

Curriculum Vitae



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Date of birth: 22 March 1984

Education

- | | |
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| September 2010
October 2014 | Shiraz University, Shiraz, Iran
Ph. D. in Electrical and Electronic Engineering, Control Engineering
Thesis title: Stability Analysis and Performance Improvement of Dynamical Systems with Design Suitable Reset Controllers
Supervisor: Dr. Paknosh Karimaghaee, Dr. Alireza khayatian |
| September 2006
April 2009 | Shiraz University, Shiraz, Iran
M. S. in Electrical and Electronic Engineering, Control Engineering
Thesis title: Fuzzy control of a thruster driven underwater vehicle
Supervisor: Dr. Paknosh Karimaghaee |
| September 2002
August 2006 | Shiraz University, Shiraz, Iran
B. S. in Electrical and Electronic Engineering, Control Engineering |

Research Interest

Nonlinear Control, Adaptive Control, Robust Control, Model Predictive Control

Workshops

- [1] Optimality, Stabilization, and Feedback in Nonlinear Control, Istanbul, Turkey, April 2012
- [2] Practical Adaptive Control, Yildiz Technical University, Istanbul, Turkey, May 2017

Selected Publications

- [1] V. Ghaffari, "A robust control system scheme based on model predictive controller (MPC) for continuous-time systems," *Optimal Control Applications and Methods*, 2017.
- [2] S. V. Naghavi, A. Safavi, M. H. Khooban, S. Pourdehi, and V. Ghaffari, "A robust control strategy for a class of distributed network with transmission delays: LMI-based model predictive controller," *COMPEL-The international journal for computation and mathematics in electrical and electronic engineering*, vol. 35, pp. 1786 - 1813, 2016.

- [3] V. Ghaffari, P. Karimaghaee, and A. Khayatian, "A Reset-Time Dependent Approach for Stability Analysis of Nonlinear Reset Control Systems," *Asian Journal of Control*, vol. 18, pp. 1856–1866, 2016.
- [4] V. Ghaffari, P. Karimaghaee, and A. Khayatian, "Stability analysis and performance improvement of uncertain linear systems with designing of a suitable reset law," *IET Control Theory & Applications*, vol. 9, pp. 2532-2540, 2015.
- [5] V. Ghaffari, P. Karimaghaee, and A. Khayatian, "Development of a real-time model-prediction-based framework for reset controller design," *Industrial & Engineering Chemistry Research*, vol. 53, pp. 14755-14764, 2014.
- [6] V. Ghaffari, P. Karimaghaee, and A. Khayatian, "Reset law design based on robust model predictive strategy for uncertain systems," *Journal of Process Control*, vol. 24, pp. 261-268, 2014.
- [7] V. Ghaffari and F. Shabaninia, "Application of extended Kalman filter to chaos synchronization," *International Conference on Control, Instrumentation, and Automation (ICCIA)*, 2013, pp. 71-76.
- [8] V. Ghaffari, S. V. Naghavi, A. Safavi, and M. Shafiee, "An LMI framework to design robust MPC for a class of nonlinear uncertain systems," in *9th Asian Control Conference (ASCC)*, 2013, pp. 1-5.
- [9] V. Ghaffari, S. V. Naghavi, and A. Safavi, "Robust model predictive control of a class of uncertain nonlinear systems with application to typical CSTR problems," *Journal of Process Control*, vol. 23, pp. 493-499, 2013.
- [10] V. Ghaffari, H. R. Karimi, N. Noroozi, and S. V. Naghavi, "Stabilization of a Class of Stochastic Nonlinear Systems," *Mathematical Problems in Engineering*, vol. 2013, 2013.
- [11] M. Sayadi, E. Farshidi, and V. Ghaffari, "A fast digital phase locked loop based on model predictive controller," in *Iranian Conference on Electrical Engineering (ICEE)*, 2012, pp. 65-69.
- [12] V. Ghaffari and P. Karimaghaee, "Design of adaptive discrete time controller for a class of nonlinear systems," *Nonlinear Studies*, vol. 19, 2012.
- [13] V. Ghaffari, A. A. Safavi, and V. Naghavi, "Robust Model Predictive Control for a Class of Uncertain Nonlinear Systems: An LMI Approach," in *International Conference on Control, Instrumentation and Automation (ICCIA)*, 2011, pp. 660 - 663.