

Curriculum Vitae

Mohammad Reza Gharib

Associate Professor, Department of Mechanical and Industrial Engineering, University of Torbat Heydarieh, Iran

■ Contact Information

- Cell phone: **+98-915-322-8499**
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- Google Scholar: http://scholar.google.com/citations?hl=en&user=SMuXWJAAAAAJ&view_op=list_works&sortby=pubdate

■ General Information

- Gender: **Male**
- Date of Birth: **29 May 1981**
- Place of Birth: **MASHHAD, IRAN**

■ Objective

- Faculty Member- Researcher**

■ Awards and Honors

Best researcher professor at the University of Torbat Heydarieh in 2025
Best researcher professor at the University of Torbat Heydarieh in 2024
Best researcher professor at the University of Torbat Heydarieh in 2023
Best researcher professor at the University of Torbat Heydarieh in 2021
Best researcher professor at the University of Torbat Heydarieh in 2020
Attending teaching Course (Dynamic, Navigation, Sensor Error, remote control) in Vilnius Gediminas Technical University (Lithuania) supported by European Union under Erasmus + Program
Attending the Europe robotic competition in Netherland as supervisor and coach (Roc Twente Drone) 2017
Supervisor and coach of Torbat Heydarieh University's robotics expedition team to the Asia-Pacific World Championships final
Supervisor and coach of Torbat Heydarieh University's robotics expedition team to the National competition Championships final
Best educational professor at the University of Torbat Heydarieh in 2017

Ranked 1st Among Graduated Students of the Academic year 2007

I am a member of the Iranian elite foundation. It can be informed by investigating from Iranian elite association (Reference: www.bmn.ir, info@bmn.ir Fax: +982122414192)

■ Academic and Professional Work Experiences

I have worked since 2015 as a faculty member in the Department of Mechanical and Industrial Engineering, University of Torbat Heydarieh, Iran, until now.

I am general chairman of the 4th National Conference on Application of Novel Technologies in Engineering Sciences, 2017, Torbat Heydarieh.

I am editor and referee of many highly prestigious JCR journals.

I worked for ten years in the research and development center of Parsian Toos Gostar Energy Company as chairman of the board.

I worked for five years as Lecturer in Mechanical courses (Mathematics Engineer, Static, Mechanic of Material-2, and Mathematics Drawing...) for undergraduate students at Ferdowsi University and Elmi – Karbordi University. (Reference: elmikarbordi@jdm.ac.ir Fax: +985138430865, Phone: +985138433614-16).

I worked as T.A at a Mechanical control course for undergraduate students at the University of Khayam and also at Vibration in the Azad University of Mashhad.

➤ **Patent**

➤ **Piezoelectric Sensor of Force and Displacement**

The proposed system is registered by the Iranian patent organization under 48305/IRI.

➤ **Manufacturing New Force Sensor**

The proposed system is registered by the Iranian patent organization under 67340/IRI.

➤ **Publications**

➤ **Books (in Persian)**

➤ *Translation of Book: “Nonlinear Optimization”, Edited by William P. Fox, Ttranslators’: ***Mohammad Reza Gharib**, Mahda Nasrollahzadeh, 2024.*

➤ *Translation of Book: “Artificial Intelligence and Modeling for Water Sustainability”, Edited by Alaa El Din Mahmoud, Manal Fawzy, Nadeem Ahmad Khan, Ttranslators’: ***Mohammad Reza Gharib**, Moein Tosan, 2024.*

<https://opac.nlai.ir/opac-prod/bibliographic/9459816>

➤ *Translation of Book: “UFAD GUIDE: Design, Construction, and Operation of Underfloor Air Distribution Systems” ASHRE, Ttranslators’: Mahdi Abedpour,*

**Mohammad Reza Gharib, Seyed Reza Hosseini, Ali Heydari, Aria-Naghsh Publisher, Tehran, 2022 (ISBN 978-622-6865-65-4), 2023.*

<https://ketab.ir/book/779b694d-1acb-41d1-9b91-ee0f9380d168>

- *Mathematics Drawing, *Mohammad Reza Gharib and Alireza Mirakhori, Mabnaye Kherad Publication, 2009, ISBN: 978-600-5438-30-7 (Fax: +982166480666, Address: No.33- Davazdahfarvardin Street - Enghelab Street – Tehran, Iran), this is a reference book which is thought in Iranian Universities, in Persian.*

