

Mohammad Javad Khosrowjerdi

Professor in Electrical Engineering

Mohammad Javad Khosrowjerdi was born in Tehran, Iran, on May 1, 1970. He received the B.S., M.S., and Ph.D. degrees in electrical engineering from K. N. Toosi University of Technology, in 1993, 1996 and 2003, respectively. From 2001 to 2003, he worked as a visiting researcher at **the French National Institute for Research in Computer Science and Control (INRIA)** in Rocquencourt, France. At present, he is associate professor at the electrical engineering department of the **Sahand University of Technology**, Tabriz. His main research interests include Fault Detection and Isolation (FDI), Fault Tolerant Control (FTC), Robotics, Multiobjective Control, Robust and Nonlinear Control.

Permanent Address:

Department of Electrical Engineering,

Sahand University of Technology,

P. O. Box: 51335-1996,

Sahand, Tabriz, Iran .

Tel: +9841-33459369

Tel-Fax: +9841-33444322

E-mails: khosrowjerdi@sut.ac.ir, & m_khosrowjerdi@yahoo.com

Education:

- Ph.D. 2003 in EE (Honour's class) at K. N. Toosi University of Technology, Tehran, Iran
- M.S. 1996 in EE (GPA 3.66, Honour's class) at K. N. Toosi University of Technology, Tehran, Iran
- B.S. 1993 in EE (Honour's class) at K. N. Toosi University of Technology, Tehran, Iran

Academic Experiences:

- The member of editorial board of **Journal of Nonlinear Systems in Electrical Engineering (JNSEE)**, An ISC Journal Published by Sahand University of Technology(SUT)
- The member of Publication Committee in Sahand University of Technology (SUT).
- Vice President of Faculty of Electrical Engineering in Sahand University of Technology (SUT).

Research Experience:

- Modelling and Robust Control of Automotive Engines
- Electronic Control of Spark Ignition Engines

- Robust Control especially \mathcal{H}_∞ Control , Mixed $\mathcal{H}_2/\mathcal{H}_\infty$ Control and μ -Synthesis Design
- Nonlinear Control System Design
- Linear and Nonlinear Control of Twin-Rotor Helicopter
- Simultaneous Optimal Fault Detection and Control
- Fault Tolerant Control (FTC) and Reconfigurable Control
- Multiobjective Control
- Improving the Quality of Control System Education

Teaching Experience:

1993 to 2001: assisted the following undergraduate and graduate courses in the department of electrical engineering, *K. N. Toosi University of Technology*, Tehran, Iran

- Linear Control Systems,
- Modern Control,
- Advanced Engineering Mathematics,
- Digital Control,
- Nonlinear Control,
- Optimal Control,
- System Modelling and Identification,
- Process Control & Robotics

2003 to Present: has taught the following undergraduate, graduate and PhD courses in the department of electrical engineering, *Sahand University of Tecknology (SUT)*, Sahand, Tabriz, Iran

- Linear Algebra,
- Modern Control,
- Linear Control,
- Digital Control,
- Automotive Modern Control Systems,
- Electrical Circuits,
- Signals and Systems

- Nonlinear Control,
- Multivariable Control,
- Robust Control,
- Optimal Control,
- Adaptive Control,
- Linear Control Laboratory.
- Stochastic Process
- Parameter Estimation for Dynamical Systems
- Structural Control for Civil Engineering
- Estimation Theory
- Fault Diagnosis in Control Systems

Research Experience

From September 2001 to February 2003: has been with Metalau Project at *the French National Institute for Research in Computer Science and Control (INRIA)* in Rocquencourt, France .

Books:

1. M. J. Khosrowjerdi, and N. Safari-Shad, **Modern Control Systems: Analysis and Design**, Published by Sahand University of Technology (SUT), Tabriz, IRAN, 2010 (in Persian).
2. M. J. Khosrowjerdi, **Fault Diagnosis and Compensation in Control Systems**, Published by Sahand University of Technology (SUT), Tabriz, IRAN, 2014 (in Persian).

