


Name: Seyed Reza Hamzeloo		
Academic Rank: Assistant Professor Email: rehamzeloo@sru.ac.ir Tel:+98-21-22970052		Website:
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ORCID ID 55317822700		
Education		
Institute	Degree	
Amirkabir University of Technology (Polytechnic of Tehran)	PhD-Mechanical Engineering (Structural Health Monitoring)	
Amirkabir University of Technology (Polytechnic of Tehran)	MSc-Mechanical Engineering-Manufacturing	
University of Tabriz	BSc-Mechanical Engineering- Manufacturing and Production	
Research Experience		
1	Structural Health Monitoring- Condition Monitoring and Damage Detection	
2	Mechatronics and Automation	
3	Finite Element Analysis-Stress Analysis and Residual Life Estimation	
4	Metal and Sheet Metal Forming Analysis	
Awards and Honors		
	Selected Educational Award for Professors at University-2018	
Research Projects		
Investigating Failure Mechanisms in Bending of Sandwich Panels by Acoustic Emission Method		
Investigating Corrosion Damage in Structures and Pipes by Electromechanical Impedance Method		
Design and Producing a 3D Laser Scanner		
Design and Producing a 5 D.O.F Robotic Arm with a Windows-Based Controller		
Estimating Tool Wear by Analysing Vibration Signals		
Structural Health Monitoring and Damage Detection of L-shaped Aluminium Frame and prediction of Impedance spectrum		
Applying Impedance Method for Health Monitoring of Machining Tool Tip		

Study of Fracture Mechanisms of Composite Sandwich Panels due to Impact by Acoustic Emission Method	
Magnetic, Thermo-elastic and Aerodynamic analysis of an Electromagnetic Launcher	
Design and Commissioning of a Fault Diagnosis System for a Thin-Wall Reservoir	
Designing the Road Map of Damage Detection and Life Estimation of Aged Aircrafts	
Equipping the Advanced Damage Detection and Crack Growth Laboratory	
Journal Papers	
1	Reza Hamzeloo, Mehdi Mashhadi, Meghdad Fallah, Dec(2020), "In-Vitro Study and Mechanical Characteristics of Dental Implants Made of Various Materials and Fabrication Methods", Journal of Mechanics in Medicine and Biology, Accepted Paper, Under Press, (JMMB-D-20-00005).
2	Kalantari O, Fallah M, Jafarian F, Hamzeloo S.R. (2020), "Surface integrity in laser-assisted machining of Ti6Al4V" <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> . December 2020. doi: 10.1177/0954406220978255
3	Shima Rastgordani, Ali Ch Darabi, Javad Kadkhodapour, Seyed Reza Hamzeloo, Mohammadreza Khoshbin, Siegfried Schmauder, Javad Mola, (2020), "Damage Characterization of Heat-Treated Titanium Bio-alloy (Ti-6Al-4V) Based on Micromechanical Modeling", <i>Surface Topography: Metrology and Properties Journal</i> . 8 045016, https://doi.org/10.1088/2051-672X/abc0f8
4	Seyed Reza Hamzeloo, Mohsen Barzegar, Mohsen Mohsenzadeh (2020), "Damage Detection of L-Shaped Beam Structure with a Crack by Electromechanical Impedance Response: Analytical Approach and Experimental Validation", Journal of Nondestructive Evaluation, 39, 47. https://doi.org/10.1007/s10921-020-00692-3
5	Mohsen Mohsenzadeh, Seyed Reza Hamzeloo , Ali Pourkamali Anaraki (2020), "Analytical Model of the Electro-Mechanical Impedance Response of Frame Structures with L-Shaped Beams", Researcher in Nondestructive Evaluation, 31(3), pp. 187-202, https://doi.org/10.1080/09349847.2019.1709677
6	S.R. Hamzeloo, B. Akhondi, M. Fatehi, Diagnosis and evaluation of factors affecting corrosion damage detection in health monitoring of cantilever beam by electromechanical impedance method, Iranian Journal of Manufacturing Engineering, Vol. 7, No. 7, pp. 59- 70, 2020 (in Persian)
