

包铭阳

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教育背景

华中科技大学

2021.9 - 2025.6

- ▶ 本科 加权: 4/5
- 学院: 电气与电子工程学院 专业: 电气工程及其自动化
- 课程: 电机学, 电力拖动, 电力电子技术

技能

英语: 六级

Python Nodejs Rust Golang C/C++
Matlab FEMM Femm Ansys Photoshop Illustrator

科研经历

Hi-Motor 系列产品研发

2022.3 - now

- ▶ 负责人/主要完成人
- 带领由 18 位本科生组成的学生团队开发电机设计软件、开展相关科研和洽谈商业合作。
- Develop *hi-motor designer* for design and optimization of high-efficiency motors, especially synchronous reluctance motors based on Python and Femm.
- Support intelligent selection of high-efficiency motors with motor database and knowledge sharing platform based on MongoDB, Nodejs and Golang.

Design and Optimization of Flux-Barrier End shape in Synchronous Reluctance Motor Based on B-spines

2023.8 - 2023.9

- ▶ 主要完成人
- Propose a novel design method of flux-barrier end shape based on B-spline curves.
- achieve an effective electro-mechanical co-optimization workflow with sensitivity analysis, surrogate model, intelligent algorithms and multi-level optimization.

博世（中国）投资有限公司战略实习生

2023.7 - 2023.8

- ▶ 全栈开发 上海中央研究院 2024.6 - 2024.8
- Set up an Ansys optimization workflow for switched reluctance motors on HPC cluster.
- Build power factor correction circuit for switched reluctance motors.

华中科技大学本科生自然科学基金

2024.5 - 2025.5

- ▶ 主要完成人 获批 50000 元经费
- 基于不等匝绕组的永磁辅助同步磁阻电机设计及其优化研究。



荣誉和奖项

IEEE 电机和系统学生会议

2023.12.7 - 12.9

- ▶ 最佳论文奖 中国湖州

美国数学建模大学

2024.2.2 - 2.5

- ▶ **Finalist(2%)** 指导老师
- ▶ 思源奖学金 (8/412) ▶ 自强标兵 (7/412)

课外活动

华中科技大学数学建模协会

2022.10 - 2023.9

- ▶ 副会长 Mathematical Modeling/Event Planing
- Organize school-wide and cross-school lectures for contests like MCM/ICM.
- Participate in textbook and video course development in mathematical modeling.

华中科技大学电气学院宣传部/新闻宣传中心

2022.9 - 2023.8

- ▶ 部长 Writing/Graphic Design
- Generate positive publicity and media coverage of students and major events, such as the 70th anniversary celebration.

发表著作

J

Journal

C

Conference

P

Patent

S

Software

Copy-

right

C

M. Bao, Y. Wang, C. Mao, J. Li, S. Feng, T. He, Y. Chen and R. Qu, "Novel Design Method of Flux-Barrier End Shape of Synchronous Reluctance Motor Based on B-spline Curves", *2023 IEEE 6th Student Conference on Electric Machines and Systems (SCEMS)*, Huzhou, China, pp. 1--8, Dec. 2023, doi: <https://doi.org/10.1109/SCEMS60579.2023.10379317>

C

T. He, Y. Wang, **M. Bao**, J. Li, S. Feng and R. Qu, "Design and Validation of a High-Efficiency Synchronous Reluctance Motor", *2023 IEEE 26th International Conference on Electric Machines and Systems (ICEMS)*, Zhuhai, China, pp. 1--8, Nov. 2023, doi: <https://doi.org/10.1109/ICEMS59686.2023.10345091>

C

Y. Yi, Z. Huang, **M. Bao**, X. Li and S. Lou, "Multi-step Short-term Load Forecasting Based on Attention Mechanism, TCN-BiLSTM Network and Decomposition-based Error Correction", *2024 IEEE 7th Asia Conference on Energy and Electrical Engineering (ACEEE 2024)*, Chengdu, China, pp. 1--9, July. 2023

P

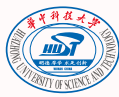
Y. Wang, J. Li, X. Li, **M. Bao** and R. Qu, "Rotor with Adjacent Electrode Mirror Image of Synchronous Reluctance Motor and Permanent Magnet Assisted Synchronous Reluctance Motor", China Patent, Publication, No. CN116722678A, Sep. 2023

P

Y. Wang, X. Li, J. Li, **M. Bao** and R. Qu, "A Permanent Magnet Assisted Synchronous Reluctance Motor of Low Torque Ripple", China Patent, Publication, No. CN116505683B, Apr. 2023

S

M. Bao, S. Lu and Y. Wang, "Hi-Motor Hub: intelligent Selection Tool for High-efficiency Motors V1.0", China Software Copyright, Publication, No. 2023SR1417580, Nov. 2023



- S** **M. Bao**, J. Li, Y. Chen and Y. Wang, “Hi-Motor Designer: intelligent Software for Design and Optimization of Synchronous Reluctance Motor V1.0”, China Software Copyright , Publication, No. 2023SR0446741, Apr. 2023
- S** Y. Yi, **M. Bao**, S. Lou, Z. Huang and X. Li, “Intelligent Analysis Platform for New Energy Consumption”, China Software Copyright , Publication, No. 2024SR0786617, June. 2024