

Faezeh Farivar

Associate Professor, Head of Department, IEEE Senior Member

Department of Computer and Mechatronics Eng., Faculty of Electrical and Computer Eng.
Science and Research Branch, Azad University (IAU), Tehran, Iran

Representative of IEEE Women in Engineering (IEEE-WIE) Committee

IEEE-IRAN Section

Director of Advanced Network Security Lab. in Cyber Physical Systems

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RESEARCH/TEACHING INTERESTS

- Mechatronics & Robotics
- Control Systems
- Machine Learning & Intelligent Systems
- Cyber Physical Systems (CPS)& CPS Security

EDUCATION

2007- 2011

- **Doctor of Philosophy (Ph.D.)**, Electrical Engineering, Major: Control & System Engineering, Science and Research Branch, Azad University (IAU), Iran, GPA=98.55/100.

2005- 2007

- **Master of Science**, Mechatronics Engineering, Science and Research Branch, Azad University (IAU), Iran, GPA=95.80/100.

2000- 2004

- **Bachelor of Science**, Electrical Engineering, Major: Biomedical Engineering, Bio-electrics, Science and Research Branch, Azad University (IAU), Iran, GPA=81.95/100.

WORK EXPERIENCE

❖ Academia

Feb 2023-Present

- **Head of Department**, Dept. of Computer and Mechatronics Eng., Faculty of Electrical and Computer Eng., Science and Research Branch, IAU, Iran.

Jan 2022-Present

- **Associate Professor**, Dept. of Computer and Mechatronics Eng., Faculty of Electrical and Computer Eng., Science and Research Branch, IAU, Iran.

2016-Present

- **Director of Advanced Network Security Lab. (ANSLab) in Cyber Physical Systems**, School of Electrical and Computer Eng., University of Tehran, Iran. <https://www.anslab.org>

- 2011-2021**
- **Assistant Professor**, Dept. of Computer and Mechatronics Eng.,
Faculty of Electrical and Computer Eng., Science and Research Branch, IAU, Iran.

2013-2014

 - **Post-Doctoral Fellow**, Fault Detection and Identification Research Lab (FDI Lab),
Dept. of Control Eng., KN. Toosi University of Tech., Iran.

2011- 2012

 - **Post-Doctoral Fellow**, Research Institute of Robotics, Artificial Intelligence, and Information Science,
School of Electrical and Computer Eng., University of Tehran, Iran.

2010-2011

 - **Lecturer**, Dept. of Computer & Mechatronics Eng., Science and Research Branch, IAU, Iran.

2009-2010

 - **Lecturer**, Dept. of Electrical & Computer Eng., Sama Branch, IAU, Tehran, Iran.

2006-2011

 - **Research Assistant**, Intelligent Systems Research Lab. (IS Lab), K. N. Toosi University of Tech., Iran.
- ❖ **Industry**
- **Biomedical Engineer**,
 - Shariati Hospital, Tehran, Iran. **2001-2005**
 - Pars Nikou Afarid Co. Tehran, Iran. **2004-2005**
 - Tajhiz Teb Nour Co., Tehran, Iran. **2003-2004**
 - Jahan Gostaresh Tejarat Co., Tehran, Iran. **2002-2003**

TEACHING EXPERINCES

- **Advanced Mechatronics (Mechatronics II)**, A 3-unit Postgraduate Course at IAU
- **Advanced Artificial Neural Networks**, A 3-unit Postgraduate Course at IAU
- **Modeling and Identification of Cyber-Physical Systems**, A 3-unit Postgraduate Course at IAU
- **Advanced Automatic Control**, A 3-unit Postgraduate Course at IAU
- **Nonlinear Control Systems**, A 3-unit Postgraduate Course at Science and Research Branch, IAU
- **Mechatronics**, A 3-unit Postgraduate Course at IAU
- **Research Techniques**, A 2-unit Postgraduate Course at IAU,
- **Engineering Mathematics**, A 3-unit Undergraduate Course at IAU
- **Differential Equations**, A 3-unit Undergraduate Course at IAU
- **Electronics Circuits-I**, A 3-unit Undergraduate Course at IAU
- **MATLAB Software**, A 2-unit Undergraduate Course at North Branch, IAU

