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Akbar Alibeigloo, Date of birth: 1959/3/27, Town and country

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Education

PhD

Mechanical Engineering, 2002

MSc

Mechanical Engineering, 1990

BSc

Mechanical Engineering, 1987

Position held

Professor of Mechanical Engineering, Tarbiat Modares University, Tehran, Iran

Books(In Persian)

Mechanical Structures (Beam, Plate and Shell) Mahmood Shakeri, Akbar Alibeigloo, (2009) Iran Amirkabir Press,

Theory of plates and shells , Mahmood Shakeri, Akbar Alibeigloo, (2013) Iran Amirkabir Press,

Books(In English)

Three Chapter of "Encyclopedia of Thermal stresses" (Springer 2014)

Member of Thermoelasticity center of Excellence

Research interests

- Static and vibration analysis of mechanical structures (Beam, plates and Shells) made by composite and FGM
- Static and vibration analysis of nanostructures (Beam, plates and Shells)
- Static and vibration analysis of nanocomposites
- Static and vibration analysis of intelligent structures

Teaching interests

- Theory of elasticity
- Thermoelasticity
- Mechanical behavior of composite
- Finite Element Method

Publication

-Journal papers

- [1] Hossein Norouzi, **A.Alibeigloo** "Three dimensional static analysis of viscoelastic FGM cylindrical panel using state space differential quadrature method "European Journal of Mechanics A/Solids 61 (2017) 254-266.
- [2] **A. Alibeigloo** "Thermo elasticity solution of functionally graded, solid, circular, and annular plates integrated with piezoelectric layers using the differential quadrature method "Mechanics of Advanced Materials and Structures, Doi:10.1080/15376494.2017.1308585
- [3] **A.Alibeigloo**, A.A. Pasha Zanoosi "Thermo-electro-elasticity solution of functionally graded carbon nanotube reinforced composite cylindrical shell embedded in piezoelectric layers "Composite Structures 173 (2017) 268–280.
- [4] Ali Asghar Emami, **Akbar Alibeigloo**, "Exact solution for thermal damping of functionally graded Timoshenko microbeams" Journal of Thermal Stresses 39 (2016) 231–243.
- [5] Hossein Norouzi, **A.Alibeigloo** "Three dimensional thermoviscoelastic analysis of a simply supported FGM cylindrical panel "Composite Structures 148 (2016) 181–190.
- [6] Hamed Jafarian, **Akbar Alibeigloo**, "Three-dimensional static and free vibration analysis of carbon nano tube reinforced composite cylindrical shell using differential quadrature method "International Journal of Applied Mechanics 8(3), 2016, 1650033 (23 pages).
- [7] **A.Alibeigloo** "Thermoelastic analysis of functionally graded carbon nanotube reinforced composite cylindrical panel embedded in piezoelectric sensor and actuator layers "Composites Part B 98 (2016) 225-243.
- [8] Ali Asghar Emami, **Akbar Alibeigloo**, "Thermoelastic damping analysis of FG Mindlin microplates using strain gradient theory "Journal of Thermal Stresses Doi.org/10.1080/01495739.2016.1242097.
- [9]J.Ranjbar, **A.Alibeigloo** "Response of functionally graded spherical shell to thermomechanical shock", Aerospace Science and Technology 51 (2016) 61–69.
- [10] Sajad Mostafavi, Mohammad Golzar, **Akbar Alibeigloo**, "On the thermally induced multistability of connected curved composite" Composite Structures 139 (2016) 210–219.
- [11] **A.Alibeigloo** "Thermo elasticity solution of sandwich circular plate with functionally graded core using generalized differential quadrature method" Composite Structures 136 (2016) 229–240.
- [12] **A.Alibeigloo** "Elasticity solution of functionally graded carbon nanotube-reinforced composite cylindrical panel subjected to thermo mechanical load" Composites Part B 87 (2016) 214-226
- [13] **A. Alibeigloo**, "Effect of viscoelastic interface on three-dimensional static and vibration behavior of laminated composite plate" *Composites Part B* 75 (2015) 17-28
- [14] **A. Alibeigloo**, K.M. Liew "Elasticity Solution of Free Vibration and Bending Behavior of Functionally Graded Carbon NanotubeReinforced Composite Beam with Thin Piezoelectric Layers Using Differential Quadrature Method" *International Journal of Applied Mechanics Vol.* 7, No. 1 (2015) 1550002 (30 pages)
- [15] **A. Alibeigloo**, A. Emtahani "Static and free vibration analyses of carbon nanotube reinforced composite plate using differential quadrature method" *Meccanica* (2015)

