Department of Electrical Engineering - Faculty of Engineering - Fersowsi University - Mashhad - Iran

Ali Karimpour

Personal:

Date of Birth: April 26, 1964 (6th Ordybehest 1343)

Nationality: Iranian

Sex: Male (Wife and two children)

Education:

1998-2003	Ph. D. in Elec. Eng. Ferdowsi University, Mashhad, Iran
2002	Visiting Ph. D student in University of Calgary, Calgary, Canada
1987-1990	M. S. in Elec. Eng. Ferdowsi University, Mashhad, Iran
1983-1987	B. S. in Elec. Eng. Ferdowsi University, Mashhad, Iran

Work Experiences:

2012-till now	Associate Professor: Ferdowsi University, Mashhad, Iran
2003-2012	Assistant Professor: Ferdowsi University, Mashhad, Iran
1990-2002	Lecturer: Ferdowsi University, Mashhad, Iran
1994-1998	Director: Academic Studies Office
1990	Director: Academic Affairs

Teaching Experiences (Under Graduate):

1. Advanced Engineering Mathematics   2. Linear Algebra

3. Computer Programming   4. Electrical Machinery

5. Linear Control System   6. Power System Analysis

7. Advanced Control Systems   8. Photovoltaic Systems

Teaching Experiences (Graduate):

1. Optimal Control   2. Modern control

3. Digital Control Systems   4. Multivariable Control Systems

5. Hybrid Control Systems   6. System Identification

Industrial Research Experiences:

2004   Realizing a Computer Program for Unit Commitment of Iranian Electricity Market, Iranian Grid Management Co.

Colleagues: Dr. N. Pariz, Ferdowsi University and Dr. M. Oloomi, Shahrood University

2005   Short-term Load Forecasting for Khuzestan Electric Utility and bidding strategy for Khuzestan Electric Utility, Khuzestan Electric Utility

Colleague: Dr. M. Oloomi, Shahrood, Mashhad, Iran

2006   Load management investigation for Khuzestan Electric Utility, Khuzestan Electric Utility

Colleague: Dr. M. Oloomi, Shahrood, Mashhad, Iran

2006   Reactive Market Designing for Iranian Electricity Market, Iranian Grid Management Co.

Colleague: Dr. M. Oloomi, Shahrood, Mashhad, Iran

2007   Research on starting two side power market of Iranian Electricity Market, Iranian Grid Management Co.

Colleagues: Eng. J. Ebadi, Ferdowsi University and Dr. M. Oloomi, Shahrood University

2007   Load Management market for Iranian Electricity Market, Iranian Grid Management Co.

Colleagues: Eng. J. Ebadi, Ferdowsi University and Dr. N. Pariz, Ferdowsi University

2015   Restoration Program for Power System, Khurasan Razavi Electric Utility, Khurasan Razavi Electric Utility

Colleagues: Eng. J. Ebadi, Ferdowsi University

2015   Real Time Pricing for Electrical Energy in Iran Power Market, for Iran Energy Efficiency Organization, Tehran, Iran

Interests:

Multi Variable Control, Control Structure Design, Power System Dynamics, Traffic Modeling, Electricity Market Issues.

Recent Journal Publication

Hamed Molla-ahmadian, Ali Karimpour, Naser Pariz and Farzad Tahami, "Hybrid Modeling of a dc-dc Series Resonant Converter: Direct Piecewise Affine Approach" IEEE Transactions on Circuits and Systems I, Vol. 52, No. 12, 2012, pp 3112 -3120

Hamed Molla-ahmadian, Ali Karimpour and Naser Pariz, "Direct Piecewise Affine Systems: A New Class of Hybrid Systems with Affine Dynamics and Regulable Switching Boundaries" Journal of Control, Vol. 6, No. 1, spring 2012, pp 21 -29

Najmeh Eghbal, Naser Pariz, Ali Karimpour "Uniform modeling of parameter dependent nonlinear systems" Jzus, 2012 13(11), pp.850-858

Sholeh Yasini, Ali Karimpour and Mohammad Bagher Naghibi Sistani, "Knowledge-based Closed-loop Control of Blood Glucose Concentration in Diabetic Patients and Comparison with H∞ Control Technology" IETE Journal of Research, Vol. 58, No 4, 2012, pp 328-336.