<https://www.gisoom.com/book/1625213/%DA%A9%D8%AA%D8%A7%D8%A8-%D8%B1%DB%8C%D8%A7%D8%B6%DB%8C%D8%A7%D8%AA-%D8%AA%D8%B1%D8%B3%DB%8C%D9%85%DB%8C/>

- *A collection of abstracts of the 4th National Conference on Application of Novel Technologies in Engineering Science, edited by Mohammad Reza Gharib and Arezo Oloomi, 2016.*

<https://ketab.ir/book/aa69e0ec-80fd-4f1a-8683-1b7a0c669da9>

- *Fuzzy Logic, Mohammad Reza Gharib, Masoud Goharimanesh and S. A. S Mousavi, Book Chapter, edited by School of Sciences and Technologies, University of Naples, INTECH Publisher, accepted in Jan 2012 (ISBN 979-953-307-578-4). Not publish.*

Email: simcic@intechweb.org

Web: <http://www.intechweb.org/>

- *Piezoelectric and Application, Amir Toloo, Mohammad Reza Gharib and Hashem Roodi, Elyas Publisher, Tehran, 2012 (ISBN 978-600-5727-15-9) in Persian. http://www.newkiteshop.com/product_info.php/products_id/941/printable/1*

- *Building-integrated photovoltaic systems, Mahdi Abedpour, Mohammad Reza Gharib, Mohaddeseh Houshiar, Aria-Naghsh Publisher, Tehran, 2022 (ISBN 978-622-686550-0), in Persian.*

<https://www.gisoom.com/book/11663372/%DA%A9%D8%AA%D8%A7%D8%A8-%D9%81%D9%86%D8%A7%D9%88%D8%B1%DB%8C-%D9%81%D8%AA%D9%88%D9%88%D9%84%D8%AA%D8%A7%D8%A6%DB%8C%DA%A9-%D8%AF%D8%B1-%D8%B3%D8%A7%D8%AE%D8%AA%D9%85%D8%A7%D9%86-%D9%87%D8%A7%DB%8C-%D9%86%D9%88%DB%8C%D9%86>

➤ Selected ISI Journal Papers

- *Ali Delarami, Amir Mohammadbeigi, *Mohammad Reza Gharib, Solving the economic dispatch problem for combined heat and electricity using the Hybrid Firefly Algorithm with Sequential Quadratic Programming, Array, 100779, 2026.*

- ***Mohammad Reza Gharib**, and Mohammad Reza Salehi Kolahi. "A Novel Type-3 Fuzzy Controller for Path Tracking and Beyond Critical States Stabilization of Initially Curved Micro-positioners." *ISA Transactions*, 2026.
- **Mohammad Reza Gharib**, Payam Danesh, *Ali Delarami. "Exergy-Based Simulation and Optimization of Multiagent MSW Gasification for Sustainable Energy Recovery Using Aspen Plus." *Energy Science & Engineering*, 2026.
- Optimizing stand-alone hybrid PV/Diesel Generator system with a focus on reliability, cost, and environmental considerations ***Mohammad Reza Gharib**, A Mohammadbeigi. *Energy Conversion and Management: X*, 101562, 2026.
- M Tosan, ***Mohammad Reza Gharib**, M Mardani, A Sabbagh. Spatiotemporal performance and error analysis of satellite precipitation products over a topographically complex semi-arid region in Iran *Journal of Mountain Science* 23 (1), 118-138, 2026.
- Fatemeh Rastegarpour, ***Mohammad Reza Gharib**, Ali Koochi, and Masoud Goharimanesh. "Using fuzzy multiobjective programming to minimize greenhouse gas emissions from crops." *Results in Engineering*, 2025.
- Investigating the flow around obstacles near the surface with different cross sections considering the resonance phenomenon-Application in suspension bridges, *Ali Heydari, **Mohammad Reza Gharib**, and Ali Delarami, *Results in Engineering*, 2025.
- Optimal sizing, techno-economic, and environmental assessment of hybrid renewable energy systems, ***Mohammad Reza Gharib**, Amir Mohammadbeigi, *Energy Strategy Reviews*, 2025.
- Smart urban metamorphosis: revolutionising through synergised lean supply chains and IoT integration: a case study, ***Mohammad Reza Gharib**, Najmeh Jamali, Behzad Omid Koma, and Farzaneh Ghasemi Esfahsalari, *International Journal of Industrial and Systems Engineering* 51, no. 3 365-384, .2025.
- Enhancing Evapotranspiration Estimation: A Bibliometric and Systematic Review of Hybrid Neural Networks in Water Resource Management, Moein Tosan, ***Mohammad Reza Gharib**, Nasrin Fathollahzadeh Attar, Ali Maroosi, 2025.

