

PUBLICATIONS

Refereed Journal Papers:

1. Farrahi G H, Markho P H and Maeder G, A study of fretting wear with particular reference to measurement of residual stresses by X-ray diffraction, *Wear* 148(1991), pp. 249-261
2. Farrahi G H and Maeder G, An experimental study of fretting by means of X-ray diffraction, *Fatigue Fract. Engng Mater. Struct.*, 15(1992), pp.91-102
3. Fernando U S, Farrahi G H and Brown M W, Fretting fatigue crack growth behaviour of BS L65 4% copper aluminium alloy under constant normal load, *Fretting Fatigue*, ESIS 18(Edited by R B Waterhouse and T C Lindley), Mechanical Engineering Publications, London, (1994), pp. 183-195
4. Farrahi G H and Lebrun J L, Surface hardness measurement and microstructural characterisation of steel by X-ray diffraction profile analysis, *Journal of Engineering*, Vol. 8, No. 3(1995), pp. 159-167
5. Farrahi G H, Lebrun J L and D Couratin, Effect of shot peening on residual stress and on fatigue life of a spring steel, *Fatigue Fract. Engng Mater. Struct.*, 18(1995), pp. 211-220
6. Majzoubi G H, Farrahi G H, Dynamic and quasi-static tensile properties of structural S400 steel *Journal of Engineering*, 13(1999), pp. 51-60
7. Smith D J, Farrahi G H, Zhu W X and McMahon C A, Obtaining multiaxial residual stress distribution from limited measurements, *Journal of Materials Science and Engineering A*, 303 (2001), pp. 281-191
8. Smith D J, Farrahi G H, Zhu W X and McMahon C A, Experimental measurement and finite element simulation of the interaction between residual stresses and mechanical loading, *International Journal of Fatigue*, 23(2001), pp.293-302
9. Farrahi G H, Smith D J, Zhu and McMahon, Influence of Residual Stress on Fatigue Life of Hot Forged and Shot Blasted Steel Components, *International Journal of Engineering*, Vol. 15, No. 1, (2002), pp.79-86
10. G. H. Farrahi, G.H. Majzoobi, Crack behaviour of the aluminium alloy 2024 under fretting conditions, *International J. of Engineering*, Vol. 15, No. 3A (2002), pp. 287-292
11. G.H. Majzoobi, G.H. Farrahi, F. Ferdows Farahani, Efficiency of anti-hourglassing approaches in finite element method, *International J. of Engineering*, Vol. 16, No. 1A (2003), pp. 79-88
12. G. H. Majzoobi, G. H. Farrahi and A.H. Mahmoodi, A Finite Element Simulation and an Experimental Study of Autofretting for Strain Hardened Thick-walled Cylinders, *J. of Material Science and Engineering A*, A359(2003), issue 1-2, pp. 326-331

13. G. H. Majzoobi, G. H. Farrahi, M. K. Piplezadeh, A. Akbari, Experimental and Finite Element Prediction of Bursting Pressure in Compound Cylinders, *International Journal of Pressure Vessels and Piping*, 81 (2004) 889-896
14. G. H. Majzoobi, G.H. Farrahi, S. J. Hardy, M. K. Pipelzadeh & N. Habibi, Experimental Results and Finite Element Predictions of the Effect of Nut Geometry, Washer and Teflon Tape on the Fatigue Life of Bolts, *Fatigue and Fracture of Engineering materials & Structures*, 28(2005), 557-564
15. G. H. Majzoobi, G. H. Farrahi, N. Habibi, Experimental evaluation of the effect of thread pitch on fatigue life of bolts, *International Journal of Fatigue*, 27 (2005) 189-196
16. G. H. Farrahi, G.H. Majzoobi, H. Chinesh, An investigation into the effect of contact geometry on fretting fatigue life for aluminium alloy 2024-T3, *Indian J. of Engineering and Materials Sciences*, 12(2005), 331-336
17. M. A. Hamed, A. Nosier, G. H. Farrahi, Separation of delamination modes in composite beams with symmetric delaminations, *Materials & Design*, 27(2006), 900-910
18. G. H. Farrahi, H. Ghadbeigi, An investigation into the effect of various Surface treatments on fatigue life of a tool steel, *J. of Materials Processing Technology*, 174(2006), 318-324
19. G. H. Farrahi, G. H. Majzoobi, F. Hosseinzadeh, S. M. Harati, Experimental evaluation of the effect of residual stress field on crack growth behaviour in C(T) specimen, *Journal of Engineering Fracture Mechanics*, 73(2006), 1772-1782
20. G.H. Farrahi, A. Khalaj, Estimation of fatigue damage caused by actual roads and manoeuvres on proving ground, *International Journal of Achievements in Materials and Manufacturing Engineering*, 14(2006) 90-96
21. G.H. Farrahi, A. Mohajerani, Effect of residual stress on stress intensity factors of fretting fatigue cracks, *International J of Microstructure and Materials Properties*, vol. 2, no. 2 (2007) 164-177
22. G. Ghajar, G Rashed, G.H. Farrahi, Multiaxial Stress-Strain Modelling and Effect of Additional Hardening due to Nonproportional Loading, *Journal of Mechanical Science and Technology*, 21(2007) 1153-1163.
23. M. Mohammadi, G.H. Farrahi, S. H Hoseini, Bauschinger Effect Investigation of an Aluminium Alloy, and its Application in Autofrettaged and Compound Tubes, *ASME, Pressure Vessels and Piping Division (Publication) PVP* 6(2008), pp. 629-637
24. M. Mohammadi, G.H. Farrahi, S. H Hoseini, Material Removal Simulation of Aluminium Compound Tubes with Incorporating Real Unloading Behavior, *ASME, Pressure Vessels and Piping Division (Publication) PVP* 3(2008), pp. 195-201
25. M. Mohammadi, G.H. Farrahi, S. H Hoseini, Determination of Residual Stresses in Autofrettaged Compound Tubes for Different Geometries, *ASME, Pressure Vessels and Piping Division (Publication) PVP* 5(2008), pp.53-61
26. Mohajerani, G.H. Farrahi, Investigation of the Effect of Pad Geometry on Flat and Rounded Fretting Fatigue, *Scientia Iranica*, Vol. 15, No. 3 (2008), pp. 333-339

27. S. H. Hoseini, T. Peirbedaghi, M. Asgari, G.H. Farrahi, M. T. Ahmadian, Nonlinear free Vibration of Conservative oscillators with inertia, *Journal of Sound and Vibration*, 316(2008), pp.263-273
28. G. H. Farrahi, E. Hosseinian, A. Assempour, General Variable Material Property Formulation for the Solution of Autofrettaged Thick-Walled Tubes with Constant Axial Strains, *J. of Pressure Vessel Technology*, ASME, 130(4), 2008, 041209 (7 pages)
29. G. H. Farrahi, M. Sadighi and A. Esmati, Effect of Residual Stress on Fatigue Life of Rotating Components, *Sharif Journal*, 51(2), 2009, pp. 77-83 (in Persian)
30. Majzoobi, G.H., Nemati, J., Novin Rooz, A.J., Farrahi, G.H., Modification of fretting fatigue behavior of AL7075-T6 alloy by the application of titanium coating using IBED technique and shot peening, *Tribology International*, 42(1), 2009, pp.121-129
31. T. Peirbedaghi, S. H. Hoseini, M. T. Ahmadian, G.H. Farrahi, Duffing equations with cubic and quintic nonlinearities, *Computers and mathematics with Applications*, 57(3), 2009, pp. 500-506
32. G. H. Farrahi, E. Hosseinian, A. Assempour, On the material modelling of the autofrettaged pressure vessel steels, *J. of Pressure Vessel Technology*, ASME, 131(5), 2009, pp. 051403(6 pages)
33. E. Hosseinian, G. H. Farrahi, M. R. Movahhedy, An analytical framework for the solution of autofrettaged tubes under constant axial strain condition, *J. of Pressure Vessel Technology*, ASME, 131(6), 2009, pp. 061201 (8 pages)
34. Y. Tadi Beni, M. R. Movahhedy, G. H. Farrahi, Rate Dependent Dynamic ALE Analysis of Finite Deformation of Elasto-Viscoplastic Solids, *Materials & Design*, 30(8), 2009, pp.2995-3005
35. G.H. Farrahi, M.Sistaninia, Thermal analysis of laser hardening for different moving patterns, *International Journal of Engineering*, 22(2), 2009, pp.169-180
36. G.H. Farrahi, S.A. Faghidian and D.J. Smith, An Inverse Approach to Determination of Residual Stresses Induced by Shot Peening, *International J. of Mechanical Sciences*, 51(9-10), 2009, pp. 726-731
37. G.H. Farrahi, S.A. Faghidian and D.J. Smith, Reconstruction of Residual Stresses in Autofrettaged Thick-Walled Tubes from Limited Measurements, *International Journal of Pressure Vessels and Piping*, 86(11), 2009, pp. 777-784
38. G.H. Farrahi, S.A. Faghidian and D.J. Smith, A New Analytical Approach to Reconstruct Residual Stresses Due to Turning Process, *ICAM2009, World Academy of Science Engineering and Technology* 55, 2009, pp. 453-457
39. G. H. Majzoobi, G. H. Farrahi, and A. Fadaee, Probabilistic analysis of welding residual stress on fatigue crack growth, *The Arabian J. for Science and Engineering*, 34(1C), 2009, pp. 183-193

