

Curriculum Vitae



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Biography

Born in 1974, Dargaz, Iran.

Education

- B.Sc. (1996) in Electrical Engineering from Ferdowsi University of Mashhad, Mashhad, Iran.
- M.Sc. (1999) in Electrical Engineering from Isfahan University of Technology, Isfahan, Iran.
- Ph.D. (2009) in Electrical Engineering in Ferdowsi University of Mashhad, Mashhad, Iran.

Research Interests

Broad interest in the areas of electrical engineering and applied mathematics with particular interest in Biomedical Engineering, Control Systems, Power Electronics and Power and Energy Systems.

- Modeling and Control of Power Electronic Converters
- Micro-Grids and Micro-Inverters
- Nonlinear Control Systems
- Chaotic Systems and Control
- Stochastic Control
- Optimal Control
- Adaptive Control Systems
- Applied Mathematics and Dynamical Systems
- Biomedical Signal Processing

Publications

1. Thesis

- H. Gholizade-Narm, "Design and fabrication of a high efficiency class E amplifier", Undergraduate Thesis, Ferdowsi University of Mashhad, 1996

- H. Gholizade-Narm, “Current type series active filter for eliminating electric network harmonics”, MSc Thesis, Isfahan University of Technology, 1999
- H. Gholizade-Narm, “Synchronization of heart pacemaker cells and evaluation of distance from blocking arrhythmia for a healthy heart”, Ph.D. Thesis, Ferdowsi University of Mashhad, 2009.

2. Journal Papers

1. Norouzi, N, **Gholizade-Narm H.**” Direct power control of an under-damped grid connected boost inverter”, International Journal of Industrial Electronics, Control and Optimization, 2018.
2. **Gholizade-Narm H.**, Noori, A., “Control the Population of Free Viruses in Nonlinear Uncertain HIV System Using Q-Learning”, Int. J. Machine Learning and Cybernetics, 2017. DOI 10.1007/s13042-017-0639-y.
3. Mohammadi, M., **Gholizade-Narm H.**,” Adaptation of the Noise Covariance in Extended Kalman Filter Applied on Bearing Only Target Tracking Using Indirect Recursive Method”, Journal of Control, Vol 10, No. 2, 2016. (In Persian).
4. Hamidi, S. S., **Gholizade-Narm H.**,”Power Injection of Renewable Energy Sources Using Modified Model Predictive Control”, Energy Equipment and Systems, Vol 4, No. 2, 2016.
5. Nodeh M.T., **Gholizade-Narm H.**, Hajizadeh A., “Predictive control strategy for power management in parallel hybrid-electric vehicle”, Iranian Association of Electrical and Electronics Engineers, Vol 13, No. 3, 2016 (In Persian).
6. Khodadadzadeh, M.,**Gholizade-Narm H.**,”Improvement of chaotic secure communication scheme based on steganographic method and multimodal dynamic maps”, International Journal of Systems, Control and Communications, Vol6, No. 4, 2015.
7. **Gholizade-Narm H.**, Shafiee M. R., "Using Repetitive Fuzzy Method for Chaotic Time Series Prediction”, Journal of Intelligent and Fuzzy Systems, Vol 28, pp. 1937-1946, 2015.
8. **Gholizade-Narm H.**, " A Novel Control Strategy for a Single-Phase Grid-Connected Power Injection System", International Journal of Engineering, Vol. 27, No. 12, pp 1843-1852, 2014.
9. **Gholizade-Narm H.**, "Modification of Feedback Error Learning Technique for Desired Trajectory Tracking in the Presence of Disturbance", Journal of Intelligent Automation Systems, Accepted, 2014.
10. Shafiee M. R., **Gholizade-Narm H.**, "A Novel Fuzzy Based Method for Heart Rate Variability Prediction", International Journal of Engineering, Vol. 27, No. 7, pp 1041-1050, 2014.
11. **Gholizade-Narm H.** Khademi M., Azemi A., "Phase Synchronization and Synchronization Frequency of Two Bi-Directionally Coupled Van der Pol Oscillators", Journal of Intelligent Automation Systems, Accepted, 2014.
12. Asadi, M., **Gholizade-Narm, H.**, “Way-Point Tracking of a Container Ship by Adaptive Stochastic Sliding Mode Control and Recursive Filters”, Research and Application in Mechanical Engineering, Vol. 2, Iss. 3, September 2013.
13. **Gholizade-Narm H.**, Charkhgard M., “Lithium-ion Battery State of Charge Estimation Based on Square Root Unscented Kalman filter”, IET power electronic, Vol. 6 Issue 9, pp. 1833-1841, 2013.
14. **Gholizade-Narm H.** Azemi A., Khademi M., “Phase Synchronization and Synchronization Frequency of Two Coupled van der Pol Oscillators with Delayed Coupling”, Chinese Physics B, Vol. 22, No. 7, 2013.
15. **Gholizade-Narm H.** , Hassannia A., and Azarfar A., “Chaos Detection and Control in a Typical Power System”, Chinese Physics B, Vol 22, No. 1, 2013.(IF=1.376).
16. Alfi A., Hagizadeh A., **Gholizade-Narm H.** , “Designing a State Feedback Optimal Controller Using PSO Algorithm and Stability Analysis of DC-DC Boost Converter in Fuel Cell Power