- *The Separation of Benzene from cyclohexane by Liquid-Liquid Extraction with Pure Sulfolane and (Sulfolane + 2-Propanol): New Experimental Data and Modeling, Seyed MohammadRezaSeyedini, ***Mohammad Reza Gharib**, Ali heydari, Results in Engineering, 2024.*
- *The influence of the climate, the materials of the walls, and the gas effects of double and triple-glazed windows in terms of energy evaluation and economic expenses, Ali Delarami, Amir Mohammadbeigi, ***Mohammad Reza Gharib**, Results in Engineering, 2024.*
- *Machine Learning for Optimizing Macro-ergonomics in Pharmaceutical Supply Chain. N Jamali, **Mohammad Reza Gharib**, M Moayyedian, *M Hedayati-Dezfooli International Journal of Computational Intelligence Systems, 17 (1), 248, 2024.*
- *Dynamic modeling of three-finger micro-tweezers for grasping microparticles, ***Mohammad Reza Gharib**, Ali Koochi, Mohammad Reza Salehi Kolahi, Masoud Goharimanesh, Computers and Electrical Engineering, 2024.*
- *Global trend analysis of numerical simulation application in groundwater based on WoS database using VOSviewer and Biblioshiny between 1997 and 2023, Moein Tosan, Mehdi Dastourani, Abolfazl Akbarpour, **Mohammad Reza Gharib**, Iranian Journal of Rainwater Catchment Systems, 2024.*
- *Investigation of surface roughness effects on the dynamic performance of electromagnetic nano-resonators. A. Koochi, M. Goharimanesh, **Mohammad Reza Gharib**., Physica Scripta, IOP Publishing, 2024.*
- *Error analysis of dead reckoning navigation system by considering uncertainties in an underwater vehicle's sensors. ***Mohammad Reza Gharib**, Fard MA, Koochi A. Journal of Navigation. 2024.*
- *Modeling and analysis of static and dynamic behavior of marine towed cable-array system based on the vessel motion, ***Mohammad Reza Gharib**, A. Heydari, Mohammad Reza Salehi Kolahi, Advances in Mechanical Engineering, 2024.*
- *Performance Analysis of Finite Element Method in Groundwater, Abolfazl Akbarpour, Mehdi Dastourani, Moein Tosan, **Mohammad Reza Gharib**. Journal of Auifer and Qanat, 2024 (In Persian).*

- *A Review of Smart Water Management for Sustainable Agriculture Based on the Internet of Things, Moein Tosan, Abbas Khashei-Siuki, Ali Maroosi, ***Mohammad Reza Gharib**, Water Management in Agriculture, 2023 (In Persian).*
- *Improvement of steel alloys using indirect cooling grinding (ICG), A. Heydari, M. Pour, ***Mohammad Reza Gharib**, Heliyon, 2023.*
- *Robust QFT Control Design for a Multivariable Torsion/Bending of Rotational Nanoscanner. ***Mohammad Reza Gharib**, A. Koochi, A. Heydari, M. Goharimanesh, ISA Transaction, 2023.*
- *Numerical simulation and new controller design of steerable nano-mirror in ionic liquid electrolytes. ***Mohammad Reza Gharib**, S. Ehsan Davarpanah Baygi, Ali Koochi, Communications in Nonlinear Science and Numerical Simulation, 2023.*
- *Lattice Boltzmann model for simulation of a nano-scanner immersed in ionic dense media. ***Mohammad Reza Gharib**, S. Ehsan Davarpanah Baygi, Ali Koochi, Computers & Mathematics with Applications, 2023.*
- *Examining the Role of Empowerment Criteria on Employee Performance: A Quantitative Analysis in the Oil Industry. ***Mohammad Reza Gharib**, N. Jamali, S. Nikkha Chamanabad, M Goharimanesh, Journal of Engineering Management and Systems Engineering, 2023.*
- *Dynamic viscosity analysis of hybrid nanofluid MWCNT-Al₂O₃/engine oil using statistical models with evaluating its performance in a double tube heat exchanger. A Heydari, M Goharimanesh, **Mohammad Reza Gharib**, Journal of Thermal Analysis and Calorimetry, 2022.*
- *Neuro-Fuzzy Decision Support System for Optimization of the Indoor Air Quality in Operation Rooms. N Jamali, H Razavi, ***Mohammad Reza Gharib**, International Journal of Robotics and Control Systems 3 (1), 98-106, 2023.*
- *Nonlocal coupled thermoelastic analysis of nanobeam under Casimir force. M Arhami, A Koochi, ***Mohammad Reza Gharib**, Archive of Applied Mechanics, 2022.*
- *Optimization of Propofol Dose Estimated During Anesthesia Through Artificial Intelligence by Genetic Algorithm: Design and Clinical Assessment. N Jamali, H Razavi, ***Mohammad Reza Gharib**, Neural Processing Letters, 2022.*

