

Publication List

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A. Journal Articles (all leading archives in a variety of fields, alphabetical)

- Aerospace
 - **L.-G. Lin** and M. Xin, “Missile guidance law based on new analysis and design of SDRE scheme,” *AIAA Journal of Guidance, Control, and Dynamics*, vol. 42, no. 4, pp. 853-868, 2019 (Full-Paper).
- Nonlinear Circuits Analysis
 - **L.-G. Lin** and M. Xin, “Alternative SDRE scheme for planar systems,” *IEEE Trans. Circuits and Systems II*, vol. 66, no. 6, pp. 998-1002, 2019 (acknowledgement to Dr. Z. Qu).
- Nonlinear Optimal Control and Optimization
 1. **L.-G. Lin**, Y.-W. Liang, and L.-J. Cheng, “Control for a class of second-order systems via state-dependent Riccati equation approach,” *SIAM Journal on Control and Optimization*, vol. 56, no. 1, pp. 1-18, 2018 (Full-Paper).
 2. **L.-G. Lin**, J. Vandewalle, and Y.-W. Liang, “Analytical representation of the state-dependent coefficients in the SDRE/SDDRE scheme for multivariable systems,” *Automatica*, vol. 59, no. 9, pp. 106-111, 2015 (17IF: 6.13, Ranking: 3/61(4.9%), journal of IFAC).
 3. Y.-W. Liang and **L.-G. Lin**, “Analysis of SDC matrices for successfully implementing the SDRE scheme,” *Automatica*, vol. 49, no. 10, pp. 3120-3124, 2013 (17IF: 6.13, Ranking: 3/61(4.9%), journal of IFAC).
- Robotics
 - **L.-G. Lin** and M. Xin, “Nonlinear control of two-wheeled robot based on novel analysis and design of SDRE scheme,” *IEEE Trans. Control Systems Technology*, pp. 1-9 (in press, 17IF: 4.88).
- Preliminaries for Methodical Interaction
 - Robustness enhancement
 - * Y.-W. Liang, L.-W. Ting, and **L.-G. Lin**, “Study of reliable control via an integral-type sliding mode control scheme,” *IEEE Trans. Industrial Electronics*, vol. 59, no. 8, pp. 3062-3068, 2012 (16IF: 7.16, Ranking: 1/60(1.6%), Full-Paper).

B. Conference & Proceeding Papers (counter-chronological order)

1. **L.-G. Lin**, *International Conference on Econometrics and Statistics*, 2019 (Invited Talk, declined due to conflict of schedules; data science, machine learning, etc.;)
2. Y.-W. Liang, J.-Y. Chen, and **L.-G. Lin**, “A guidance law design using the combination of ISMC and SDRE schemes,” in *IEEE International Conference on System Science and Engineering*, Aug. 2013, pp. 63-67.
3. Y.-W. Liang and **L.-G. Lin**, “On factorization of the nonlinear drift term for SDRE approach,” in *Proceedings of the 18th IFAC World Congress*, Milano, Italy, vol. 18, no. 1, pp. 9607-9612, 2011 (EI, Invited Paper).
4. Y.-W. Liang, Y.-T. Wei, D.-C. Liaw, C.-C. Cheng, and **L.-G. Lin**, “A study of SDRE and ISMC combined scheme with application to vehicle brake control,” in *SICE Annual Conference, IEEE*, 2010, pp. 497-502.
5. Y.-W. Liang, L.-W. Ting, **L.-G. Lin**, and Y.-T. Wei, “Study of reliable control via an integral-type SMC scheme,” in *Proceedings of 2009 CACS International Automatic Control Conference*, Nov. 2009. (Excellent Paper Award)

C. Technical Report

1. **L.-G. Lin**, E. Griffin, and Z. Qu, “Efficient construction of state-dependent Riccati equation controller for vibration suppression of flexible robotic arm”, FEEDER\UCF, 2017.

D. Theses

1. L.-G. Lin. "Nonlinear Control Systems, A 'State-Dependent (Differential) Riccati Equation' Approach". Ph.D. thesis, KU Leuven, ISBN:978-94-6018-893-0, 2014.
2. L.-G. Lin. "Nonlinear Control Systems, A 'State-Dependent (Differential) Riccati Equation' Approach". Ph.D. thesis, NCTU, 2014.
3. L.-G. Lin. "Reliable Nonlinear Control via Combining SDRE and ISMC Approaches". M.S. thesis, NCTU, Taiwan, 2010.