7	S. R. Hamzeloo, B. Akhondi, M. Fatehi, "Monitoring and detection of corrosion defect in the inner wall of the metal tube by non-destructive electromechanical impedance method", Iranian Journal of Manufacturing Engineering, Vol. 7, No. 6, pp. 8- 17, 2020 (in Persian)
8	Bagher, Behrouz, Abbasi, Mahmoud, Hamzeloo, Reza (2020), "Investigation into Vibration Effect on Microstructure and Mechanical Characteristics of Friction Stir Spot Vibration Welded Aluminum: Simulation and Experiment", Proceeding of Institute of Mechanical Engineering, Part C: Journal of Mechanical Engineering Science, 234(9):1809-1822. doi: 10.1177/0954406219900194
9	Behrouz Bagheri, Mahmoud Abbasi, Reza Hamzeloo, "Comparison of different welding methods on mechanical properties and formability behaviors of tailor welded blanks (TWB) made from AA6061 alloys", <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> . August 2020. doi: 10.1177/0954406220952504
10	Mohsenzadeh, M., Hamzehloo, S., pourkamali anaraki, A. (2020). Impedance-based structural health monitoring of an Aluminium frame. <i>ISME journal</i> , 22(1), pp.91-108 (Acceptance in 2018), (In Persian)-. doi: 10.30506/ijmep.2020.90780.1442
11	Hamzeloo, S., Refahi Oskouei, A., Zakizadeh, A. Applying acoustic emission to investigate failure mechanisms on bending of polymer-based composite sandwich panels. <i>Journal of Science and Technology of Composites</i> , (In Persian), 2020; 7(3): 1029-1039. doi: 10.22068/jstc.2020.116440.1599

12	Ali Rahmani Hanzaki, Lila Imani, Reza Hamzeloo, Behnam Davoodi (2019), "Modelling and Optimizing of Cutting Force and Surface Roughness in Milling Process of Inconel-738 Using Hybrid ANN and GA", Proceeding of Institute of Mechanical Engineering, Part B: Journal
13	Ali jafari, Seyed Reza Hamzeloo. "Investigating Damages of Drop Impact on Sandwich Panel Shell by Finite Element Method and Acoustic Emission". <i>NDT Technology</i> , 2, 5, 2020, 60-69. doi: 10.30494/jndt.2020.216643.1033
14	Fallah M., Hamzeloo S.R (2019), "Investigating the effect of cutting condition on the plastic energy in turning process of AISI 1050", international journal of advanced design and manufacturing technology, Vol.12, No.3, 1-8.
15	S. R. Hamzeloo, A. Refahi Oskoui, M. Varmazyar, Design and construction of laser thickness measurement device and analysis the effect of variation of the scanning depth of field and ambient light intensity on the accuracy of point cloud, Iranian Journal of Manufacturing Engineering, Vol. 6, No. 9, pp. 37- 44, 2019 (in Persian)
16	Mehdi Mashhadi, Reza Hamzeloo, Mostafa Varmazyar, "Review of Fabrication of Dental Implants based on Optimal manufacturing factors to achieve desired Mechanical and Biocompatible Properties" Mechanical Engineering Journal, 28(2), pp.7-25, 2018 (In Persian)
17	L. Imani, A. Rhmani Hanzaki, R. Hamzeloo, B. Davoodi, "Modeling and optimization of cutting force and surface roughness in the milling process of Inconel 738 by Neural Network and Genetic Algorithm", Iranian Journal of Manufacturing Engineering, Vol. 6, No. 5, pp. 25-38, 2019 (in Persian)
18	Amir Mohamad Zakizadeh, Amir Refahi Oskouei, Reza Hamzeloo. (2019), "Damages Evaluation of low velocity impact on Glass/Polyester-foam sandwich panels using the Acoustic Technique". <i>Journal of Science and Technology of Composites</i> , 6, 2, pp. 319-329. doi: 10.22068/jstc.2019.96806.1485