- *Suppressing Vibration of Structures using Nonlinear Single Unit Impact Dampers via Taguchi Method, Mohammad Golmohammadi, Masoud Goharimanesh, Aref Afsharfard, **Mohammad Reza Gharib**, Noise & Vibration Worldwide, 2022.*
- *Analysis of stress and strain of human skull bone in physical injury, **Mohammad Reza Gharib**, Mohammad Rasti, Payam Danesh, Armin Daneshvar, Najme Mohammadyahya, Mechanics of Solids, 2022.*
- *Modeling the ultrasonic atomization process of milk and powder production using spray drying method, Ali Heydari, Masoud Goharimanesh, **Mohammad Reza Gharib**, Ali Koochi, Iranian Food Science and Technology Research Journal, 2022.*
- *An Improved Fuzzy Controller on Electromechanical Nano-Tweezers, A Koochi, M Goharimanesh, ***Mohammad Reza Gharib**, Journal of Vibration and Control. 2022.*
- *Stability Analysis of Nano-wire Made Tweezers in Magnetic Flux, A Koochi, ***Mohammad Reza Gharib**, M Goharimanesh, Journal of Applied and Computational Sciences in Mechanics, 32 (2), 2022.*
- *Designing an Evolutionary Optimal Washout Filter based on Genetic Algorithm, A Gharib, M Goharimanesh, A Koochi, ***Mohammad Reza Gharib**, Aviation 2 (2), 2022.*
- *Investigating the effective factors on employee empowerment with the aim of decentralization in rural economic development, "Case Study: National Iranian Petroleum Products Distribution Company of Torbat Heydarieh", ***Mohammad Reza Gharib**, N Jamali, F Semsar, S Nikkha Chamanabad, Rural Development Strategies, Vol. 8, No. 3, Fall 2021, P. 353-365, 2022.*
- *Experimental investigation of biopolymer efficiency of double selective strain for oil extraction from petroleum reservoirs using microdeletion injection, ***Mohammad Reza Gharib**, A Heydari, P. Danesh, Biomass Conversion and Biorefinery, 2021. (<https://doi.org/10.1007/s13399-021-01951-7>)*
- *Buckling Analysis of Groove Corroded Pipe Due to Axial Pressure with Finite Element Method, Ehsan Rajabiani, ***Mohammad Reza Gharib**, Ali Koochi, International Journal of Steel Structures, 2021. (<https://doi.org/10.1007/s13296-021-00531-9>).*