ISI Journals:

1. A. Navarbah and M. J. Khosrowjerdi, "Fault-tolerant controller design with fault estimation capability for a class of nonlinear systems using generalized Takagi-Sugeno fuzzy model", *Transactions of the Institute of Measurement and Control*, Vol. 41, No. 15, 2019.
2. B. Hashtarkhani and M. J. Khosrowjerdi, "Neural Adaptive Fault Tolerant Control of Nonlinear Fractional Order Systems Via Terminal Sliding Mode Approach", *Journal of Computational and Nonlinear Dynamics*, Vol. 14, No. 3, 2019.
3. Z. Karimi, M. J. Khosrowjerdi and Y. Batmani "Multiobjective fault-tolerant fixed-order/PID control of multivariable discrete-time linear systems with unmeasured disturbances", *Journal of Computational and Nonlinear Dynamics*, Vol. 39, No. 5, 2018.

4. B. Hashtarkhani and M. J. Khosrowjerdi, "Adaptive actuator failure compensation for uncertain nonlinear fractional order strict feedback form systems", *Transactions of the Institute of Measurement and Control*, Vol. 41, No. 6, 2018.
5. M. Salim and M. J. Khosrowjerdi, "Data-driven \mathcal{H}_∞ controller/detector design for a quadruple tank process", *Control Engineering and Applied Informatics*, Vol. 19, No. 1, 2017.
6. H. Rezaei and M. J. Khosrowjerdi, "A polytopic LPV approach to active fault tolerant control system design for three-phase induction motors", *International Journal of Control*, Vol. 90, No. 10, 2017.
7. S. Ebrahimi Boukani, M. J. Khosrowjerdi and R. Amjadifard, "Terminal Sliding Mode Control Allocation for Nonlinear Systems", *Canadian Journal of Electrical and Computer Engineering*, Vol. 40, No. 3, 2017.
8. H. Azmi and M.J. Khosrowjerdi, "LMI-based adaptive output feedback fault-tolerant controller design for nonlinear systems", *International Journal of Adaptive Control and Signal Processing*, Vol. 31, No. 12, 2017.
9. S. Ebrahimi Boukani, M. J. Khosrowjerdi and R. Amjadifard, "Constrained control allocation for nonlinear systems with actuator failures or faults", *Turkish Journal of Electrical Engineering and Computer Sciences*, Vol. 25, No. 4, 2017.
10. M. Forouzanfar and M. J. Khosrowjerdi, "A Constrained Optimization Approach to Integrated Active Fault Detection and Control", *Iranian Journal of Science and Technology - Transactions of Electrical Engineering*, Vol. 41, No. 3, 2017.
11. M. Salim and M. J. Khosrowjerdi, "An \mathcal{H}_∞ approach to data-driven simultaneous fault detection and control", *IMA Journal of Mathematical Control and Information*, Vol. 34, No. 4, 2017.
12. B. Hashtarkhani, M. J. Khosrowjerdi and M. Pourmahmood Aghababa, "Design of a robust nonlinear controller for a synchronous generator connected to an infinite bus", *Complexity*, Vol. 21, No. 5, 2016.
13. H. Parastvand and M. J. Khosrowjerdi, "Parameterised controller synthesis for SISO-LTI uncertain plants using frequency domain information", *International Journal of Systems Science*, Vol. 47, No. 1, 2016.
14. H. Azmi and M. J. Khosrowjerdi, "Robust adaptive fault tolerant control for a class of Lipschitz nonlinear systems with actuator failure and disturbances", *Proceedings of The Institution of Mechanical Engineers part I-Journal of Systems and Control Engineering*, Vol. 230, No. 1, 2016.
15. F. F. Yadkuri and M. J. Khosrowjerdi, "Methods for Improving the Linearization Problem of Extended Kalman Filter", *Journal of Intelligent and Robotic Systems*, Vol. 78, No. 3-4, 2015.
16. S. M. Alavinia, M. J. Khosrowjerdi, M.A. Sadrnia, H. Kheiri and M. M. Fateh, "An algebraic approach to fault detection for surge avoidance in turbo compressor", *Journal of Engineering for Gas Turbines and Power-Transactions of The ASME*, Vol. 137, No. 2, 2015.

