Journal Publications

1. *Singular perturbation analysis of the step response matrices of a class of linear multivariable systems*, B. Porter, A. Khaki- Sedigh, International Journal of Systems Science, No. 2, pp 205- 211, 1987.
2. *Design of robust adaptive digital set point tracking PID controllers incorporating recursive step response matrix identifiers for gas turbines*, B. Porter, A. Khaki- Sedigh, Transactions of the Institute of the Measurement and Control, Vol. 10, pp 9-14, 1988.
3. *Robustness of tunable digital set point tracking PID controllers for linear multivariable plants*, B. Porter, A. Khaki- Sedigh, International Journal of Control, Vol. 49, No. 3, pp 777- 789, 1989.
4. *Design of tunable digital set point tracking controllers for linear multivariable type-one plants*, B. Porter, A. Khaki- Sedigh, International Journal of Systems Science, 1990, Vol. 21, No. 3, pp 447- 461.
5. *On-line identification of the first-Markov parameter of linear multivariable plants*, A. Khaki- Sedigh, J. Kamali, Journal of Engineering, Vol. 7, No. 4, pp 225- 227, 1994.
6. *Input-Output pairing using balanced realizations,* A. Khaki- Sedigh, M. Shahmansorian, Electronic Letters, Vol. 32, No. 21, pp 2027-2028, 1996.
7. *On the predictability of Tehran's share prices*, H. Khaloozadeh, A. Khaki- Sedigh, C. Lucas, Financial Research Journal, University of Tehran, Vol. 11-12, Summer- Fall 1996. (In Persian)
8. *Autopilot design for a ground-to- ground missile using multivariable time- varying models*, A. Khaki- Sedigh, M. Rashtian, Bavar Journal of Engineering, No. 4, pp 11-20, Summer 1997. (In Persian)
9. *Robust controller design for SVC to improve the dynamic behavior of 3-phase induction motors in the start-up period*, A. Taher, A. Abedi, H. Seifi, A. Khaki- Sedigh, Amirkabir Research Journal, Vol. 9, No. 35, Summer- Fall, 1997. (In Persian)
10. *Robust on-off control*, H. Momeni, G. Montazar, A. Khaki- Sedigh, Daneshvar Research Journal, Winter 1997. (In Persian)
11. *Overdesigns resulting from control-model ratio in QFT*, A. Khaki- Sedigh, A. Khayatian, Mashas University Research Journal, Vol. 10., No. 1, 1998. (In Persian)
12. *Robust reactive power compensation using H∞ control theory*, Esteghlal Journal, Esfehan University of Technology, Vol. 17, No. 2, 1998. (In Persian)
13. *Modelling and prediction of share prices dynamics in Tehran's stock exchange*, H. Khaloozadeh, A. Khaki- Sedigh, Modaress Research Journal, Tarbiat Moddaress University, Vol. 21, No. 6. 1998. (In Persian)
14. *Controller design using mu-synthesis for static VAR compensator to enhance the voltage profile for remote induction motorloads,* M. Abedi, S. A. Taher, A. Khaki-Sedigh, H. Seifi, Electric Power Systems Research, 46, pp 35-43, 1998.
15. *Gyrocompassing in INS with stable platform using Neural Networks*, H. Valipoor, A. Khaki- Sedigh, Engineering Faculty Research Journal. University of Tehran, Fall 1999. (In Persian)
16. *On the predictability of price fluctuations in Tehran stock Exchange: A correlation dimension estimation approach,* , H. Khaloozadeh, A. Khaki- Sedigh, C. Lucas, Esteghlal Journal of Engineering, Esfehan University of Technology, Vol. 18, No. 1, Sep 1999. (In Persian)
17. *Optimal design of robust QFT controllers using random optimization techniques*, A. Khaki- Sedigh, C. Lucas, International Journal of Systems Sciences, Vol. 31, NO. 8, pp 1043-1052, Aug 2000.
18. *Sufficient condition for the stability of decentarlised control,* B. Labibi, B. Lohmann, A. Khaki-Sedigh, P. J. Maralani, Electronic Letters, Vol. 36, No. 6, pp 588-589, March 2000.
19. *Determination of relay switching time, evaluation of disturbance and noise affect and transient behavior in robust binary control,* H. Momeni, G. Montazar, A. Khaki- Sedigh, Esteghlal Journal of Engineering, Esfehan University of Technology, Vol. 18, No. 2, March 2000. (In Persian)
20. *Leveling and Gyrocompassing of Stable platforms using Neural Networks,* A. Khaki-Sedigh, M. Nasiri Sarvi, Iranian Journal of Science and Technology, Transaction B, Vol. 25, No. B3, pp 475-482, 2001.
21. *Design of Decentralized High-Gain Error-Actuated Controllers for Large Scale Systems,* B. Labibi, B. Lohmann, A. Khaki-Sedigh, P. J. Maralani, International Journal of Modeling and Simulations, Vol. 21, No. 4, pp 282-287, 2001.
22. *Design of Static Linear Multivariable Output* Feedback *Controllers using Random Optimization Techniques,* A. Khaki-Sedigh, Y. Bavafa-Toosi, Journal of Intelligent and Fuzzy Systems, Vol. 10, pp185-195, 2001.
23. *Servo Control in the Quantitative Feedback Theory*, F. Esmaeel Azar, A. Khahi-Sedigh, Scientific Quaterly Journal of Science and Engineering, Islamic Azad University, Vol. 1, No. 1, Winter 2001. (In Persian)
24. O*utput Feedback Decentralized Control of Large Scale Systems using Weighted Sensitvity Functions Minimizations,* B. Labibi, B. Lohmann, A. Khaki-Sedigh, P. Jabedar Maralani, Systems and Control Letters, 47, pp 191-198, 2002.
25. *Application of Measure Theory in The Design of Multivariable PID Controllers,* A. Zarre, A. Vahidian Kamyad, A. Khaki-Sedigh, Int. J. of Engineering Sciences, Vol. 13, No. 1, pp 162-176, 2002. (In Persian)