40. B. Haghpanah Jahromi, G.H. Farrahi, M. Maleki, H. Nayeb-Hashemi, A. Vaziri, Residual stresses in autofrettaged vessel made of functionally graded material, *Engineering Structures*, 31, 2009, pp. 2930-2935
41. S.H. Hoseini, T. Pirbodaghi, M.T. Ahmadian, G.H. Farrahi, On the large amplitude free vibrations of tapered beams: an analytical approach, *Mechanics Research Communications*, 36 (8), 2009, pp. 892-897
42. Y. Tadi Beni, M.R. Movahhedy and G.H. Farrahi, Development and Application of an ALE Large Deformation Formulation, *Amirkabir/MISC* 2009; 41(1):17:24.
43. M.H. Kargarnovin, S.A. Faghidian, Y. Farjami, G.H. Farrahi, Application of homotopy-Pade technique in limit analysis of circular plates under arbitrary rotational symmetric loading using von-Mises yield criterion, *Commun Nonlinear Sci Numer Simulat*, 15(4), 2010, pp. 1080-1091
44. G. H. Farrahi, G. H. Majzoobi and A. Fadaee, Prediction by Genetic Algorithm and Measurement by Center Hole Drilling of Residual Stresses of MAG weldment, *Advanced Materials Research*, 83-86, 2010, pp 738-745
45. M. Maleki, G.H. Farrahi, B. Haghpanah Jahromi, E. Hosseinian, Residual stress analysis of autofrettaged thick-walled spherical pressure vessel, *International Journal of Pressure Vessels and Piping* 87 (2010) 396-401
46. Y. Tadi beni, M.R. Movahhedy and G.H. Farrahi, A Complete Treatment of Thermo-Mechanical ALE Analysis; Part I: Formulation. *Iranian Journal of Science and Technology, Transaction B: Engineering*, 2010; 34(B):135:148.
47. Y. Tadi beni, M.R. Movahhedy and G.H. Farrahi, A Complete Treatment of Thermo-Mechanical ALE Analysis; Part 2: Finite Element Equations and Applications. *Iranian Journal of Science and Technology, Transaction B: Engineering*, 2010; 34(B):149-165.
48. Mohajerani, G.H. Farrahi, Numerical investigation of crack orientation in the fretting fatigue of a flat rounded contact, *International Journal of Engineering*, 23(3), 2010, pp.223-232
49. G.H. Farrahi, S.A. Faghidian and D.J. Smith, An Inverse Method for Reconstruction of Residual Stress Field in Welded Plates, *J. of Pressure Vessel Technology*, ASME, 132, 061205 (2010) (9 pages)
50. G. H. Farrahi, M. Tirehdast, E. Masoumi K.H., S. Parsa, M. Motakefpoor, Failure Analysis of a gas turbine compressor, *Engineering Failure Analysis* 18 (2011) 474-484
51. S. M. H-Gangaraj, Y. Alvandi-Tabrizi, G. H. Farrahi, G. H. Majzoobi, H. Ghadbeigi, Finite element analysis of shot-peening effect on fretting fatigue parameters, *Tribology International* 44 (2011) 1583-1588
52. R. Jahedi, G.H. Farrahi, E. Poursaeedi, Stress Relieving of Locally Hardened Rotor Steel, *J. of Sharif*, 51/2 (2010) 77-83 (in Farsi)
53. S. M. Hassani-Gangaraj, M. Guagliano, G. H. Farrahi, Finite Element Simulation of Shot Peening Coverage with the Special Attention on Surface Nanocrystallization, *Procedia Engineering* 10 (2011) 2464-2471

54. Moridi, M. Azadi, G.H. Farrahi, Coating thickness and roughness effect on stress distribution of A356.0 under thermo-mechanical loadings, *Procedia Engineering* 10 (2011) 1372-1377
55. Hassani, M.H. Hojjati, G.H. Farrahi, R.A. Alashti, Semi-exact elastic solutions for thermo-mechanical analysis of functionally graded rotating disks, *Composite Structures* 93 (2011) 3239-3251
56. S.M.H. Gangaraj and G.H. Farrahi, Side effects of shot peening on fatigue crack initiation life, *International Journal of Engineering, Transactions A: Basics* Vol. 24, No. 3, September 2011, pp275-280
57. G.H. Farrahi, S.M. H-Gangaraj, S. Abolhassani, F. Hemmati, M. Sakhaei, Failure analysis of a four-cylinder diesel engine crankshaft made from nodular cast iron, *The Journal of Engine Research*, Vol. 22 (2011) 21-27
58. A. Razavi, F. Hafezi and G.H. Farrahi, FEM prediction of welding residual stresses and temperature fields in butt and T-welded joints, *Advanced Materials Research* Vols. 418-420 (2012) 1486-1493. <http://dx.doi.org/10.4028/www.scientific.net/AMR.418-420.1486>
59. N. Habibi, S.M. H-Gangaraj, G.H. Farrahi, G.H. Majzoobi, A.H. Mahmoudi, M. Daghigh, A. Yari, A. Moridi, The effect of shot peening on fatigue life of welded tubular joint in offshore structure, *Materials & Design* 36 (2012) 250-257. <http://dx.doi.org/10.1016/j.matdes.2011.11.024>
60. M. Azadi, A. Moridi, G.H. Farrahi, Optimal experiment design for plasma thermal spray parameters at bending loads, *Int. J. Surface Science and Engineering*, Vol. 6, Nos. 1/2 (2012), pp.3-14. <http://dx.doi.org/10.1504/IJSURFSE.2012.046837>
61. S.A. Faghidian, D. Goudar, G.H. Farrahi, and D.J. Smith, Measurement, Analysis and Reconstruction of Residual Stresses, *Journal of Strain Analysis for Engineering Design*, May 2012 47(4): 254-264. <http://dx.doi.org/10.1177/0309324712441146>
62. G. Z. Voyiadjis, S. H. Hoseini, G. H. Farrahi, Effects of the stress invariants and the reverse loading on the ductile fracture initiation. *International Journal of Solids and Structures*, 49 (2012) 1541-1556 <http://dx.doi.org/10.1016/j.ijsolstr.2012.02.030>
63. A. Hassani, M.H. Hojjati, G. H. Farrahi, R.A. Alashti, Semi-exact solution for thermo-mechanical analysis of functionally graded elastic-strain hardening rotating disks, *Commun Nonlinear Sci Numer Simulat*, 17(2012) 3747-3762. <http://dx.doi.org/10.1016/j.cnsns.2012.01.026>
64. Ghorashi, M., Farrahi, G.H., and Eftekhari, M., Effects of Temperature on Wear Behavior of a Plasma Sprayed Diesel Engine Cylinder, *SAE Technical Paper* 2012-01-1335, 2012, <http://dx.doi.org/10.4271/2012-01-1335>.
65. G. H. Farrahi, George Z. Voyiadjis, S. Hamed Hoseini, E. Hosseinian, Residual Stress Analyses of Re-autofrettaged Thick-walled Tubes, *Journal of Pressure Vessels and Piping* 98 (2012) 57-64, <http://dx.doi.org/10.1016/j.ijpvp.2012.07.007>
66. A. Hassani, M.H. Hojjati, E. Mahdavi, R.A. Alashti, G.H. Farrahi, Thermo-mechanical analysis of rotating disks with non-uniform thickness and material properties, *International*

Journal of Pressure Vessels and Piping 98 (2012) 95-101,
<http://dx.doi.org/10.1016/j.ijpvp.2012.07.010>