17. H. Parastvand and M. J. Khosrowjerdi, "Controller synthesis free of analytical model: Fixed-order controllers", *International Journal of Systems Science*, Vol. 46, No. 7, 2015.
18. S. Valilou and M. J. Khosrowjerdi, "Robust sliding mode control design for mismatched uncertain systems with a $\mathcal{GH}_2/\mathcal{H}_\infty$ performance", *Asian Journal of Control*, Vol. 17, No. 5, 2015.
19. R. Ebrahimi Bavili, M. J. Khosrowjerdi and R. Vatankhah, "Active Fault Tolerant Controller Design using Model Predictive Control", *Control Engineering and Applied Informatics*, Vol. 17, No. 3, 2015.
20. J. Taheri-Kalani and M. J. Khosrowjerdi, "Adaptive trajectory tracking control of wheeled mobile robots with disturbance observer," *International Journal of Adaptive Control and Signal Processing*, Vol. 28, No. 1, 2014.
21. J. Taheri-Kalani and M. J. Khosrowjerdi "Adaptive robust fuzzy-based dynamic controller design for wheeled mobile robot" *Journal of Intelligent and Fuzzy Systems*, Vol. 26, No. 5, 2014.
22. S. Valiloo, M. J. Khosrowjerdi, and M. Salari "LMI Based Sliding Mode Surface Design with Mixed $\mathcal{H}_2/\mathcal{H}_\infty$ Optimization," *Journal of Dynamic Systems, Measurement, and Control*, Vol. 136, No. 1, 2014.
23. M. J. Khosrowjerdi and S. Barzegary, "Fault tolerant control using virtual actuator for continuous-time Lipschitz nonlinear systems," *International Journal of Robust and Nonlinear Control*, Vol. 24, No. 16, 2014.
24. S. M. Alavinia, M. A. Sadrnia, M. J. Khosrowjerdi, M. M. Fateh, "Stable and Efficient Operation of Gas Compressor with improving of Surge detection system", *Journal of Engineering for Gas Turbines and Power-Transactions of The ASME*, Vol. 136, No. 10, 2014.
25. S. M. Alavinia, M. A. Sadrnia, M. J. Khosrowjerdi, M. M. Fateh, "Robust Fault Detection to Determine Compressor Surge Point Via Dynamic Neural Network-Based Subspace Identification Technique", *Journal of Engineering for Gas Turbines and Power-Transactions of The ASME*, Vol. 136, No. 8, 2014.
26. H. Parastvand and M. J. Khosrowjerdi, "A New Data-Driven Approach to Robust PID Controller Synthesis", *Control Engineering and Applied Informatics*, Vol. 16, No. 3, 2014.
27. M. Forouzanfar and M. J. Khosrowjerdi, "Optimal Auxiliary Signal Design for a Lumped Tire-Road Friction System", *The Modares Journal of Electrical Engineering*, Vol. 13, No. 4, 2014.
28. Y. Shahbazi, M. R. Chenaghlo, K. Abedi, M. J. Khosrowjerdi and A. Preumont, "A new energy harvester using a cross-ply cylindrical membrane shell integrated with PVDF layers", *Microsystem Technologies Micro- and Nanosystems Information Storage and Processing Systems*, Vol. 18, No. 12, 2012.
29. M. J. Khosrowjerdi, "Mixed $\mathcal{H}_2/\mathcal{H}_\infty$ approach to fault-tolerant controller design for Lipschitz nonlinear systems", *IET Control Theory and Applications*, Vol. 5, No. 2, 2011.

30. M. J. Khosrowjerdi, "Robust Sensor Fault Reconstruction for Lipschitz Nonlinear Systems," *Mathematical Problems in Engineering*, Article ID 146038, 17 pages, doi:10.1155/2011/146038, 2011.
31. M. J. Khosrowjerdi, R. Nikoukhah, and N. Safari-Shad, "Fault Detection in a Mixed $\mathcal{H}_2/\mathcal{H}_\infty$ Setting," *IEEE Transaction on Automatic Control*, Vol. 50, No. 7, 2005.
32. M. J. Khosrowjerdi, R. Nikoukhah, and N. Safari-Shad, "A mixed $\mathcal{H}_2/\mathcal{H}_\infty$ approach to simultaneous fault detection and control problem," *Automatica*, Vol. 40, No. 2, 2004.

Scopus Journals:

1. D. Habibinia, M. Ebadpour, M.B.B. Sharifian, Y. Najafi Sarem and M. J. Khosrowjerdi, "Mixed $\mathcal{H}_2/\mathcal{H}_\infty$ Approach to Detect Fault in Parallel Hybrid Electric Vehicle," *International Journal on Technical and Physical Problems of Engineering*, Vol. 5, No. 3, pp. 126-132, 2013.