Najmeh Eghbal, Naser Pariz, Ali Karimpour "Discontinuous piecewise quadratic Lyapunov functions for planar piecewise affine systems" Elsevier, J.Math. Anal. Appl. 399, 2013 pp.586-593

Ahmadreza Amirzadeh, Ali Karimpour "An interacting Fuzzy-Fading-Memory-based Augmented Kalman Filtering method for maneuvering target tracking" Digital Signal Processing Vol.23, no. 5, September 2013, pp. 1678–1685

Khatereh Sokhanvar Mahani, Ali Karimpour, Naser Pariz "Stabilization of Switched Homogeneous Systems using Common Lyapunov Function" Journal of Control, Vol. 7, No. 2, Spring 2013, pp 11 -19

Sholeh Yasini, Ali Karimpour, Mohammad-Bagher Naghibi-Sistani, and Hamidreza Modarres "Online Concurrent Reinforcement Learning Algorithm to Solve Two-player

Zero-sum Games for Partially-unknown Nonlinear Continuous-time Systems" International Journal of Adaptive Control and Signal Processing , vol. 29, 2015, pp. 473-493.

Bahare Kiumarsi, Frank L. Lewis, Hamidreza Modarres, Ali Karimpour and Mohammad-Bagher Naghibi-Sistani "Reinforcement Q-learning for optimal tracking control of linear discrete-time systems with unknown dynamics" Automatica Vol. 50, 2014, pp 1167–1175

Hadi Keshvari_Khor, Ali Karimpour, Naser Pariz "Identification of Switched Linear Systems Using Simultaneous Linear Equations (SLE) Mapping" Journal of Control, Vol. 8, No. 1, Spring 2014, pp 21 -30

Samaneh Sadat *Sajjadi,* Naser *Pariz,* Ali *Karimpour,* Amin Jajarmi "An off-line NMPC Strategy for Continuous-time Nonlinear Systems Using an Extended Modal Series Method" Nonlinear Dynamics, Vol. 78, No.4 Aug 2014, pp 2651–2674

Sholeh Yasini, Mohammad-Bagher Naghibi-Sistani, and Ali Karimpour, "Approximate Dynamic Programming for Two-player Zero-sum Game Related to H∞ Control of Unknown Nonlinear Continuous-time Systems" International Journal of Control, Automation and Systems vol.13, no.1, 2015 pp 99-109

Khatereh Sokhanvar Mahani, Ali Karimpour, Naser Pariz "Asymptotic Stability Analysis of Planar Switched Homogeneous Systems" Under publication in IMA Journal of Mathematical Control and Information(2016)

Hamed Molla-ahmadian, Farzad Tahami, Ali Karimpour and Naser Pariz, "Hybrid Control of DC–DC Series Resonant Converters: The Direct Piecewise Affine Approach" IEEE Transactions on Power Electronics, Vol. 30, No. 3, 2015, pp 1714 -1723

Bahare Kiumarsi, Frank L. Lewis, Mohammad-Bagher Naghibi-Sistani and Ali Karimpour "Optimal Tracking Control of Unknown Discrete-Time Linear Systems Using Input–Output Measured Data" IEEE TRANSACTIONS ON CYBERNETICS, VOL. 45, NO. 12, DECEMBER 2015, pp 2770-2779

S. Afsharian, A. Karimpour "A Multiple Model Predictive Control for Maximum Energy Extraction from Variable Speed Wind Power Systems" Computational Intelligence in Electrical Engineering, VOL. 7, NO. 1, 2016. pp59-65