SUPERVISION

- ❖ **Graduated**
- **Master students**, over 52 Master students at Dept. of Computer & Mechatronics Eng., IAU
 - **PhD students**, 4 PhD students at Dept. of Computer & Mechatronics Eng., IAU
- ❖ **On-going**
- **Master students**, 12 Master students at Dept. of Computer & Mechatronics Eng., IAU
 - **PhD students**, 4 PhD students at Dept. of Computer & Mechatronics Eng., IAU

JOURNAL PUBLICATIONS

1. MS Haghighi; **F. Farivar**; A. Jolfaei, "A Machine Learning-based Approach to Build Zero False-Positive IPSs for Industrial IoT and CPS with a Case Study on Power Grids Security", **IEEE Transactions on Industry Applications**, Vol. 60, Issue 1, pp.920-928, 2024. **(IF=4.079)**
2. MS. Haghighi, **F. Farivar**, A. Jolfaei, A. Bayrami Asl., W. Zhou, "Cyber Attacks via Consumer Electronics: Studying the Threat of Covert Malware in Smart and Autonomous Vehicles", **IEEE Transactions on Consumer Electronics**, doi:10.1109/TCE.2023.3297965, 2023. **(IF=4.3)**
3. HA. Ghiassirad, **F. Farivar**, M. Aliyari Sh., "Building robust neural networks under adversarial machine learning attacks by using biologically-inspired neurons", **Information Sciences**, Vol. 645, pp. 119190, 2023. **(IF=8.233)**
4. **F. Farivar**, A. Jolfaei, M. Manthouri, MS. Haghighi, "Application of fuzzy learning in IoT-enabled remote healthcare monitoring and control of anesthetic depth during surgery", **Information Sciences**, Vol. 626, pp.262–274, 2023. **(IF=8.233)**
5. **F. Farivar**, MS. Haghighi, A. Jolfaei, S. Wen, "On the Security of Networked Control Systems in Smart Vehicle and its Adaptive Cruise Control", **IEEE Transactions on Intelligent Transportation Systems**, Vol. 22, Issue 6, pp. 3824 – 3831, 2021. **(IF=6.492)**
6. **F. Farivar**, MS. Haghighi, A. Jolfaei, S. Wen, "Covert Attacks through Adversarial Learning: Studying the Effect of Lane Keeping Attacks on the Safety of Autonomous Vehicles", **IEEE/ASME Transactions on Mechatronics**, Vol. 26, Issue 3, pp. 1350 – 1357, 2021. **(IF=5.303)**
7. **F. Farivar**, MS. Haghighi, A. Jolfaei, M. Alazab, "Artificial Intelligence for Detection, Estimation, and Compensation of Malicious Attacks in Nonlinear Cyber Physical Systems and Industrial IoT", **IEEE Transactions on Industrial Informatics**, Vol. 4, pp. 2716-2725, 2020. **("Chancellor's award for the best paper in engineering at the 8th IAU Scholars Festival, April 2021") & (Highly Cited Paper in WOS) (IF=10.215)**