ISC Journals:

1. M. Salim and M. J. Khosrowjerdi, "Fault Estimator Design Using Data-Driven \mathcal{H}_∞ Technique", *Tabriz Journal of Electrical Engineering (TJEE)*, Vol. 46, No. 4, 2016 (in Persian Language).
2. H. Parastvand, and M. J. Khosrowjerdi, "Stability and performance attainment with fixed order controller using frequency response", *International Journal of Engineering, Transactions A: Basics*, Vol. 28, No. 4, 2015.
3. R. Ebrahimi Bavili and M. J. Khosrowjerdi, "Robust NMPC- based Fault Tolerant Control Design for Compensation of Actuators Faults", *Journal of Control*, Vol. 9, No. 4, 2011 (1394) (in Persian Language).
4. M. Mirzaei, H. Mirzaeinejad, S. Vahidi, D. Heidarian and M. J. Khosrowjerdi, "Nonlinear Control and Estimation of Tire Longitudinal Slip for using in Anti-lock Braking System", *Journal of Control, Iranian Society of Instrumentation and Control Engineering (ISICE)*, Vol. 5, No. 4, 2010 (In Persian).
5. S. M. Alavinia, M. A. Sadrnia, M. J. Khosrowjerdi, M. M. Fateh, "Fault Tolerant Control System Design based on Virtual Sensor for Determining of Surge Point in Industrial Compressors", *Journal of Solid and Fluid Mechanics*, Vol. 4, No. 3, 2014 (in Persian Language).
6. M. Pezeskian, and M. J. Khosrowjerdi, "A Fault Estimation-based Approach to Active Fault Tolerant Controller Design" *Journal of Control, Iranian Society of Instrumentation and Control Engineering (ISICE)*, vol. 3, no. 4, pp. 37-45, 2010 (in Persian Language).
7. H. Rezaei and M. J. Khosrowjerdi "An Active Approach to Model-based Fault Tolerant Control System Design for Three Phase Induction Motors," *Journal of Control, Iranian Society of Instrumentation and Control Engineering (ISICE)* Vol. 6, No. 2, pp. 1-11, 2011 (in Persian Language).
8. M. J. Khosrowjerdi, N. Safari-Shad, and R. Nikoukhah "Optimal Sensor Location for Fault Detection" *Journal of Control, Iranian Society of Instrumentation and Control Engineering (ISICE)*, 2010 (in Persian Language).

9. J. Taheri-Kalani and M. J. Khosrowjerdi, "Nonlinear Dynamic and Cinematic Controller Design for wheeled mobile robots with Disturbance Observer in the Presence of Uncertainty," *Journal of Nonlinear Systems in Electrical Engineering(JNSEE)*, Vol. 1, No. 1, 2013 (in Persian Language).

Selected Conference papers:

