

Professor Akbar Alibeigloo

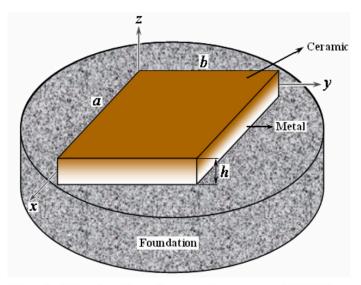


Figure 1: Geometry of a rectangular plate composed of FGMs.

From: Hamed Kalhori, Hamed Akhavan, Hossein Rokni and Akbar Alibeigloo, "Vibration analysis of functionally graded rectangular plates based on Mori-Tanaka homogenization scheme" 7th EUROMECH Solid Mechanics Conference, Lisbon, Portugal, September 7-11, 2009

See:

http://en-art.modares.ac.ir/?&fkeyid=&siteid=96&pageid=7044 https://www.researchgate.net/profile/A_Alibeigloo https://scholar.google.com/citations?user=IxttE78AAAAJ&hl=en

Dept. of Mechanical Engineering Tarbiat Modares University, Tehran, Iran

Education:

2002 PhD Mechanical Engineering 1990 MSc Mechanical Engineering 1987 BSc Mechanical Engineering

Research Interests:

Static and vibration analysis of beams, plates and shells made of composites and FGM Static and vibration analysis of nano beams, plates and shells Static and vibration analysis of intelligent structures

Selected Publications:

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 **Journal articles, etc.:**

A. Alibeigloo, "Static Analysis of an Anisotropic Laminated Cylindrical Shell with Piezoelectric Layers Using Differential Quadrature Method," Mechanical Engineering Science, Vol. 222, No. 6, 2008, pp. 865-880

- Alibeigloo A.: Static analysis of a functionally graded cylindrical shell with piezoelectric layers as sensor and actuator. Smart Mater. Struct. 18, 12 (2009)
- Alibeigloo, A., Shakeri, M., Elasticity solution for static analysis of laminated cylindrical panel using differential quadrature method. Engineering Structures, 31(1): 260–267, 2009
- A. Alibeigloo, R. Modoliat, Static analysis of cross-ply laminated plates with integrated surface piezoelectric layers using differential quadrature, Compos. Struct. 88 (2009), 342–353
- A. Alibeigloo, "Static and vibration analysis of axi-symmetric angle-ply laminated cylindrical shell using state space differential quadrature method", International Journal of Pressure Vessels and Piping, Vol. 86, No. 11, November 2009, pp. 738-747
- Akhavan H, Hosseini SH, Taher HRD, Alibeigloo A, Vahabi S, Exact solutions for rectangular Mindlin plates under in-plane loads resting on Pasternak elastic foundation. Part I: buckling analysis. Comput Mater Sci 44:951–961, 2009
- Akhavan H, Hosseini SH, Taher HRD, Alibeigloo A, Vahabi S, Exact solutions for rectangular Mindlin plates under in-plane loads resting on Pasternak elastic foundation. Part II: frequency analysis. Comput Mater Sci 44, 2009
- Hamed Kalhori, Hamed Akhavan, Hossein Rokni and Akbar Alibeigloo, "Vibration analysis of functionally graded rectangular plates based on Mori-Tanaka homogenization scheme" 7th EUROMECH Solid Mechanics Conference, Lisbon, Portugal, September 7-11, 2009
- Alibeigloo A. Exact solution for thermo-elastic response of functionally graded rectangular plates. Compos Struct 2010;92(1):113–21
- A. Alibeigloo, W.Q. Chen, "Elasticity solution for an FGMM cylindrical panel integrated with piezoelectric layers", Eur. J. Mech. A Solids, 29 (2010), pp. 714-723
- Alibeigloo A.: Thermoelastic solution for static deformations of functionally graded cylindrical shell bonded to thin piezoelectric layers. Comp. Struct. 93, 961–972 (2010)
- A. Alibeigloo, "Thermoelasticity analysis of functionally graded beam with integrated surface piezoelectric layers", Compos. Struct., 92 (2010), pp. 1535-1543
- A. Alibeigloo and V. Nouri, "Static Analysis of Functionally Graded Cylindrical Shell with Piezoelectric Layers Using Differential Quadrature Method," Composite Structures, Vol. 92, No. 8, 2010, pp. 1775-1785 Alibeigloo A., Kani A.M., 2010, 3D free vibration analysis of laminated cylindrical shell integrated piezoelectric layers using differential quadrature method, Applied Mathematical Modeling, 34, 4123-4137
- A. Alibeigloo, "Thermoelastic solution for static deformations of functionally graded cylindrical shell bonded to thin piezoelectric layers", Compos. Struct., 93 (2011), pp. 961-972
- Alibeigloo A.: Free vibration analysis of nano-plate using three-dimensional theory of elasticity. Acta Mech. 222, 149–159 (2011)
- 21. Alibeigloo, A.: Three-dimensional free vibration analysis of multi-layered graphene sheets embedded in elastic matrix. J. Vib. Cont. (2012)
- Alibeigloo, A., Kani, A.M., and Pashaei, M.H., Elasticity solution for the free vibration analysis of functionally graded cylindrical shell bonded to thin piezoelectric layers: Int. J. Pressure Vessels and Piping, 89: 98-111, 2012
- Alibeigloo A.: Static analysis of functionally graded carbon nanotube-reinforced composite plate embedded in piezoelectric layers by using theory of elasticity. Compos. Struct. 95, 612–622 (2013).
- A. Alibeigloo and M. Shaban, "Free vibration analysis of carbon nanotubes by using three-dimensional theory of elasticity", Acta Mechanica, Vol. 224, No. 7, pp 1415-1427, July 2013
- Alibeigloo A, Pasha Zanoosi AA, Static analysis of rectangular nano-plate using three-dimensional theory of elasticity. Appl Math Model 37:7016–7026, 2013