- [16] M. Feri, **A. Alibeigloo**, A.A. Pasha zanoosi "Three dimensional static and free vibration analysis of cross-ply laminated plate bonded with piezoelectric layers using differential quadrature method" Meccanica 51(2016) 921–937
- [17] **A. Alibeigloo**, "Three-dimensional static and free vibration analysis of laminated cylindrical panel with viscoelastic interfaces" *Journal of Composite Materials* 2015, Vol. 49(19) 2415–243
- [18] **A. Alibeigloo**, M. Alizadeh "Static and free vibration analyses of functionally graded sandwich plates using state space differential quadrature method" *European Journal of Mechanics A/Solids* 54 (2015) 252-266
- [19] **A. Alibeigloo**, "Three-dimensional thermoelasticity solution of functionally gradedcarbon nanotube reinforced composite plate embedded in piezoelectric sensor and actuator layers" *Composite Structures*, 2014, 118, 482–495.
- [20] **A. Alibeigloo**, "Three-dimensional static and free vibration analysis of laminated cylindrical panel with viscoelastic interfaces "Journal of Composite Materials 2014, DOI: 10.1177/0021998314547527
- [21] M. Shaban, A. Alibeigloo, "Static Analysis of Carbon Nano-Tubes Based on Shell Model by Using Three-Dimensional Theory of Elasticity" Journal of Computational and Theoretical Nanoscience, Vol. 11, 1954–1961, 2014.
- [22] **A. Alibeigloo**, "Elasticity solution for nano-beam subjected to uniform static pressure using state space method" Journal of Computational and Theoretical Nanoscience, *Vol. 11, Vol. 1683–1690*, 2014.
- [23] M. Shaban, **A. Alibeigloo**, "Three dimensional vibration and bending analysis of carbon nanotubes embedded in elastic medium based on theory of elasticity "Latin American Journal of Solids and Structures 11 (2014) 2122-2140
- [24] **A. Alibeigloo** and K.M. Liew, "Free vibration analysis of sandwich cylindrical panel with functionally graded core using three-dimensional theory of elasticity" Composite Structures, 113 (2014) 23–30.
- [25] E. Abdollahzadeh Shahrbabaki and **A. Alibeigloo**, "Three-dimensional free vibration of carbon nanotube-reinforced composite plates with various boundary conditions using Ritz method" *Composite Structures*, 111 (2014) 362–370.
- [26] A. Alibeigloo, "Elasticity Solution for Nano-Beam Subjected to Uniform Static Pressure Using State Space Method" Journal of Computational and Theoretical Nanoscience, 2014, Vol. 11, 1683–1690.
- [27] **A. Alibeigloo**, "Free vibration analysis of functionally graded carbon nanotube reinforced composite cylindrical panel embedded in piezoelectric layers by using theory of elasticity" European Journal of Mechanics A/Solids, 2014, 44,104-115

