

RESUME

Ali Khaki-Sedigh

Data of birth 11th January 1963

Marital Status Married with three children
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Department of Electrical and Computer Engineering
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Education

1. B. Sc., Single Honors Mathematics, University of Newcastle Upon Tyne, England, 1983.
 2. M. Sc., Control System, UMIST, England, 1985.
 3. Ph. D., Control Engineering, University of Salford, England, 1988.
- M. Sc. Dissertation: *Analytical Evaluation of Diesel Engines Transfer Functions*
Supervisor: Prof. D. E. Winterbone
 - Ph. D. Dissertation: *Design of Robust Tunable and Adaptive Digital Set-Point Tracking Controllers for Linear Multivariable Plants*
Supervisor: Prof. B. Porter

Professional Experience

1. Academic Positions:
 - 1.1 Professor in the Department of Electrical and Computer Engineering, K. N. Toosi University of Technology, Tehran, Iran.
 - 1.2 Member of organizing committee of the first and second Conference of Electrical Engineering, K.N. Toosi University of Technology.
 - 1.3 Head of Control group 1992- 1994.
 - 1.4 Head of postgraduate studies, 1993- 1998.
 - 1.5 Head of Electrical Engineering Department 1990-1992 and 1998-1999.
 - 1.6 Chairman of the scientific committee of the 2nd International conference on Government, Industry and University for National development, May 2000.
 - 1.7 Visiting Professor in the University of Bremen, Germany, June-July 2000.
 - 1.8 Head of Control Group, Nov. 2000-2003.
 - 1.9 Visiting Professor in the University of Bremen, Germany, July-

August 2002.

- 1.10 Chairman of the scientific committee of the 2nd Conference on Machine Vision, Image Processing, K. N. Toosi University of Technology, Feb 2003.
- 1.11 Member of the International Scientific Committee of CONTROL 2006 Conference held in University of Glasgow, UK.
- 1.12 President of the K. N. Toosi University of Technology, From August 2003 for a duration of 4 years.
- 1.13 Member of the International Scientific Committee of CONTROL 2008 Conference held in University of Manchester, UK.
- 1.14 Member of the Scientific Committee of the Annual International Conference on Automotive Electronics Industry, University of Tehran and Iran Khodro, 2008.

2. Teaching Experience:

Undergraduate	Linear Control Systems, Modern Control Systems, Engineering Mathematics
Postgraduate	Digital Control Systems, Multivariable Control, Optimal Control, Advanced Engineering Mathematics, Adaptive Control, Robust Control

3. Industrial Experience:

- 3.1 Supervisor of a research group working on Inertial Navigation Systems (INS), 1990-1995.
- 3.2 Collaborating with the Control Division of Electrical Power Research Center (EPRC) Ministry of Energy, 1989-1990.
- 3.3 Organizing a Course on Advanced Control Systems for Practical Engineers, EPRC 1989.
- 3.4 Supervisor of a research group working on the control of a 3-degrees of freedom turn table, 1993-1994.
- 3.5 Supervisor of a research group working on the adaptive temperature control in heating systems 1994-1996.
- 3.6 Supervisor of a research group working on the robust speed control for induction motors 1995-97.
- 3.7 Co-supervisor of a research group working on weather prediction for Tehran Metrological Center, 1997-1999.
- 3.8 Supervisor of a research group working on the prediction of share prices in Tehran Stock Market (1999-2000)
- 3.9 Supervising a research project on the determination of the status of modern control theories and applications with emphasis on control applications in Iran. This project was funded by the Iranian Ministry of Industry from 2001-2002.
- 3.10 Conducting a research project on the History of Control Engineering. This project was funded by the K. N. T. University of Technology from 2001-2002.
- 3.11 Supervising a research project on general purpose adaptive controllers. This project was funded by the Iranian Ministry of Industry from 2006-2008.

4. Postgraduate Thesis Supervision:

Supervised and co-supervised up to 150 Master Dissertations and 15 PhD Thesis.

Current Research Interests

Robust multivariable and Adaptive Control Theory, Intelligent Control (Genetic Design and Neural Networks), Industrial applications, Predictability and prediction of system's behavior, History of Control.

Publications

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, Esfahan 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, Modares 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, Esfahan 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 decenarlised 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, Esfahan 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. *Output Feedback Decentralized Control of Large Scale Systems using Weighted Sensivity Functions Minimizations*, B. Labibi, B. Lohmann, A. Khaki-Sedigh, P. J. 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 Cybernetics- 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 multi-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, *Modarres 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. Khoshnoos, 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 Bifurcation*, 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 Stability 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 Sepeshri, *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. Kabgani, *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. Balochian, 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, *Nonlinear 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