Alibeigloo, A. and Liew, K. M. Free vibration analysis of sandwich cylindrical panel with functionally graded core using three-dimensional theory of elasticity. Composite Structures, 113, 23–30 (2014)

E.A. Shahrbabaki, A. Alibeigloo, Three-dimensional free vibration of carbon nanotube-reinforced composite plates with various boundary conditions using Ritz method, Compos. Struct., 111 (2014), pp. 362–370

A. Alibeigloo, "Three-dimensional thermo-elasticity solution of sandwich cylindrical panel with functionally graded core", Composite Structures, Vol. 107, pp 458-468, January 2014

Alibeigloo, A.: Free vibration analysis of functionally graded carbon nanotube-reinforced composite cylindrical panel embedded in piezoelectric layers by using theory of elasticity. Eur. J. Mech. A Solids 44, 104–115 (2014) Alibeigloo A., Liew K.M.: Elasticity solution of free vibration and bending behavior of functionally graded carbon nanotube-reinforced composite beam with thin piezoelectric layers using differential quadrature method. Int. J. Appl. Mech. 7, 1550002 (2015)

Alibeigloo A., Emtehani A.: Static and free vibration analyses of carbon nanotube reinforced composite plate using differential quadrature method. Meccanica 50, 61–76 (2015)

J. Ranjbar and A. Alibeigloo, "Response of functionally graded spherical shell to thermo-mechanical shock", Aerospace Science and Technology, Vol. 51, pp 61-69, April 2016

A Alibeigloo, "Three-dimensional static and free vibration analysis of laminated cylindrical panel with viscoelastic interfaces", Journal of Composite Materials, Vol. 49, No. 19, pp 2415-2430, August 2015 Sajad Mostafavi, Mohammad Golzar and Akbar Alibeigloo, "On the thermally induced multistability of connected curved composite plates", Composite Structures, Vol. 139, pp 210-219, April 2016

A. Alibeigloo, Thermoelastic analysis of functionally graded carbon nanotube reinforced composite cylindrical panel embedded in piezoelectric sensor and actuator layers, Compos Part B Eng, 98 (2016), pp. 225–243 A. Alibeigloo and H. Jafarian, "Three-dimensional static and free vibration analysis of carbon nano tube reinforced composite cylindrical shell using differential quadrature method", International Journal of Applied Mechanics, Vol. 8, No. 3, 1650033, April 2016

A. Alibeigloo and A.A. Pasha Zanoosi, "Thermo-electro-elasticity solution of functionally graded carbon nanotube reinforced composite cylindrical shell embedded in piezoelectric layers", Composite Structures, Vol. 173, pp 268-280, August 2017

A. Aliyari Parand and A. Alibeigloo, "Static and vibration analysis of sandwich cylindrical shells with functionally graded core and viscoelastic interface using DQM", Composites Part B: Engineering, Vol. 126, pp 1-16, October 2017