- [28] **A. Alibeigloo**, "Three-dimensional thermo-elasticity solution of sandwich cylindrical panel with functionally graded core" Composite Structures, 2014, 107, 458–468.
- [29] **A. Alibeigloo** and K. M. Liew, "Thermoelastic analysis of functionally graded carbon nanotube-reinforced composite plate using theory of elasticity" *Composite Structures*, 2013, 106, 873–881.
- [30] **A. Alibeigloo**, "Elasticity solution of functionally graded carbon-nanotube-reinforced composite cylindrical panel with piezoelectric sensor and actuator layers" *Smart Mater. Struct.* 22 (2013) 075013 (15pp).
- [31] **A. Alibeigloo** and A.A. Pasha Zanoosi, "Static analysis of rectangular nano-plate using three- dimensional theory of elasticity" *Applied Mathematical Modelling 37 (2013)* 7016–7026.
- [32] **A. Alibeigloo**, M. Shaban "Free vibration analysis of carbon nanotubes by using three-dimensional theory of elasticity" *Acta Mech* 224, 1415–1427 (2013).
- [33] **A. Alibeigloo**, "Static analysis of functionally graded carbon nanotube-reinforced composite plate embedded in piezoelectric layers by using theory of elasticity" *Composite Structures* 95 (2013) 612–622.
- [34] M. Mallakzadeh, A.A. Pasha Zanoosi, A. Alibeigloo, "Fundamental frequency analysis of microtubules under different boundary conditions using differential quadrature method" *Commun Nonlinear Sci Numer Simulat 18 (2013) 2240–2251*
- [35] A. Behravan rad, **A. Alibeigloo**, "Semi-Analytical Solution for the Static Analysis of 2D Functionally Graded Solid and Annular Circular Plates Resting on Elastic Foundation" *Mechanics of Advanced Materials and Structures* (2013) 20, 515–528
- [36] **A. Alibeigloo**, "Three-dimensional free vibration analysis of multi-layered graphene sheets embedded in elastic matrix" *Journal of Vibration and Control*, 2013, 19(16) 2357–2371.
- [37] **A. Alibeigloo**, "Three-dimensional semi-analytical thermoelasticity solution for a functionally graded solid and annular circular plate" *Journal of Thermal Stresses*, 35: 653–676, 2012.
- [38] **A. Alibeigloo**, A.M. Kani and M.H. Pashaei "Elasticity solution for the free vibration analysis of functionally graded cylindrical shell bonded to thin piezoelectric layers" *International Journal of Pressure Vessels and Piping* 89 (2012) 98e111
- [39] **A. Alibeigloo**, "Fundamental frequency analysis of microtubules under different boundary conditions using differential quadrature method" Composite Structures, Volume 93, Issue 2, January 2011, Pages 961-972
- [40] **A. Alibeigloo**, "Exact solution of an FGM cylindrical panel integrated with sensor and actuator layers under thermomechanical load" *Smart Mater. Struct.* 20 (2011) 035002 (14pp)
- [41] A. Alibeigloo, V. Simintan "Elasticity solution of functionally graded circular and annular