26. *A Novel Method for the Decentralized Robust Stabilization of Large scale Systems,* B. Labibi, Y. Bavafa Toosi, A. Khaki-Sedigh, B. Lohmann, To be published by the Journal of Intelligent Automation and Soft Computing, Special Issue on Developments in Intelligent Adaptive and Robust Techniques for Automation and control Systems, 2003.

27. *Emotional Learning as a New Tool for Development of Agent-based Systems,* M. Fatourechi, C. Lucas, A. Khaki-Sedigh, Informatica, Vol. 27, No. 2, 2003.

28. *Robust decentralized stabilization of large scale systems via eigenstructure assignment,* B. Labibi, B. Lohmann, A. Khaki-Sedigh, P. Jabedar Maralani, International Journal of Systems Sciences, 2003.

29. *Robust decentralized control of large scale systems via H-infinity theory and using descriptor system representation,* B. Labibi, B. Lohmann, A. Khaki-Sedigh, P. Jabedar Maralani, International Journal of Systems Sciences, 2003.

30. *Decentralized Stabilization of Large Scale Systems via State-Feedback and using Descriptor Systems,* B. Labibi, B. Lohmann, A. Khaki-Sedigh, P. Jabedar Maralani, IEE Transactions on Systems, Man, and Cybernatics- Part A: Systems and Humans, Vol. 33, No. 6, pp 771- 776, November 2003.

31. *Robust Tracking by Using Measure Theory,* A. Zarea, A. Khaki-sedigh, A. Vahidian Kamyad, Iranian Journal of Electrical and Computer Engineering, Vol. 2, No. 1, Spring-Summer 2003.

32. *Model Based Method for Determining the Minimum Embedding Dimension from Chaotic Time Series-Univariate and Multivariate Cases,* M. Ataei, , B. Lohmann, A. Khaki-Sedigh, C. Lucas, Nonlinear Phenomena in Complex Systems, Vol. 6:4, pp 842-851, 2004.

33. *Adaptive calculation of Lyapunov exponents from time series observations of chaotic time varying dynamical systems,* A. Khaki-Sedigh, M. Ataei, , B. Lohmann, C. Lucas, Nonlinear Dynamics and System Theory, An International Journal of Research and Surveys, Vol. 4, No.2 , pp145-159, 2004.

34. *Design of bearing only vision based tracking filters,* H. Ferdowsi, P. Jabbedar Maralani, A. Khaki Sedigh, Journal of Optical Engineering, Vol. 43, No. 2, Feb 2004.

