



**Professor Nguyen Dinh Duc**



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**Education:**

B.Sc.: 1984, Hanoi State University, Faculty of Math. & Mech., Hanoi, Vietnam

Ph. D: 1991, Moscow State University, Faculty of Math. & Mech. , Moscow - Russia

Dr.Sc (Habilitation): 1997, Laboratory of Mechanics of composite materials - Mechanical Engineering

Research Institute of Russian Academy of Sciences, Moscow - Russia.

**Research Interests:**

Mechanics of deformation solid; Mechanics of composite materials; Technology of manufacture of composite materials, Mechanics of FGM plates and shells

## **Selected Publications:**

### **-----Books:**

- Nguyen Dinh Duc, The spherofibre composite with space structure, URSS Publishing House, Moscow, Russia, 2000, 242 pages (Monograph).
- Nguyen Dinh Duc, Nguyen Hoa Thinh, Composite materials - Mechanics and Technology of manufacture, Science and Technics Publishing House, Hanoi, Vietnam, 2002, 364 pages (Monograph).
- Nguyen Dinh Duc, Dao Nhu Mai, Strength of the Materials and Structures. Vietnam National University Press, Hanoi, 2012, 292 pages (Text book).
- Nguyen Dinh Duc, Nonlinear Static and Dynamic Stability of Functionally Graded Plates and Shells. Vietnam National University Press, Hanoi, 2014, 724 pages (Monograph).

### **-----Selected Papers:**

- Nguyen Dinh Duc, Pham Hong Cong, Vu Minh Anh, Vu Dinh Quang, Phuong Tran, Ngo Duc Tuan, Nguyen Hoa Thinh (2015). Mechanical and thermal stability of eccentrically stiffened functionally graded conical shell panels resting on elastic foundations and in thermal environment. *J. Composite Structures*, Vol.132, pp.597-609 (Elsevier, SCIE, IF=3.12).
- Vu Thi Thuy Anh, Nguyen Dinh Duc (2015). Nonlinear response of shear deformable S-FGM shallow spherical shell with ceramic-metal-ceramic layers resting on elastic foundation in thermal environment. *J. Mechanics of Advanced Materials and Structures* (Taylor & Francis, SCIE, IF=0.664): <http://www.tandfonline.com/doi/abs/10.1080/15376494.2015.1059527>.
- Vu Thi Thuy Anh, Pham Hong Cong, Dao Huy Bich, Nguyen Dinh Duc (2015). On the linear stability of eccentrically stiffened functionally graded annular spherical shell on elastic foundations. Accepted for publication. *J. of Advanced Composite Materials* (Taylor & Francis, SCIE, IF=0.481).
- Nguyen Dinh Duc, Homayoun Hadavinia, Pham Van Thu, Tran Quoc Quan (2015). Vibration and nonlinear dynamic response of imperfect three-phase polymer nanocomposite panel resting on elastic foundations under hydrodynamic loads. *J. Composite Structures*, Vol.131, pp.229-237 (Elsevier, SCIE, IF=3.12).
- Nguyen Dinh Duc, Dao Huy Bich, Pham Hong Cong (2015). Nonlinear thermal dynamic response of shear deformable FGM plates on elastic foundations. *J. Thermal Stresses*. Accepted for publication (Taylor & Francis, SCI, IF=1.169).
- Nguyen Dinh Duc, Tran Quoc Quan (2015). Nonlinear dynamic analysis of imperfect FGM double curved thin shallow shells with temperature-dependent properties on elastic foundation. *Journal of Vibration and Control*, Vol.21 (7), pp.1340-1362 (SAGE, SCIE, IF=4.355).
- Nguyen Dinh Duc, Tran Quoc Quan, Vu Dinh Luat (2015), Nonlinear dynamic analysis and vibration of shear deformable piezoelectric FGM double curved shallow shells under damping-thermo-electro-mechanical loads. *J. Composite Structures*, Vol. 125, pp 29-40 (Elsevier, SCIE, IF=3.12).
- Tran Quoc Quan, Phuong Tran, Ngo Duc Tuan, Nguyen Dinh Duc (2015). Nonlinear dynamic analysis and vibration of shear deformable eccentrically stiffened S-FGM cylindrical panels with metal-ceramic-metal layers resting on elastic foundations. *J. Composite Structures*, Vol.126, pp. 16-33 (Elsevier, SCIE, IF=3.12).
- Nguyen Dinh Duc, Pham Hong Cong (2015). Nonlinear dynamic response of imperfect symmetric thin S-FGM plate with metal- ceramic-metal layers on elastic foundation. *Journal of Vibration and Control*, Vol. 21(4), pp.637-646 (SAGE, SCIE, IF=4.355).
- Nguyen Dinh Duc, Pham Toan Thang (2015). Nonlinear dynamic response and vibration of shear deformable imperfect eccentrically stiffened S-FGM circular cylindrical shells surrounded on elastic foundations. *J. of Aerospace Science and Technology*, Vol.40, pp.115-127 (Elsevier, SCI, IF=1.0).
- Nguyen Dinh Duc, Pham Toan Thang, Nguyen Trong Dao, Hoang Van Tac (2015). Nonlinear buckling of higher deformable S-FGM thick circular cylindrical shells with metal-ceramic-metal layers surrounded on