- plates integrated with sensor and actuator layers using differential quadrature "Composite Structures 93 (2011) 2473–2486
- [42] **A. Alibeigloo**, "Free vibration analysis of nano-plate using three- dimensional theory of elasticity" Acta Mech 222, 149–159 (2011)
- [43] **A. Alibeigloo**, "Thermoelasticity analysis of functionally graded beam with integrated surface piezoelectric layers" *Composite Structures*, 2010, vol.92, pp.1535–1543.
- [44] **A. Alibeigloo**, "Exact solution for thermo-elastic response of functionally graded rectangular plates, *Composite Structures*, 2010, vol.92, pp.113–121.
- [45] A. Alibeigloo, V. Nouri, "Static analysis of functionally graded cylindrical shell with piezoelectric layers using differential quadrature method" *Composite Structures*, 2010, 92, pp.1775–1785.
- [46] **A. Alibeigloo**, W. Q. Chen, "Elasticity solution for an FGM cylindrical panel integrated with piezoelectric layers. *European Journal of Mechanics A/Solids 29* (2010) 714-723
- [47] **A. Alibeigloo**, "Thermo-elasticity solution of functionally grade plates integrated with piezoelectric sensor and actuator layers" *Journal of Thermal Stresses*, 33: 754–774, 2010
- [48] Sh. Hosseini-Hashemi, H. Akhavan, H. Rokni Damavandi Taher, N. Daemi, A, Alibeigloo,"differential quadrature analysis of functionally graded circular and annular sector plates on elastic foundation, *Materials and Design*, 2010, 1871-1880.
- [49] **A. Alibeigloo**, "Three-dimensional exact solution for functionally graded rectangular plate with integrated surface piezoelectric layers resting on elastic foundation, *Mechanics of Advanced Materials and Structures*, 17(2010), 183-195.
- [50] A. Behrava rad, **A. Alibeigloo**, S.S. Malihi "Static analysis of functionally graded annular plate resting on elastic foundation subject to an axisymmetric transverse load based on three dimensional theory of elasticity, *J. of Solid Mehanics*, 2(2010), 290-304.
- [51] **A. Alibeigloo** and A.M. Kani "3D free vibration analysis of laminated cylindrical shell integrated piezoelectric layers using the differential quadrature method" *Applied Mathematical Modeling*, 34(2010), 4123-4137.
- [52] **A. Alibeigloo**, "Static analysis of functionally graded cylindrical shell with piezoelectric layers as sensor and actuator" *Smart Mater. Struct.*, 18 (2009).
- [53] A. Alibeigloo, M.R. Kari, "Forced vibration analysis of antisymmetric laminated

- rectangular plates with distributed patch mass using third order shear deformation theory, "Thin-Walled Structures, vol. 47, Issues 6-7, 2009, pp. 653-660.
- [54] **A. Alibeigloo** and M. Shakeri, "Elasticity solution for static analysis of laminated cylindrical panel using differential quadrature method" *Engineering Structures J.*, 2009, vol.31,pp.260-267.
- [55] H. Akhavan, Sh. Hosseini, R. Rokni, **A. Alibeigloo**, Sh. Vahabi, "Exact solutions for mindlin plates under in-plane loadings resting on Pasternak elastic foundation, Part I buckling analysis" *Computational Materials science*, 2009, vol.44, pp.968-978.
- [56] H. Akhavan, Sh. Hosseini, R. Rokni, **A. Alibeigloo**, Sh. Vahabi, "Exact solutions for mindlin plates under in-plane loadings resting on Pasternak elastic foundation, Part II frequency analysis" *Computational Materials science*, 2009, vol.44,pp.951-961.
- [57] **A. Alibeigloo** and R. Madooliat, "Static analysis of cross-ply laminated plates with integrated surface piezoelectric layers using differential quadrature" *Composite Structures*, 2009, 88, pp.342–353.
- [58] **A. Alibeigloo** and M. Shakeri, "Static analysis of anisotropic laminated cylindrical shell with piezoelectric layers" Mechanics of Advance Material and Structures, *Mechanics of Advanced Materials and Structures*, 2009, vol.16, pp.585–596
- [59] **A. Alibeigloo**, "Static and vibration analysis off axi-symmetric angle-ply laminated cylindrical shell using state-space differential quadrature method" *International Journal of Pressure Vessels and Piping*, 2009, vol.86, pp.738–747.
- [60] **A. Alibeigloo** and M. Shakeri, "Three-dimensional elasticity solution for laminated cross-ply panel under localized dynamic moment" *Int. J. of Science and Technology*(*Scientia Iranica*), *Iran*, *Transaction B: Mechanical Engineering*, 2009, Vol. 16, No. 3, pp. 229-239.
- [61] **A. Alibeigloo**, "Static analysis of laminated cylindrical shell with piezoelectric layer using differential quadrature method" *J. of Mech. Eng. Science (IMechE)*, 2008, vol. 222, No.6.
- [62] **A. Alibeigloo**, M. Shakeri and M.R. Kari, "Free vibration analysis of antisymmetric laminated rectangular plates with distributed patch mass" *Ocean Engineering Journal (Elsevier)*, 2008, vol.35, No.2, pp.183-190.
- [63] **A. Alibeigloo** and M. Shakeri, "Static analysis of cross-ply laminated plate with integrated surface piezoelectric layers" *J. of Mech. Eng. Science (IMechE)*, 2007, vol. 221, No.9.
- [64] **A. Alibeigloo**, M. Shakeri and A. Morowat, "Optimal stacking sequence of laminated anisotropic cylindrical panel using genetic algorithm" *Structural Engineering and Mechanic (An International Journal)*, 2007, vol.25, No. 6, pp.647-

