Dr. Víctor Estrada Manzo

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Ingeniero en Mecatrónica por la Universidad de Guadalajara (2005-2009). Maestro en Ciencias en Ingeniería Eléctrica, especialidad Control Automático por el CINVESTAV Unidad Guadalajara (2010-2012). Doctor en Ciencias, especialidad Control Automático por la Universidad de Valenciennes y de Hainaut-Cambrésis, Francia (2012-2015). Posdoctorante CONACYT adjunto al programa de posgrado PNPC de Maestría en Ciencias de la Ingeniería del Instituto Tecnológico de Sonora, México (2016-2018). Miembro del Sistema Nacional de Investigadores con nivel Candidato desde 2017. A partir de octubre de 2018, es profesor investigador adscrito a la dirección de Ingeniería Mecatrónica de la Universidad Politécnica de Pachuca. Áreas interés: Análisis y síntesis de sistemas no lineales por medio de modelos convexos y desigualdades matriciales lineales.

Principal producción académica:

Artículos en revista indexada

- D. Quintana, V. Estrada-Manzo, M. Bernal (2019). Fault Detection and Isolation via a Novel Convex Optimization Scheme. IEEE Latin America Transactions.
- C. Armenta, T. Laurain, V. Estrada Manzo, M. Bernal (2019). A Novel Identification-Based Convex Control Scheme via Recurrent High-Order Neural Networks: an Application to the Internal Combustion Engine. Neural Processing Letters.
- V. Estrada-Manzo, Zs. Lendek, T.M. Guerra (2019). An alternative LMI static output feedback control design for nonlinear systems represented by Takagi-Sugeno models. ISA Transactions, vol 84, pp 104-110.
- J.C. Arceo, M. Sánchez, V. Estrada-Manzo, M. Bernal (2018). Convex stability analysis of nonlinear singular systems via linear matrix inequalities. IEEE Transactions on Automatic Control.
- J.C. Arceo, R. Márquez, V. Estrada-Manzo, M. Bernal (2018). Stabilization of nonlinear singular systems via exact convex models and robust differentiators. International Journal of Fuzzy Systems, Vol. 20 (5), pp. 1451-1459.
- M. Blandeau, V. Estrada-Manzo, T.M. Guerra, P. Pudlo, F. Gabrielli (2018). Fuzzy unknown input observer for understanding sitting control of persons living with spinal cord injury. Engineering Applications of Artificial Intelligence, vol. 67, pp. 381-389.
- González, V. Estrada-Manzo, T.M. Guerra (2017). Gain-scheduled H infinity admissibilisation of LPV discrete-time systems with LPV singular descriptor. International Journal of Systems Science, vol. 48 (15), pp. 3215-3224.

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- D. Quintana, V. Estrada-Manzo, M. Bernal (2018). A methodology for real-time implementation of nonlinear observers via convex optimization. In proceedings of the 2018 IEEE International Conference on Electrical Engineering, Computing Science and Automatic Control (CCE). Pp. 1-5, Mexico City, Mexico.
- J.C. Arceo, R. Villafuerte, V. Estrada-Manzo, M. Bernal. (2018). LMI-based exponential estimates for time-delay nonlinear descriptor systems. In proceedings of the 3rd IFAC International Conference on Embedded Systems, Computational Intelligence and Telematics in Control (CESCIT). Vol. 51(10), Pp. 139-144.Faro, Portugal.
- J.C. Arceo, R. Villafuerte, V. Estrada-Manzo, M. Bernal. (2018). LMI-based controller design for time-delay nonlinear descriptor systems with guaranteed exponential estimates. In proceedings of the 2nd IFAC Conference on Modelling, Identification and Control of Nonlinear systems (MICNON). Vol. 51 (13), pp. 585-590. Guadalajara, México.
- M. Sánchez, J.C. Arceo, V. Estrada-Manzo, M. Bernal. (2018) Stability analysis of nonlinear singular systems via polytopic models of the characteristic equation. 9th Vienna International Conference on Mathematical Modeling, pp. 17-18. Viena, Austria.
- Coronado, O. Peñaloza-Mejía, V. Estrada-Manzo, M. Bernal (2017). A Comparison of Fuzzy Schemes for Trajectory Tracking on the Furuta Pendulum. In proceedings of the 2017 Congreso Nacional de Control Automático. Pp. 499-503. Monterrey, México.
- D. Quintana, V. Estrada-Manzo, M. Bernal (2017). Real-time parallel distributed compensation of an inverted pendulum via exact Takagi-Sugeno models. In proceedings of the 2017 IEEE International Conference on Electrical Engineering, Computing Science and Automatic Control (CCE). Pp. 1-5, Mexico City, Mexico.
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- M. Blandeau, V. Estrada-Manzo, T.M. Guerra, P. Pudlo, F. Gabrielli (2016). How a person with spinal cord injury control a sitting situation. Unknown input oberserver and delayed feedback control with time-varying input delay. In proceedings of the 2016 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE). Vancouver, Canada.
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- V. Estrada-Manzo, Zs. Lendek, T. M. Guerra. (2014). Output feedback control for T-S discrete-time nonlinear descriptor models. In proceedings of the 53rd IEEE Conference on Decision and Control (IEEE CDC), Los Angeles, USA. Pp. 860-865.
- V. Estrada-Manzo, Zs. Lendek, T. M. Guerra. (2014). H infinity control for discrete-time Takagi-Sugeno descriptor models: a delayed approach. In proc. of the Rencontres francophones sur la logique flue et ses applications, Càrsege, France. pp 175-182.
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- V. Estrada-Manzo, Zs. Lendek, T. M. Guerra. (2016). Observer design for robotic systems via Takagi-Sugeno models and linear matrix inequalities. Book chapter in Handling Uncertaintiy and Networked Structure in Robot Control. Ed. Springer, vol. 42, pags. 103-128.
- M. Bernal, V. Estrada-Manzo, R. Márquez (2018). Diseño e implementación de sistemas de control basados en estructuras convexas y desigualdades matriciales lineales; Editorial Pearson Educación México. Pp. 144. ISBN: 978-607-32-4332-2.