Resume

Name ： Zhao Dongdong

Professional title： Associate Professor and Supervisor

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Education

September 2008 to July 2012, Zhengzhou University, Automation (Bachelor)

September 2013 to July 2016, Lanzhou University, majored in Communication and Information System (Master)

October 2016 to September 2019, Akita Prefectural University, Japan, majoring in comprehensive Systems science (Doctor)

Working

Since October 2019, associate professor of School of Information science and Engineering, Lanzhou University

Teaching course

Automatic Control Theory, Control Theory And Methods, Matrix theory

Research interests

1. **Robotics**
2. **Machine learning**
3. **Uncertain dynamical systems**
4. **Multidimensional system theory,**
5. **Signal processing**

Representative Papers

[1] ***Dongdong Zhao***, Yu Kang, Yun-Bo Zhao, Li Xu, Shi Yan, Constrained Common Invariant Subspace and Its Application, ***IEEE Transactions on Automatic Control***, 2024, 1-14, doi: 10.1109/TAC.2024.3378769

[2] ***Dongdong Zhao***, Boyu Li, Fuxiang Lu, Jinhua She, Shi Yan. Deep Bilinear Koopman Model Predictive Control for Nonlinear Dynamical Systems[J]. ***IEEE Transactions on Industrial Electronics.*** 2024, 1-10. doi: 10.1109/TIE.2024.3390717.

[3] ***Dongdong Zhao,*** Xiaodi Yang ,Yichang Li , Li Xu, Jinhua She, Shi Yan. A Kalman-Koopman LQR Control Approach to Robotic Systems[J]. ***IEEE Transactions on Industrial Electronics.*** 2024, 1-10. doi: 10.1109/TIE.2024.3379674.

[4] **Zhao Dongdong**, Li Hongli, Yan Shi. Spatial-Temporal Synchronous Transformer for Skeleton-Based Hand Gesture Recognition[J]. ***IEEE Transactions on Circuits and Systems for Video Technology***, 2024, 34(3):1403-1412.

[5] Xingwen Zhou, Zongsheng Geng, **Dongdong Zhao**, Li Xu, Shi Yan. State-space model realization for non-commensurate fractional-order systems based on Gleason problem[J]. ***Journal of the Franklin Institute***. 2023, 360(8):14261-14278.

[6] **Dongdong Zhao**, Qinglian Yang, Xingwen Zhou, Hongli Li, Shi Yan*; A Local Spatial-Temporal Synchronous Network to Dynamic Gesture Recognition[J]. ***IEEE Transactions on Computational Social Systems***，2023, 10(5): 2226-2233.

[7] Xingwen Zhou, **Dongdong Zhao**, Zongsheng Geng, Li Xu Shi , Yan. FPGA Implementation of Non-Commensurate Fractional-Order State-Space Models[J]. ***IEEE Transactions on Circuits and Systems I: Regular Papers***, 2023, 70(0):3639-3652.

[8] 赵东东, 闫磊, 周兴文, 耿宗盛, 阎石. 基于 Luenberger 观测器的不确定系统鲁棒状态反馈设计（网络首发）[J]. ***上海交通大学学报***, doi: 10.16183/j.cnki.jsjtu.2022.328.

[9] **Dongdong Zhao**, Kaige Huo, Li Xu, Krzysztof Galkowski, Bartlomiej Sulikowski, Shi Yan. Admissible Transformation Approach to Roesser State-Space Model Realization of Singular Multidimensional Systems[J]. ***IET Control Theory & Applications***, 2023,17:1295–1310.

[10] **Dongdong Zhao**, Yang Hu, Weiguo Sun, Xingwen Zhou, Li Xu, Shi Yan*; A digraph approach to the state-space model realization of MIMO non-commensurate fractional order systems[J]. ***Journal of the Franklin Institute***, 2022, 359(10): 5014-5035

[11] **Dongdong Zhao***; K. Galkowski; B. Sulikowski; L. Xu; Derivation and reduction of the singular Fornasini-Marchesini state-space model for a class of multidimensional systems[J]. ***IET Control Theory & Applications***, 2020, 14(4): 634-645.

[12] S. Yan, **Zhao Dongdong***, H. Wang, S. Matsushita, L. Xu. A novel constructive procedure to low-order Fornasini–Marchesini model realization[J]. ***Journal of the Franklin institute***. 357(3), pp. 1764-1789, 2020.

[13] **Dongdong Zhao** *; S. Yan; S. Matsushita; L. Xu; Common eigenvector approach to exact order reduction for Roesser state-space models of multidimensional systems[J]. ***Systems & Control Letters***, 2019, 134: 0-UNSP 104559.

[14] **Dongdong Zhao**; S. Yan; S. Matsushita*; L. Xu; An approach to multidimensional Fornasini–Marchesini state-space model realization w.r.t. columns of transfer matrices[J]. ***Systems & Control Letters***, 2019, 123:116-123.

[15] **Dongdong Zhao** *; S. Yan; S. Matsushita; L. Xu; Common eigenvector approach to exact order reduction for multidimensional Fornasini-Marchesini state-space models[J]. ***International Journal of Systems Science***, 2019, 50:6-74.

[16] **Dongdong Zhao***; K. Galkowski; B. Sulikowski; L. Xu; 3-D modelling of rectangular circuits as the particular class of spatially interconnected systems on the plane[J]. ***Multidimensional Systems and Signal Processing***, 2019, 30(3): 1583-1608.

[17] **Dongdong Zhao**; S. Yan; L. Xu*; Eigenvalue trim approach to exact order reduction for Roesser state-space model of multidimensional systems[J]. ***Multidimensional Systems and Signal Processing***, 2018, 29(4):1905-1934 .

[18] S. Yan; **Dongdong Zhao**; L. Xu*; Q. Li; A novel elementary operation approach with Jordan transformation to order reduction for Roesser state-space model[J]. ***Multidimensional Systems and Signal Processing***, 2017, 28(4): 1417-1442.

Patent

[1] Zhao Dongdong; Yan Shi; Li Hongli; Zhou Xingwen; Li Yichang; Dynamic gesture recognition method, device, equipment and storage medium, 2022-05-25, China, CN202210572857.5

[2] Zhao Dongdong; Yan Shi; Yang Xiaodi; Zhou Xingwen; Li Hongli; A method, system, device and readable storage medium for manipulator motion control, 2022-05-23, China, CN202210563749.1

[3] Yan Shi; Zhao Dongdong; Sun Wansheng; Zhou Xingwen; Li Yichang; A Manipulator Control Method and System, Electronic Equipment, Storage Medium, 2022-05-12, China, ZL202210514205.6

Journal/Conference Appointments

2023 – present member of the program committee on IEEE International Conference on Industrial,

Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE)

2023 – present member of the program committee on IEEE International Conference on Progress

in Informatics and Computing

Reviewers

IEEE Transactions on Automatic Control

Automatica

IEEE Transactions on Industrial Electronics