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Qualifications

Control Engineering, PhD
30 Apr 2018 → 31 Dec 2019
Award Date: 30 Apr 2018

Employment

Senior Lecturer

Mechanical and Construction Engineering
Northumbria University
27 Jul 2020 → present

IEEE, Control Systems Society United Kingdom and Republic Ireland Chapter

8 Nov 2020 → present

Research outputs

Modeling and Sliding-Mode Control for Launch and Recovery System in Predictable Sea States With Feasibility Check for Collision Avoidance

Zhang, Y., Edwards, C., Belmont, M. & Li, G., 13 Apr 2022, (E-pub ahead of print) In: IEEE Transactions on Control Systems Technology. 14 p.

Barrier Lyapunov Function-Based Planetary Landing Guidance for Hazardous Terrains

Gong, Y., Guo, Y., Ma, G., Zhang, Y. & Guo, M., 22 Nov 2021, (E-pub ahead of print) In: IEEE/ASME Transactions on Mechatronics. 11 p., 3121434.

Prescribed Performance-based Powered Descent Guidance for Step-shaped Hazardous Terrains

Gong, Y., Guo, Y., Ma, G., Zhang, Y. & Guo, M., 18 Oct 2021, (E-pub ahead of print) In: IEEE Transactions on Aerospace and Electronic Systems.

Non-causal Linear Optimal Control with Adaptive Sliding Mode Observer for Multi-Body Wave Energy Converters

Zhang, Y., Stansby, P. & Li, G., 1 Jan 2021, In: IEEE Transactions on Sustainable Energy. 12, 1, p. 568-577 10 p., 9151391.

Non-causal Linear Optimal Control of Wave Energy Converters with Enhanced Robustness by Sliding Mode Control

Zhang, Y. & Li, G., Oct 2020, In: IEEE Transactions on Sustainable Energy. 11, 4, p. 2201-2209 9 p.

Fixed-Time Sliding Mode Control and High-Gain Nonlinearity Compensation for Dual-Motor Driving System

Zeng, T., Ren, X. & Zhang, Y., Jun 2020, In: IEEE Transactions on Industrial Informatics. 16, 6, p. 4090-4098 9 p.

Model Predictive Control of Wave Energy Converters with Prediction Error Tolerance

Zhang, Y., Zhan, S. & Li, G., 2020.

Robust excitation force estimation and prediction for wave energy converter m4 based on adaptive sliding-mode observer

Zhang, Y., Zeng, T. & Li, G., 17 Sep 2019, In: IEEE Transactions on Industrial Informatics.

An integrated optimal design for guaranteed cost control of motor driving system with uncertainty

Zeng, T., Ren, X., Zhang, Y., Li, G. & Na, J., 26 Aug 2019, In: IEEE/ASME Transactions on Mechatronics.

Mars powered descent phase guidance design based on fixed-time stabilization technique

Zhang, Y., Vepa, R., Li, G. & Zeng, T., Aug 2019, In: IEEE Transactions on Aerospace and Electronic Systems. 55, 4, p. 2001-2011 11 p.

Fixed-time pinpoint mars landing using two sliding-surface autonomous guidance

Zhang, Y., Guo, Y., Ma, G. & Wie, B., 1 Jun 2019, In: Acta Astronautica. 159, p. 547-563 17 p.

Collision avoidance ZEM/ZEV optimal feedback guidance for powered descent phase of landing on Mars

Zhang, Y., Guo, Y., Ma, G. & Zeng, T., 9 Jan 2017, In: Advances in Space Research.

A multi power reaching law of sliding mode control design and analysis

Zhang, Y., Ma, G., Guo, Y. & Zeng, T., Mar 2016, In: Zidonghua Xuebao/Acta Automatica Sinica. 42, 3, p. 466-472 7 p.