1. F. Soltanian, A. Akbari and M. J. Khosrowjerdi, "Adaptive Locally-linear-models-based Fault Tolerant Control for Humanoid Robot with Unknown Faults" *20th Iranian Conference on Electrical Engineering (ICEE2012)*, Tehran University of Technology, Iran, May 2012.
2. H. Rezaee, and M. J. Khosrowjerdi, " Fault Tolerant Controller Design for Three-phase Induction Motors using a Mixed $\mathcal{H}_2/\mathcal{H}_\infty$ Estimator Approach" *20th Iranian Conference on Electrical Engineering (ICEE2012)*, Tehran University of Technology, Iran, May 2012.
3. H. Sedigh, and M. J. Khosrowjerdi, "Sensor Fault Estimation and Fault Accommodation Control for EMS" accepted in *19th Iranian Conference on Electrical Engineering (ICEE2011)*, Iran, May 2011. (in Persian Language)
4. M. Pezeshkian, H. Ozma, and M. J. Khosrowjerdi, "'A Robust Approach to Fault Tolerant Controller Design Based on GIMC structure for Non-Minimum Phase systems", Accepted in *19th Iranian Conference on Electrical Engineering (ICEE2011)*, Iran, May 2011. (in Persian Language)
5. S. Karami, and M. J. Khosrowjerdi, "'Fault Tolerant Controller Design Using Descriptor Systems Approach'" Accepted in *19th Iranian Conference on Electrical Engineering (ICEE2011)*, Iran, May 2011. (in Persian Language)
6. H. Parastvand, and M. J. Khosrowjerdi, "'A New Model Free Approach to Simultaneously Stabilizing Control," Accepted in *19th Iranian Conference on Electrical Engineering (ICEE2011)*, Iran, May 2011. (in Persian Language)
7. M. Salari, and M. J. Khosrowjerdi, "Multiobjective $\mathcal{H}_2/\mathcal{H}_\infty$ Design for a VTOL Flight Model" *18th Iranian Conference on Electrical Engineering (ICEE2010)*, Isfahan University of Technology, Iran, May 2010. (in Persian Language)
8. M. Salari, and M. J. Khosrowjerdi, "An Optimal Integral Sliding Mode Control Using Multiobjective $\mathcal{H}_2/\mathcal{H}_\infty$ Approach to Surface Design" *18th Iranian Conference on Electrical Engineering (ICEE2010)*, Isfahan University of Technology, Iran, May 2010. (in Persian Language)
9. M. Mirsepasi, and M. J. Khosrowjerdi, "A Robust Approach to Speed Estimation for DC Motors in the presence of uncertainties " *18th Iranian Conference on Electrical Engineering (ICEE2010)*, Isfahan University of Technology, Iran, May 2010. (in Persian Language)
10. H. Ozma and M. J. Khosrowjerdi, *Nonlinear Controller Design using Input-Output Linearization and RGA Concept for the 4-tank Process*, Iranian Student Conference on Electrical Engineering, Azad University, Tabriz, Iran, 2009.

11. M. Mirsepasi and M. J. Khosrowjerdi, *Controller Design using μ -Synthesis and \mathcal{H}_∞ optimization for Ball and Beam System*, Iranian Student Conference on Electrical Engineering, Azad University, Tabriz, Iran, 2009.
12. M. J. Khosrowjerdi, N. Safari-Shad, and R. Nikoukhah "Optimal Sensor Location for Fault Detection" *Journal of Control*, Iranian Society of Instrumentation and Control Engineering (ISICE), Jan. 2009. (in Persian Language)
13. M. Pezeshkian, and M. J. Khosrowjerdi, "Application of Fault Tolerant Control to the 4-Tank Process" *Iranian Conference on Electrical Engineering (ICEE'09)*, Tehran, Iran, May 2009. (in Persian Language)
14. M. J. Khosrowjerdi, N. Safari-Shad, and R. Nikoukhah "Optimal Sensor Location for Fault Detection" *European Control Conference (ECC)*, Kos, Greece, July 2007.
15. R. Banaei Khosroushahi and M. J. Khosrowjerdi, "Decentralized Nonlinear Control of a Laboratory Model Helicopter," in *Proceeding of 9th International Conference on Control, Automation, Robotics and Vision (ICARCV)*, Grand Hyatt Singapore, Dec. 2006.
16. M. J. Khosrowjerdi, N. Safari-Shad and R. Nikoukhah "Robust Fault Detection in a Mixed $\mathcal{H}_2/\mathcal{H}_\infty$ Setting: The Discrete Time Case ", in *Proceedings of the 14th Mediterranean Conference on Control and Automation (MED)*, Ancona, Italy, June 2006.
17. M. J. Khosrowjerdi, R. Nikoukhah, and N. Safari-Shad, "Fault detection in a mixed $\mathcal{H}_2/\mathcal{H}_\infty$ setting," in *Proceedings of the 42th IEEE Conference on Decision and Control (CDC)*, Hawaii, USA, 2003.
18. M. J. Khosrowjerdi, R. Nikoukhah, and N. Safari-Shad, "Simultaneous fault detection and control problem", in *Proceedings of the 10th Mediterranean Conference on Control and Automation (MED)*, Lisbon, Portugal, 2002
19. M. J. Khosrowjerdi, R. Nikoukhah, and N. Safari-Shad, *A Mixed $\mathcal{H}_2/\mathcal{H}_\infty$ Approach to Simultaneous Fault Detection and Control Problem*, INRIA Technical Report, Available in: <http://www.inria.fr/rrrt/rt-0263.html>, July 2002.
20. M. J. Khosrowjerdi, R. Nikoukhah, and N. Safari-Shad, "Controller design with fault detection capabilities", in *Proceedings of IEEE Conference on Control Applications (CCA)*, Istanbul, Turkey, June 2003.
21. N. Safari-Shad, N. Abedi, M. J. Khosrowjerdi, and R. B. Khosrowshahi, "Design and Implementation of Linear and Nonlinear Controllers for Twin Rotor System", Proc. of the Iranian Conf. on Elect. Engr., Tehran, May 2002..
22. N. Safari-Shad and M. J. Khosrowjerdi, "Robust Nonlinear Control of an Automotive Spark Ignition Engine," Proc. of the 2nd Asian Contr. Conf., Seoul, Korea, July 1997.
23. M. M. Abrishamchian, M. J. Khosrowjerdi, and M. Ataei "Uncertainty Description and μ -Synthesis Design," Proc. of the Iranian Conf. on Elect. Engr., Tehran, May 1999..