35. *Reconfigurable control system design using eigenstructure assignment: static, dynamic and robust approaches,* A. Esna Ashari, A. Khaki-sedigh, M. J. Yazdanpanah, International Journal of Control, Vol. 78, No. 13/ 10, Sept 2005.

36. *Observer based design of set-point tracking Adaptive Controllers for Nonlinaer Chaotic Plants,* A. Khaki Sedigh, M. Yazdanpanah, Chaos solitons and Fractals, The Interdisciplinary Journal of Nonlinear Scienc Nano and Quantum Technology, 2005.

37. *Stock Price Modelling and Forecasting using Stochastic Differential Equations,* H. Khaloozadeh, A. Khaki-Sedigh, Tahgigat-E-Eghtesadi, University of Tehran, No. 69, pp 1-26, Summer 2005. (In Persian)

38. *Analysis of Gain Margin and Performance of Inverse Optimal Controllers,* A. Shahmansoorian, A. Khaki Sedigh, B. Moshiri, S. Mohammadi, Mediterranean Journal of Measurement and Control, Volume 1, No. 4, October 2005.

39. *Advanced HSVC tuning in muti-machine power systems for loadability improvements,* A. Akbari, H. Seifi, A. Khaki Sedigh,   Electric Power Components and Systems, Vol. 34, No. 6, June 2006.

40. *Functional controllability of nonlinear systems by using measure theory,* A Zare, A. Khaki Sedigh, A. Vahidian Kamyad, Journal of Technical Engineering, Islamic Azad University of Mashhad, Vol 1, Number 1, Summer 2006.

41. *Observer-based design of set-point tracking adaptive controllers for nonlinear chaotic systems*, A.   Khaki Sedigh, Y. Yazdanpanah, Chaos, Solitons & Fractals, September 2006, Pages 1063-1072

42. *A Satellite Simulator for Photography and Characteristic Determination,* M. Nasirian, H. Bolandi, A. Khaki-Sedigh, A. R. Khogar, Asian Journal of Geoinformatics, Vol. 7, No. 1, January 2007.

43. *Reconfigurable Controller Design for Linear Multivariable Plants,* M. Moaveni, A. Khaki-Sedigh, International Journal of Modelling, Identification, and Control, Vol. 2, No. 2, pp 138-146, 2007.

44. *Improved Multivariable Quantitative Feedback Design for Tracking Error Specifications,* S. M. Mahdi Alavi, A. Khaki-Sedigh, B. Labibi, and M. J. Hayes, IET Control Theory Appl, Vol. 1, No. 4, pp 1046-1053, July 2007.

45. *Power System Voltage Stability enhancement by High Side Voltage Control,* A. Akbari, H. Seifi, A. Khaki-Sedigh, Modares Technical and Engineering Scientific Research Journal, No. 26, pp 45-58, Winter 2007.

46. *Chaos Control in Delayed Chaotic Systems via Sliding Mode Based Delayed Feedback,* N. Vasegh, A. Khaki-Sedigh, Chaos, Solitons and Fractals, Vol. 40, Issue 1, pp 159-165, N. Vasegh, A. Khaki Sedigh, 15 April 2009 .

47. *A New Stabilizing Control Law with Respect to a Control Lyapunov Function and Construction of Control Lyapunov Function for Particular NonAffine Nonlinear Systems,* A. Shamansourian, B. Moshiri, A. Khaki-Sedigh, and S. Mohamadi, Journal of Dynamical and Control Systems, Vol. 13, No. 4, pp 563-576, October 2007.

48. *Further Theoretical Results on "Relative Gain Array for Norm-Bounded Uncertain Systems"*, B. Moaveni, A. Khaki-Sedigh, Ind. Eng. Chem. Research, Vol. 46, pp 8288-8289, 2007.

49. *Input-Output Pairing for Nonlinear Systems,* B. Moaveni, A. Khaki-Sedigh, Journal of Applied Sciences, Vol. 7, No. 22, pp 3492-3498, 2007.

50. *A New Approach to Compute the Cross-Grammian Matrix and its Application Input-Output Pairing for Linear Multivariable Plants,* B. Moaveni, A. Khaki-Sedigh, Journal of Applied Sciences, Vol. 8, No. 4, pp 608-614, 2008.