- [65] **A. Alibeigloo** and M. Shakeri, "Three-dimensional elasticity solution for laminated cross-ply panel under localized moment" *J. of Mech. Eng. Science (IMechE)*, 2007, vol.221, No. c8,pp.859-867.
- [66] **A. Alibeigloo** and M. Shakeri, "Elasticity solution for the free vibration analysis of laminated cylindrical panels" *Composite Structure Journal*, 2007, vol.81, pp.105-113.
- [67] Shakeri, M., **Alibeigloo**, **A.**, "Dynamic analysis of orthotropic laminated cylindrical panels", *Mechanics of Advanced Materials and Structures*, 2005, 12 (1), pp. 67-75.
- [68] **A. Alibeigloo** and M. Shakeri, "Analysis of multi-layered shallow panels under dynamic thermal load based on theory of elasticity" *Iranian Journal of Science and Technology*, 2002, vol.26, No. B3, pp.441-454.

Conference papers

- [1] Kari M.R. and **Alibeigloo A.**, "Forced vibration of rectangular FGM plates with distributed patch load using third order shear deformation theory" The 7th Iranian Aerospace Society Conference, Feb. 19-21/2008, Sharif University of Technology.
- [2] **Alibeigloo A.**, Shakeri M., and Kari M., "Forced vibration of rectangular orthotropic plates with distributed patch mass" Tenth East Asia Pasific Conference on Structural Engineering & Construction, Bangkok, Thailand, 2006,
- [3] Shakeri M., **Alibeigloo A.**, and Khosravirad A. "Stacking sequence optimization of laminated cylindrical panel for maximum natural frequency with strength constraint using genetic algorithm and penalty method" Tenth East Asia Pasific Conference on Structural Engineering & Construction, Bangkok, Thailand, 2006, pp.333-338.
- [4] **Alibeigloo A.**, Shakeri M., and Hossein Nejad M., "Static analysis of laminated anisotropic cylindrical panel under patch moment" Tenth East Asia Pasific Conference on Structural Engineering & Construction, Bangkok, Thailand, 2006, pp.339-344.
- [5] **Alibeigloo A.**, Shakeri M., and Morowat A., "Optimization of laminated anisotropic cylindrical panels using genetic algorithm" The 8th Conference "Shell Structures: Theory and Applications, 2005, pp.281-284.
- [6] Shakeri M., **Alibeigloo A.** and Morowat A., "Stacking sequence optimization of laminated panels for maximu strength using genetic algorithm" 18th International Conference on Structural Mechanics in Reactor Technology (SMiRT18), Beijing, China, 2005(August 7-12), pp. 1611-1618.