67. G.H. Farrahi, M. Rezvani Rad, M. Azadi, Coating thickness effect on stress distribution of coated cylinder head considering residual stress, *The Journal of Engine Research*, Vol. 26 (spring 2012), pp. 49-57, https://www.engineerresearch.ir/article_697672.html
68. G.H. Farrahi, M. Ghodrati, M. Azadi, Finite element analysis of thermal and mechanical stresses in diesel engine cylinder head using two-layer elastic-viscoplastic model, *The Journal of Engine Research*, Vol. 28 (autumn 2012), pp. 51-60 (in Farsi) https://www.engineerresearch.ir/article_697684.html
69. Abazadeh, B., Chakherlou, T.N., Farrahi, G.H., Alderliesten, R.C., Fatigue life estimation of bolt clamped and interference fitted-bolt clamped double shear lap joints using multiaxial fatigue criteria, *Materials & Design*, Volume 43, January 2013, Pages 327-336, doi: <http://dx.doi.org/10.1016/j.matdes.2012.06.050>
70. G. Z. Voyiadjis, S. H. Hoseini, G. H. Farrahi. A Plasticity Model for Metals with Dependency on all the Stress Invariants. *ASME Journal of Engineering Materials and Technology* 135 (2013) 011002 (13 pages). <http://dx.doi.org/10.1115/1.4007386>
71. E. Masoumi Khalil Abad, G. H. Farrahi, M. Masoumi Khalil Abad, A. A. Zare, S. Parsa, Failure Analysis of a Gas Turbine Compressor in a Thermal Power Plant, *J Fail. Anal. and Preven.* <http://dx.doi.org/10.1007/s11668-013-9663-8>
72. S. A. Faghidian, G. H. Farrahi, D. J. Smith, An Analytical Solution for Inverse Determination of Residual Stress Field, *Journal of Solid Mechanics* Vol. 4, No. 2 (2012) pp. 114-127
73. M. Azadi, M. Baloo, G. H. Farrahi, S. M. Mirsalim, A review of thermal barrier coating effects on diesel engine performance and components lifetime, *International Journal of Automotive Engineering* Vol. 3, No. 1(2013) 305-17, http://www.iust.ac.ir/ijae/browse.php?a_id=177&slc_lang=en
74. G.H. Farrahi, G.H. Majzoobi, A.H. Mahmoudi, N. Habibi, Fatigue life of repaired welded tubular joints, *International J. of Engineering A* Vol. 26, No. 1, (January 2013) 25-31. <http://dx.doi.org/10.5829/idosi.ije.2013.26.01a.04>,
75. G. H. Farrahi, G. Z. Voyiadjis, S. H. Hoseini, E. Hosseinian. Residual Stress Analysis of the Autofrettaged Thick-walled tube using Nonlinear Kinematic Hardening. *ASME Journal of Pressure Vessel Technology* 135, 021204 (2013) (8 pages); <http://dx.doi.org/10.1115/1.4007472>
76. M. Azadi, G.H. Farrahi, G. Winter, W. Eichlseder, Experimental fatigue lifetime of coated and uncoated aluminum alloy under isothermal and thermo-mechanical loadings, *Ceramics International*, 39(2013)9099-9107, <http://dx.doi.org/10.1016/j.ceramint.2013.05.006>
77. M. Azadi, G.H. Farrahi, G. Winter, W. Eichlseder, The effect of various parameters on out-of-phase thermo-mechanical fatigue lifetime of A356.0 cast aluminum alloy, *International J. of Engineering*, Volume 26 , Number 12 , December 2013, 1459-1468, <http://dx.doi.org/10.5829/idosi.ije.2013.26.12c.06>

78. G.H. Farrahi, M. Azadi, G. Winter, W. Eichlseder, A new energy-based isothermal and thermo-mechanical fatigue lifetime prediction model for aluminum-silicon-magnesium alloy, *Fatigue and Fracture of Engineering materials & Structures*, volume 36(12), December 2013, pages 1323-1335, <http://dx.doi.org/10.1111/ffe.12078>
79. M. Azadi, G.H. Farrahi, A. Moridi, Optimization of air plasma sprayed thermal barrier coating parameters in diesel engine applications, *Journal of Materials Engineering and Performance*, Volume 22(11) November 2013, pages 3530-3538, <http://dx.doi.org/10.1007/s11665-013-0629-5>
80. M. Mokhtari Shirazabad, M. Azadi, G.H. Farrahi, G. Winter, W. Eichlseder, Improvement of high temperature fatigue lifetime in AZ91 magnesium alloy by heat treatment, *Materials Science & Engineering A*, Vol. 588, 20 December 2013, Pages 357-365, <http://dx.doi.org/10.1016/j.msea.2013.09.067>
81. G.H. Farrahi, A. Shamloo, M. Felfeli, M. Azadi, Numerical simulations of cyclic behaviors in light alloys under isothermal and thermo-mechanical fatigue loadings, *Materials & Design*, Vol. 56, April 2014, Pages 245-253, <http://dx.doi.org/10.1016/j.matdes.2013.11.007>
82. S.M., Salehi, Farrahi, G.H, Sohrabpoor, S.M, Masoudi Nejad, R., Life Estimation in the Railway Wheels Under the Influence of Residual Stress Field, *International Journal of Railway Research* 1(1), 2014, pages 61-72.
83. M. Azadi, G. H. Farrahi, G. Winter, W. Eichlseder, Fatigue lifetime of AZ91 magnesium alloy subjected to cyclic thermal and mechanical loadings, *Materials & Design*, Vol. 53, January 2014, Pages 639-644, <http://dx.doi.org/10.1016/j.matdes.2013.07.075>
84. K. Sherafatnia, M.H. Kahrobaiyan, G.H. Farrahi, Size-dependent energy release rate formulation of notched beams based on a modified couple stress theory, *Engineering Fracture Mechanics*, Vol. 116, January 2014, Pages 80-91, <http://dx.doi.org/10.1016/j.engfracmech.2013.12.001>
85. K. Sherafatnia, G.H. Farrahi, S.A. Faghidian, Analytic Approach to Free Vibration and Buckling Analysis of Functionally Graded Beams with Edge Cracks using four Engineering Beam Theories, *International J. of Engineering Transactions C*, Vol. 27 , Number 6 , June 2014, pages 979-990, <http://www.ije.ir/Vol27/No6/C/17.pdf>
86. Moridi, M. Azadi and G.H. Farrahi, Thermo-mechanical stress analysis of thermal barrier coating system considering thickness and roughness effects, *Surface and Coatings Technology*, 243 (2014) 91-99, <http://dx.doi.org/10.1016/j.surfcoat.2012.02.019>
87. S. M. H. Gangaraj, M. Guagliano, G. H. Farrahi, An approach to relate shot peening finite element simulation to the actual coverage, *Surface and Coatings Technology*, 243 (2014) 39-45, <http://dx.doi.org/10.1016/j.surfcoat.2012.03.057>
88. R. Saljooghi, M. T. Ahmadian, G. H. Farrahi, Vibration and buckling analysis of functionally graded beams using reproducing kernel particle method, *Scientia Iranica, Transaction on Mechanical Engineering*, No.6, Vol. 21 (2014), <http://www.scientiairanica.com/en/ManuscriptDetail?mid=306>
89. M. Azadi, G. H. Farrahi, G. Winter, W. Eichlseder, Thermo-mechanical behaviours of light alloys in comparison to high temperature isothermal behaviours, *Materials at High*

Temperatures, 2014, Vol 31, no.1, pp 12-17,
<http://dx.doi.org/10.1179/0960340913Z.00000000002>

90. G.H. Farrahi, M. Ghodrati, M. Azadi, M. Rezvani Rad, Stress-strain time-dependent behavior of A356.0 aluminium alloy subjected to cyclic thermal and mechanical loadings, *Mechanics of Time-Dependent Materials*, issue 3, vol. 18(2014), 475-491,
<http://dx.doi.org/10.1007/s11043-014-9238-4>
91. M. Azadi, M. Ghodrati, G.H. Farrahi, Experimental and numerical evaluations of stress relaxation in A356 aluminium alloy subjected to out-of-phase thermomechanical cyclic loadings, *Materials at High Temperatures*, No. 3 Vol. 31 (2014), 204-210,
<http://dx.doi.org/10.1179/1878641314Y.0000000015>
92. M. Rezvani Rad, G.H. Farrahi, M. Azadi, M. Ghodrati, Effects of preheating temperature and cooling rate on two-step residual stress in thermal barrier coatings considering real roughness and porosity effect, *Ceramics International*, Vol. 40, Issue 10, Part A, (2014), 15925–15940,
<http://dx.doi.org/10.1016/j.ceramint.2014.07.121>
93. M. Rezvani Rad, G.H. Farrahi, M. Azadi, M. Ghodrati, Stress analysis of thermal barrier coating system subjected to Out-of-phase thermo-mechanical loadings considering roughness and porosity effect, *Surface and Coating Technology*, 262(2015) 77-86,
<http://dx.doi.org/10.1016/j.surfcoat.2014.12.016>
94. M. Felfeli, M. Azadi, G. H. Farrahi, Constitutive modeling of elastic-viscoplastic behaviors in aluminum alloys subjected to cyclic loadings at various strain rates, *J Strain Analysis for Engineering Design*, IMechE, 50(2015), 103-124,
<http://dx.doi.org/10.1177/0309324714557850>
95. M. Azadi, G. H. Farrahi, G. Winter, P. Huter, W. Eichlseder, Damage prediction for uncoated and coated aluminum alloys under thermal and mechanical fatigue loadings based on a modified plastic strain energy approach, *Materials & Design*, Vol. 66, Part B, 5 February (2015), 587-595, <http://dx.doi.org/10.1016/j.matdes.2014.04.022>
96. M. Azadi, G. Winter, G. H. Farrahi, W. Eichlseder, Comparison Between Isothermal and Non-Isothermal Fatigue Behavior in a Cast Aluminum-Silicon-Magnesium Alloy, *Strength of Materials*, November 2015, Volume 47, Issue 6, pp 840-848;
<http://dx.doi.org/10.1007/s11223-015-9721-4>
97. M. Chamani, G.H. Farrahi, M.R. Movahhedy, Molecular dynamics simulation of nanoindentation of nanocrystalline Al/Ni multilayers, *Computational Materials Science*, Vol. 112, Part A, 1 February 2016, 175-184. <http://dx.doi.org/10.1016/j.commatsci.2015.10.022>
98. A.H. Mahmoudi, A. Ghasemi, G.H. Farrahi and K. Sherafatnia, A Comprehensive Experimental and Numerical Study on Redistribution of Residual Stresses by Shot Peening, *Materials & Design*, Volume 90, 15 January 2016, Pages 478-487,
<http://dx.doi.org/10.1016/j.matdes.2015.10.162>
99. K. Sherafatnia, G.H. Farrahi, A.H. Mahmoudi, A. Ghasemi, Experimental measurement and analytical determination of shot peening residual stresses considering friction and real unloading behavior, *Materials Science & Engineering A*, Volume 657, 7 March 2016, Pages 309–321. <http://dx.doi.org/10.1016/j.msea.2016.01.070>