H. Torabi, Naser Pariz, Ali Karimpour " Kalman Filters for Fractional Discrete-time Stochastic Systems Along with Time-delay in the Observation Signal" Eur. Phys. J. Special Topics 225, 2016. pp107–118

Sholeh Yasini, Mohammad-Bagher Naghibi-Sistani, and Ali Karimpour, "Reinforcement learning and neural networks for multi-agent nonzero-sum games of of nonlinear constraint systems" International Journal of Machine Learning and Cybernetics Vol. 7, Issue 6, 2016, pp 967–980

Recent Conference Publication

Parisa Tavakkoli Heravi, Ali Karimpour "A New Algorithm Based On Reinforcement Learning For Regressor Selection In The Least Square Estimation"3rd International eConference on Computer and Knowledge Engineering (ICCKE 2013), Ferdowsi University of Mashhad, IRAN

Bahare Kiumarsi-Khomartash, FrankL. Lewis, Fellow, IEEE, Mohammad-Bagher Naghibi-Sistani, and Ali Karimpour" Optimal Tracking Control for Linear Discrete-time Systems Using Reinforcement Learning" 52nd IEEE Conference on Decision and Control December 10-13, 2013. Florence, Italy

Salehe Afsharian, Ali Karimpour "A Multiple Model Predictive Control for Maximum Energy Extraction from Variable Speed Wind Power Systems" The Third Iranian Conference on Renewable Energies and Distributed Generation (ICREDG 2013)

Saina Ramyar, Ali Karimpour "Shading Factor Estimation in Small-Scale PV Systems" 28th International Power System Conference (PSC 2013)

Morteza Bigdeli, Ali Karimpour " Obtaining Feasible Solution and Optimal Load Shedding in Contingency-constrained Unit Commitment Joint with Reserve Auction" 14th International Conference on Environment and Electrical Engineering (EEEIC 2014)

Morteza Bigdeli, Ali Karimpour "Optimal Reserve Requirements and Units Schedule in Contingency Constrained Unit Commitment" 14th International Conference on Environment and Electrical Engineering (EEEIC 2014)

Saba Afsari Bajestani, Ali Karimpour "Maximum Power Point Tracking for Photovoltaic Array in Partial Shading Condition" 1st International Conference and Exhibition on Solar Energy (ICESE 2014)

Saba Afsari Bajestani, Ali Karimpour "Maximum Power Point Tracking for Photovoltaic Array in Partial Shading Condition by Power-Voltagr Curve" 1st International Conference and Exhibition on Solar Energy (ICESE 2014)

Saina Ramyar, Ali Karimpour "Sliding-Mode Control Based MPPT for PV Systems Under Non-Uniform Irradiation" 5th Power Electronics, Drives Systems & Technologies Conference (PEDSTC 2014)

S. Yasini, A. Karimpour and M.B. Naghibi Sistani, "Data-based Reinforcement Learning Algorithm with Experience Replay for Solving Constrained Nonzero-sum Differential Games" 21st International Symposium on Mathematical Theory of Networks and Systems July 7-11, 2014. Groningen, The Netherlands.

S. Yasini, M. B. Naghibi Sistani, A. Karimpour "Policy Iteration Algorithm Based on Experience Replay to Solve H∞ Control Problem of Partially Unknown Nonlinear Systems" European Control Conference (ECC), 24-27 June 2014, Strasbourg, France.

Ali Rabbani and Ali Karimpour "Output Power and Temperature Prediction of V94.2 Turbine by Time Series" Emerging Trends in Energy Conservation (E-TEC 2014)

Ali Rabbani and Ali Karimpour "Efficiency Enhancement in Gas Turbine by Optimization of Input Hot Gas" Emerging Trends in Energy Conservation (E-TEC 2014)

Samaneh Sadat Sajjadi, Ali Karimpour, Naser Pariz and Amin Jajarmi "Design of Off-line NMPC by Extended Modal Series" 24th Iranian Conference on Electrical Enginering (ICEE 2016)