Conference Publications

1. *Design of robust adaptive digital set point tracking PID controllers for linear multivariable plants*, B. Porter, A. Khaki- Sedigh, Proceedings of the fifth Yale workshop on applications of adaptive system theory, Yale university, pp 96- 106, 1987.
2. *Design of digital set point tracking PID controllers for warships*, B. Porter, A. Khaki- Sedigh, IEE coll. On control in marine industry, pp 1- 3, 1988.
3. *Design of digital set point tracking PID controllers for hydrofoils*, B. Porter, A. Khaki- Sedigh, Proc. Of IEE International Conference on Control, Control 88, pp 660-665, 1988.
4. *Design of robust digital set point tracking PI controllers for non- minimum phase multivariable plants*, B. Porter, A. Khaki- Sedigh, IFAC workshop on robust adaptive control, Newcastle, Australia, 20-24 August, 1988.
5. *Design of adaptive digital set point controllers for linear multivariable type-one plants*, B. Porter, A. Khaki- Sedigh, IFAC Symposium on Adaptive Systems in Control and Signal Processing, pp 193-198, 1989.
6. *Design of tunable digital set point tracking controllers for linear multivariable mixed-type plants*, B. Porter, A. Khaki- Sedigh, International Conference on Modeling and Control, Tehran. Iran, 1990.
7. *Transmission zeros assignment for linear multivariable plants*, A. Khaki- Sedigh, IASTED International Symposium on Modeling Identification and Control, Austria, 1991.
8. *Design of high gain error actuated controllers for linear multivariable non-minimum phase plants*, A. Khaki- Sedigh, 1991 American Control Conference Boston, June 26-28, 1991.
9. *Building an expert system for turbogenerator fault diagnosis and repair*, A. Khaki- Sedigh, J. Sayad, S. Sayad, Italy, ISSMM., 1991.
10. *Design of multivariable adaptive fast sampling tracking systems*, A. Khaki- Sedigh, J. Kamali, Electrical Engineering Conference, K. N. Toosi University of Technology, Tehran, Iran, 1991. (In Persian)
11. *Design of fast sampling error actuated adaptive controllers for linear multivariable plants*, A. Khaki- Sedigh, J. Kamali, ICARCV'92, Second International Conference on Automation, Robotics and Computer Vision, 15-18 Sep. 1992, Singapore.
12. *An expert system for alarm processing in power system operation*, A. Khaki-Sedigh, J. Sayad, P. Hamidi, University of British Columbia, IASTED International Conference on Power System Engineering, Vancouver, Canada, 5-7 Aug., 1992.
13. *An expert system for alarm processing in power system operation (ALCON)*, A. Khaki-Sedigh, J. Sayad, P. Hamidi, S. Saltryan, International conference on fault diagnosis, Toulouse, France, April 5-7, 1993.
14. *Adaptive tuning of PID gains using Neural Networks*, A. Khaki- Sedigh, A. Sodagar, ICEE'93, Tehran, Iran, May 1993.
15. *An expert system for power transformers fault diagnosis (TRANTEX)*, A. Khaki-Sedigh, J. Sayad, P. Hamidi, A. P. Nanjappa, Cigre Symposium, Berlin, 1993.
16. *Modeling and implementation of alignment in inertial navigation systems*, B. Andisheh, A. Khaki- Sedigh, ICEE'93, Tehran, Iran, 1993. (In Persian)
17. *Design of multivariable power systems stabilizers using INA design technique*, A. Khaki- Sedigh, I. Rezania, ICEE'93, Tehran Iran, 1993. (In Persian)
18. *Design of robust power system stabilizers using QFT and a comparison with classical and state- space methods*, ICEE'93, Tehran, Iran, 1993. (In Persian)
19. *Design of robust PSS using QFT*, A. Khaki- Sedigh, G. Alizahedi, IEE International Conference on

