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Education:

_	University(Country)	Courses	Date
Degree			
Bachelor of Engineering	Sharif University of	Mechanical Engineering	1974-1978
Science	Technology (Iran)		
Master of Engineering	Amirkabir University	Solid Mechanics	1984-1986
Science	of Technology (Iran)		
Doctor of Philosophy	University of Adelaide	Solid Mechanics	1991-1995
	(Australia)		

## **Journal Publications:**

1. Loghman, A. and Wahab, M. A., Loading and Unloading of Thick-Walled Cylindrical Pressure Vessel of Strain Hardening Material, ASME Journal of Pressure Vessel Technology, 1994, 116, pp. 105-109

- Loghman, A. and Wahab, M. A., Creep Damage Simulation of Thick-Walled Tubes using the Theta Projection Concept, International Journal of Pressure vessels & Piping, 67, 1996, pp 105-111
- 3. Loghman, A. and Shokouhi, N., Creep damage evaluation of thick-walled spheres using a long-term creep constitutive model, Journal of Mechanical Science and Technology, 23-2009, 2577-2582
- 4. Loghman, A., Ghorbanpour Arani, A., Amir, S., Vajedi, A., Magnetothermoelatic creep analysis of thick-walled FGM cylinders. International Journal of pressure vessel and piping, 87 (2010) 389e395
- 5. Loghman, A., Ghorbanpour Arani, A., Shajari A. R., Amir, S., Time-dependent thermoelastic creep analysis of rotating disk made of Al-SiC composite., Arch. Appl. Mech. 81 (2011) 1853-1864
- Loghman, A., Aleayoub, S.A.M. Hasani Sadi, M. Time-dependent magnetothermoelastic creep Modeling of FGM spheres using method of successive elastic solution, Appl. Math. Model, 36 (2012) 836-845
- Loghman, A. Ghorbanpour Arani A., Aleayoub S.A.M., Time-dependent creep stress redistribution analysis of functionally graded spheres, Mech Time-Depend Mater, 15 (2011) 353-365
- Loghman A., Moradi M. The analysis of time-dependent creep in FGPM thick-walled sphere under electro-magneto-thermo-mechanical loadings, Mech Time-Depend Mater, 17 (2013) 315-329
- Loghman A., Abdollahian M., Jafarzadeh Jazi A., Ghorbanpour Arani A., Semianalytical solution for Electromagnetothermoelastic creep response of functionally graded piezoelectric rotating disk, International Journal of Thermal Sciences, 65(2013)254-266
- Loghman A., Askari Kashan A., Younesi Bidgoli M., Shajari A.R., Ghorbanpour Arani A., Effect of particle content, size and temperature on magneto-thermo-mechanical creep behavior of composite cylinders, Journal of Mechanical science and Technology, 27 (4) (2013) 1041~1051
- Loghman A., Atabakhshian V., Semi-analytical solution for Time-dependent Creep Analysis of Rotating Cylinders Made of Exponentially Graded Material, Journal of Solid Mechanics, Vol 4, N03(2012) 313-326
- 12. Loghman A., Cheraghbak A., Agglomeration effects on electro-magneto-thermo elastic behavior of nano-composite piezoelectric cylinder, Polymer Composites, Vol., No (2016) Article in press (published online)
- Loghman A., Parsa H., Exact solution for magneto-thermo-elastic behaviour of double-walled cylinder made of an inner FGM and an outer homogeneous layer, International Journal of Mechanical Science, Vol. 88(2014) 93-99
- Loghman A., Azami M., A novel analytical-numerical solution for nonlinear timedependent electro-thermo-mechanical creep behavior of rotating disk made of piezoelectric polymer, Applied Mathematical Modelling, Vol. 40, No 7(2016) 4795-4811
- 15. Loghman A., Shayestehmoghadam H., Magneto-thermo-mechanical creep analysis of nano composite rotating cylinder made of polypropylene reinforced by MWCNTs, Journal of Theoretical and Applied Mechanics, Vol. 54, No 1(2016) 239-249

