), San Francisco, CA, USA, 2023, pp. 1-6, doi: 10.1109/IEMDC55163.2023.10238902.

Patent

- Wei Hua, **Wentao Zhang**, Zhongze Wu, Shichuan Ding, CN202010649901.9, Issued 2022.04.05.
- Zhongze Wu, **Wentao Zhang**, Ying Fan, Wei Hua, Ming Cheng, CN114781227A, Publication 2022.08.09.
- Zhongze Wu, **Wentao Zhang**, Junxiang Liao, Ying Fan, Wei Hua, Ming Cheng, CN115208245A, Publication 2022.10.18
- Zhongze Wu, **Wentao Zhang**, Wei Hua, Zhixiang Zou, CN117094088A, Publication 2023.11.21

Last Updated on January 11, 2024