8. MS. Sadeghi G., **F. Farivar**, MS. Haghighi, A. Jolfaei, "Detection of Anomalies in Industrial IoT Systems by Data Mining: Study of Christ Osmotron Water Purification System", **IEEE Internet of Things Journal**, Vol. 8, Issue 13, pp. 10280 – 10287, 2021. **(IF=9.471)**
9. MS. Haghighi, A. Sheikhsafari, A. Jolfaei, **F. Farivar**, S. Ahmadzadeh, "Automation of Recording in Smart Classrooms via Deep Learning and Bayesian Maximum a Posteriori Estimation of Instructor's Pose", **IEEE Transactions on Industrial Informatics**, Vol. 17, Issue 4, pp. 2813 - 2820, 2021. **(IF=10.215)**
10. **F. Farivar**, M. Aliyari Sh., MA. Nekoui, M. Teshnehlal, "Synchronization of Under-Actuated Unknown Heavy Symmetric Chaotic Gyroscopes via Optimal Gaussian Radial Basis Adaptive Variable Structure Control", **IEEE Transactions on Control Systems Technology**, Vol. 21, Issue 6, pp. 2374-2379, 2013. **(IF= 5.485)**
11. Z. Deng, Y. Hou, A. Jolfaei, W. Zhou, **F. Farivar**, MS. Haghighi, "Multihead Attention-Based Multiscale Graph Convolution Network for ITS Traffic Forecasting", **IEEE Systems Journal**, doi: 10.1109/JSYST.2023.3338265, 2023. **(IF=4.4)**
12. A. Esfandiari, **F. Farivar**, H. Khaloozadeh, "Fractional-order Binary Bat Algorithm for Feature Selection on High-dimensional Microarray Data", **Journal of Ambient Intelligence and Humanized Computing**, Vol. 14, pp. 7453-7467, 2023. **(IF=3.662)**
13. A. Esfandiari, H. Khaloozadeh, **F. Farivar**, "Interaction-based Clustering Algorithm for Feature Selection: A Multivariate Filter Approach", **International Journal of Machine Learning and Cybernetics**, Vol. 14, pp.1769-1782, 2023. **(IF= 4.377)**
14. A. Esfandiari, H. Khaloozadeh, **F. Farivar**, "A scalable memory-enhanced swarm intelligence optimization method: fractional-order Bat-inspired algorithm", **International Journal of Machine Learning and Cybernetics**, doi: 10.1007/s13042-023-02022-1, 2023. **(IF= 4.377)**
15. MS. Haghighi, **F. Farivar**, A. Jolfaei, MH. Tadayon, "DoS-tolerant Control of Cyber-Physical Rotary Gantry Systems through Intelligent Control", **Journal of Supercomputing**, Vol. 76, pp. 3036-3085, 2020. **(IF=2.474)**