- Loghman A., Parsa H., Closed form solution for electro-magneto-thermo-elastic behaviour of double-layered composite cylinder, Journal of Solid Mechanics, Vol 8, N01(2016) 31-44
- 17. Loghman A., Tourang H., Non-stationary electro-thermo-mechanical creep response and smart deformation control of Thick-Walled sphere made of polyvinylidene fluoride, Journal of the Brazilian Society of Mechanical Sciences and Engineering, Vol. 38, No. 8(2016), 2547-2561
- 18. Loghman A., Tourang H., Azami M., Daryafonoon
- 19. Loghman A., Shayestehmoghadam H., Loghman E., Creep evolution analysis of composite cylinder made of polypropylene reinforced by functionally graded MWCNTs, Journal of Solid Mechanics, Vol 8, N02(2016) 372-383
- 20. Loghman A., Azami M., Tourang H., Electro–Magneto–Thermo-Mechanical Analysis of Polymeric Smart Rotating Disk Reinforced with Multiwalled Carbon Nanotubes with Nonlinear Behavior, Shahroud Journal of fluids and structures, Vol. 6, No. 2(2016) 97-108
- Loghman A., Moradi M. Creep damage and life assessment of thick-walled spherical reactor using Larson–Miller parameter, International Journal of pressure vessel and piping, Volume 151, March 2017, Pages 11–19 DOI: 10.1016/j.ijpvp.2017.02.003
- 22. Loghman A., Mossallaee A. A., Ghorbanpour Arani, A., Nonlinear stability of nonaxisymmetric functionally graded reinforced nano composite microplates, Computers and Concrete, *An International Journal*, Accepted Paper ID : CAC60513F
- Loghman, A., Nasr, M., Arefi, M., Nonsymmetric thermomechanical analysis of a functionally graded cylinder subjected to mechanical, thermal, and magnetic loads, Journal of Thermal Stresses, Published online: 1 Feb2017, DOI: 10.1080/01495739.2017.1280380
- 24. Mossallaee A. A., Loghman A., Ghorbanpour Arani, A., Temperature-dependent nonlocal nonlinear buckling analysis of functionally graded SWCNT-reinforced microplates embedded in an orthotropic elastomeric medium Structural Engineering and Mechanics, Vol. 53, No. 3 (2015) 497-517
- 25. Khatami Ghazvini M.R., Loghman A., Asghari A.A., Time-Dependent Deformation and Stress Redistribution Analysis of Thick-Walled Spheres Under Radial Temperature Distribution and an Internal Pressure, AEROSPACE MECHANICS JOURNAL Vol.12, No 2 (2016) 1-13
- 26. Kheyrkhah S., Loghman A., Electric potential redistribution due to time-dependent creep in thick-walled FGPM cylinder based on Mendelson method of successive approximation, Structural Engineering and Mechanics, Vol. 53, No. 6 (2015) 1167-1182
- 27. Kheyrkhah S., Loghman A., EXACT SOLUTION FOR THERMO-ELECTRO-MECHANICAL STRESS ANALYSIS OF FUNCTIONALLY GRADED PIEZOELECTRIC CYLINDERS, INTERNATIONAL JOURNAL OF CURRENT LIFE SCIENCES, Vol.4, Issue, 10, pp. 8116-8123, October, 2014
- Mohammadimehr M., Moradi M., Loghman A., Influence of the elastic foundation on the free vibration and buckling of thin-walled piezoelectric-based FGM cylindrical shells under combined loadings, Journal of Solid Mechanics, Vol 6, N04(2014) 347-365

- 29. Arefi M., Faegh Kouhhi H., Loghman A., The effect of axially variable thermal and mechanical loads on the 2D thermo-elastic response of FG cylindrical shell, Journal of Thermal Stresses 39 (12), (2016), 1539-1559 Journal of Thermal Stresses, Published online: 29 Sep 2016, DOI:10.1080/01495739.2016.1217178
- Jafari Fesharaki J., Loghman A., Yazdipoor M. and Golabi S., Semi-analytical solution for time-dependent thermomechanical creep behavior of FGM hollow sphere, , Mech Time-Depend Mater, Vol. 18 No. 1 (2014), 41-53
- 31. Ghorbanpour Arani, A. Loghman, A., Khademizadeh, M., and Moradi M., The Bauschinger and hardening effect on Residual stresses in thick-walled cylinders of SUS304, Transaction of the CSME, Vol 26 No4,2003 pp. 361-372
- 32. Ghorbanpour Arani, A. Loghman, A., Khademizadeh, M., and Moradi M., The overstrain of thick-walled cylinders considering the Bauschinger Effect factor, KSME, International Journal 17,2003, pp.477-483
- 33. Ghorbanpour Arani, Golabi, S., Loghman, A., Daneshi H. Investigating elastic stability of cylindrical Shell with an elastic core under axial compression by energy method, , Journal of Mechanical Science and Technology, 21-2007, 983-996
- 34. A. R. Ranjbaretoreh, G. W. Wang, A. Ghorbanpour Arani, A. Loghman, Comparative consideration of axial stability of single and double-walled carbon nanotubes and its inner and outer tubes, Physica E.,Low Dimension and Nanostructure, 2008, E41, 202-208
- 35. Aleayoub S.M.A., Loghman, A., Creep stress redistribution Analysis of thick-walled FGM spheres, Journal of solid Mechanics, Vol 2. No 2. (2010) pp.115-128
- 36. Ghorbanpour Arani, A.,Kolahchi, R., Mossallaee A. A., Mozdianfar, M.R. Loghman, A. Semi-Analytical Solution of Time-Dependent Electro-thermo-mechanical creep for radially polarized piezoelectric cylinder, Computers and Structures 89 (2011) 1494– 1502
- 37. Ghorbanpour Arani A., Loghman, A. Abdollahitaher, A.. Atabakhshian V, Electrothermomechanical behaviour of a radially polarized functionally graded piezoelectric cylinder, Journal of Mechanics of Materials and Structures, 6 No 6, (2011) 869–882
- 38. Ghorbanpour Arani A., Hashemian M., Loghman, A. Mohammadimehr, M. STUDY OF DYNAMIC STABILITY OF THE DOUBLE-WALLED CARBON NANOTUBE UNDER AXIAL LOADING EMBEDDED IN AN ELASTIC MEDIUM BY THE ENERGY METHOD, Journal of Applied Mechanics and Technical Physics, Vol. 52, No. 5 (2011), pp. 815–824
- Ghorbanpour Arani A., Loghman, A. Shajari A.R. Amir, S Semi-analytical solution of magneto-thermo-elastic stresses for functionally graded variable thickness rotating disks, Journal of Mechanical Science and Technology 24 (10) (2010) 2107~21
- Ghorbanpour Arani A., Kolahchi, R., Mossallaee A. A, Loghman, A. Electro-thermomechanical behaviors of FGPM Spheres Using Analytical Methods and Ansys Software, Appl. Math. Model, 36 (2012) 139–157
- 41. Ghorbanpour Arani A., Mossallaee A. A, Kolahchi, R., Loghman, A. Pasternak foundation effect on the axial and torsional waves propagation in embedded DWCNTs using nonlocal elasticity cylindrical shell theory, Journal of Mechanical Science and Technology 25 (9) (2011) 2385~2391