- Control 94, Coventry, England, 1994.
20. *On- line tuning of PID controllers using Neural Networks*, A. Khaki-Sedigh, H. Jula, ICARCV'94, Fourth International Conference on Automation, Robotics and Computer Vision, Singapore, 1994.
 21. *Design of robust multivariable PSS using QFT and a comparison with LQR based PSS'S*, A. Khaki-Sedigh, G. Alizadeh, ICEE'94, Theran, Iran, 1994. (In Persian)
 22. *Linear and nonlinear identification of 3- degree of freedom turn table*, N. Afshar, K. Haeri. A. Khaki-Sedigh, A. Mahdenfina, ICEE'94, Tehran, Iran, 1994.
 23. *Tracking control for a 3- degree of freedom turn table*, K. Haeri, N. Afshar, A. Khaki- Sedigh, A. Mahdemina, ICEE'94, Tehran, Iran, 1994.
 24. *Identification of the dynamics of stable platforms using Neural Networks*, H. Khaloozadeh, , A. Khaki-Sedigh, R. Amjadi far, ICEE'94, Tehran, Iran, 1994.
 25. *Adaptive control of stable platforms using Neural Networks*, H. Khaloozadeh, , A. Khaki- Sedigh, ICEE'94, Tehran, Iran, 1994.
 26. *Robust Internal stability theorem for inversion- based sequential procedure of multivariable QFT*, F. Kazemi, A. Khaki- Sedigh, ICEE-96, University of Tehran, May 13-16, 1996.
 27. *Decoupling of multivariable systems using inverse neuro-controllers*, A. Khaki- Sedigh, A. S. Mootab, International conference on intelligent and Cognitive Systems, ICIC 1996, Tehran, October 1996.
 28. *Adaptive control of stable platforms using Neural Networks*, A. Khaki- Sedigh, H. Khaloozadeh, ICARCV 96, Fourth International Conference on control, Automation, Robotics and Vision, 3-6 December 1996, Singapore, Westin Stanford.
 29. *Uncertainty template generation in QFT using GA's*, M. Behbehani, A. Khaki- Sedigh, C. Lucas, ICEE 96, university of Tehran, May 13-16, 1996. (In Persian)
 30. *Decoupling and control of multivariable systems using Neural Networks*, A. Khaki- Sedigh, K. Family, C. Lucas, ICEE 96, May 13-16, 1996. (In Persian)
 31. *Design of robust SVC for improving dynamical behavior of induction motors using QFT and Kharitonov theory*, M. Abedi, A. Taher, A. Khaki- Sedigh, H. Seifi, ICEE 96, University of Tehran, May 13-16, 1996. (In Persian)
 32. *Design of robust controllers for compensating reactive power in industrial networks using LQG/LTR techniques*, A. Taher, H. Seifi, M. Abedi, A. Khaki- Sedigh, 11th International power system conference, Tehran, pp 308-317, Nov., 1996. (In Persian)
 33. *Design of robust controller using QFT for the control of the injection of anesthesia*, 8th Iranian conference on Biomedical Engineering, ICBME 96, Amirabir University of Technology, pp 151-158, Dec. 19-23, 1996. (In Persian)
 34. *Design and implementation of a predictive Fuzzy controller for an industrial furnace*, A. Khaki- Sedigh, N. Afshar, M. Afazelli, IFAC Symposium on AI in Real-time control, AIRTC 97, Malaysia, 1997. (In Persian)
 35. *Intelligent loopshaping in QFT*, A. Khaki- Sedigh, M. Behbehani, C. Lucas, ICEE 97, Sharif university of Technology, May 7-9, 1997. (In Persian)
 36. *Stabilization of on-off controllers using Fuzzy sets*, H. Momeni, G. Montazar, A. Khaki- Sedigh, ICEE 97, Sharif University of Technology, May 1-9, 1997. (In Persian)
 37. *Design of robust multivariable digital PID controllers using step- response matrices for a Drum- type 500 MW boiler*, R. Amjadi- Far, A. Khaki- Sedigh, 12th International power system conference, Tehran, 3-5 Nov., 1997. (In Persian)
 38. *H ∞ controller design for SVC in an industrial Power System*, M. Abedi, S.A. Taher, A. K. Sedigh, H, Seifi, ICEE 98, Tehran, Iran, May 1998.
 39. *Robust multivariable adaptive control in the presence of bounded disturbances and unmodelled dynamics*, A. Khaki- Sedigh, M. T. Khomiran, ICEE 98, Tehran, Iran, May 1998. (In Persian)
 40. *A new method for the design of robust relay controllers for robots*, H. Momeni, G. Montazar, A. Khaki- Sedigh, ICEE 98, Tehran, Iran, May 1998. (In Persian)
 41. *Design of an adaptive autopilot for a ground- to- air missile and the elimination of pressure sensor and rate gyro*, A. Khaki- Sedigh, S. K. H. Sani, ICEE 98, Tehran, Iran, May 1998. (In Persian)
 42. *Identification and adaptive control of induction motors using vector control and neural networks*, A. B. Khalili, A. Khaki- Sedigh, A. Afshar, ICEE 98, Tehran, Iran, May 1998. (In Persian)
 43. *Necessary and sufficient conditions for multivariable pole placement and entire eigenstructure assignment through output Feedback*, Y. B. Toosi, A. Khaki-Sedigh, The 3rd IMAC/IEEE Int. Conference, CSCC99, Greece, 1999.

44. *Long term prediction of Tehran price index(TEPIX) using neural networks*, H. Khaloozadeh, A. Khaki-Sedigh, C. Lucas, Proceedings of the 2nd Irano-Armenian Workshop on Neural Networks, pp139,145,1999.
45. *Output Feedback diagonal dominance via H^∞ theory*, A. Khaki- Sedigh, B. Labibi, ICEE99, Tehran, Iran, 1999.
46. *H^∞ controller design for SVC to enhance the voltage profile in industrial networks*, A. Taher, A. Abedi, H. Seifi, A. Khaki- Sedigh, ICEE 99, Tehran, Iran, 1999.
47. *Robust SVC design using QFT*, A. Taher, A. Abedi, H. Seifi, A. Khaki-Sedigh, ICEE 99, Tehran, Iran, May 1999. (In Persian)
48. *Adaptive control of time delayed systems with variable delay*, A. Tehrani, A. Khaki- Sedigh, C. Lucas, ICEE 99, Tehran, Iran, May 1999. (In Persian)
49. *Design of an adaptive multivariable autopilot for an anti-tank missile*, A. Baran-Zadeh, A. Khaki-Sedigh, ICEE 99, Tehran, Iran, May 1999. (In Persian)
50. *Optimal control using measure theory*, A. Zareh, A. Khaki- Sedigh, First Conference on optimization and its applications, Mashad, Iran, 1999. (In Persian)
51. *High Gain Decentralized Control of Large- Scale Systems*, Labibi, B., Lohmann, B., Khaki Sedigh, A. Jabedar Maralani, P. Proceedings of the IASTED Conference on Modeling, Identification and Control (MIC), Innsbruck 2000, pp. 105-108.
52. *Decentralized Robust Control of Large- Scale Systems via Sensitivity Reduction to the Interactions*. Labibi, B., Lohmann, B., Khaki Sedigh, A. Jabedar Maralani, P. Accepted at IEEE American Control Conference 2000.
53. *A New Sufficient Condition for Stability of Decentralised Control*, Labibi, B., Lohmann, B., Khaki Sedigh, A. Jabedar Maralani, P. Accepted at ICEE 2000 (Iran).
54. *Output Feedback Decentralized Control of Large- Scale Systems*, Khaki Sedigh, A., Jabedar Maralani, P., Lohmann, B., Labibi, B. Accepted at ICEE 2000 (Iran).
55. *Genetic Methodology for Linear output Feedback Control Law Design*, Y. Bavafa, A.Khaki-Sedigh, Engineering Series, Signal Processing and Computer Science, World Scientific and Engineering Press, pp375-380, 2000.
56. *Authoritative Seismic Excited Structural Control via Calssical PID*, Y. Bavafa, A. Khaki-Sedigh, S. Ghasemzadeh, Signal Processing and Computer Science, World Scientific and Engineering Press, pp 370-373, 2000.
57. *Robust Automative Engine Speed Control: Tracking and Regulation via classical PID*, Y. Bavafa, A. Khaki-Sedigh, WAC, Intelligent Automation and Control, Vol. 9, TSI Press series, 2000.
58. *Decentralized Robust Control of Large Scale Systems via Sensitivity Reduction to the Interactions*, B. Labibi, B. Lohmann, A. Khaki-Sedigh, P. Jabbedar Maralani, ACC2000, Hyatt Regency Hotel, USA, June 28-30, 2000.
59. *Reduction of Maximum Overshoot using Emotional Learning*, M. Fatourech, C. Lucas, A. Khaki-Sedigh, ICEE 2000, Isfahan, Iran, May 2000. (In Persian)
60. **M. Fatourech, C. Lucas, A. Khaki-Sedigh, IASTED, Applied Simulation and Modelling, ASM 2001, Sept 4-7, Spain, 2001.**
61. *Predictability and correlation and Correlation Analysis of the Dynamical behaviour of the Metrological Data*, A. Khaki-Sedigh, M. Zamanian, XIV International Conference on Systems Sciences, Wroclaw, Poland, Sept. 11-13, 2001.
62. *An Agent Based Approach to Multivariable Control*, M. Fatourech, C. Lucas, and A. Khaki-Sedigh, IASTED International Conference on Artificial Intelligence and Applications, Marbella, Spain, pp 376-381, Sept 4-7, 2001.
63. *Reduction of Control Effort using Emotional learning*, M. Fatourech, C. Lucas, A. Khaki-Sedigh, ICEE2001, PWIT, Tehran, Iran, May 2001. (In Persian)
64. *Analysis of the Process of Generating of Share Prices in Tehran Stock Market*, H. Khaloozadeh, A. Khaki-Sedigh, C. Lucas, ICEE2001, PWIT, Tehran Iran, May 2001. (In Persian)
65. *Predictability and Correlation Analysis of Weather Data*, A. Khaki- Sedigh, M. Zamanian, ICEE2001, PWIT, Tehran, Iran, May 2001. (In Persian)
66. *Minimum Sensitivity in Linear Output Feedback Design*, Y. Bavafa-Toosi, A. Khaki-Sedigh, 5th World Automation Congress(WAC), USA, June 2002.
67. *Stability is a Fuzzy Concept*, Y. Bavafa-Toosi, A. Khaki-Sedigh, 6th WSEAS CSCC, Crete, Greece,