24. M. J. Khosrowjerdi, and N. Safari-Shad, “*New Trends in Automotive Spark Ignition Engine Control*,” Proc. of the 1nd Iranian Conf. on Automotive Industry, Tehran, Iran, 1996 (in Farsi).
25. M. J. Khosrowjerdi, N. Safari-Shad and S. Shahsavari, “*Adaptive Control of Spark Ignition Engines*,” Proc. of the Iranian Student Conf. on Elect. Engr., Tehran, 1999 (in Farsi).
26. S. Shahsavari, N. Abedi, and M. J. Khosrowjerdi, “*Survey of Spark Angle Control in Spark Ignition Engines: Last, Present and Future*” Proc. of the Iranian Student Conf. on Elect. Engr., Tehran, 1999.
27. M. J. Khosrowjerdi, “*Robust Analysis of Power Systems*,” in the Iranian Control and Instrumentation Engineer’s Meeting, Tehran, March 1995.
28. M. J. Khosrowjerdi, “*Nonlinear Control of Automotive Spark Ignition Engines*,” in the Iranian Control and Instrumentation Engineer’s Meeting, Tehran, March 1995.
29. M. Khosrowjerdi, “*Robust Control System Design with Applications to Automotive Engine Control*,” in the Workshop on Robust Control, Sharif University of Technology, Tehran, May 1997.
30. M. J. Khosrowjerdi, “*Design and Implementation of a Controller for 3-phase Induction Motors*,” BS Thesis, K. N. Toosi University of Technology, 1993.
31. M. J. Khosrowjerdi, “*Feedback Linearizing Control of Automotive Spark Ignition Engines*,” MS Thesis, K. N. Toosi University of Technology, 1996.
32. M. J. Khosrowjerdi, “*Survey of Numerical Algorithms for Computing of Transmission Zeros in Multivariable Control Systems*,” Presented in the Dept. of Elect. Engr., K. N. Toosi University of Technology, 1995.

PhD Thesis:

- M. J. Khosrowjerdi (2003), “*Simultaneous Optimal Fault Detection and Control*,” Department of Electrical Engineering at the K. N. Toosi University of Technology, Tehran, Iran. Under supervision of Dr. R. Nikoukhah (INRIA, France), Dr. N. Safari-Shad (University of Wisconsin-Platteville, USA), and Dr. Mohammad Ali Massoumnia (Sharif University of Technology, Iran).

Research Projects in SUT:

1. M. J. Khosrowjerdi (2006), “*Optimal Sensor Locations for Fault Detection*,” Department of Electrical Engineering at the Sahand University of Technology in corporation with Dr. N. Safari-Shad (University of Wisconsin-Platteville, USA) and Dr. R. Nikoukhah (INRIA, France)
2. M. J. Khosrowjerdi (2010), “*Fault Tolerant Controller Design for Lipschitz Nonlinear Systems*,” Department of Electrical Engineering at the Sahand University of Technology.