100. A. Ghasemi, S. M. Hassani-Gangaraj, A. H. Mahmoudi, G. H. Farrahi and M. Guagliano, Shot peening coverage effect on residual stress profile by FE random impact analysis, *Surface Engineering*, vol. 32 issue 11 (2016) 861-870, <https://doi.org/10.1080/02670844.2016.1192336>
101. Erfan Maleki, Khalil Sherafatnia and G.H. Farrahi, Size dependent energy release rate of notched FGM beams based on a modified couple stress theory, *Materials Today: Proceedings* vol. 3, issue 8 (2016) 2662–2671
102. M. Azadi, G. H. Farrahi, Failure mechanisms investigation in thermal barrier coatings under isothermal and non-isothermal fatigue loadings using design of experiments, *J. of Simulation and Analysis of Novel Technologies in Mechanical Engineering (J. of Solid Mechanics in Engineering)*, Fall 2016, Vol. 9 (3), pp. 517-530, http://jsme.iaukhsh.ac.ir/article_528828.html
103. S.M. Salehi, G.H. Farrahi, S. Sohrabpoor, An optimal wheel wear maintenance technique in railways including sharp curves based on an empirical study, *Chinese Journal of Mechanical Engineering*, accepted for publication
104. S.M. Salehi, G.H. Farrahi, S. Sohrabpoor, A new technique of “first and second limits” for wagon maintenance in railway tracks consisting of sharp curves based on the empirical study of wheel wear, *Scientia Iranica B* (2017) 24(3), 1171-1180
105. E. Maleki, G.H. Farrahi, K. Sherafatnia, Application of Artificial Neural Network to Predict the Effects of Severe Shot Peening on Properties of Low Carbon Steel, *Machining, Joining and Modifications of Advanced Materials*, *Advanced Structured Materials* 61, 45-60, https://doi.org/10.1007/978-981-10-1082-8_5
106. M. Chamani, G.H. Farrahi, M.R. Movahhedy, Friction behavior of nanocrystalline nickel near the Hall-Petch breakdown, *Tribology International*, Volume 107, March 2017, Pages 18–24, <https://doi.org/10.1016/j.triboint.2016.11.020>
107. Amir Nourani, Saeed Akbari, G.H. Farrahi, Jan K. Spelt, Strain-rate dependent influence of adherend stiffness on fracture load prediction of BGA solder joints, *Engineering Fracture Mechanics*, Volume 186, December 2017, Pages 119-133, <https://doi.org/10.1016/j.engfracmech.2017.09.027>
108. K. Reza Kashyzadeh, G.H. Farrahi, M. Shariyat, M. T. Ahmadian, Experimental and Finite Element Studies on Free Vibration of Automotive Steering Knuckle, *International J. of Engineering: B*, Vol. 30, No. 11 (November 2017), 1776-1783, <http://www.ije.ir/Vol30/No11/B/20.pdf>
109. Erfan Maleki, G.H. Farrahi, Modeling of conventional and severe shot peening influence on properties of high carbon steel via artificial neural network, *International J. of Engineering: B*, Vol. 31, No. 2 (February 2018), 382-393, <http://www.ije.ir/Vol31/No2/B/24.pdf>
110. A.H. Mahmoudi, M. Niknam, G.H. Farrahi, A. Ghasemi, R. Seifi, Experimental and numerical investigation of the effect of sever shot peening on fatigue life of aluminium alloy A356.0, *Sharif Mechanical Engineering*, vol. 33-3(2), Autumn 2017, 133-140 (in Persian)

111. K. Sherafatnia, G.H. Farrahi, A.H. Mahmoudi, Effect of initial surface treatment on shot peening residual stress field: Analytical approach with experimental verification, *International Journal of Mechanical Sciences*, Vol. 137, March 2018, Pages 171-181, <https://doi.org/10.1016/j.ijmecsci.2018.01.022>
112. K. Reza Kashyzadeh, G.H. Farrahi, M. Shariyat, M.T. Ahmadian, The role of wheel alignment over the fatigue damage accumulation in vehicle steering knuckle, *Journal of Stress Analysis*, Vol. 3, issue 1(2018), 21-33, <http://dx.doi.org/10.22084/jrstan.2018.15722.1042>
113. S.M. Salehi, G. H. Farrahi, S. Sohrabpoor, A Study on the Contact Ellipse and the Contact Pressure during the Wheel Wear through Passing the Tracks including Several Sharp Curves, *International J. of Engineering: B*, Vol. 31, No. 5 (May 2018), 826-833
114. K. Reza Kashyzadeh, G.H. Farrahi, M. Shariyat, M.T. Ahmadian, Experimental accuracy assessment of various high-cycle fatigue criteria for a critical component with a complicated geometry and multi-input random non-proportional 3D stress components, *Engineering Failure Analysis*, 90 (2018), 534-553, <https://doi.org/10.1016/j.engfailanal.2018.03.033>
115. G.H. Farrahi, M. Javanbakht, H. Jafarzadeh, On the Phase Field Modeling of Crack Growth and Analytical Treatment on the Parameters, *Continuum Mechanics and Thermodynamics*, 32, pages589–606(2020), <https://doi.org/10.1007/s00161-018-0685-z>
116. G.H. Farrahi, M. Chamani, K. Reza Kashyzadeh, A. Mostafazade, A.H. Mahmoudi, H. Afshin, Failure analysis of bolt connections in fired heater of a petrochemical unit, *Engineering Failure Analysis*, Vol. 92, October 2018, Pages 327–342, <https://doi.org/10.1016/j.engfailanal.2018.06.004>
117. V. I. Levitas, H. Jafarzadeh, G. H. Farrahi, M. Javanbakht, Thermodynamically Consistent and Scale-Dependent Phase Field Approach for Crack Propagation Allowing for Surface Stresses, *International Journal of Plasticity*, 111(2018) 1-35, <https://doi.org/10.1016/j.ijplas.2018.07.005>
118. A. Vojdani, G. H. Farrahi, A. Mehmanparast, B. Wang, Probabilistic Assessment of Creep-Fatigue Crack Propagation in Austenitic Stainless Steel Cracked Plates, *Engineering Fracture Mechanics*, 200 (2018) pp. 50-63, <https://doi.org/10.1016/j.engfracmech.2018.07.022>
119. S.M. Salehi, G. H. Farrahi, S. Sohrabpoor, Dynamic Behavior of Worn Wheels in a Track Containing Several Sharp Curves Based on Field Data Measurements and Simulation, *Scientia Iranica B*, 2019, Volume 26, Issue 5, pp. 2854-2864
120. Amir Nourani, Sadegh Mirmehdi, Gholam Hossein Farrahi, and Farid soroosh, Predicting fracture of solder joints with different constraint factors, *Fatigue and Fracture of Engineering materials & Structures*, Vol. 42, Issue2, (2019), pp. 425-438, <http://dx.doi.org/10.1111/ffe.12920>
121. K. Minaii, G.H. Farrahi, M. Karimpour, H. Bahai, G.H. Majzoobi, Investigation of microstructure effect on fretting fatigue crack initiation using crystal plasticity, *Fatigue & Fracture of Engineering Materials & Structures*, Vol. 42, Issue3 (2019) pp. 640-650. <https://doi.org/10.1111/ffe.12939>