16. **F. Farivar**, M. Aliyari Sh., "Stability Analysis of Particle Dynamics in Gravitational Search Optimization Algorithm", **Information Sciences**, Vol. 337-338, pp. 25-43, 2016. **(IF= 6.795)**
17. **F. Farivar**, M. Aliyari Sh., M. Manthouri, "Improved Teaching-Learning based Optimization Algorithm using Lyapunov Stability Analysis", **Journal of Ambient Intelligence and Humanized Computing**, Vol.13, 3609-3618, 2022. **(IF=7.104)**
18. N. Shahabi Sani, M. Manthouri, **F. Farivar**, "A Multi-Objective Ant Colony Optimization Algorithm for Community Detection in Complex Networks", **Journal of Ambient Intelligence and Humanized Computing**, Vol. 11, pp. 5-21, 2020. **(IF=7.104)**
19. HA. Ghiassirad, M. Aliyari Sh., **F. Farivar**, "Application of Constrained Learning in Making Deep Networks More Transparent, Regularized, and Biologically Plausible", **Engineering Applications of Artificial Intelligence**, Vol. 85, pp. 421-428, 2019. **(IF=6.212)**
20. **F. Farivar**, M. Nili A., "Continuous Reinforcement Learning to Robust Fault Tolerant Control for a Class of Unknown Nonlinear Systems", **Journal of Applied Soft Computing**, Vol.37, pp. 702-714, 2015. **(IF= 6.725)**
21. **F. Farivar**, M. Aliyari Sh., MA. Nekoui, M. Teshnehlal, "Chaos Control and Modified Projective Synchronization of Unknown Heavy Symmetric Chaotic Gyroscope Systems via Gaussian Radial Basis Adaptive Backstepping Control", **Journal of Nonlinear Dynamics** (Springer), Vol.12, No.3, pp.1913-1941, 2012. **(IF=5.022)**
22. **F. Farivar**, M. Aliyari Sh., "Fault Tolerant Synchronization of Chaotic Heavy Symmetric Gyroscope Systems versus External Disturbances via Lyapunov Rule-Based Fuzzy Control", **Journal of ISA Transactions**, Vol. 51, pp.50-64, 2012. **(IF=5.468)**
23. **F. Farivar**, M. Aliyari Sh., MA. Nekoui, M. Teshnehlal, "Chaos Control and Generalized Projective Synchronization of Heavy Symmetric Chaotic Gyroscope Systems via Gaussian Radial Basis Adaptive Variable Structure Control", **Journal of Chaos, Solitons and Fractals**, Vol.45, pp.80-97, 2012. **(IF=5.944)**
24. **F. Farivar**, M. Aliyari Sh., M. Teshnehlal, "An Interdisciplinary Overview and Intelligent Control of Human Prosthetic Eye Movements System for the Emotional Support by a Huggable Pet-Type Robot from a Biomechatronic View Point", **Journal of Franklin Institute**, Vol. 349, pp. 2243-2267, 2012. **(IF=4.504)**
25. **F. Farivar**, M. Aliyari Sh., MA. Nekoui, M. Teshnehlal, "Generalized projective synchronization of uncertain chaotic systems with external disturbance", **Journal of Expert Systems with Applications**, Vol.38, pp.4714-4726, 2011. **(IF=6.954)**
26. **F. Farivar**, M. Aliyari Sh., M. Teshnehlal, MA. Nekoui, "Modified Projective Synchronization of Unknown Chaotic Dissipative Gyroscope Systems via Gaussian Radial Basis Adaptive Variable Structure Control", **Journal of Vibration and Control**, Vol.19, No.4, pp.491-506, 2012. **(IF=3.095)**
27. **F. Farivar**, MA. Nekoui, M. Aliyari, M. Teshnehlal, "Modified Projective Synchronization of Chaotic Dissipative Gyroscope Systems via Backstepping Control", **Indian Journal of Physics** (Springer), Vol.86, 2012. **(IF=1.947)**
28. **F. Farivar**, M. Aliyari Sh., MA. Nekoui, M. Teshnehlal, "Generalized Projective Synchronization for Chaotic Systems via Gaussian Radial Basis Adaptive Backstepping Control", **Journal of Chaos, Solitons and Fractals**, Vol.42, No.2, pp.826-839, 2009. **(IF=5.944)**
29. M. Amini, A. Tavakoli, M. Hosseinzadeh, **F. Farivar**, R. Bidaki, "The impact of in-air features on the diagnosis of developmental dysgraphia", **Journal of Intelligent & Fuzzy Systems**, Vol.44, pp. 1413-1424, 2023. **(IF=1.737)**
30. M. Amini, A. Tavakoli, M. Hosseinzadeh, **F. Farivar**, R. Bidaki, "Identifications of developmental dysgraphia on the basis of dynamic handwriting features", **International Journal of Nonlinear Analysis and Applications**, Vol.14, Issue 1, pp. 3179-3188, 2023.
31. H. Yektaei, M. Manthouri, **F. Farivar**, "Diagnosis of Breast Cancer Using Multi Scale Convolutional Neural Network", **Biomedical Engineering: Applications, Basis and Communications**, Vol. 31, No. 5, 2019.