51. *Model Reference Adaptive Control for a Flexible Launch Vehicle,* A. Khoshnoosd, J. Roshanian, and A. Khaki-Sedigh, Proc. IMech E, Vol. 22, Part I: J. of Systems and Control Engineering, pp 49-55, 2008.

52. *Adaptive Control of Nonlinear in Parameters Chaotic Systems,* M. Ayati, A. Khaki-Sedigh, Nonlinear Dynamics and Systems Theory, Vol. 8, No. 2, pp123-135, 2008.

53. *Contractive Predictive Control of Mixed Logical Dynamical Hybrid Systems,* J. Habibi, B. Moshiri, A. Khaki Sedigh, Int. J. of innovative Computing, Information and Control, Vol. 4, No. 6, pp 1283-1297, June 2008.

54. *Delayed Feedback Control of Time Delayed: Analytic Approach at Hopf Bifurication,* N. Vasegh, A. Khaki-Sedigh, Physic Letter A, 372, pp5110-5114, 2008.

55. *A Modified Proportional Navigation Guidance for Range Estimation,* A. Moharampour, J. Poshtan, A, Khaki-Sedigh, Iranian Journal of Electrical and Electronic Engineering, vol. 4, No. 3, pp 115-120, 2008.

56. *Input-Output Pairing Analysis for Uncertain Multivariable Processes,* B. Moaveni, A. Khaki-Sedigh, J. of Process Control, vol. 18, pp527-532, 2008.

57. *Short Term Prediction of Air Pollution using MLP, Gamma, ANFIS, and Mixed Training Based Methods,* M. Aliyari, M. Tehshnelab, A. Khaki Sedigh, Journal of Control, Vol. 2, no. 1, Fall 2008.

58. *Chaos Control via TDFC in Time-Delayed Systems: The Harmonic Balance Approach*, N. Vasegh, A. Khaki-Sedigh, Physic Letter A, 373, pp354-358, 2009.

59. *Training ANFIS as an Identifier with Intelligent Hybrid Stable Learning Based Algorithm Based on Particle Swarm Optimization and Extended Kalman Filter*, M. Aliyari, M. Teshnelab, and A. Khaki Sedigh, Fuzzy Sets and Systems, vol. 160, Issue 7, pp922-948, 2009.

60. *Identification using ANFIS with Intelligent Hybrid Stable Learning Approaches and Stab ility Analysis of Training Methods*, M. Aliyari, M. Teshnelab, and A. Khaki Sedigh, Applied Soft Computing, vol. 9, Issue 2, pp 833-850, 2009.

61. *Identification using ANFIS with Intelligent Hybrid Stable Learning Approaches,* M. Aliyari, M. Teshnelab, and A. Khaki Sedigh, Neural Computing and Applications, Vol 18, no. 2, pp 157-174 Feb 2009.

62. *Chaos Control in Delayed Chaotic Systems via Sliding Model Based Delayed Feedback,* N. Vasegh, A. Khaki-Sedigh, Chaos, Solitons and Fractals, 40, pp159-165, 2009.

63. *Optimal control of a nonlinear fed-batch fermentation process using model predictive approach,* A. Ashoori, B. Moshiri, A. Khaki-Sedigh, M. R. Bakhtiari Journal of Process Control, Vol. 19, Issue 7, pp 1162-1173, 2009.

64. *Adaptive Control of Nonlinear in Parameters chaotic Systems via Lyapunov Exponents Placement*, M. Ayati, A. Khaki-Sedigh, Chaos, Solitons and Fractals, 41, pp1980-1986, 2009.

65. *Observer-based adaptive control of chaos in nonlinear discrete-time systems using time-delayed state feedback,* Amin Yazdanpanah Goharrizi a, Ali Khaki-Sedigh b, Nariman Sepehri, Chaos, Solitons and Fractals, 41, pp2248-2455, 2009.

66. *Adaptive Vehicle Lateral-Plane Motion Control Using Optimal Tire Friction Forces With Saturation Limits Considerations,* J. Ahmadi, A. Khaki-Sedigh, M. Kabganian, IEEE Transaction on Vehicle Technology, Vol. 58, no. 8, pp 4098-4107, 10.1109/TVT.2009.2023660, 2009.