- *Design of a Non-Singular Fast Terminal Sliding Mode Control for Second-Order Nonlinear Systems with Compound Disturbance*, MRS Kolahi, ***Mohammad Reza Gharib**, A Heydari, part c: *Journal of Mechanical Engineering Science*, 2021. (DOI: 10.1177/09544062211032990)
- *Design of a robust control scheme for path tracking and beyond pull-in stabilization of micro/nano-positioners in the presence of Casimir force and external disturbances*, MRS Kolahi, ***Mohammad Reza Gharib**, A Koochi, *Archive of Applied Mechanics*, 91, P.P.: 4191–4204, 2021.
- *Numerical optimization of a new concept in porous medium considering thermal radiation: Photovoltaic panel cooling application*, M Mesgarpour, A Heydari, S Wongwises, **Mohammad Reza Gharib**, *Solar Energy*, 216, 452-467, 2021.
- *Nonlocal electromagnetic instability of carbon nanotube-based nano-sensor*, A Koochi, M Goharimanesh, **Mohammad Reza Gharib**, *Mathematical Methods in the Applied Sciences*, 1-18, 2021, <https://doi.org/10.1002/mma.7216>.
- *Effects of different window configurations on energy consumption in building: Optimization and economic analysis*, A Heydari, SE Sadati, **Mohammad Reza Gharib**, *Journal of Building Engineering*, 35, 2021, <https://doi.org/10.1016/j.jobee.2020.102099>.
- *Experimental and Numerical Study of Heat Transfer and Tensile Strength of Engineered Porous Fins to Estimate the Best Porosity*, A Heydari, M Mesgarpour, **Mohammad Reza Gharib**, *Jordan Journal of Mechanical & Industrial Engineering* 14 (3), 2020.
- *Comparison of robust optimal QFT controller with TFC and MFC controller in a multi-input multi-output system*, ***Mohammad Reza Gharib**, *Reports in Mechanical Engineering* 1 (1), 151-161, 2020.
- *A QFT robust controller as a remedy for TRMS* M Honari-Torshizi, H Rahmani, H Moeinkhah, **Mohammad Reza Gharib**, *J Jahanpour Aviation* 24 (4), 137-148, 2020.
- *ON THE APPLICATIVE WORKSPACE AND THE MECHANISM OF AN AGRICULTURE 3-DOF 4-CABLE-DRIVEN ROBOT*, Reza Vafapour, ***Mohammad Reza Gharib**, Mostafa Honari-Torshizi, and Mojtaba Ghorbani 36 (1), 137-148, 2021.

- *Path tracking control of electromechanical micro-positioner by considering control effort of the system, ***Mohammad Reza Gharib**, A Koochi, M Ghorbani Proceedings of the Institution of Mechanical Engineers, Part I: Journal of System and Control Engineering, <https://doi.org/10.1177/0959651820953275>, 2021.*
- *Thermoelastic analysis of transient FGM thick cylindrical shells using first order shear deformation theory with considering the vertical transverse strains according to Mirsky Herman, Amirreza Vaziri, Mehdi Ghanad, ***Mohammad Reza Gharib**, Journal of ISME 22 (1), 130-153, 2020.*
- *Quantitative-fuzzy Controller Design for Multivariable Systems with Uncertainty, ***Mohammad Reza Gharib**, A Daneshvar International Journal of Control, Automation and Systems 17 (6), 1515-1523, 2019.*
- *Experimental and numerical investigation of concrete properties effects on fracture toughness under complex loading, ***Mohammad Reza Gharib**, SA Vaziri, R Memarbashi Mechanics Based Design of Structures and Machines, 2019.*
- *Numerical investigation of oscillatory fluid flow through a tesla microvalve, Kazem Mohammadzadeh, ***Mohammad Reza Gharib**, MasoudAbbasi, Modares Mechanical Engineering, Vol. 18, No. 01, pp. 199-210, 2018 (in Persian).*
- *Synthesis of Robust PID Controller for Controlling a SISO System Using QFT Technique, ***M.R. Gharib**, M.Moavenian, Scientia Iranica (Elsevier), 2014.*
- *Full dynamics and control of a quadrotor using quantitative feedback theory, ***Mohammad Reza Gharib**, M. Moavenian, INTERNATIONAL JOURNAL OF NUMERICAL MODELLING: ELECTRONIC NETWORKS, DEVICES AND FIELDS, Johan Wiley, 2015, Published.*
- *Modeling and Control of a SCARA Robot Using Quantitative Feedback Theory, A. A Moghadam and ***Mohammad Reza Gharib**, Proc. IMechE Vol. 223 Part I: J. Systems and Control Engineering, 2009, Vol. 223, No.17, PP. 901 - 918, Published.*
- *VCNC contour following tasks using robust QFT controller, M. H. Torshizi, ***M.R. Gharib**, Iranian Journal of Science and Technology Transactions of Mechanical Engineering, 2014, Published.*