32. **F. Farivar**, MA. Nekoui, M. Aliyari Sh., M. Teshnehlal, "Evolutionary Algorithms to Compute the Optimal Parameters of Gaussian Radial Basis Adaptive Backstepping Control for Chaotic Systems", *Universal Journal of Control and Automation*, Vol. 2, No. 1, pp. 25-31, 2014.
33. M. Rostami K., **F. Farivar**, M. Aliyari Sh., "Control of Flexible Joint Manipulator via Variable Structure Rule-Based Fuzzy Control and Chaos Anti-Control with Experimental Validation", *Journal of Intelligence Systems in Electrical Engineering*, 4th year, No. 4, pp.1-12, 2014.
34. **F. Farivar**, M. Aliyari Sh., MA. Nekoui, M. Teshnehlal, "Generalized Projective Synchronization of Chaotic Heavy Gyroscope Systems Via Sliding Rule-Based Fuzzy Control", *Journal of ISRN Artificial Intelligence*, doi:10.5402/2012/576873, Vol. 2012, Article ID 576873, pp.1-10, 2012.
35. **F. Farivar**, M. Aliyari Sh., M. Teshnehlal, MA. Nekoui, "Chaos Control and Modified Projective Synchronization of Chaotic Dissipative Gyroscope Systems", *Journal of Energy and Power Engineering*, Vol.6, pp.90-100, 2012.
36. M. Rostami K, **F. Farivar**, M. Aliyari Sh., "Lyapunov Based Control of Flexible Joint Manipulator with Experimental Validation by Using Chaotic Gyroscope Synchronization", *International Journal of Mechanical Systems Engineering*, Vol.2, No.4, pp.169-175, 2012.
37. A. Saedian, H. Zarabadipour, M. Aliyari Sh., **F. Farivar**, "Fault Tolerant Control of Mechatronics System based on Hybrid Control", *International Journal of Physical Sciences*, Vol. 7, pp. 1949 - 1958, 2012.
38. M. Zamani P., M. Aliyari Sh., **F. Farivar**, M. Rostami K., "Hybrid Concepts of the Control and Anti-Control of Flexible Joint Manipulator", *International Journal of Robotics*, Vol.2, No.1, 2011.
39. **F. Farivar**, MA. Nekoui, M. Teshnehlal, M. Aliyari Sh., "Neural Sliding Mode Control for Chaos Synchronization of Uncertain Nonlinear Gyros", *Journal of Advances and Applications in Mathematical Sciences*, Mili publications, Vol.4, issue.1, pp.41-56, 2010.
40. **F. Farivar**, M. Aliyari Sh., M. Teshnehlal, MA. Nekoui, "Hybrid control of flexible manipulator", *Journal of Applied Sciences*, Vol.9, No.4, pp.639-650, 2009.
41. **F. Farivar**, M. Aliyari Sh., MA. Nekoui, M. Teshnehlal, "Gaussian radial basis adaptive backstepping control for a class of nonlinear control systems", *Journal of Applied Sciences*, Vol.9, pp.248-257, 2009.
42. **[Persian]** P. Rezaee, **F. Farivar**, M. Manthouri, "Fault-Tolerant Control of Wind Turbine Systems using Fuzzy Sliding Mode Control", *Journal of Modelling in Engineering*, Vol. 20, Issue 71, 2022.
43. **[Persian]** H.A. Ghiassirad, M. Aliyari Sh., **F. Farivar**, "Comparison of 21 constraints in a stochastic descending gradient algorithm using kernel methods", *Journal of Iranian Association of Electrical and Electronics Engineers*, Vol. 19, Issue 3, pp. 145-152, 2022.
44. **[Persian]** MS. Haghighi, **F. Farivar**, "Stability Analysis of Networked Control Systems under Denial-of-Service Attacks using Switching System Theory", *Journal of Information and Communication Technology*, Vol. 13, Issue 49, pp. 115 – 134, 2021.
45. **[Persian]** K. Ghaemi Osgouie, A. Haghighatpars, **F. Farivar**, "Task space path following for planar redundant robots using Pontryagin's principle in optimal control", *The Iranian Journal of Mechanical Engineering*, Vol. 22, Issue 1, No. 58, DOI: 10.30506/IJMEP.2020.90792.1441, 2020.