122. G.H. Farrahi, K. Minaii, M. Chamani, A.H. Mahmoudi, Effect of residual stress on failure of tube-to-tubesheet weld in heat exchangers, *IJE TRANSACTIONS A*, Vol. 32, Number 1 (2019), 112-120
123. S. Mirmehdi; G.H. Farrahi; A. Nourani; F. Soroosh, Predicting crack initiation of solder joints with varying sizes under bending, *Journal of Electronic Materials* (2019), Volume 48, Issue 5, pp 2840–2852, <https://doi.org/10.1007/s11664-019-06989-y>
124. H. Jafarzadeh, G.H. Farrahi, M. Javanbakht, Phase field modeling of crack growth with double-well potential including surface effects, *Continuum Mechanics and Thermodynamics*, 32, pages913–925(2020), <https://doi.org/10.1007/s00161-019-00775-1>
125. M.S. Ghorashi, G.H. Farrahi, M.R. Movahhedy, Considering Cyclic Plasticity to Predict Residual Stresses in Laser Cladding of Inconel 718 Multi Bead Samples, *Journal of Manufacturing Processes*, 42(2019), 149-158, <https://doi.org/10.1016/j.jmapro.2019.05.002>
126. G.H. Farrahi, M. Chamani, A.Kiyoumarsioskouei, A.H. Mahmoudi, The Effect of Plugging of Tubes on Failure of Shell and Tube Heat Exchanger, *Engineering Failure Analysis*, 104(2019) 545-559, <https://doi.org/10.1016/j.engfailanal.2019.06.034>
127. M.S. Ghorashi, G.H. Farrahi, M.R. Movahhedy, Effect of severe shot peening on fatigue life of laser-cladded Inconel 718 specimens, *The International Journal of Advanced Manufacturing Technology*, 104, pages2619–2631(2019), <https://doi.org/10.1007/s00170-019-04082-6>
128. G.H. Farrahi, K. Minaii, H. Bahai, Fretting fatigue behavior of 316L stainless steel under combined loading conditions, *International Journal of Fatigue*, Volume 128, November 2019, 105206, <https://doi.org/10.1016/j.ijfatigue.2019.105206>
129. A. Vojdani, G.H. Farrahi, Reliability assessment of cracked pipes subjected to creep-fatigue loading, *Theoretical and Applied Fracture Mechanics*, Volume 104, December 2019, 102333, <https://doi.org/10.1016/j.tafmec.2019.102333>
130. M. Moradi, G.H. Farrahi, M. Chamani, Effect of microstructure on crack behavior in nanocrystalline nickel using molecular dynamics simulation, *Theoretical and Applied Fracture Mechanics*, <https://doi.org/10.1016/j.tafmec.2019.102390>
131. H. Jafarzadeh, V.I. Levitas, G.H. Farrahi, M. Javanbakht, Phase field approach for nanoscale interaction between crack propagation and phase transformation, *Nanoscale*, <https://doi.org/10.1039/C9NR05960A>
132. Rasool Bikeloo, Gholam Hossein Farrahi, Ali Mehmanparast, Seyed Mohammad Mahdavi, Multiple laser shock peening effects on residual stress distribution and fatigue crack growth behaviour of 316L stainless steel, *Theoretical and Applied Fracture Mechanics*, 105(2020), 102429, <https://doi.org/10.1016/j.tafmec.2019.102429>
133. G.H. Farrahi, H. Jafarzadeh, M.A. Esmaeili, Experimental Analysis on the Material Properties of A356.0 Aluminum Alloy Surface Nanostructured by Severe Shot Peening, *Journal of Materials Engineering and Performance*, (2020) 29:143–154, <https://doi.org/10.1007/s11665-019-04548-4>

134. G. H. Farrahi, K. Reza Kashyzadeh, M. Minaei, A. Sharifpour, S. Riazi, Analysis of Resistance Spot Welding Process Parameters Effect on the Weld Quality of Three-steel Sheets Used in Automotive Industry: Experimental and Finite Element Simulation, IJE TRANSACTIONS A: Basics Vol. 33, No. 1, (January 2020) 148-157, <https://doi.org/10.5829/ije.2020.33.01a.17>
135. N. Amiri, G.H. Farrahi, K. Reza Kashyzadeh, M. Chizari, Applications of ultrasonic testing and machine learning methods to predict the static & fatigue behavior of spot-welded joints, Journal of Manufacturing Processes 52(2020)26-34, <https://doi.org/10.1016/j.jmapro.2020.01.047>
136. A. Ahmadi, G.H. Farrahi, K. Reza Kashyzadeh, Sh. Azadi, K. Jahani, A comparative study on the fatigue life of the vehicle body spot welds using different numerical techniques: Inertia relief and Modal dynamic analyses, Frattura ed Integrità Strutturale, 52 (2020) 67-81; <https://doi.org/10.3221/IGF-ESIS.52.06>
137. R. Tangestani, G.H. Farrahi, M. Shishegar, B. Pourbagher Aghchehkandi, S. Ganguly, A. Mehmanparast, Effects of vertical and pinch rolling on residual stress distributions in wire and arc additively manufactured components, Journal of Materials Engineering and Performance, 29, pages2073–2084(2020), <https://doi.org/10.1007/s11665-020-04767-0>
138. G. H. Farrahi, A. Ahmadi, K. Reza Kashyzadeh, Simulation of vehicle body spot weld failures due to fatigue by considering road roughness and vehicle velocity, Simulation Modelling Practice and Theory, 105 (2020) 102168, <https://doi.org/10.1016/j.simpat.2020.102168>
139. Jessica Taylor, Ali Mehmanparast, Rob Kulka, Philippa Moore, Li Xu, Gholam Hossein Farrahi, Experimental study of the relationship between fracture initiation toughness and brittle crack arrest toughness predicted from small-scale testing, Theoretical and Applied Fracture Mechanics, Volume 110, December 2020, 102799, <https://doi.org/10.1016/j.tafmec.2020.102799>
140. Erfan Maleki, Gholam Hossein Farrahi, Kazem Reza Kashyzadeh, Okan Unal, Mario Gugaliano, Sara Bagherifard, Effects of Conventional and Severe Shot Peening on Residual Stress and Fatigue Strength of Steel AISI 1060 and Residual Stress Relaxation Due to Fatigue Loading: Experimental and Numerical Simulation, Metals and Materials International, 27, pages 2575–2591 (2021), <https://doi.org/10.1007/s12540-020-00890-8>
141. E. Ghafarallahi, G. H. Farrahi, N. Amiri, Acoustic simulation of ultrasonic testing and neural network used for diameter prediction of three-sheet spot welded joints, Journal of Manufacturing Processes, Volume 64, April 2021, Pages 1507-1516, <https://doi.org/10.1016/j.jmapro.2021.03.012>
142. Jessica Taylor, Ali Mehmanparast, Rob Kulka, Philippa Moore, Gholam Hossein Farrahi, Li Xu, Compact Crack Arrest Testing and Analysis of EH47 Shipbuilding Steel, Theoretical and Applied Fracture Mechanics, <https://doi.org/10.1016/j.tafmec.2021.103004>
143. Erfan Maleki, Sara Bagherifard, Okan Unal, Michele Bandini, Gholam Hossein Farrahi, Mario Gugaliano, Introducing gradient severe shot peening as a novel mechanical surface treatment, Scientific Report, published 11 November 2021, <https://doi.org/10.1038/s41598-021-01152-2>

144. K. Reza Kashyzadeh, G. H. Farrahi, M. Minaei, R. Masajedi, M. Gholamnia, M. Shademani, Numerical Study of Shunting Effect in Three-steel Sheets Resistance Spot Welding, *International Journal of Engineering, Transactions B: Applications*, Vol. 35, No. 2, (2022) 406–416, <https://doi.org/10.5829/ije.2022.35.02b.17>
145. Hossein Jafarzadeh, Gholam Hossein Farrahi, Valery I. Levitas, Mahdi Javanbakht, Phase field theory for fracture at large strains including surface stresses, *International Journal of Engineering Science*, 178 (2022) 103732, <https://doi.org/10.1016/j.ijengsci.2022.103732>
146. Mostafa Mohammadiamiri, Amir Nourani, Gholam Hossein Farrahi, Main and interaction effects of manufacturing variables on microstructure and fracture of solder-copper connections, *Engineering Failure Analysis* 139 (2022) 106449, <https://doi.org/10.1016/j.engfailanal.2022.106449>
147. Kazem Reza Kashyzadeh , GholamHossein Farrahi, Alireza Ahmadi, Mohammad Minaei, Mojtaba Ostad Rahimi, Sohrab Barforoushan, Fatigue life analysis in the residual stress field due to resistance spot welding process considering different sheet thicknesses and dissimilar electrode geometries, *Proc IMechE Part L: J Materials: Design and Applications*, 2022,1–19, <https://doi.org/10.1177/14644207221101069>
148. Amirhossein Borjali, GholamHossein Farrahi, Mahmoud Chizari, Sheathed fixation improves BASHTI technique in an anterior cruciate ligament reconstruction, *Proc IMechE Part H: J Engineering in Medicine*, 2023, 1–10, <https://doi.org/10.1177/09544119231153198>
149. K. Reza Kashyzadeh, G.H. Farrahi, Improvement of HCF life of automotive safety components considering a novel design of wheel alignment based on a Hybrid multibody dynamic, finite element, and data mining techniques, *Engineering Failure Analysis* 143 (2023) 106932, <https://doi.org/10.1016/j.engfailanal.2022.106932>
150. G.H. Farrahi, A. Fallah, K. Reza Kashyzadeh, Fracture toughness evaluation of 1.4841 bolt subjected to simultaneous effects of creep and hydrogen embrittlement phenomena using small punch test: A case study in a superheater of a petrochemical unit, *Engineering Failure Analysis* 144 (2023) 106956, <https://doi.org/10.1016/j.engfailanal.2022.106956>
151. Mohammad Amin Ganjabi, GholamHossein Farrahi, Kazem Reza Kashyzadeh, Nima Amiri, Effects of various strength defects of spot weld on the connection strength under both static and cyclic loading conditions: empirical and numerical investigation, *The International Journal of Advanced Manufacturing Technology* (2023), <https://link.springer.com/article/10.1007/s00170-023-11923-y>
152. Zahra Dehghanian, Famida Fallah, GholamHossein Farrahi, Wave propagation analysis in pre-stressed incompressible hyperelastic multi-layered plates using a plate theory, *European Journal of Mechanics - A/Solids*, Volume 103, January–February 2024, 105141, <https://doi.org/10.1016/j.euromechsol.2023.105141>
153. M. Chamani, G.H. Farrahi, Multiscale modeling of nanoindentation and nanoscratching by generalized particle method, *Journal of Molecular Graphics and Modelling*, Volume 127, March 2024, 108675, <https://doi.org/10.1016/j.jmgm.2023.108675>