- System Generators”, Intelligent Systems in Electrical Engineering, Third year, No. 1, 2012. (In Persian)
17. **Gholizade-Narm H.** , "A New State Observer for Two Coupled Van der Pol Oscillators", International Journal of Control, Automation, and Systems, 9(2), 1-5, 2011.
 18. **Gholizade-Narm H.** , Azemi A, Khademi M., Karimi-Ghartemani M., "An index for evaluating distance of a healthy heart from Sino-Atrial blocking arrhythmia", J. Biomedical Science and Engineering, 3, 308-316, 2010.
 19. **Gholizade-Narm H.**, Azemi A., Khademi M., Karimi-Ghartemani M., "Synchronization of Two Coupled Pacemaker Cells Based on the Phase Response Curve", Biomedical Signal Processing and Control, 4, 57-66, 2009.
 20. **Gholizade-Narm H.**, Azemi A., Khademi M., Karimi-Ghartemani M., " A State Observer and a Synchronization Method for Heart Pacemakers", Journal of Applied Sciences, 8(18), 3175-3182, 2008.
 21. Shakeri M. T., Sabzevari V. R., Azemi A., Khademi M., and **Gholizade H.**, "Intelligent Cardiac Arrhythmia Detection Using Wavelet Network", Iranian Journal of Medical Physics, Volume3, No.12, Autumn 2006.
 22. Z.S. Dastgheib, A. Azemi, M. Khademi, M. Shajiee, M. Arvaneh, H. **Gholizadeh**, V.R. Sabzevari "Identification of Ionic Conductances in a Reentry Model of Ventricular Myocardium Cells”, Journal of Applied Sciences 9(3), 555-560, 2009.

3. Conference Papers

1. Norouzi, N, **Gholizade-Narm H.**, Mohammadhasani, F, "Improvement of Nonminimum-Phase Boost Inverter behavior to Output desired Sinusoidal Wave”, 5th Int. Conf. on Control, Instrumentation and Automation, Shiraz, Iran, 2017. (In Persian).
2. Puralizadeh Moqadam, F, **Gholizade-Narm H.**, “Adjust the flow rate of the cement oven cooling fan using a dynamic matrix controller” , 5th Int. Conf. on Control, Instrumentation and Automation, Shiraz, Iran, 2017. (In Persian).
3. Hamidi, S. S., **Gholizade-Narm H.**, "Predictive Controller Design for a Grid-Connected PV Central Inverter", The 3rd International Conference and Exhibition on Solar Energy, 5-6 September, 2016.
4. Farahbod, S., **Gholizade-Narm H.**, Hadad Zarif, M., "Planning the purchase of Rijal Petrochemical Power by Mid-Term Forecast using the chaotic time series method", 24th Int. Conf. Elec. Eng., May 2016 (In Persian).
5. Mohammadi, M., **Gholizade-Narm H.**, "Passive Target Tracking Using Extended Adaptive and Cubic Kalman Filters via Neural Network Approach", Conf. Control, Instrumentation and Automation, 27-28 Jan, 2016. (In Persian).
6. Hamidi, S. S., **Gholizade-Narm H.**, "Micro-Inverters: The Next Generation of Photovoltaic Inverters", 2nd International Conference and Exhibition on Solar Energy (ICESE), 2015, (In Persian).
7. Kamali, ., **Gholizade-Narm, H.**, "Hinf Robust Control of SEPIC Converter in Photovoltaic Applications", 2nd International Conference and Exhibition on Solar Energy (ICESE), 2015 (In Persian).
8. **Gholizade-Narm, H.**, Hamidi, S. S., Mohammadi, M., "Improvement of Maximum Power Point Tracking of Photovoltaic System Using Self Tuning Regulator", Smart Grid Conference, Tehran, 2015(In Persian).
9. Ghasemi, A.,**Gholizade-Narm, H.**, Rajabi-Mashhadi, M., “Optimal control of micro combined heat and power (CHP) In the deregulated environment” 29th International Power System Conference, 2014, (In Persian).