19	Varmazyar M., Hamzeloo S.R, "Thermoelastic Analysis of an Electromagnetic Launcher Using Finite Volume Method", AEROSPACE MECHANICS JOURNAL, 2019, Volume 15 , Number 2 (56); pp. 67-75, https://www.sid.ir/en/journal/ViewPaper.aspx?ID=647691
20	Arash Mohammadi, Mostafa Varmazyar, Reza Hamzeloo (2018), "Simulation of combustion in a porous-medium diesel engine", Journal of Mechanical Science and Technology (KSME), 32, pp.2327–2337. https://doi.org/10.1007/s12206-018-0444-x
21	Zakizadeh A.M, Hamzeloo S.R, Refahi Oskouei A. Estimating the Residual Strength of Polyurethane Foam Core Sandwich Panels with Fiber Glass- Polyester Skin Using Acoustic Emission" Modares Mechanical Engineering Journal, Vol.19(3), pp:587-596 (In Persian). http://mme.modares.ac.ir/article-15-18550-en.html
22	M. Varmazyar, S.R. Hamzeloo, H. Afshar, M. Bazargan, "An Algorithm Based on Filtering of Pressure for Simulation of Low Mach Number Flow with Non-Ideal Fluid, Using LBM", Fluid Mechanics and Aerodynamics Journal, Vol. 7, No. 1, PP. 13_25, 2018 (In Persian)
23	M. Mashhadi, R. Hamzeloo, J. Kadkhodapoor, "Experimental study of the electrochemical corrosion rate of medical implants of titanium and stainless steel made by machining and selective laser melting under different surface conditions", Iranian Journal of Manufacturing Engineering, Vol. 4, No. 2, pp. 1-9, 2018 (in Persian)
24	M. Varmazyar, M.R. Habibi, A. Mohammadi, S.R. Hamzeloo, "Introduced a Modified Set of Condition of Lattice Boltzmann Method Based on Bennett extension in Presence of Buoyancy.." <i>Iranian Journal of Mechanical Engineering (ISME)</i> , Vol. 18, No. 2, PP. 5_22, 2017.
25	Seyed Reza Hamzeloo; Mohammad Morad Sheikhi; Hossein Akbari. "Assessment of a Column Type Six-Component Force/Torque Sensor by Theoretical, Simulation and Experimental Approaches". <i>Journal of Simulation and Analysis of Novel Technologies in Mechanical Engineering</i> , 9, 4, 2016, 647-660.

26	M. Abbasi & S. R. Hamzeloo & M. Ketabchi & M. A. Shafaat & B. Bagheri (2014), "Analytical method for prediction of weld line movement during stretch forming of tailor-welded blanks", Int J Adv Manuf Technol, 73, pp.999-1009. https://doi.org/10.1007/s00170-014-5850-3
27	Seyed Reza Hamzeloo, Mahnaz Shamshirsaz, Seyed Mehdi Rezaei (2012), "Damage detection in hollow cylinder by Electromechanical Impedance method, Experiment and Finite Element Modeling", Comptes Rendus Mecanique journal, 340(9), pp.668-677. https://doi.org/10.1016/j.crme.2012.07.001
Conference Papers	
1	Ali Jafari, Seyed Reza Hamzeloo, Amir Refahi Oskuei, "Investigating delamination in sandwich panels caused by low-velocity impact" The 2nd National Conference on Computational and Experimental Mechanics, SRTTU, Tehran 2 ^Y Feb-(CEM2020).
2	Mohammad javad firouzi, Reza Hamzeloo, "Investigation the effect of hollow sphere topology on energy absorption of epoxy resin composite foams as energy absorbers by Abaqus" The 2nd National Conference on Computational and Experimental Mechanics, SRTTU, Tehran 2 ^Y Feb -(CEM2020).
3	Barzegar M, Mohsenzadeh M, Hamzeloo SR, Shokufa O, Omidvar A, "Analytical Model for Electromechanical Impedance of L-Shaped Beam", (ISME2019)-2024, Modares University, Tehran, Iran.
4	Mohsenzadeh M, Barzegar M, Hamzeloo, SR, Shokufa O, Hosseini MR, "Electromechanical Impedance of a Frame with Crack: Analytical Method ", (ISME2019)-2057, Modares University, Tehran, Iran .