154. Hossein Soroush, Amir Nourani, Gholamhossein Farrahi, A Machine learning model to predict fracture of solder joints considering geometrical and environmental factors, *Theoretical and Applied Fracture Mechanics*, 2025, <https://doi.org/10.1016/j.tafmec.2025.104865>
155. Famida Fallah, Zahra Dehghanian, GholamHossein Farrahi, Wave propagation characteristics in incompressible hyperelastic multi-layered cylindrical shells based on the shell theory, *Thin- Walled Structures*, 2025, <https://doi.org/10.1016/j.tws.2025.113191>

Refereed Conference Proceedings:

1. Farrahi G H and Lebrun J L, Optimisation of shot peening parameters for improvement of residual stress and fatigue life of a spring steel, Proc. Conf. of the French Group for residual stress analysis by X-ray diffraction, (1982), Besancon, France
2. Farrahi G H and Lebrun J L, Application de la diffraction X a la caracterisation des couches superficielles endommagees par microglissement alterne (fretting), Proc. Conf. of the Groupement francais pour l'analyse des contraintes par diffraction X, (1984), Aix-en-provence, France
3. Farrahi G H, Fretting wear and fretting fatigue, in *Surface Metallurgy and Tribology*, Eds: M. Salehi and F.Ashrafizadeh, ISSST, (1994), pp 165-183
4. Farrahi G H, Majzoubi G H, Study of fretting fatigue crack behaviour of an aluminium alloy, *Proceeding of Third Conference of Mechanical Engineering*, Vol. 2, ISME, (1995), pp.1145-1156
5. Majzoubi G H, Farrahi G H, Numerical simulation of deformation and ductile fracture of materials under high strain rate loading, *Proceeding of Third Conference of Mechanical Engineering*, Vol. 2, ISME, (1995), pp. 1165-1173
6. Farrahi G H, Mechanical characterisation of surface layers by X-ray diffraction-application to tribology, ACXRI '96, (1996), Ipoh, Malaysia, pp. 116-121
7. Farrahi G H, Shot peening and its application in car industry, *Proceeding of Third national seminar of Surface Engineering*, ISSST, (1999), pp.37-46 (in Persian)
8. Smith D J, Farrahi G H, Zhu W X and McMahon C A, Influence of material processing on fatigue life of forged components, *Proceeding of 4th Int. Conf. of Iranian Soc. of Mec. Eng., ISME2000*, 16-19 May 2000, Tehran, Iran, (2000), pp.83-89
9. Farrahi G H, Sadeghimehr M and Nouri A., Fretting fatigue of aeronautical materials, *Proceeding of First Int. Conf. In Aerospace Eng., AERO 2000*, Tehran, Iran, (2000), pp. 1103-1111 (in Persian)
10. G.H. Majzoobi, G.H. Farrahi, A. Akbari, Bursting Pressure Prediction in Compound Cylinders, *Proceedings, 9th Annual (International) Mechanical Engineering Conference (ISME2001)*, Rasht, 2001 pp.383-390. (in Persian)

11. G.H. Majzoobi, G.H. Farrahi, F. Ferdows Farahani, Study of anti-hourglassing efficiency in finite element method, Proceedings, 9th Annual (International) Mechanical Engineering Conference (ISME2001), Rasht, 2001 pp.673-681. (in Persian)
12. D. J. Smith, G. H. Farrahi, W. X. Zhu and C. A. McMahon, Probabilistic Analysis of Fatigue Life of Hot Forged Steel Components, Proceeding 10th Conf. ISME (2002), Tehran, 2002, pp. 574-580
13. Shamsaei N, Farrahi G H, Finding Stress Time Spectrum and Determination of Probability Density Function of a vehicle part by Simulation of a Short Distance Road, Proceeding 10th Conf. ISME(2002), Tehran, 2002, pp. 281-290 (in Persian)
14. G.H. Farrahi, A. Khalaj, Estimation of fatigue damage caused on automotive components by actual roads and maneuvers on proving ground using Msc/Nastran and Adams packages, Proceeding 10th Conf. ISME (2002), Tehran, 2002, 273-280 (in Persian)
15. D. J. Smith, G. H. Farrahi, W. X. Zhu, Plasticity effect in the hole-drilling residual stress measurement, 10th ISME Conference (2002), 286-291
16. G. H. Farrahi, R. Chopanijouybari, M. Fardi, Dimensional accuracy analysis of cold indirect extruded components, Proceeding of 5th Conference of Manufacturing, Tehran, 2002, 579-590 (in Persian)
17. Farrahi, G.H., Ohadi, A.R. and Abbasi, M.R., Investigating the Effect of Strain Rate on Dynamical Buckling Behavior of Thin Structures Under Impact Loads, Proceedings, 11th Annual (International) Mechanical Engineering Conference (ISME2003), Mashhad, May 13-15, 2003 (in Persian) pp.1014-1022.
18. Shamsaei N, Farrahi G H, Reliability Analysis of a Vehicle Part Under Random Fatigue Loading, 11th Annual (International) Mechanical Engineering Conference (ISME2003), Mashhad, May 13-15, 2003, pp.1136-1144. (in Persian)
19. R. Chopanijouybari, G. H. Farrahi, M. Fardi, The effect of important parameters on dimensional accuracy analysis of cold impact extruded components, Proceeding of 11th Annual (International) Mechanical Engineering Conference (ISME2003), Mashhad, 2003, 524-531 (in Persian)
20. G. H. Farrahi, Abedi, Impact simulation using spherical elements method, 11th Annual (International) Mechanical Engineering Conference (ISME2003), Mashhad, May 13-15, 2003, 885-893. (in Persian)
21. G.H. Farrahi, A. Sadighi, Failure analysis of a notched shaft under multiaxial loading by FE method, Proceeding of 12th Annual (International) Mechanical Engineering Conference (ISME2004), Tehran, 2004 (in Persian)
22. G.H. Farrahi, R. Naghdabadi, R. Moslemi, Residual stress determination using elaso-plastic VMP model and hole-drilling method, Proceeding of 11th Annual (International) Mechanical Engineering Conference (ISME2004), Tehran, 2004 (in Persian)
23. G. H. Farrahi, M. Sadeghimehr, M. Harati, F. Hosseinzadeh, Numerical analysis of residual stresses introduced by shot peening: Effect of shot speed and size and the hardness of

workpiece, Proceeding of 11th Annual (International) Mechanical Engineering Conference (ISME2004), Tehran, 2004 (in Persian)

24. G. H. Farrahi, M. Karimi, Reliability analysis of tubular joints off shore platforms based on fatigue cracks growth, Proceeding of 6th conference of marine industries, Iranian Assoc. of Naval Architecture & Marine Engineering, Bandar abbas, 2004, pp. 491-501 (in Persian)
25. G. H. Farrahi, H. Ghadbeigi, Fatigue strength of shot peened steel CK45, Proceeding of 13th Annual (International) Mechanical Engineering Conference (ISME2005), Isfahan, 2005 (in Persian)
26. J. Seidi, M. Sadeghimehr, G. H. Farrahi, Determination of fracture mechanics parameters of bovine Cortical Bone, Proceeding of 13th Annual (International) Mechanical Engineering Conference (ISME2005), Isfahan, 2005 (in Persian)
27. Shamsaei N, Farrahi G H, Danesh Sararoudi, Considering uncertainty of critical value of cumulative damage in fatigue mean-life reliability, International Conf. on Recent Advances in Mechanical & Materials Engineering (ICRAMME2005), Malaysia
28. Shamsaei N, Farrahi G H, Danesh Sararoudi, Applying material uncertainty in fatigue reliability model of vehicle components, McMat 2005, ASME Conf. on Mechanics and Materials
29. G.H. Farrahi, A. Khalaj, Estimation of fatigue damage caused by actual roads and maneuvers on proving ground, 11th International Scientific Conference on Contemporary Achievements in Mechanics, (CAM³S), Gliwice, Poland, 2005
30. G.H. Farrahi, A. Mohajerani, Effect of residual stress on stress intensity factors of fretting fatigue cracks 11th International Scientific Conference on Contemporary Achievements in Mechanics, (CAM³S), Gliwice, Poland, 2005
31. G. H. Majzoobi, A.J. Novinrooz, J. Nemati, G. H. Farrahi, An experimental study of the effect of titanium coating on fretting fatigue behaviour of aluminum alloy 7075-T6 using magnetron sputtering, Proceeding of AMPT 2006, July 2006, Las Vegas, USA
32. G. H. Majzoobi, J. Nemati, A.J. Novinrooz, G. H. Farrahi, Modification of fretting fatigue behaviour of AL7075-T6 alloy by application of titanium coating and shot peening, Proceeding of AMPT 2006, July 2006, Las Vegas, USA
33. S. H Hoseini, M. Mohammadi, G.H. Farrahi, A. Asempour, Material Removal Simulation of Autofrettaged Compound Tubes, ISME2007_15th Annual-International Conference on Mechanical Engineering, May 2007, Amir kabir University of Technology, Iran
34. Y. Tadi, M. Mohammadi, G.H. Farrahi, Fully coupled Implicit dynamic ALE formulation and application in solid mechanic, ISME2007_15th Annual-International Conference on Mechanical Engineering, May 2007, Amir kabir University of Technology, Iran
35. G.H. Farrahi, E. Hosseinian, Stress Analysis in thick-walled tubes using a model incorporating true behaviour of high strength steel, ISME2007_15th Annual-International Conference on Mechanical Engineering, May 2007, Amir Kabir University of Technology, Iran (in Persian)