July 2002.

68. *A Genetic Approach to the Design of linear Output Feedback Controllers*, Y. Bavafa-Toosi, A. Khaki-Sedigh, Invited Paper, SSGRR 2002s, L'Aquila, Rome, Italy, July 2002.
69. *Decentralized Quantitative Feedback Design of Large Scale Systems*, B. Labibi, B. Lohmann, A. Khaki-Sedigh, P. Jabbedar Maralani, IFAC 15th World Congress, BARCELONA, Spain, July 21-26, 2002.
70. *Determining Embedding Dimension from Output Time Series of Dynamical systems: Scalar and Multiple output Cases*, M. Ataei, A. Khaki-Sedigh, B. Lohmann, C. Lucas, Second Int. Conf. On System Identification and Control Problems, Moscow, Russia, JAN 29-31, 2003.
71. *Determination of Embedding dimension using multiple time series*, M. Ataei, A. Khaki-Sedigh, B. Lohmann, C. Lucas, 4th International Symposium On mathematical modeling, Vienna, 5-7 Feb. 2003.
72. *Applying CBRL(Context Based Reinforcement Learning) to Multivariable Control of HVAC System*, F. Rashidi, C. Lucas, A. Khaki-Sedigh, International Conference on Intelligent Data Mining and Automated Learning, IDEAL 03, Hong Kong, March 2003.
73. *Intelligent Control Based on Brain Emotional Learning Algorithm with Temporal Difference Learning and Context Study*, J. Abdi, F. Rashidi, C. Lucas, A. Khaki-Sedigh, D. Shahmirzadi, International Conference on Intelligent Data Mining and Automated Learning, IDEAL 03, Hong Kong, March 2003.
74. *Solving Weighted Mixed Sensitivity H-inf Problem by Decentralized Output Feedback via Modifying Weighting Functions and using Descriptor System Representation*, B. Labibi, A. Khaki-Sedigh, P. Jabbedar Maralani, B. Lohmann, 4th IFAC Symposium on Robust Control Design, Milano, Italy, June 2003.
75. *Estimating the Lyapunov Exponents of Chaotic Time Series Based on Polynomial Modelling*, M. Ataei, A. Khaki-Sedigh, B. Lohmann, 13th IFAC Symposium on System Identification, Rotterdam, Netherlands, August 2003.
76. *Identification of the Dynamics of the Google's Ranking Algorithm*, A. Khaki-Sedigh, M. Roudaki, 13th IFAC Symposium on System Identification, Rotterdam, Netherlands, August 2003.
77. *On the Predictability of Tehran Price Index (TEPIX)*, H. Khaloozadeh, A. Khaki-Sedigh, IEEE Conference on Control Applications, CCA2003, Turkey, June 23-25, 2003.
78. *Relative Gain Array Analysis of Uncertain Multivariable Plants*, A. Khaki-Sedigh, B. Moaveni, ECC2003, Cambridge, UK, Sep 2003.
79. *Solving Weighted Mixed Sensitivity H-infinity Problem by Decentralized Control Feedback*, B. Labibi, A. Khaki-Sedigh, P. Jabbedar Maralani, B. Lohmann, ECC2003, Cambridge, UK, Sep 2003.
80. *Estimating the Lyapunov Exponents of Chaotic Time Series: A Model Based Approach*, M. Ataei, A. Khaki-Sedigh, B. Lohmann, C. Lucas, ECC2003, Cambridge, UK, Sep 2003.
81. *Adaptive input-output pairing using on-line RGA identification*, A. Khaki-Sedigh, B. Moaveni, First African Control Conference, University of Cape Town, 3-5 December 2003.
82. *Automatic QFT controller design using LMI theory*, V S. Bokharaie, A. Khaki-Sedigh, First African Control Conference, University of Cape Town, 3-5 December 2003.
83. *Chemical Data Fusion and X-Ray imaging in the Fruit Quality Control*, M. Seddighi Anaraki, A. Khaki-Sedigh, and B. Moshiri, The 2nd Iranian Conference on Machine Vision & Image Processing, K. N. Toosi University of Technology, Tehran, Feb 13-15, 2003. (In Persian)
84. *Design of Emotional Learning Controllers Based on Context Study for Multi-Objective Control systems*, F. Rashidi, C. Lucas, A. Khaki-Sedigh, ICEE2003, University of Shiraz, Iran, May 2003. (In Persian)
85. *QFT and EEAS Robust controller design using GA*, A. Khaki-Sedigh, M. Hadian, 5th Conference of Intelligent Systems, Ferdowsi University of Mashad, Iran, 14-16 October 2003. (In Persian)
86. *A New Method for Automatic QFT Loop-Shaping Using Genetic Algorithm and Linear Programming*, V. S. Bokharaei, A. Khaki-Sedigh, 5th Conference of Intelligent Systems, Ferdowsi University of Mashad, Iran, 14-16 October 2003. (In Persian)
87. *Reconfigurable Output Feedback Design using Eigenstructure Assignment*, A. Esna Ashari, A. Khaki-Sedigh, SICE2004, Japan, 2004.
88. *Relationship Between Inverse Optimality and Gain Margin Concepts*, A. Shahmansourian, B. Moshiri, A. Khaki-Sedigh, S. Mohammadi, Mechatronics and Robotics04, Achen, Germany, Sept 13-15, 2004.
89. *Inverse Optimal Control Design using Quadratic Approximation of CLF*, A. Shahmansourian, A. Khaki-Sedigh, B. Moshiri S. Mohammadi, Mechatronics and Robotics04, Achen, Germany, Sept 13-15, 2004.