- *A New Generalized Controller for Engine in Idle Speed Condition, ***Mohammad Reza Gharib**, M. Moavenian, Journal of Basic and Applied Scientific Research, 2012, Vol. 2, No. 7, P.P. 6596 - 6604, Published.*
- *Modelling and Linear Multivariable Robust Control for a Power Plant ***Mohammad Reza Gharib**, I. Dabzadeh, S.A. S.Mousavi, S. Kamelian, International Journal of Advance Mechatronic Systems, 2011 - Vol. 3, No.2, PP. 119 - 128, Published.*
- *Application of QFT and Fuzzy Logic to Control of 2-Link Robot Arm ***Mohammad Reza Gharib**, A.A. A.Moghadam, M. Goharimanesh, S.A. S. Mousavi, International Journal of Innovative Computing, Information and Control, 2012, in Publication Process.*
- *Designing a New Piezoelectric Force Sensor, M. Moavenian, H. Behroz, ***Mohammad Reza Gharib**, S. A. Mousavi, F.Khalili, International Geoinformatics Research and Development Group, 2011, Published.*
- *Modeling and robust controller design for an industrial boiler, S. Mostafavi Toroghia, ***Mohammad Reza Gharib**, K. Rahmdel, A. Badri Ramezani, Energy Procedia (Elsevier) Special Issue (Conference selected papers), 2012, Published.*

➤ **Selected Conference Papers**

Conference Papers in English

*Investigating the performance of hybrid neural network model (ANN-MFO) in estimating reference evapotranspiration in semi-humid climate (case study: Gorgan synoptic station), M. Tosan, A. Khashei-Siuki, A. Maroosi, N. Khoshnavaz, **M.R. Gharib**, 5th International Conference on Software Computing, 2024.*

*Stability analysis of nano-actuator: Coupled effects of magnetic field, size dependency and elastic boundary condition, A. Koochi, M. Goharimanesh and **M.R. Gharib**, The 30th Annual International Conference of Iranian Society of Mechanical Engineers-ISME, 2022.*

*How to Correct the Navigation Error Created by The Flowing Water?, **M.R. Gharib** and M. Ardekani Fard, 5th National Conference on Application of Novel Technologies in Engineering Sciences, Torbat Heydarieh, 2021.*

*Multi-Objective Optimized Controller for a Three-Link Manipulator, M. Goharimanesh, A. Gerami, E. Azimirad, A. Koochi, and **M.R. Gharib**, The 28th Annual International Conference of Iranian Society of Mechanical Engineers-ISME, 2020.*

*Modeling and robust controller design for an industrial boiler, S. Mostafavi Toroghia, **M.R. Gharib**, K. Rahmdel, A. Badri Ramezani, 2011 2nd International Conference on Advances in Energy Engineering, published.*

*Control of Human Hand Considering Uncertainties, M. Moavenian, **M.R. Gharib**, A. Daneshvar and S. Alimardani, The International Conference on Modelling, Identification and Control, IEEE 2011, China, published.*

*An Active Noise Control Case Study: Comparison between of Robust Controller and Adaptive Fuzzy Neural Network, **M.R. Gharib**, A. Farshidianfar and S. A. S Mousavi, 5th Symposium on Advances in Science and Technology, Mashhad, 2011, Published.*

*A New Controlling Method for TRMS Based on Robust Approach, J. Jahanpour, M. Honari, and **M.R. Gharib**, International 5th Symposium on Advances in Science and Technology, Mashhad, May 12-14, 2011, Published.*

*Design of a New Piezoelectric Force Sensor, M. Moavenian, H. Behroz, **M.R. Gharib**, S. A. S Mousavi, and F. Khalili, International 5th Symposium on Advances in Science and Technology, Iran, 2011, Published.*

*Modeling and QFT Robust Controller Design for Pressure of Boiler, **M.R. Gharib**, I. Dabzadeh and S.A. S.Mousavi, ASME ESDA 2010, Vol 5, Published.*

*Engine Control Design in Idle Speed Mode Based on Quantitative Feedback Theory, A. Gharib, **M.R. Gharib** and S. A. S Mousavi, ASME ESDA, 2010, Accepted but not registered.*

*A Composite QFT Controller as a Remedy for MIMO Systems, **M.R. Gharib**, A. A Moghadam and S. A. S Mousavi, The 2010 International Conference on Modelling, Identification and Control, IEEE 2010, Published.*

*Comparison QFT Controller Based on Genetic Algorithm with MIMO Fuzzy Approach in a Robot. A. Akbari, **M.R. Gharib**, International 5th Symposium on Advances in Science and Technology, Mashhad, May 12-14, 2010, Published.*

*Quantitative Feedback Theory Controller Design for Vehicle Stability Enhancement, B. Mashhadi, M. Goharimanesh, **M.R. Gharib** and M. Majidi, 10th Biennial Conference on Engineering System Design and Analysis, ASME 2010, Vol 3, Published.*