Supervisor and Consulting advisor in the selected M. Sc. and PhD theses:

- A. Navarbuf, *Fault Tolerant Control System Design based on Generalized T-S Fuzzy Model*, PhD Thesis under Development (Supervisor)
 - M. Frouzanfar, *Active Fault Detection and Control*, PhD Thesis under Development (Supervisor)
 - M. Salim, *A Data-Driven Approach to Simultaneous Fault detection and Control*, PhD Thesis under Development (Supervisor)
1. M. Pezeshkian, "*An Active Approach to Fault Tolerant Controller Design*," M. Sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Bahman 1388.
 2. M. Mirsepasi, "*An Robust Approach to State Estimation of Uncertain Linear Systems*," M. Sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Bahman 1388.
 3. M. Salari, "*A Multiobjective Approach to Sliding Mode Surface Design*," M. Sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Bahman 1388.
 4. H. Ozma, "*A Nonlinear Approach to Fault Tolerant Controller Design*," M. Sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Azar 1389.
 5. H. Sedigh, "*Nonlinear Fault Detection and Isolation*," M. Sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Azar 1389.
 6. H. Parastvand, "*A Model Free Approach to PID Controller Design*," M. Sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Azar 1389.
 7. H. Rezaei, "*Model-based Fault Tolerant Control System Design and Simulation for three Phase Induction Motors*," M. Sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Azar 1390.
 8. S. Barzgary, "*Control Reconfiguration Approach for Fault Compensation*," M. Sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Mehr 1390.
 9. N. Azhdarzadeh Oskuii, "*Design, Reconstruction and Control of a Rescue Robot*," M. Sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Azar 1390.
 10. F. Soltanian, "*A Neural Network Approach to Fault Tolerant Control*," M. Sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Azar 1390.
- B. Nikbakhtan, "*Application of Nonlinear Optimal Control to Automotive Engine Control*," Ms Thesis in the Dept. of Elect. Engr., K. N. Toosi University of Technology, Tehran, 1998.
 - S. Shahsavari, "*Design and Implementation of an Electronic Controller for Spark Ignition Angle Control in Automotive Engines*," Bs Thesis in the Dept. of Elect. Engr., K. N. Toosi University of Technology, Tehran, 1999.

- S. Ekhteraei, “*Design and Implementaion of an Interface Module for Spark Advance Control,*” Bs Thesis in the Dept. of Elect. Engr., K. N. Toosi University of Technology, Tehran, 1999.
- R. B. Khosrowshahi, “*Simulation and Implementaion of Linear and Nonlinear Controllers for Twin Rotor System (Helicopter Model),*” Ms Thesis in the Dept. of Elect. Engr., K. N. Toosi University of Technology, Tehran, June 2001.
- G. Abdullahi, “*Simulation and Implementaion of Deterministic Optimal Estimator (DOE) for Real-Time Control of Nonlinear Systems with 2 Degree-Of-Freedom (DOF),*” Ms Thesis in the Dept. of Elect. Engr., K. N. Toosi University of Technology, Tehran, March 2001.
- A. Kheirkhahi, “*Design and fabrication of Active Gas Pedal with Haptic Feedback,*” M. Sc. Thesis in the Department of Electrical Engineering, Sahand University of Technology, Tabriz, Iran, Bahman 1389.
- S. Baghbany, “*Predictive Control for PH Process in Biological Processes,*” M. sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Bahman 1389.
- S. Ahmadian, “*Sliding Mode Control Based on Fuzzy Logic and Neural Network on Robot Arm ,*” M. sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Bahman 1389.
- A. Saadat, “*PH Control in Biological Processes using Neural Network ,*” M. sc. Thesis in the Department of Electrical Engineering., Sahand University of Technology, Tabriz, Iran, Azar 1390.

Reviewer for:

- IET Control Theory and Applications
- Mathematical Problems in Engineering
- International Journal of Systems and Science
- Journal of Control (in Persian)
- ISA Transactions,
- Automatica
- Nonlinear Dynamics (Springer)
- Journal of Nonlinear Systems in Electrical Engineering (JNSEE)

References

Prof. Ramine Nikoukhah,
 Institut National de Recherche en Informatique et en Automatique (INRIA),
 Rocquencourt, France, E-mail: ramine.nikoukhah@inria.fr

Prof. Nader Safari-Shad,
Electrical and Software Engineering Department,
University of Wisconsin-Platteville, USA, E-mail: safarisn@uwplatt.edu

Prof. Ali-Khaki Sedigh,
Department of Electrical and Engineering,
K. N. Toosi University of Technology, Iran, E-mail: asedigh@yahoo.com

Prof. Hamid-Reza Taghirad,
Department of Electrical and Engineering,
K. N. Toosi University of Technology, Iran, E-mail: taghirad@yahoo.com