



李明东

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教育经历

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- 香港科技大学** 2021.09 - 2025.04 (expected)
博士在读, PhD in Individualized Interdisciplinary Program (Robotics and Autonomous System)
Computational Cognitive Engineering Lab
导师: Prof. Yiwen WANG, Prof. Qifeng CHEN (co-supervision)
- 浙江大学** 2018-2021
硕士, 机械设计及理论
流体动力与机电系统国家重点实验室
导师: 冯毅雄教授 (谭建荣院士团队)
- 同济大学** 2013-2018
学士, 机械设计制造及其自动化
中德机械工程创新试验区 (荣誉班级)

研究兴趣

脑机接口, 类脑智能, NeuroAI, 穿戴式设备, 产品智能设计制造

当前工作

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- Mingdong Li**, Shuhang Chen, Zhiwei Song, Xiang Zhang, Camilo Libedinsky, Rosa So, Yiwen Wang*. Assessing Modifications of Functional Neural Connectivity in Point Process Filter for Neuroprosthetic Control, *IEEE Transactions on Biomedical Engineering*. (即将提交)
 - Zhiwei Song, Xiang Zhang, **Mingdong Li**, Jieyuan Tan, Yiwen Wang*. An Online Knowledge Transfer Framework for Task Learning in Brain-Machine Interfaces, *IEEE Transactions on Neural Systems and Rehabilitation Engineering*. (即将提交)
 - Mingdong Li**, Shuhang Chen[†], Xiang Zhang, Yiwen Wang*. Neural Correlation Integrated Adaptive Point Process Filtering on Population Spike Trains, *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 2024. (在审, [†]: co-first author)

论文发表 (期刊)

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- Mingdong Li**, Shanhe Lou*, Hao Zheng, Yixiong Feng, Yicong Gao, Siyuan Zeng, Jianrong Tan. A Cognitive Analysis-based Key Concepts Derivation Approach for Product Design, 2024, *Expert Systems With Applications* (IF=7.5).
 - Mingdong Li**, Shanhe Lou*, Yicong Gao, Hao Zheng, Bingtao Hu, Jianrong Tan. A Cerebellar Operant Conditioning-inspired Constraint Satisfaction Approach for Product Design Concept Generation, 2023, *International Journal of Production Research* (IF=7.0).
 - Xuanyu Wu, Zhaoxi Hong*, Yixiong Feng, **Mingdong Li**, Shanhe Lou, Jianrong Tan. A Semantic Analysis-driven Customer Requirements Mining Method for Product Conceptual Design, 2022, *Scientific Reports* (IF=3.8).
 - Yixiong Feng, **Mingdong Li**, Shanhe Lou*, Yicong Gao, Jianrong Tan. A Digital Twin-Driven Method for Product Performance Evaluation Based on Intelligent Psycho-Physiological Analysis, 2021, *Transaction of the ASME, Journal of Computing and Information Science in Engineering* (IF=2.6).

论文发表 (会议)

1. **Mingdong Li**, Jieyuan Tan, Zhiwei Song, Yiwen Wang*. Modeling Neural Population Dynamics in a Point Process Filter for Neuroprosthetics Control, *Annual Conference of International Association of Neurorestoratology (IANR) 2024* (Poster).
2. **Mingdong Li**, Mingyi Wang, Yiwen Wang*. An Adaptive Superposition Point Process Model with Neuronal Encoding Engagement Identification, *2024 46th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)*.
3. Zixu Wang, Shuhang Chen†, **Mingdong Li**, Yiwen Wang*. Tracking Dynamic Conditional Neural Correlation during Task Learning, *2024 46th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)*. (†: co-first author)
4. **Mingdong Li**, Shuhang Chen, Zhijia Zhao, Yiwen Wang*. Tracking the Dynamic Functional Neural Connectivity via Conjugate Gradient Optimization, *2023 45th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)*.
5. **Mingdong Li**, Shuhang Chen, Xi Liu, Zhiwei Song, Yiwen Wang*. Modeling Neural Connectivity in a Point-Process Analogue of Kalman Filter, *2022 44th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)*.

项目参与及活动组织

国家自然科学基金面上项目: 支持设计认知的机械产品创新设计理论、方法及应用研究	参与
国家重点研发项目课题: 复杂产品全生命周期价值链协同平台研发	参与
授权国家发明专利	2 项
报告助理, 4th International Workshop on Neural Engineering & Rehabilitation	2023.08
海报展示, 3rd International Workshop on Neural Engineering & Rehabilitation	2022.05

教学工作

本科生暑期研究、毕业设计指导	2024.07-2025.07
助教, ELEC4130 Machine Learning on Images	2023 春季学期
助教, EMIA4110 Practical Machine Learning	2024 春季学期

荣誉及奖项

NextGen Scholar Award (IEEE Annual International Conference of EMBS)	2024.06
研究生奖学金, 科研旅行奖学金	since 2021.09
浙江大学研究生毕业奖学金	2021.03
之江实验室 AI 竞赛-多目标跟踪赛道, 优胜奖 (6-12 名)	2019.10
第七届全国大学省机械设计创新竞赛, 一等奖	2016.07
上海市大学省机械创新竞赛, 一等奖	2016.04
同济大学学术奖学金, 二等 2 次、三等 1 次	2013-2018