*Control of Throttle Valve in Idle Speed Condition, A.R. Gharib, **M.R. Gharib**, S. A. S. Mousavi, and M. Gorkani, The 2010 International Conference on Modelling, Identification and Control, IEEE 2010, Published.*

*Robust Controller Design in QFT and Sliding Mood for Boiler Pressure, **M.R. Gharib**, I. Dabzadeh, A. S Mousavi, and S. Kamelian, The 2010 International Conference on Modelling, Identification and Control, IEEE 2010, Published.*

*Optimizing of QFT method by G.A. in Robot control, A.A. Akbari, A.H. Samiee and **M.R. Gharib**, International Conferences on Advances in Mechanical Engineering, MARA University, ICAME, 2009, Published.*

*Robust Controller Design for Idle Speed, **M.R. Gharib**, A. R. Gharib, and M. Goharimanesh, Khomeinishahr, Iran, NUME 2009, Published.*

*A New Approach to Control of Robot, A. Akbarzadeh, **M.R. Gharib** and Y. Farzaneh, IEEE International Conference on Robotics, Automation and Mechatronics, ISI Proceedings, IEEE 2008, Published.*

*Modeling and New PID Robust Control of a Rotary Missile, **M.R. Gharib** and M. Moavenian, IAENG Conferences WCE, ICCIIS 2008, Accepted.*

*Modeling and QFT Robust Controller Design for Missile, **M.R. Gharib**, M. Moavenian and H. Behroz, IEEE International Conference on Cybernetics and Intelligent Systems, IEEE 2008, Accepted.*

*Modeling and Control of One SCARA Robot Using Quantitative Feedback Theory, **M.R. Gharib** and M. Moavenian, IAENG Conferences WCE, ICCSE 2008, Accepted.*

*Modeling and New Parallel Controllers Design for Missile, **M.R. Gharib** and M. Moavenian, IAENG Conferences WCE, ICPDC 2008, Accepted.*

*Linearization and Robust Control of Scara Robot Used in Manufacturing, M. Moavenian, **M.R. Gharib**, A.A. Akbari, and A.H. Samiee, Tehran International Congress on Manufacturing Engineering, TICME 2007, Published.*

*Optimal Controller Design for Two Arm Manipulators Using Quantitative Feedback Theory Method, **M.R. Gharib**, A.A. Amirimoghadam, and M. Moavenian, International Symposium on Automation and Robotics in Construction, Kochi, Kerala, India, ISARC 2007, Published.*

*Optimal and Robust Controller Design for Missile Yaw Channel, M. Moavenian and **M.R. Gharib**, The 7th Iranian Aerospace Society Conference, AERO 2007, Published.*

Conference Papers in Persian

*Numerical study of the effect of porous angled baffles on the performance of shell and tube heat exchangers, Ali Heidari and **M.R. Gharib**, 5th National Conference on Application of Novel Technologies in Engineering Sciences, Torbat Heydarieh, 2021.*

*Nonlinear robust control solution for control switching, **M.R. Gharib** and MRS Kolahi, 5th National Conference on Application of Novel Technologies in Engineering Sciences, Torbat Heydarieh, 2021.*

*Comparison of the Effect of Returned Smoke and Injected Water Vapor on Controlling Combustion Temperature of Homogeneous Fuel Combustion Engine, **M.R. Gharib**, A. Heidari, A. Koochi, and M. Goharimanesh, Shahrekord, 3rd National Conference on Applied Mechanical Engineering, 2020.*

*Investigation of the effect of oscillating currents on the aerodynamics of consecutive airfoil pairs, A. Heidari and **M.R. Gharib**, Iranian Society of Thermal and Refrigeration Engineering, Tehran, 2020.*

*Optimization of water consumption using gray water, J.Yadegari, **M.R. Gharib** and M. Abedpour, 1st National Conference on Environmental Geotechnics, Shiraz, 2018.*

*Simulation of Shaping and Investigation of Spring Behavior of Diesel Vehicle Cylinder Head Washers, A. Vaziri, **M.R. Gharib** and M. Rasti, 1st National Conference on Applied Research in Electrical, Mechanical, Computer and Information Technology Engineering, Shiraz, 2018.*