90. *Short-Term Prediction of Air Pollution using Multi-Layer Perceptron and Gamma Neural Networks*, M. A. Shoorehdeli, M. Teshnehlab, A. Khaki-Sedigh, CONTROL 2004, University of Bath, UK, Sept6-9, 2004 .
91. *Stabilization of Multivariable Time-Delayed Plants using Continuous Pole-Placment*, N. Vasegh, A. Khaki sedigh, ICEE 2004, may 11-13 ,2004. (In Persian)
92. *A Novel Design Approach for Tracking Error Specifications in SISO-QFT: A Minimum Phase Case*, S. M. Mahdi Alavi, A. Khaki-Sedigh, and B. Labibi, MED'04, 2004.
93. *A New Algorithm in Satellite Attitude Determination*, M. Nasirean, H. Bolandi, A. Khaki-Sedigh, and A. R. Khogar, 5th IAA Symposium on Small Satellites for Earth Observation, Berlin, Germany, April 4-8, 2005.
94. *Decentralized Controller Design In MIMO-QFT for Tracking Error Specifications*, S. M. Mahdi Alavi, A. Khaki-Sedigh, and B. Labibi, The 1st International Conference on Control and Optimization with Industrial Applications, Baku , Azerbaijan, May 22-25, 2005.
95. *Modification of the Guidacne system of a Typical Missile by the Multiple Model Method*, A. Vahabian Tehrani, A. Khaki-Sedigh, ICEE2005, May 10-12, University of Zanjan, 2005 (In Persian)
96. *A New Method in Reconfigurable Controller Design Using Eigenstructure Assignment*, A. Esna Ashari, A. Khaki-Sedigh, ICEE2005, May 10-12, University of Zanjan, 2005 (In Persian)
97. *Nonlinear Optimization Using Particle Filters in GPS/INS Under Critical Situations*, A. Asadi, B. Moshiri, and A. Khaki-Sedigh, ICEE2005, May 10-12, University of Zanjan, 2005 (In Persian)
98. *Optimal Design of Robust Adaptive Controllers: A QFT-EEAS based approach using Random Optimization Techniques*, A. Khaki Sedigh, O. Namaki-Shoushtari, and B. N. Araabi, Proc. 5th International Conference on Control and Automation, Hungary, June 2005.
99. *Reconfigurable Sliding-Mode Control Design Using Genetic Algorithms and Eigenstructure Assignment*, A. Esna Ashari, M J. Yazdanpanah, and A. Khaki Sedigh, Proc. 5th International Conference on Control and Automation, Hungary, June 2005.
100. *Output Feedback Reconfigurable Controller Design Using Eigenstructure Assignment:Post-Fault Order Change*, A. Esna Ashari, and M J. Yazdanpanah, A. Khaki Sedigh, Proc. 5th International Conference on Control and Automation, Hungary, June 2005.
101. *Adaptive Control of Chaos in Nonlinear Discrete-Time Systems Using Time-Delayed State Feedback*, A. Yazdanpanah, A. Khaki-Sedigh, International Conference PhysCon 2005, Saint Petersburg, RUSSIA, August 24-26, 2005.
102. *Adaptive Control of Chaos in Nonlinear Chaotic Discrete-Time Systems*, Am. Yazdanpanah, A. Khaki-Sedigh, Ar. Yazdanpanah, International Conference PhysCon 2005, Saint Petersburg, RUSSIA, August 24-26, 2005.
103. *Pre-Filter Design for Tracking Error Specifications in MIMO-QFT*, S.M. Mahdi Alavi, Ali Khaki-Sedigh, and Batool Labibi, CDC-ECC, Spain, 2005.
104. *Design of a Novel Sattelite Attitude Determination Algorithm*, M. Nasirian, H. Bolandi, A. Khaki-Sedigh, and R. Khogar, International Conference on Engineering Education, Siliesian University of Technology, Poland, July 25-29, 2005.
105. *Design of Satellite Attitude Control Simulator*, M. Nasirian, H. Bolandi, A. Khaki-Sedigh, and A. R. Khoogar, 1st International Symposium on Systems and Control in Aerospace and Astronautics, Jan 19-21, Harbin, China, 2006.
106. *Predictive Control of Earth Station Antenna with Friction Compensation*, I. Mohammadzaman, A. Khaki-Sedigh, and M. Nasirian, ICMA2006, IEEE International Conference on Mechatronics and Automation, Luoyang, Henan, China, June 25-28, 2006.
107. *Predictive Control of Non-minimum Phase Motor with Backlash in an Earth Station Antenna*, I. Mohammadzaman, A. Khaki-Sedigh, and M. Nasirian, The 25th Chinese Control Conference, Harbin, China, August 7-11, 2006.
108. *Predictive Control of Earth Station Antenna with Backlash Compensation*, I. Mohammadzaman, A. Khaki-Sedigh, ans M. Nasirian, IEEE International Conference on Control Applications, IEEE International Symposium on Computer Aided Control Systems Design, IEEE International Symposium on Intelligent Control, Munich, Germany, October 4-6, 2006.
109. *A Novel Design Approach for Multivariable Quantitative Feedback Design with Tracking Error Specifications*, S M M Alavi, A. Khaki-Sedigh, B. Labibi, International Control Conference 2006, Glasgow, UK, 30th Aug to 1st Sep, 2006.
110. *On-Line Input/Output Pairing for Linear and Nonlinear Multivariable Plants using Neural Networks*