67. *PH Control of Penicillin fermentation Process Using Predictive Approach*, A. Ashoori, B. Moshiri, A. Ramezani. M R. Bakhtiari, A. Khaki Sedigh, System Sciences, Vol. 35, No. 1, 2009.

68. *Generalized Predictive control and tuning of Industrial Process with Second Order Plus Dead time models,* A. R Neshastehriz, A. Khaki-Sedigh, H. Sajadian, Journal of Process Control, Vol. 20, Issue 7, pp63-72, 2010.

69. *A Modified Proportional Navigation Guidance for Accurate Target Hitting,* A. Moharampour, J. Poshtan, and A. Khaki Sedigh, Iranian Journal of Electrical 20 & Electronic Engineering, Vol. 6, No. 1, Mar. 2010.

70. *Flight control of a launch vehicle using an L1 adaptive controller*, M Zareh, M Rezaei, J Roshanian, and A. Khaki-Sedigh, Proc. IMechE Vol. 224 Part I: J. Systems and Control Engineering, 2010.

71. *An ANOVA Based Analytical Dynamic Matrix Controller Tuning Procedure for FOPDT Models*, P. Bagheri, A. Khaki-Sedigh, Amirkabir, MICS, Vol. 42, No. 2, pp55-64, 2010.

72. *An Adjustable Model Reference Adaptive Control for a Flexible Launch Vehicle,* A. M. Khoshnood, J. Roshanian, A. A. Jafari, A. Khaki-Sedigh, Journal of Dynamic Systems, Measurement, and Control, Vol. 132, 2010.

73. *Variable structure control of linear time invariant fractional order systems using a finite number of state feedback law*, S. Baloochian, A. Khaki-Sedigh, A. Zare, Commun Nonlinear Sci Numer Simulat Vol. 16, pp 1433–1442, 2011.

74. *Descriptive vector, relative error matrix, and interaction analysis of multivariable plants*, N. Monshizadeh-Naini, A. Fatehi, A. Kahki-Sedigh, Automatica, Vol. 47, pp108–114, 2011.
75. *Stabilization of multi-input hybrid fractional-order systems with state delay*, S. Balochian, A. Khaki Sedigh, A. Zare, ISA Transactions, Vol. 50, pp 21–27, 2011.
76. *Identification and robust water level control of horizontal steam generators using quantitative feedback theory*, O. Safarzadeh, A. Khaki-Sedigh, A.S. Shirani, Energy Conversion and Management 52, 3103–3111, 2011.
77. *Improved dead zone modification for robust adaptive control of uncertain systems described by input-output models with actuator faults*, B. A. Charandabi, F. R. Salmasi, A. Khaki Sedigh, IEEE Transactions on Automatic Control, Vol. 56, No. 4, pp 863-867, April 2011.
78. *Design of supervisory Based Switching Controllers with Bumpless Transfer,* O. Namaki Shoushtari, A. Khaki Sedigh, Journal of Control, Vol. 4, No. 4, pp51-61, 2011.
79. *Adaptive neural network control of bilateral teleoperation with constant time delay,* A. Forouzantabar, H. A. Talebi, A.Khaki Sedigh, DOI 10.1007/s11071-011-0057-8, Nonliear Dynamics, 2011.
80. *Bilateral control of master–slave manipulators with constant time delay*, A. Forouzantabar a, H. A. Talebi, A. Khaki Sedigh, ISA Transactions 51, pp 74-80, 2012.
81. *Stabilization of fractional order systems using a finite number of state feedback laws*, S. Balochian, A. Khaki Sedigh, M. Haeri, Nonlinear Dynamics, Vol. 66, pp141–152, DOI 10.1007/s11071-010-9916-y, 2011.
82. *Sufficient condition for stabilization of linear time invariant fractional order switched systems and variable structure control stabilizers,* S. Balochian, A. Khaki Sedigh, ISA Transactions 51, pp 65–73, 2012.
83. *Stabilization of chaos systems described by nonlinear fractional-order polytopic differential inclusion,* S. Balochian, A. Khaki Sedigh, Chaos 22, 013120 (2012); doi: 10.1063/1.3683487