CONFERENCE PROCEEDINGS

1. A. Bagheri, A. Brotzner, **F. Farivar**, et al., "Minsum m watchmen's routes in Stiegl polygons", **XX Spanish Meeting on Computational Geometry, Santiago de Compostela**, pp. 41-44, 2023.
2. **F. Farivar**, MS. Haghighi, S. Barchinezhad, A. Jolfaei, "Detection and Compensation of Covert Service-Degrading Intrusions in Cyber Physical Systems through Intelligent Adaptive Control", the **20th IEEE International Conference on Industrial Technology (ICIT)**, 2019.
3. M. Salehi, **F. Farivar**, "State Feedback Control Design of Cars Wings in Order to Improve Road-Holding on Corners of Roads", the **5th Conference on Knowledge-Based Engineering and Innovation (IEEE-KBEI)**, 2019.

4. M. Salehi, M. Ahmadi, **F. Farivar**, "Model of car wing active control in order to increase stability of car on corners of road", **IEEE Int. Conf. on Automatic Control and Dynamic Optimization Techniques**, 2016.
5. **F. Farivar**, "Fault Tolerant Synchronization for a Class of Uncertain Chaotic Systems with Model Uncertainty and External Disturbances Using Fuzzy Sliding Mode Control", **the 9th Asian Control Conference**, 2013.
6. **F. Farivar**, H. Yaghini B., MH. Kani, M. J. Yazdanpanah, M. Nili Ahmadabadi, "Comparing Energy Efficiency of Hopping Systems with Linear and Piecewise Linear Spring", **the 15th International Conference on Climbing and Walking Robots (CLAWAR 2012)**, Johns Hopkins University, 2012.
7. A. Saedian, H. Zarabadipour, M. Aliyari Sh., **F. Farivar**, "Inverted Pendulum Fault Tolerant Control Based on Fuzzy Backstepping Design and Anti-Control of Chaos", **the 3rd IFAC CHAOS Conference**, 2012.
8. **F. Farivar**, M. Aliyari Sh., MA. Nekoui, M. Teshnehlal, "Chaos Synchronization for a Class of Chaotic Systems with Model Uncertainty and External Disturbances", **IEEE International Conference on Mechatronics**, 2011.
9. **F. Farivar**, M. Aliyari, "Fault Tolerant Synchronization of Chaotic Heavy Symmetric Gyroscope Systems via Gaussian RBF Neural Network Based on Sliding Mode Control", **IEEE Int. Conf. on Mechatronics**, 2011.
10. M. Rostami K., **F. Farivar**, M. Zamani P., M. Aliyari Sh., "Variable Structure Control and Anti-Control of Flexible Joint Manipulator with Experimental Validation", **IEEE International Conference on Mechatronics**, 2011.
11. **F. Farivar**, M. Rostami K., M. Aliyari Sh., "Intelligent Control of Human Prosthetic Eye Movements System for the Emotional Support by a Huggable Pet-Type Robot via Gaussian RBF Neural Network Based on Sliding Mode Control", **International Conf. on Control, Instrumentation, and Automation**, IEEE Indexed, 2011.
12. M. Zamani P., **F. Farivar**, M. Aliyari Sh., "Feedback Linearization and Chaotic Anti-Control of Flexible Joint Manipulator with Experimental Validation", **International Conference on Control, Instrumentation, and Automation**, IEEE Indexed, 2011.
13. M. Rostami K., **F. Farivar**, H. Moradi, "A Tethered Aerial Robot for Rescue Operations: Dynamic Modeling and Control", **the 1st RSI/ISM International Conference on Robotics and Mechatronics (ICRoM)**, 2013.
14. M. Rostami K., **F. Farivar**, M. Aliyari Sh., "Control and Anti-Control of Rotary Gantry via Gaussian Radial Basis Function Neural Networks by using Chaotic Gyroscope Synchronization", **the Iranian Conference on Chaos, Fractals and Complex Systems (CFCS)**, 2011.
15. N. Farzbod, H. Zarabadipour, M. Aliyari Sh., **F. Farivar**, "Sliding Adaptive Fuzzy Control for a Class of Time-Delayed Chaotic Systems", **IEEE International Conference on Fuzzy systems**, 2011.
16. N. Farzbod, H. Zarabadipour, M. Aliyari, **F. Farivar**, "Generalized Projective Synchronization of Time-Delayed Chaotic Systems via Sliding Adaptive Fuzzy Control", **IEEE International Conf. on Fuzzy systems**, 2011.
17. N. Farzbod, H. Zarabadipour, M. Aliyari Sh., **F. Farivar**, "Generalized Projective Synchronization of Time-Delayed Chaotic Systems via Sliding Adaptive Radial Basis Function Neural Network Control", **the 19th Iranian Conference on Electrical Engineering**, 2011.
18. **F. Farivar**, M. Aliyari Sh., MA. Nekoui, M. Teshnehlal, "Chaos Synchronization of Uncertain Nonlinear Gyros via Hybrid Control", **IEEE/ASME International Conference on Advanced Intelligent Mechatronics**, 2009.
19. **F. Farivar**, M. Aliyari, MA. Nekoui, M. Teshnehlal, "Sliding Mode Control of Flexible Joint Using Gaussian Radial Basis Function Neural Networks", **International Confe. on Computer and Electrical Engineering**, 2008.