36. G.H. Farrahi, A. Hosseinian, A. Assempour, On the material modelling of the Autofrettagged pressure vessel steels, ASME/PVP2008 Pressure Vessel and Piping Conference, July 2008, Chicago, USA
37. E. Hosseinian, G.H. Farrahi, M. R. Movahedi, AN Analytical Framework for the Solution of Autofrettagged, ASME/PVP2008 Pressure Vessel and Piping Conference, July 2008, Chicago, USA
38. G.H. Farrahi, M. Sistaninia, H Moeanadini, Finite element simulation of residual stresses in laser heating, The 7th Iranian Aerospace Society Conference, February 2008, Sharif University of Technology, Iran
39. G.H. Farrahi, M. Sistaninia, H. Moeinadiny, Thermal Modelling of Laser Forming, The 7th Iranian Aerospace Society Conference, February 2008, Sharif University of Technology, Iran (in Persian)
40. G.H. Farrahi, A successful story in the introduction of cooperative programs in engineering education in Iran, International Technology, Education and Development Conference (INTED2008), March 2008, Valencia, Spain
41. Me. Sistaninia, G.H. Farrahi, and Ma. Sistaninia, Laser Surface Hardening Considering Coupled Thermoelasticity using an Eulerian Formulations, Proceedings of World Academy of Science, Engineering and Technology (PWASET) Vol. 33 September 2008, pp. 610-616
42. G. H. Farrahi, G. H. Majzoobi and A. Fadaee: Influence of residual stress on fatigue life of St-37 butt-MAG weldment, Steel Research Int. 79(2008), Special Edition Metal Forming Conference 2008, Vol. 2, pp. 280-287
43. G.H. Majzoobi, J. Novin Rooz, J. Nemati, G.H. Farrahi, Effects of Chromium and Titanium Coating on Fretting Fatigue Resistance of Aluminum Alloy 7075-T6 Using Magneto-Sputtering Technique and Shot-Peening, Steel Research Int. 79(2008), Special Edition Metal Forming Conference 2008, Vol. 2, pp. 145-152
44. G. H. Farrahi, G. H. Majzoobi and A. Fadaee: Prediction by Genetic Algorithm and Measurement by Center Hole Drilling of Residual Stresses of MAG weldment, Advances in Materials and Processing Technologies (AMPT2008) 2-5 Nov. 2008, Bahrain
45. G. H. Majzoobi, G. H. Farrahi, and A. Fadaee, Probabilistic analysis of welding residual stress on fatigue crack growth, Advances in Materials and Processing Technologies (AMPT2008) 2-5 Nov. 2008, Bahrain
46. G. H. Farrahi, M. Maleki, Residual stress analysis of an autofrettagged compound spherical pressure vessel considering actual material behavior, 4th National Conference of Metals and Materials Forming, MATFORM87, Sharif University of Technology 3-4 Dec. 2008 - Tehran, Iran (in Persian)
47. G. H. Farrahi, B. Haghpanah, A. Assempour, Elastoplastic stress analysis of functionally graded thick-walled pressurized cylindrical vessels, 4th National Conference of Metals and Materials Forming, MATFORM87, Sharif University of Technology 3-4 Dec. 2008 - Tehran, Iran (in Persian)

48. G. H. Farrahi, R. Jahedi, On the determination of heating rate effect on rotor steel hardness increasing by using FEM analysis on hardness-residual stress relation, 4th National Conference of Metals and Materials Forming, MATFORM87, Sharif University of Technology 3-4 Dec. 2008 - Tehran, Iran (in Persian)
49. Y. Tadi Beni, M.R. Movahhedy, G.H. Farrahi, Application of thermo mechanical ALE finite element method in large deformation analysis, 4th National Conference of Metals and Materials Forming, MATFORM87, Sharif University of Technology 3-4 Dec. 2008 - Tehran, Iran (in Persian)
50. Y. Tadi beni, M.R. Movahhedy and G.H. Farrahi, Development of an ALE finite element method for finite deformation of elasto-viscoplastic solids, ICTAM, 25-29 August 2008, Adelaide, Australia.
51. S. A. Faghidian, G. H. Farrahi, D. J. Smith, Prediction of Residual Stress Field in Autofrettaged Thick-Walled Tubes Using Limited Measurements, 17th. Annual (International) Conference on Mechanical Engineering-ISME2009, May 2009, University of Tehran, Iran
52. Y. Tadi beni, M.R. Movahhedy and G.H. Farrahi, An ALE finite element procedure for finite deformation of elasto-viscoplastic solids. 17th. Annual (International) Conference on Mechanical Engineering-ISME2009.
53. B.H. Jahromi, G. H. Farrahi, A. Ajdari, H. Nayeb-Hashemi, A. Vaziri, Variable materials property method for functionally graded materials, USNCCM X, Columbus, OH 2009.
54. F. Hafezi, A. Razavi, G.H. Farrahi, Numerical Analysis and prediction of welding temperature and residual stress distribution of T-joint and but-weld by 3D- FEM model, 10th Iranian Conference of Manufacturing Engineering (ICME 2010), 1-3 March 2010, Babol (in Farsi)
55. S. M. H-Gangaraj, Y. Alvandi-Tabrizi, G. H. Farrahi, G. H. Majzoobi, H. Ghadbeigi, Finite element analysis of shot-peening effect on fretting fatigue parameters, 6th International Symposium on Fretting Fatigue, Chengdu, China, April 19-21, 2010
56. G.H. Majzoobi, M. Soori, G.H. Farrahi, The effect of temperature on fretting fatigue behavior of A17075-T6, 6th International Symposium on Fretting Fatigue, Chengdu, China, April 19-21, 2010
57. G.H. Farrahi, S.M. H-Gangraj, Side Effects of Shot Peening On Fatigue Life, The 18th Annual International Conference on Mechanical Engineering, ISME2010, 11-13 May 2010, Sharif University of Technology, Tehran, Iran (in Farsi)
58. S. M. H-Gangaraj, G. H. Farrahi and A. Kiani, Residual Stress and Damage Tolerance Analysis of Single and Multi-Pass Ground Components, 8th European Conference on Residual Stresses (ECRS8), Riva del Garda (TN), Italy, June 26-28, 2010
59. S. M. H-Gangaraj, G. H. Farrahi and H. Ghadbeigi, On the Temperature and Residual Stress Field in Grinding, Proceedings of the World Congress on Engineering 2010 2, WCE 2010, pp1196-1200

60. Yari Borojeni, N. Habibi, G.H. Farrahi, M. Daghigh, G.H. Majzoobi, Effect of influencing parameters on fatigue life of offshore structures, 12th conference of marine industries (MIC2010), Ziba kenar, 19-21 October 2010 (in Persian)
61. N. Habibi, G.H. Farrahi, G.H. Majzoobi, A. Yari, M. Daghigh, Experimental study of shot peening effect on fatigue life of tubular joints of offshore structure, the 4th biennial Offshore Industries Conference (OIC2011), 16-17 May 2011, Sharif University of Technology (in Farsi)
62. N. Habibi, G.H. Farrahi, G.H. Majzoobi, M. Daghigh, Experimental study of fatigue life of repaired tubular joints of offshore structure, the 4th biennial Offshore Industries Conference (OIC2011), 16-17 May 2011, Sharif University of Technology (in Farsi)
63. Moridi, N. Habibi, G.H. Farrahi, G.H. Majzoobi, M. Daghigh, A. Yari, Design and manufacturing of a fixture for fatigue testing of tubular joints of offshore structure, the 4th biennial Offshore Industries Conference (OIC2011), 16-17 May 2011, Sharif University of Technology (in Farsi)
64. H. Norouznejad, S. Sabzeali, G.H. Farrahi, Residual stress of torsion bar resulted from induction hardening, 19th Annual Conference on Mechanical Engineering-ISME2011, 10-12 May, 2011, The University of Birjand, Birjand, Iran (in Farsi)
65. N. Habibi, S.M.H. Gangaraj, G.H. Farrahi, G.H. Majzoobi, A.H. Mahmoudi, Experimental and numerical investigation of welding residual stresses in tubular joints, 19th Annual Conference on Mechanical Engineering-ISME2011, 10-12 May, 2011, The University of Birjand, Birjand, Iran (in Farsi)
66. A.Moridi, M.Azadi, G.H. Farrahi, Optimization of constitutive cyclic plasticity model by genetic algorithm, 19th Annual Conference on Mechanical Engineering-ISME2011, 10-12 May, 2011, The University of Birjand, Birjand, Iran
67. H. Norouznejad, G.H. Farrahi, Numerical simulation of induction hardening of torsion bar, Proceedings of The World Congress on Engineering 2011 3, WCE2011, pp2080-2083
68. Moridi, M. Azadi, G.H. Farrahi, Numerical simulation of thermal barrier coating system under thermo-mechanical loadings, Proceedings of The World Congress on Engineering 2011 3, WCE2011, pp1959-1964
69. G.H. Farrahi, M. Azadi, G. Winter and W. Eichlseder, Thermo-mechanical and low cycle fatigue behavior of aluminum alloy cylinder heads, The International Conference on Experimental Solid Mechanics and Dynamics (X-Mech-2012), March 6-7, 2012, Tehran, Iran
70. G.H. Farrahi, G.H. Majzoobi, A.H. Mahmoudi, N. Habibi, Fatigue Analysis of Repaired Welded joint of Offshore Platform, Keynote lecture at The International Conference on Experimental Solid Mechanics and Dynamics (X-Mech-2012), March 6-7, 2012, Tehran, Iran
71. Mohammad Azadi, G.H. Farrahi, Partik Huter and Gerhard Winter, Thermo-mechanical and high temperature low cycle fatigue analysis of aluminum alloy based on Sehitoglu's model, 20th Annual International Iranian Mechanical Engineering Conference (ISME2012), page 79, Shiraz University, Shiraz, Iran, May 2012, (in Persian)