- M. Moaveni, A. Khaki-Sedigh, International Control Conference 2006, Glasgow, UK, 30th Aug to 1st Sep, 2006.
111. *An LMI Approach to Automatic Loop-Shaping of QFT Controllers*, V S Bokharaie, A. Khaki-Sedigh, International Control Conference 2006, Glasgow, UK, 30th Aug to 1st Sep, 2006.
 112. *A New Input-Output Pairing Analysis of the Quadruple-Tank*, B. Moaveni, A. Khaki-Sedigh, ICEE2006, Amir Kabir University, 2006.
 113. *Three Dimensional Adaptive Guidance*, A. Moharam Pour, J. Poshtan, and A. Khaki-Sedigh, 6th Conference of Iranian Aerospace Society, K. N. Toosi University of Technology, Tehran, Iran, Feb 24-25, 2007.
 114. *Stability Analysis of Gain Scheduling Missile Guidance using Root-Locus and Kharitanov Methods*, A. Mohammadi Nejad Rashti, A. Khaki-Sedigh, J. Roshanian, M. Sherbafi, and A. Mehrabian, 6th Conference of Iranian Aerospace Society, K. N. Toosi University of Technology, Tehran, Iran, Feb 24-25, 2007.
 115. *Modeling and Analysis of Free Gyros using Linear Systems Analysis*, A. Arvan, J. Nobari, and A. Khaki-Sedigh, 6th Conference of Iranian Aerospace Society, K. N. Toosi University of Technology, Tehran, Iran, Feb 24-25, 2007.
 116. *Simulation of Bending Vibration Effects on Attitude Control of a Flexible Launch Vehicle*, J. Roshanian, A. Khaki-Sedigh, A. Khoshnood, IASTED Asian Conference, Modelling, Simulation, Beijing, China, October 8-10, 2007.
 117. *A QFT/EEAS Design of Multivariable Robust Adaptive Controllers*, O. Namaki Shoushtari, A. Khaki-Sedigh, and B. N. Araabi, Proceedings of the IFAC 17th World Congress, Korea, July 6-11, 2008.
 118. *Disturbance Rejection in Neural Network Model Predictive Control*, A. Jazayeri, A. Fatehi, H. Sajaddian, and A. Khaki-Sedigh, Proceedings of the IFAC 17th World Congress, Korea, July 6-11, 2008.
 119. *Stable Learning Approaches for ANFIS as an Identifier*, A. Aliyari, M. Teshnehlab, and A. Khaki-Sedigh, Proceedings of the IFAC 17th World Congress, Korea, July 6-11, 2008.
 120. *Delayed Feedback Control of Delayed Chaotic Systems: Numerical Analysis of Bifurcation*, N. Vasegh, A. Khaki Sedigh, ENOC, St. Petersburg, Russia, 2008.
 121. *A Disturbance Rejection Supervisor in Multiple-Model Based Control*, E. Peymani Foroushani, A. Fatehi, and A. Khaki Sedigh, International Control Conference 2008, Manchester, UK, Sep 2008.
 122. *Automatic Learning in Multiple Model Adaptive Control*, E. Peymani Foroushani, A. Fatehi, and A. Khaki Sedigh, International Control Conference 2008, Manchester, UK, Sep 2008.
 123. *Low Complexity Control of Hybrid Systems with Application to Control of Step-down DC-DC Converters*, J. Habibi, B. Moshiri, and A. Khaki Sedigh, International Control Conference 2008, Manchester, UK, Sep 2008.
 124. *Improved FOPDT model estimation with Delayed-relay feedback for constant time dominant processes*, Z. Tehrani Zamani, B. Moshiri, A. Khaki Sedigh, and A. Fatehi, International Control Conference 2008, Manchester, UK, Sep 2008.
 125. *Relay feedback based monitoring and autotuning of processes with gain nonlinearity*, Z. Tehrani Zamani, B. Moshiri, A. Khaki Sedigh, and A. Fatehi, International Control Conference 2008, Manchester, UK, Sep 2008.
 126. *A New Approach to Input-Output Pairing Analysis for Uncertain Multivariable Plants*, B. Moaveni and A. Khaki Sedigh, International Control Conference 2008, Manchester, UK, Sep 2008.
 127. *Neural Predictive Control for Wide Range of Process Systems*, S. A. Jazayeri Moghadas, A. Fatehi, H. Sadjadian, A. Khaki-Sedigh, International Control Conference 2008, Manchester, UK, Sep 2008.
 128. *Suboptimal control of hybrid systems using approximate multi-parametric MILP*, Habibi, J., A. Khaki Sedigh, CDC 2008, 47th IEEE Conference on Decision and Control, pp 2129-2134, 9-11 Dec. 2008.
 129. *Generalized Predictive Control of a Multivariable pH Neutralization Process Using Independent Model Approach*, P. Bagheri, A. Khaki-Sedigh, and B. A. Neshastehriz, Proceedings of 2009 CACS International Automatic Control Conference, National Taipei University of Technology, Taiwan, Nov. 27-29, 2009.
 130. *Study of Multiple Model Predictive Controllers on a pH Neutralization Plant*, A. Shamsoddinlou, A. Fatehi, A. Khaki-Sedigh, Proceedings of 2009 CACS International Automatic Control Conference, National Taipei University of Technology, Taiwan, Nov. 27-29, 2009.