*Investigate and compare various types of car suspensions and simulate Vibration, A. Vaziri, **M.R. Gharib** and M. Rasti, 4th National Conference on Applied Research in Electrical, Mechanical, Computer and Information Technology Engineering, Shiraz, 2018.*

*Wastewater recycling and use of gray water according to the correct consumption pattern and solutions to increase system efficiency, M. Miri, M. Hoshyar, M. Yadollahi **M.R. Gharib**, 2nd International Conference on Mechanics and Aerospace of Iran, Tehran, 2017.*

*Control of wheel and ball system using linearization method, P. Abbasnia and **M.R. Gharib**, 25th Annual International Conference on Mechanical Engineering of Iran, Tehran, 2017.*

*Simulation and calculation of conservation for the establishment of neutron source laboratory in Torbat Heydarieh University using Monte Carlo method, E. Taghizadeh, **M.R. Gharib**, 3rd National Conference on Torbat Heydarieh region development perspective in 1404, Torbat Heydarieh, 2016.*

*Modelling and robust controlling of a Multi input-Multi output Twin Rotor system, J. Enferadi, M. Honari, A. Gharib and **M.R. Gharib**, AERO 2011.*

*Designing a New Mechanism for Tooth Cutting Tool, A. Mohseni, **M.R. Gharib**, S. Moshari, S.A. S. Mousavi, and H. Behroz, 11th Iranian Conference on Manufacturing Engineering (ICME 2010), Tabriz, Iran, Oct. 2010.*

*Modeling and control of Mashhad power plant pressure, **M.R. Gharib** and I. Dabzadeh, 2th Electricity Power Plants Conference, 2009.*

*Fault Detection of Cutting Tools and Drive System of Machining Tools in Milling Operation by Soft Computation Conceptions, M. Shahab, M. Moavenian and **M.R. Gharib**, The 16th Annual International Conferences on Mechanical Engineering, ISME 2008, Published.*

*Analyzing of the Effective Parameters on Helical Rotor Pumps Operation, J. Goharian, **M.R. Gharib** and A.A. Akbari, Iran Rotate 2008.*

*Modeling and Rotary Missile Using QFT Technique, **M.R. Gharib**, A.A. Amirimoghadam and K. Torabi, The 6th Iranian Aerospace Society Conference, AERO 2006.*

■ Research Interests

- Sensor Error, Modeling, and control
- Robust Control (QFT, MIMO System, H inf)
- MEMS-NEMS
- Control of Power Plant

- Intelligent Control (Fuzzy, Neural Networks)*
- Robotics and remote control*
- Modeling and Control of Sensors and Actuators*

■ Education

- Sep. 2010-
Sep. 2015
Ph.D. in "Mechanical Engineering-Applied Design "
MASHHAD, IRAN
- Sep. 2005-
Sep. 2007
M.Sc. in "Mechanical Engineering-Applied Design "
MASHHAD, IRAN
- Sep. 2000-
Sep. 2004
B.Sc. in "Mechanical Engineering-Solid Design "
MASHHAD, IRAN

■ Thesis

- Ph.D.
Thesis: *"Modeling and Robust controller design for a 6 Degree of Freedom (Quadrotor) Robot Based on Probability Theory in Uncertainty."*
- M.Sc.
Thesis: *"Dynamics Modeling Analysis and Optimal MIMO Controller Design for SCARA 2R and Four Arm Manipulators Using Quantitative Feedback Theory Method."*
- B.Sc.
Thesis: *"Design and Analysis of Helical Rotor Pump"*

■ Courses and Specializations

- Robotics Kinematics and Dynamics*
- MEMS/NEMS Dynamics*
- Vibration*
- Robust Control*
- Advanced Vibration*
- Sensor Noise and Control*
- Advanced Automatic Control*
- Sensor Error*
- Automation in Production*
- Advanced Mathematics*
- Methods of Numerical Analysis*
- Dynamic Systems*
- Seminar*
- Project*

Computer Skills

- Mathematical software: *MATLAB, MAPLE*
- General software: *Microsoft Office (Word, PowerPoint, Excel)*
- Mechanical Engineering Software: *VISUALNASTAN DESKTOP, ADAMS, H inf, Robotic Toolbox, QFT Toolbox, Fuzzy Toolbox, ANSYS, AND COMSOL*

Hobbies and Interests

- Classical Music*
- Reading Poem, Novel and Sport (Football, Chess & Swimming)*