- 42. Ghorbanpour Arani A., Loghman, A., Mossallaee A. A, Kolahchi, R., Elastic Buckling Analysis of Ring and Stringer-stiffened Cylindrical Shells under General Pressure and Axial Compression via the Ritz Method, Journal of solid Mechanics, Vol 2 No 4 (2010) 332-347
- 43. Ghorbanpour Arani A., Atabakhshian V., Loghman, A. Shajari A.R. Amir, S. Nonlinear vibration of embedded SWBNNTs based on nonlocal Timoshenko beam theory using DQ Method, Physica B, 407, 2012, 2549-2555
- 44. Mossallaee A. A., Ghorbanpour Arani, A., Kolahchi, R., Mozdianfar, M.R. Loghman, A Nonlinear buckling response of embedded piezoelectric cylindrical shell reinforced with BNNT under electro-thermo-mechanical loadings using HDQM, Composites: Part B, Vol. 44 (2013) 722–727
- 45. Ghorbanpour Arani A., Shajari A.R., Atabakhshian V., Amir, S., Loghman, A. Nonlinear dynamical response of embedded fluid-conveyed micro-tube reinforced by BNNTs, Composites: Part B, Vol. 44 (2013) 424–432
- 46. Ghorbanpour Arani A., Mossallaee A. A, Kolahchi, R., Loghman, A., Time-dependent thermo-electro-mechanical creep behavior of radially polarized FGPM rotating cylinder, Journal of solid Mechanics, 3(2012)142-157
- 47. Ghorbanpour Arani A., Mossallaee A. A, Kolahchi, R., Loghman, A., Electrothermomechanical creep and time-dependent behavior of FGPM spheres, Turkish j Eng. Env. Sci, 36(2012)208-218
- 48. Ghorbanpour Arani A., Shirali A.A., Noudeh Farahani M., Amir, S., Loghman, A. Nonlinear vibration analysis of protein microtubes in cytosol conveying fluid based on nonlocal elasticity theory using differential quadrature method, Proc IMechE Part c J Mechanical Engineering Science. 227(1), 2012, 137-145
- 49. Vahid Daghigh, Hamid Daghigh, Abbas Loghman, Andy Simoneau, Time-dependent creep analysis of rotating ferritic steel disk using Taylor series and Prandtl-Reuss relation, International Journal of Mechanical Sciences, Vol. 77 (2013) 40–46
- 50. Cheraghbak A., Loghman A., Magnetic field effects on the elastic behavior of polymericpiezoelectric cylinder reinforced with CNTs, Journal of Applied and Computational Mechanics, Vol. 2, No. 4, (2016), 222-229
- 51. Mohammadi H., Safari M., Loghman A., Time-dependent analysis and creep life prediction for rotating hollow cylinders made of alloy steel using theta projection concept and Larson miller parameter, Amirkabir Journal, Accepted