131. *Active Vibration Control using Switching Based Multi Objective Control*, L. Soltanian, A. Khaki-Sedigh, O Namaki-Shoushtarim, Proceedings of 2009 CACS International Automatic Control Conference, National Taipei University of Technology, Taiwan, Nov. 27-29, 2009.
132. *Enhancement of Multi Objective Control Performance via Switching*, L. Soltanian, A. Khaki-Sedigh, O Namaki-Shoushtarim, CCDC2009, China, 2009.
133. *Multi Objective Control os an Active Vibration System via Switching*, L. Soltanian, A. Khaki-Sedigh, O Namaki-Shoushtarim, The 7th International Conference on Control & Automation, New Zealand, Dec. 9-11, 2009.
134. *Delayed feedback control of delayed chaotic systems*, N. Vasegh, A. Khaki Sedigh, PHYSCON, 4th International Scientific Conference on Physics and Control, Italy, Sep 1-4 2009.
135. *Design of Decentralized Supervisory Based Switching QFT Controller for Uncertain Multivariable Plants*, O. Namaki-Shoushtari, A. Khaki Sedigh, Joint 48th IEEE Conference on Decision and Control and 28th Chinese Control Conference, Shanghai, P.R. China, December 16-18, 2009.
136. *Control Loop performance Diagnosis Based on The Dempster Shafer Theory*, M. Kharaziha, A. Khaki Sedigh, B. Moshiri, 24th Symposium of Malaysian Chemical Engineers /1st International Conference on Process Engineering and Advanced Materials, KL, Malaysia, 2010.
137. *A New Method to Obtain Maximum Power form a Dual Induction Generator using Sliding Mode Controllers*, S. Roozdehani, A. Towhidi, A. Khaki-Sedigh, K. Abbas-Zadeh, 25th Int. Power Conference, Tehran, Iran, 2010.
138. *Neural Network Model-Based Predictive Control for Multivariable Nonlinear Systems*, Bahareh Vatankhah Alamdari, Alireza Fatehi, and Ali Khaki-Sedigh, 2010 IEEE International Conference on Control Applications, Part of 2010 IEEE Multi-Conference on Systems and Control, Yokohama, Japan, September 8-10, 2010.
139. *An Analysis of Variance Approach to Tuning of Generalized Predictive Controllers for Second Order plus Dead Time Models*, A. R. Neshasteriz, A. Khaki-Sedigh, and H. Sadjadian, 2010 8th IEEE International Conference on Control and Automation, Xiamen, China, June 9-11, 2010.
140. *Input-output Pairing Based on the Control Performance Assessment Index*, S. Choobkar, A. Khaki Sedigh, A. Fatehi, IEEE, 978-1-4244-5848-6/10, pp 492-496, 2010.
141. *Neural network model-based predictive control for multivariable nonlinear systems*, Alamdari, B.V. , Fatehi, A., Khaki-Sedigh, A., Proceedings of the IEEE International Conference on Control Applications, Japan, Article number 5611265, Pages 920-925, 2010.
142. *Design of Supervisory Based Switching QFT Controllers for Improved Closed Loop Performance*, O. Namaki-Shoushtari, A. Khaki-Sedigh, ICEE2010, May 11-13, 978-1-4244-6760-0/10, Isfahan, Irann, 2010.
143. *Traffic state variables estimating and predicting with extended Kalman filtering*, J. Abdi, , B. Moshiri, E. Jafari, A. Khaki Sedigh, International Conference on Power, Control and Embedded Systems, ICPES 2010; Allahabad; 28 November 2010 through 1 December 2010; Category number CFP1009L-ART; Code 83832, 2010.
144. *Comparison of RBF and MLP neural networks in short-term traffic flow forecasting*, J. Abdi, , B. Moshiri, A. Khaki Sedigh, International Conference on Power, Control and Embedded Systems, ICPES 2010; Allahabad; 28 November 2010 through 1 December 2010; Category number CFP1009L-ART; Code 83832, 2010.
145. *Optimal Control of Ride Comfort of a Passenger Car: Comparison between the Hydro Active and the Fully Active Suspension Systems*, E. Sarshari, A. Khaki Sedigh, H. Sadati, SAE International, DOI: 10.4271/2010-01-1913, 2010.
146. *Traffic state variables estimating and predicting with neural network via extended Kalman filter algorithm with estimated parameters as offline*, 8th IEEE International Symposium on Intelligent Systems and Informatics, SIISY 2010; Subotica; 10 September 2010 through 11 September 2010; Category number 10EX4484; Code 83090, 2010.
147. *Robust Control of a pH Neutralization Process Plant Using QFT*, R. Shabani, A. Khaki Sedigh, and K. Salahshoor, International Conference on Control, Automation and Systems 2010, KINTEX, Gyeonggi-do, Korea, Oct. 27-30, 2010.
148. *A Hybrid EKF-Fuzzy Approach to Fault Detection and Isolation of Industrial Gas Turbines*, A. Salar, A. Khaki Sedigh, S M. Hosseini, H. Khaledi, ASME Turbo Expo 2011 GT2011, June 6-10, 2011, Vancouver, British Columbia, Canada.