10. Shafiee-Chafi, M. R., Naghibi, S. M., **Gholizade-Narm, H**, "Using chaos dynamic in modeling and prediction of network load", 22th Iranian electrical engineering conference, Tehran, Iran, 2014.(in Persian)
11. Mousavi M., **Gholizade-Narm, H**, Karami Mollae A., "Designing Sliding Mode Control with Fuzzy Gain Based on Extended State Observer", ", 13th Conference on Iranian Fuzzy Systems, Tehran, Iran, 2013.(in Persian)
12. Asadi, M., **Gholizade-Narm, H**, "Adaptive Stochastic Sliding Mode Ship Autopilot for Way-Point Tracking", 21th Iranian electrical engineering conference, Tehran, Iran, 2013.(in Persian)
13. Shafiee-Chafi, M. R., **Gholizade-Narm, H**, "New perspective on feature extraction for the intelligent classification of cardiac arrhythmias", 20th Iranian electrical engineering conference, Tehran, Iran, 2012.(in Persian)
14. **Gholizade-Narm, H**, Khosravi, M., " Chaos and stability analysis of power systems", 7th Int. Conf. on Tech. and Phys. Problems on power engineering, Near East University, pp. 153-157, 2011.
15. Azarfar, A., **Gholizade-Narm, H**, Toosian-Shandiz, H., "Control and synchronization of chaotic systems using fuzzy feedback linearization", Fourth International Workshop on Chaos-Fractals Theories and Applications, IEEE Computer Society, pp. 231-234, 2011.
16. **Gholizade-Narm, H**, Hajizadeh, A., Alfi, A., " Stability analysis and design of a state feedback controller for DC-DC boost converter based on mean and accurate model of fuel cell", 19th Iranian Conference on Electrical Engineering, 17- 19 May 2011, Tehran. (In Persian)
17. **Gholizade-Narm, H**, Khaloozadeh, H., Hakimi, M., "Modification of state dependent ricatii equation estimator for nonlinear stochastic systems", Conf. Control, Instrumentation and Automation, 26-27 May, 2010. (In Persian).
18. **Gholizade-Narm, H**, Azemi, A, Sabzevari, V, khademi, N, Karimi, M, Dastgheib, Z, Arvaneh, M Shajee, M. "Synchronization of a pair of pacemaker cells based on phase response curve", 14th Iranian Conference on Biomedical Engineering, Tehran, Iran, Feb. 2008.
19. Dastgheib, Z Azemi, A, Khademi, M, **Gholizade-Narm, H**, Sabzevari, V, Arvaneh, M, Shajee, M."Identification of ionic conductances in a reentry model of ventricular myocardium cells", 14th Iranian Conference on Biomedical Engineering, Tehran, Iran, February 2008.
20. Arvaneh, M, Azemi, A, Pariz, N, Dastgheib, Z, Shajee, M, **Gholizade-Narm, H**. "Prediction of Paroxysmal Atrial Fibrillation Using the PR Interval of ECG Signal", 14th Iranian Conference on Biomedical Engineering, Tehran, Iran, Feb. 2008.
21. Shajee, M, Azemi, A, Pariz, N, Arvaneh, M, Dastgheib, Z, **Gholizade-Narm, H**. "synchronization of Heart Oscillator's (SA&AV) in order to prevent blocking arrhythmia with genetic Algorithm," National Electrical Engineering Conference (NEEC), Najafabad, Iran, March. 2008,
22. Azemi, A, Sabzevari, V, Khademi, M, **Gholizade-Narm, H**, Kiani, A, Dastgheib, Z. "Intelligent Arrhythmia Detection Classification Using ICA", 28th IEEE EMBS Annual International Conference, New York City, New York, USA, Aug 30-Sept. 3, 2006.
23. Azemi, A, Sabzevari, V, Khademi, M, **Gholizade-Narm, H** Dastgheib, Z. "Intelligent Arrhythmia Detection Classification Using Wavelet Transformation ICA", 14th Iranian Conference on Electrical Engineering, Tehran, Iran, May 2006.
24. Sabzevari, V. R., Azemi, A., Khademi, M., **Gholizade-Narm, H.**, Kiani, A., Dastgheib, Z. S., "Arrhythmia Detection Classification Using Wavelet ICA," Encyclopedia of Healthcare Information Systems with IGI Global Pub. [In Press, With International ISBN Number]
25. Karshenas, H. R., **Gholizade-Narm, H.**, "Series Active Filter for eliminating Network's Harmonics", 8th Iranian Conference on Electrical Engineering, Isfahan, Iran, May 2000.

Teaching Experiences

- Modeling and Control of Power Electronic Converters, Chaotic Systems and Control, Stochastic Control, Optimal Control, Modern Control, Linear Control Systems, Signal and Systems, Engineering Mathematics, Electrical Circuits (I,II), Industrial Electronics.

Universities (As a Teacher)

1. Isfahan University of Technology, 1997-1999 (TA).
2. Private University of Sadjad, 2000-2001.
3. Azad University of Torbat Heydarieh, 2001-2002.
4. Azad University of Bojnord, 2001-2003.
5. Azad University of Gonabad, 2003-2004.
6. Private University of Khorasan, 2004-2007.
7. Shahrood University of Technology, 2009-on going

Industrial Activities

1. Design and Fabrication of Remote Control System for 11 well and 1 Cistern In Shirvan, Iran.
2. Design and Fabrication of Remote Control System for 2 well and 1 Cistern In Joqati, Iran.
3. Design and Fabrication of Soft Start – Soft Stop for Afloat Electro pumps.
4. Design and Fabrication of Control System and Energy Distributing in Isfahan Undersea Research Center.
5. Design and Fabrication of Stepper Motor Driver.
6. Design and Fabrication of Current Control System for DC Welding Transformer.