## **Conference Publications**

- 1. Eslami M. R. and Loghman A. Thermoelastic-plastic creep analysis of thick cylindrical pressure vessels of strain hardening material, the 1989 ASME pressure vessels and piping conference, Honolulu, Hawaii, July 23-27-1989, PVP vol. 175, pp 71-78
- 2. Loghman, A. and Wahab, M. A., Multiaxial Stress Redistributions of Thick-Walled Tubes Using a Long-Term Creep Constitutive Equation, *Proceedings of*

The International Conference on the Mechanics of Solids and Materials Engineering, Singapore, 1995, Vol. C, pp. 790-795

- Loghman, A. and Wahab, M. A., Creep Damage Simulation of Thick-Walled Tubes Using a Long-Term Creep Constitutive Equation, 3<sup>rd</sup>. International Conference on Failures Repairs & Life Assessment of Pressure Vessels and Pipework, Institute of Metals and Materials Australasia Ltd, Melbourne 1995, pp. 133-138
- 4. Loghman, A. and Wahab, M. A., The Onset and Spread of Yielding in Thick-Walled Cylinders Subjected to Internal Pressure and Thermal Loads, *Thirteenth Australasian Conference on the Mechanics of Structures and Materials*, *Wollongong*, 1993, pp.525-532
- Loghman, A. and Wahab, M. A., Thermoelastoplastic Stress Analysis of Thick-Walled Cylindrical Pressure Vessels of Strain Hardening Material, *The Institution of Engineers Australia, Conference on Dynamic Loading In Manufacturing And Service, Melbourne, 1993, pp. 137-142*
- 6. Loghman, A. and Wahab, M. A., Thermoelastoplastic and Residual Stresses in Thick-Walled Cylindrical Pressure Vessels of Strain Hardening Material, *Advances in Engineering Plasticity and Its Application, Editor, W. B. Lee, Elsevier Science Publishers, Amsterdam, 1993*
- 7. Ghorbanpour Arani A., Khademizadeh H., Loghman A. and Moradi M., Effect of Bauschinger Phenomenon on residual stresses in thick-walled cylinders, 9<sup>th</sup> Annual International Iranian Mechanical Engineering Conference, Gilan University Rasht, 27-29 May 2001
- 8. Loghman A., Atabakhshian V., Shajari A.R., Differential Quadrature Solution for Nonlinear Vibration Analysis of SWBNNTs Based on Nonlocal Timoshenko Beam Model, 20<sup>th</sup> Annual International Iranian Mechanical Engineering Conference, Shiraz University Shiraz, 15-17 May 2012
- 9. Loghman A., Azami M., Javanmard M., Shams S.H. Analytical Solution of Magneto-Thermoelastic Stress for a Functionally Graded Smart Rotating disk, 20<sup>th</sup> Annual International Iranian Mechanical Engineering Conference, Shiraz University Shiraz, 15-17 May 2012
- 10. Loghman A., Atabakhshian V. Creep evolution analysis of rotating cylinder made of exponentially graded material (EGM), 21<sup>th</sup> Annual International Iranian Mechanical Engineering Conference, K.N. Toosi University of Technology, Tehran-Iran, 7-9 May 2013
- 11. Loghman A., Moradi M. Electro-magneto-thermo-elastic analysis of a thickwalled sphere made of functionally graded piezoelectric material, 21<sup>th</sup> Annual International Iranian Mechanical Engineering Conference, K.N. Toosi University of Technology, Tehran-Iran, 7-9 May 2013
- 12. Loghman A., Daghigh V., Daghigh H. Creep behavior of rotating ferritic steel disk using the Theta projection concept, 21<sup>th</sup> Annual International Iranian Mechanical Engineering Conference, K.N. Toosi University of Technology, Tehran-Iran, 7-9 May 2013
- 13. Loghman A., Moradi M., Mosallaie A. Comparison of stress rate and strain rate methods in time-dependent creep evolution analysis of FGM structures, 22th

Annual International Iranian Mechanical Engineering Conference, Shahid Chamran University, Ahwaz-Iran, 21 April 2014

- 14. Loghman A., Moradi M., A novel approach for steady-state creep analysis of thick-walled cylindrical pressure vessels, The 23rd Annual International Conference on Mechanical Engineering-ISME2015 12-14 May, 2015, Mech. Eng. Dept., Amirkabir University of Technology, Tehran, Iran
- 15. Loghman A., Asghari A., Effect of material inhomogeneeity parameter on creep resistance of FGM cylinders, ICMLEME2014, Dubai
- 16. Loghman A., Mohammadhosseinimirzaee M. Effect of silicon carbide nano particles on creep behavior of rotating cylinder made of Al-SiC composite, ICN2014, Istunbul, Turkey
- 17. Loghman A., Mosallaie A.Stability of nano composite piezoelectric cylindrical shell reinforced by elastic foundation, The 13rd Annual International Conferenceof Iranian airspace Engineering,2014, Tehran-Iran