149. *Robust Gas Turbine Speed Control Using QFT*, Z. Abollahi Biron, A. Khaki Sedigh, R. Abdollah Biron, ASME Turbo Expo 2011 GT2011, June 6-10, 2011, Vancouver, British Columbia, Canada.
150. *Design of Switching Control Systems Using Control Performance Assessment Index*, A. Moridi, S. Armaghan, A. Khaki Sedigh and S. Choobkar, Proceedings of the World Congress on Engineering 2011 Vol II, WCE 2011, July 6 - 8, 2011, London, U.K.
151. *Design of a Switching PID Controller for a Magnetically Actuated Mass Spring Damper*, A. Moridi, S. Armaghan, A. Khaki Sedigh, Proceedings of the World Congress on Engineering 2011 Vol III, WCE 2011, July 6 - 8, 2011, London, U.K.
152. *Tuning of Dynamic Matrix Controller for FOPDT Models using Analysis of Variance*, P. Bagheri, A. Khaki-Sedigh, 18th IFAC World Congress Milano (Italy) August 28 - September 2, 2011.
153. *A Switched Based Control Strategy for Target Tracking of Autonomous Robotic Vehicles using Range-only Measurements*, O. Namaki-Shoushtari, A. Pedro Aguiar, A. Khaki Sedigh, 18th IFAC World Congress Milano (Italy) August 28 - September 2, 2011.
154. *A Decomposition Procedure to Linearize the Nonaffine State Space Average Model of STATCOM*, M. Moradpour, M. Tavakoli Bina, A. Khaki Sedigh, M. Ayati, IEEE Symposium on Industrial Electronics and Applications (ISIEA2011), Langkawi, Malaysia, September 25-28, 2011,

Books Published (in Persian)

1. *Digital Control Systems*, P. Jabedar Maralani, A. Khaki- Sedigh, Tehran University Press. 1993.
2. *Modern Control Theory*, A. Khaki- Sedigh, Tehran University Press, 1994.
3. *Analysis of Multivariable Systems*, A. Khaki- Sedigh, K. N. Toosi University Press, 1996.
4. *Power Systems Stability and Control*, H. Seifi, A. Khaki- Sedigh, Tarbiat Moddaress University press, 1997.
5. *Signal and Systems*, A. Khaki- Sedigh, K. Mohamed- Pour, K. N. Toosi University press, 1999.
6. *Linear Control Systems*, A. Khaki-Sedigh, Payame-Noor University Press, 2000.
7. *Modern Control Theory(Fifth Edition)*, A. Khaki- Sedigh, Tehran University Press, 2006.
8. *Advanced Engineering Mathematics*, A. Khaki-Sedigh et al, Imam Reza University Press, 2004.
9. *History of Control Engineering*, A. Khaki-Sedigh, K. N. Toosi University Press, 2005.
10. *An Introduction to Research Ethics and Engineering Ethics*, A. Khaki-Sedigh, K. N. Toosi University Press, 2010.
11. *Modern Control Engineering*, P. Jabedar Maralani, A. Khaki- Sedigh, Javadan Kharad Publication, 2011.

Books Published (in English)

1. *Control Configuration Selection for Multivariable Plants*, A. Khaki-Sedigh, B. Moaveni, LNCIS 391, Springer Verlag, 2009.

Rewards Awarded

1. *Digital Control Systems*, was nominated as the book of the year by the University of Tehran and gained the title for the academic year 1993-1994.
2. The outstanding university researcher (1994-1995), the title was awarded by K. N. Toosi University chancellor.
3. The outstanding university researcher (1996-1997), the title was awarded by K. N. Toosi university chancellor.
4. The outstanding academic staff (1999-1998), the title was awarded by the Ministry of Culture and Higher Education.
5. *Modern Control Systems*, was awarded the book of the year by the Electrical Research Center of the Ministry of Energy for the year 2000.
6. The outstanding national researcher in electrical engineering (2007-2008), the title was awarded by IAEEE.