- [7] **Alibeigloo A.** and Shakeri M.," Dynamic analysis of laminated cross-ply panel under localized moment" Fifth International Conference on Composite Science &Technology, American University of Sharjeh,2005,pp.383-388.
- [8] Shakeri M., Eslami M. R. and **Alibeigloo A.**, "Dynamic analysis of thick laminated anisotropic cylindrical panel", The Sixth East Asia-Pacific Conferences on Structural Engineering & Construction, Taipei, Taiwan, 1998 (January 14-16), pp. 714-725.
- [9] Shakeri M., Eslami M. R. and **Alibeigloo A.**, "Elasticity solution for laminated anisotropic cylindrical panel under impulse", First Asian-Australasian Conference on Composite Materials (ACCM-1), Osaka, Japan, 1998(October 7-9), pp.746-1:746-6.
- [10] Shakeri M., Eslami M. R. and **Alibeigloo A.**, Three-dimensional vibration of anisotropic laminated cylindrical panel", Integrated Design and Process Technology, IDPT-Vol.3, Printed in the United States of America, 1998 (July), pp.238-244.
- [11] Shakeri M., Eslami M. R. and **Alibeigloo A.**, "Elasticity solution for thick laminated circular cylindrical panels under dynamic patch load", First International Conference on Advances in Structural Engineering and Mechanics", Seol, Korea, 1999 (August 23-25), pp.1297-1304.
- [12] Shakeri M., Eslami M. R. and **Alibeigloo A.**, "Dynamic analysis of multi-layered shallow cylindrical panels", :Elasticity solution for thick laminated circular cylindrical panels under dynamic patch load", First International Conference on Advances in Structural Engineering and Mechanics", Seol, Korea, 1999 (August 23-25), pp.1305-1314.
- [13] Shakeri M., Eslami M. R., Yas M.H. and **Alibeigloo A.**, "A galerkine finite element dynamic analysis of multi-layered composite cylindrical shells", Fourth International Colloquium on Computation of Shell and Spatial Structures, IASS-IACM, Athens, Greece, 2000, pp.1-11.
- [14] Shakeri M., Eslami M. R. and **Alibeigloo A.**, "Dynamic analysis of multi-layered anisotropic shallow cylindrical panels", Fourth International Colloquium on Computation of Shell and Spatial Structures IASS-IACM, Athens, Greece, 2000, pp.1-11.
- [15] Shakeri M., Eslami M. R. and **Alibeigloo A.**, "Elasticity solution for thick laminated shallow circular cylindrical panels under dynamic patch load", Proceeding of the Second Asian Australasian Conference on Composite Materials, 2000(Augost 18-20), Vol.2, pp.921-927.
- [16] Shakeri M., Eslami M. R. and **Alibeigloo A.**, "Elasticity solution for thick laminated circular cylindrical shallow and non-shallow panels under dynamic load", 13th International Conference on Composite Materials, Beijin China, 2001(June 25-29).

- [17] Shakeri M., Eslami M. R. and **Alibeigloo A.**, "Dynamic analysis of multi-layered anisotropic shallow cylindrical panels under thermal load", The Eighth East Asia-Pasific Conference on Structural Engineering and Construction, 2001 (December 5-7).
- [18] Shakeri M., Eslami M. R. and **Alibeigloo A.**, "Dynamic analysis of multi-layered cylindrical panels under thermal load", International Conference on Composite Science and Technology, 2003(January 21-23), pp344-350.
- [19] Shakeri M., **Alibeigloo** A. and Goodarzi A. H., "Optimal stacking sequence of laminated cylindrical panel using genetic algorithm", The Ninth East Asia-Pacific Conference on Structural Engineering and Construction, Bali, Indonesia, 2003, pp.51-56.
- [20] Shakeri M., Daneshmehr A. and **Alibeigloo A.**, "Elasticity solution for thick laminated shell panel with piezoelectric layer", The Ninth East Asia-Pacific Conference on Structural Engineering and Construction, Bali, Indonesia, 2003, pp.87-93.
- [21] Shakeri M., **Alibeigloo A.** and Ghajari M., "Numerical analysis of the axisymetric collapse of cylindrical tubes under axial loading", Proceeding of Seventh International Conference on Computational Structures Technology, Scotland, 2004, pp.1-10.
- [22] Shakeri M., **Alibeigloo A.** and Morowat A., "Multi-objective optimization of laminated cylindrical panels using a genetic algorithm" Proceeding of Tenth International Conference on Civil, Structural and Environmental Engineering Computing, 2005, pp.1-11.

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