72. V. Kazerani, M. Ghorashi, G.H. Farrahi, Design and manufacturing of a test rig to simulate wear of Diesel engine cylinder and ring, 20th Annual International Iranian Mechanical Engineering Conference (ISME2012), Shiraz University, Shiraz, Iran, May 2012, (in Persian)
73. S.M. Salehi, G.H. Farrahi, Stress analysis of worn wheel based on Hertz theory, 20th Annual International Iranian Mechanical Engineering Conference (ISME2012), Shiraz University, Shiraz, Iran, May 2012, (in Persian)
74. A. Moridi, M. Azadi, G. Winter, G. H. Farrahi, W.Eichlseder: Modeling of high temperature cyclic behavior in aluminum alloy under thermo-mechanical and isothermal fatigue condition, 3rd Fatigue Symposium Leoben, 18th - 19th April 2012, Leoben, Austria
75. M. Azadi, G. Winter, G. H. Farrahi, W. Eichlseder: Cyclic behavior of a cast magnesium alloy under low cycle and thermo-mechanical fatigue, 3rd Fatigue Symposium Leoben, 18th - 19th April 2012, Leoben, Austria
76. G.H. Farrahi, G.H. Majzoubi, A.H. Mahmoudi and N. Habibi, Fatigue Life of Shot Peened Welded Tubular Joint, Proceedings of the World Congress on Engineering 2012 Vol 3, WCE 2012, pp. 2038-41, http://www.iaeng.org/publication/WCE2012/WCE2012_pp2038-2041.pdf
77. M. Azadi and G.H. Farrahi, Study of failure mechanism in coated aluminum alloy under isothermal and thermo-mechanical fatigue loadings, 21th Annual International Conference on Mechanical Engineering, School of Mechanical Engineering (ISME2013), K.N. Toosi University of Technology, Tehran, Iran, 7-9 May, 2013, in Farsi
78. R. Masoudi Nejad, S.M. Salehi, G.H. Farrahi, Simulation of railroad crack growth life under the influence of combination mechanical contact and thermal load, 3rd International Conference on Recent Advances in Railway Engineering (ICRARE2013) Iran university of science and Technology, Tehran, Apr 30-May 1, 2013
79. S.M. Salehi, G.H. Farrahi, S. Sohrabpour, Dynamic analysis of the wear effect of wheel on instability of train and determination of optimum wear range, 3rd International Conference on Recent Advances in Railway Engineering (ICRARE2013) Iran university of science and, Tehran, Apr 30-May 1, 2013, in Farsi
80. S.M. Salehi, G.H. Farrahi, S. Sohrabpour, Stress analysis of mono-block wheel, 21th Annual International Conference on Mechanical Engineering, School of Mechanical Engineering (ISME2013), K.N. Toosi University of Technology, Tehran, Iran, 7-9 May, 2013, in Farsi
81. R. Masoudi Nejad, S.M. Salehi, G.H. Farrahi, M. Chamani, Simulation of railroad fatigue crack growth under the influence of residual stress, , 21th Annual International Conference on Mechanical Engineering, School of Mechanical Engineering (ISME2013), K.N. Toosi University of Technology, Tehran, Iran, 7-9 May, 2013, in Farsi
82. G.H. Farrahi, V. Kazerani, M.S. Ghorashi, Test Methodology and Wear Characteristics of Austenitic Stainless Steel AISI Type 316 at Cryogenic Environment, Proceedings of the World Congress on Engineering 2014 Vol II, pp. 1214-1217, WCE 2014, July 2 - 4, 2014, London, U.K. http://www.iaeng.org/publication/WCE2014/WCE2014_pp1214-1217.pdf
83. Kashyzadeh K.R., Farrahi G.H., Shariyat M., Ahmadian M.T. Experimental and Finite Element Studies On Free Vibration Of Automotive Steering Knuckle. ICONTS 3RD

International Congress on Technology-Engineering & Science, 09-10 February 2016, Kuala Lumpur, Malaysia.

84. Jessica Taylor, Ali Mehmanparast, Elvin Eren, Weihong He, Gholam Hossein Farrahi, Review of crack arrest theory, techniques and applications on fracture mechanics, 14th International Conference on Fracture (ICF 14) June 18-23, 2017, Rhodes, Greece
85. R. Tangestani, G.H. Farrahi, A. Mehmanparast, S. Ganguly, Effect of clamps on residual stress in wire and arc additively manufactured parts, 14th National Conference of Manufacturing, 24-26 October 2017, Arak, Iran
86. B. Ahmadikia, A. Nourani, G.H. Farrahi, Experimental investigation of the effect of sever shot peening on high cycle fatigue of a welded joint, 18th national conference of welding and inspection (18th NCWI), Iranian Society of Welding and NDT, Arak, 6-7 February 2018
87. M. Minaei, K. Reza Kashizadeh, G.H. Farrahi, The Gap effect on quality of spot welding, 18th national conference of welding and inspection (18th NCWI), Iranian Society of Welding and NDT, Arak, 6-7 February 2018
88. K. Reza Kashyzadeh, G.H. Farrahi, M. Shariyat, M.T. Ahmadian , Experimental and probabilistic approach for assessing fatigue life of automotive steering knuckle, 26th Annual International Conference of Iranian Society of Mechanical Engineers (ISME2018), Semnan University, Semnan, 24 - 26 April, 2018
89. Sadegh Mirmehdi, Amir Nourani, Gholam Hossein Farrahi, The effect of constraint on fracture energy and fracture load prediction of solderjoints, 26th Annual International Conference of Iranian Society of Mechanical Engineers (ISME2018), Semnan University, Semnan, 24 - 26 April, 2018
90. H Jafarzadeh, VI Levitas, GH Farrahi, M Javanbakht, Phase field approach to fracture and interaction of fracture and phase transformation, TMS Annual Meeting & Exhibition, 2018
91. H. Jafarzadeh, G.H. Farrahi, M. Javanbakht, V.I. Levitas, Phase field approach to bridging between atomistic and macroscopic cohesive laws, The 27th Annual International Conference of Iranian Society of Mechanical Engineers-ISME2019, 30 April- 2 May, 2019, Tehran, Iran.
92. A. Nourani, S. Mirmehdi, A.H. Shokrani, A. Eslaminia, G.H. Farrahi, Fracture toughness of lead-free solder joint as a function of geometric parameters, The 27th Annual International Conference of Iranian Society of Mechanical Engineers-ISME2019, 30 April- 2 May, 2019, Tehran, Iran.
93. A.H. Borjali, G.H. Farrahi, H. Jafarzade, M. Chizari, Experimental study of a sheathed core bone plug in Bashti ACL reconstructive method, The 27th Annual International Conference of Iranian Society of Mechanical Engineers-ISME2019, 30 April- 2 May, 2019, Tehran, Iran.
94. A. Nourani, M. Mohammadi Amiri, S. Mirmehdi, G.H. Farrahi Predicting fracture load of solder joints using *Jci* and Cohesive zone modelling, The 27th Annual International Conference of Iranian Society of Mechanical Engineers-ISME2019, 30 April- 2 May, 2019, Tehran, Iran.
95. H. Jafarzadeh, G. H. Farrahi, M. Javanbakht, and V. I. Levitas, Investigating new regimes in interaction of fracture and phase transformation: A phase field model (oral presentation);

CFRAC 2019, 6th International Conference on Computational Modeling of Fracture and Failure of Materials and Structures; June 2019; Braunschweig, Germany.

96.H. Jafarzadeh, V. I. Levitas, G. H. Farrahi, M. Javanbakht, Phase field approach to fracture and interaction of fracture and phase transformation; SES 2019, 56th Annual Meeting of Society of Engineering Science; October 2019; St. Louis, Missouri, USA.