5	Givi M., Cheraghi A., Abbasi M., Hamzeloo S., Sadeghzadeh A., "Developing Grain Refinement and Superplasticity in an Al 7075 Alloy Processed by High-Pressure Torsion", Proceedings of 7th International Conference on Materials Engineering and Metallurgy (IMAT 2018), Tehran, Iran, 2018.
6	Alireza Khaleghi, Reza Hamzeloo, Amir Refahi Oskuei, "An empirical study on fracture mode I of Epoxy/Glass composite beam containing CNT using Electromechanical Impedance(EMI) method" The First National Conference on Computational and Experimental Mechanics, SRTTU, Tehran 28 Feb-(CEM2019).
7	Ali Sharifi, Seyed Reza Hamzeloo, "Simulation and position controller design of actuator in servo hydraulic system using model reference adaptive control", The First National Conference on Computational and Experimental Mechanics, SRTTU, Tehran 28 Feb-(CEM2019).
8	Omid kalantari ¹ , Mohammad meghdad fallah, seyed reza hamzeloo, farshid jafarian, "A Study on the effect of process parameters on surface roughness and temperature in laser assisted machining" The First National Conference on Computational and Experimental Mechanics, SRTTU, Tehran 28 Feb-(CEM2019).
9	A.M.Zakizadeh, A. Refahi, R. Hamzeloo, " Finding Optimum Lay-up in Polymer/Foam Sandwich Pannels with Impact Strength Point of View Using Acoustic Emission", 3rd International Conference on Mechanical and Aerospace Engineering, May 2018, Tehran, Iran.
10	Mehdi Mashhadi, Reza Hamzeloo, Javad Kadkhodapoor, "Study of the Electrochemical Corrosion Rate and Hardness of Medical Implants of Titanium and Stainless Steel", 3rd International conference of Science and Engineering in Technology Era, 30 Nov. 2017, Copenhagen-Denmrk.
11	Seyed Reza Hamzeloo, Mehdi Danesh, Mehdi Oudi Zare, "Investigating the effect of machining parameters on the electromechanical impedance of instrumentation in order to monitor the state of the tool" 2nd International Conference Applied Researches in Mechatronic, Mechanical and Electrical Engineering, February 2016, Tehran, Iran.

12	Seyed Reza Hamzeloo, Mahnaz Shamshirsaz, Seyed Mehdi Rezaee, "Detection of internal faults in metallic cylinders by electromechanical impedance measurement", 7 th Specialized Conference on Mechanical Position Monitoring and Troubleshooting, Kish, 2012.
13	Seyed Reza Hamzeloo, Mahnaz Shamshirsaz, Seyed Mehdi Rezaee, "Evaluation of the health of thin-walled cylinders by Lamb wave propagation method", 7 th Specialized Conference on Machine Condition Monitoring and Troubleshooting, Kish Iran 2012.
14	Behnam Akhoundi, Mahnaz Shamshirsaz, Seyed Reza Hamzeloo, "Health Monitoring and Diagnosis of Corrosion Caused by Corrosion in an Aluminum Tube by Electromechanical Impedance", 6th Iranian Conference on the Condition Monitoring and Troubleshooting, Tehran, Sharif University of Technology, March, 2011.
15	Behnam Akhoundi, Mahnaz Shamshirsaz, Seyed Reza Hamzeloo, "Effect of Corrosion Damage Distance on Damage Criterion in Health Track Monitoring by ElectroMechanical Impedance", 6th Iranian Conference on the Situation and Troubleshooting in Tehran, Sharif University of Technology, March, 2011.
16	Behnam Akhoundi, Mahnaz Shamshirsaz, Seyed Reza Hamzeloo, "Real-time diagnosis of corrosion damage in a Cantilever beam by electromechanical impedance", 12th Iranian Conference on Manufacturing Engineering, University of Tehran, December 2011.
17	Bijan Mollaei Daryani, Seyyed Reza Hamzehlou "Investigation of the Density of TWB Sheets in One-Axis Tensile and Density", 15th International Conference on Mechanical Engineering, Amirkabir University of Technology, 2007.
18	Bijan Mollayi Daryani, Seyyed Reza Hamzeloo, "Investigating the Deep Drawing and Formability of TWB Sheets", 10th National Conference on Materials Engineering, Ferdowsi University of Mashhad, 2006.