PROJECTS & GRANTS

- Using Artificial Intelligence for Prevention and Resilience Improvement of Cyber Physical Systems against Adversarial Machine Learning-based Cyber Intrusions, ***Institute for Research in Fundamental Science (IPM)***, Iran, 2023.
- Increasing the Resilience of Cyber Physical Systems against Cyber Intrusions using Intelligent Robust Compensators, ***Institute for Research in Fundamental Science (IPM)***, Iran, 2022.
- Detection and Compensation of Adversarial Learning Cyber Intrusions to Smart and Autonomous Vehicles, ***Institute for Research in Fundamental Science (IPM)***, Iran, 2021.
- Detection, Estimation, and Compensation of Malicious Attacks in Cyber-Physical Systems using Intelligent Control Methods, ***Institute for Research in Fundamental Science (IPM)***, Iran, 2020.
- Research Sponsorship, ***Science and Research Branch of Tehran***, IAU, Iran, 2013.
- Machine Learning Approaches to Fault Tolerant Control Systems, Research Institute of Robotics, Artificial Intelligence, and Information Science, ***University of Tehran***, Iran, 2012.
- Hopping Systems with Linear and Piecewise Linear Springs, Research Institute of Robotics, Artificial Intelligence, and Information Science, ***University of Tehran***, Iran, 2011.
- Control of Chaotic Systems, ***Science and Research Branch of Tehran***, IAU, 2009.

PROFESSIONAL MEMBERSHIPS

- **IEEE Senior Membership, 2020-Present**
- **IEEE Membership, 2014-Present**
- **Representative of Women in Engineering (WIE) Committee, IEEE, 2015-Present**
<https://www.ieee.org.ir/committees/women-in-engineering/chair-members/>
- **Journals Editorial Board Membership, 2016-2019**
IET - CAAI Transactions on Intelligence Technology,
<https://web.archive.org/web/20181202162800/http://digital-library.theiet.org/journals/trit/editors>
- **Technical Program Committee Membership, 4th International Conference Intelligent, 2011-2012**
Robotics and Applications (ICIRA)

OTHER ACADEMIC CONTRIBUTIONS

- **Reviewer/Referee of Journals**
 - IEEE Transactions on Systems, Man, and Cybernetics: Systems
 - IEEE Internet of Things Journal
 - IEEE Transactions on Intelligent Transportation Systems
 - IEEE Transactions on Fuzzy Systems
 - IEEE Transactions on Technology Control Systems
 - IEEE Sensors Journal
 - IEEE/ACM Transactions on Computational Biology and Bioinformatics
 - ACM Transactions on Internet Technology
 - Journal of ISA Transactions
 - Journal of Control, (IRAN)
- **WORKSHOP ORGANIZER**
 - Introduction to Mechatronics, Eslamshahr Branch, IAU, 16 Dec. 2011
 - Introduction to Mechatronics, Maybod Branch, IAU, 16 Dec. 2008
 - Fault Detection & Fault Tolerant Control, KN Toosi University of Technology, 2014

COMPUTER SKILLS

- **General Software**

LaTex, Microsoft Office (Word, Excel, PowerPoint), Microsoft Project, Microsoft Visio

- **Advanced Software**

MATLAB, Paython, C, Pspice, Orcad, Electronic Work Bench, SPSS

REFERENCES

- **Dr. Mohammad Sayad Haghighi**

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- **Dr. Alireza Jolfaei**

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- **Dr. Sheng Wen**

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