- elastic foundations in thermal environment. *J. of Composite Structures*, Vol.121, pp.134-141 (Elsevier, SCIE, IF=3.12).
- Nguyen Dinh Duc, Pham Hong Cong (2015). Nonlinear thermal stability of eccentrically stiffened functionally graded truncated conical shells surrounded on elastic foundations. *European Journal of Mechanics – A/Solids*, Vol.50, pp.120-131 (Elsevier, SCI, IF=1.904).
  - Vu Thi Thuy Anh, Dao Huy Bich, Nguyen Dinh Duc (2015). Nonlinear buckling analysis of thin FGM annular spherical shells on elastic foundations under external pressure and thermal loads. *European Journal of Mechanics – A/Solids*, Vol. 50, pp 28-38 (Elsevier, SCI, IF=1.904).
  - Nguyen Dinh Duc, Pham Toan Thang (2015). Nonlinear response of imperfect eccentrically stiffened ceramic-metal-ceramic S-FGM thin circular cylindrical shells surrounded on elastic foundations under uniform radial load. *J. Mechanics of Advanced Materials and Structures*, Vol.22, pp.1031-1038 (Taylor & Francis, SCIE, , IF=0.664):10.1080/15376494.2014.910320.
  - Nguyen Dinh Duc, Tran Quoc Quan (2014). Transient responses of functionally graded double curved shallow shells with temperature-dependent material properties in thermal environment. *European Journal of Mechanics – A/Solids*. Vol.47, pp.101-123 (Elsevier, SCI, IF=1.904).
  - Nguyen Dinh Duc, Pham Toan Thang (2014). Nonlinear buckling of imperfect eccentrically stiffened metal-ceramic-metal S-FGM thin circular cylindrical shells with temperature-dependent properties in thermal environments. *International Journal of Mechanical of Sciences*, Vol.81, pp.17-25 (Elsevier, SCI, IF=2.061).
  - Nguyen Dinh Duc, Tran Quoc Quan (2014). Nonlinear response of imperfect eccentrically stiffened FGM cylindrical panels on elastic foundation subjected to mechanical loads. *European Journal of Mechanics – A/Solids*. Vol.46, pp.60-71 (Elsevier, SCI, IF=1.904).
  - Nguyen Dinh Duc, Pham Toan Thang (2014). Nonlinear response of imperfect eccentrically stiffened ceramic-metal-ceramic FGM circular cylindrical shells surrounded on elastic foundations and subjected to axial compression. *J. Composite Structures*, Vol. 110, pp.200-206 (Elsevier, SCIE, IF=3.12).
  - Hoang Van Tung, Nguyen Dinh Duc (2014). Nonlinear response of shear deformable FGM curved panels resting on elastic foundations and subjected to mechanical and thermal loading conditions. *J. Applied Mathematical Modelling*, Vol. 38, Issues 11-12, pp.2848-2866 (Elsevier, SCIE, IF=2.158).
  - Dao Huy Bich, Nguyen Dinh Duc, Tran Quoc Quan (2014). Nonlinear vibration of imperfect eccentrically stiffened functionally graded double curved shallow shells resting on elastic foundation using the first order shear deformation theory. *International Journal of Mechanical of Sciences*, Vol.80, pp.20-28 (Elsevier, SCI, IF=2.061).
  - Nguyen Dinh Duc, Vu Thi Thuy Anh, Pham Hong Cong (2014). Nonlinear axisymmetric response of FGM shallow spherical shells on elastic foundations under uniform external pressure and temperature. *J. European Journal of Mechanics – A/Solids*, Vol.45, pp.80-89 (Elsevier, SCI, IF=1.904).
  - Nguyen Dinh Duc, Pham Van Thu (2014). Nonlinear stability analysis of imperfect three-phase polymer composite plates in thermal environments. *J. Composite Structures*, Vol.109, pp.130-138 (Elsevier, SCIE, IF=3.12).
  - Nguyen Dinh Duc, Pham Hong Cong (2014). Nonlinear postbuckling of an eccentrically stiffened thin FGM plate resting on elastic foundation in thermal environments. *J. Thin Walled Structures*, Vol.75, pp.103-112 (Elsevier, SCIE, IF=1.432).
  - Nguyen Dinh Duc (2013). Nonlinear dynamic response of imperfect eccentrically stiffened FGM double curved shallow shells on elastic foundation. *J. Composite Structures*, Vol 102, pp.306-314 (Elsevier, SCIE, IF=3.12).
  - Nguyen Dinh Duc, Tran Quoc Quan (2013). Nonlinear postbuckling of imperfect eccentrically stiffened P-FGM double curved thin shallow shells on elastic foundations in thermal environments. *J. Composite Structures*, Vol.106, Dec. 2013, pp. 590-600, (Elsevier, SCIE, IF=3.12).

- Nguyen Dinh Duc, Tran Quoc Quan (2013). Nonlinear postbuckling of imperfect double curved thin FGM shallow shells on elastic foundations subjected to mechanical loads. *J. Mechanics of Composite Materials*, Vol.49, N5, p.493-506(Springer, SCIE, IF=0.45).
- Nguyen Dinh Duc, Tran Quoc Quan, Do Nam (2013). Nonlinear stability analysis of imperfect three phase polymer composite plates. *J. Mechanics of Composite Materials*, Vol.49, N4, p. 345-358 (Springer, SCIE, IF=0.45).
- Nguyen Dinh Duc, Pham Hong Cong (2013). Nonlinear postbuckling of symmetric S-FGM plates resting on elastic foundations using higher order shear deformation plate theory in thermal environments. *J. Composite Structures*, Vol 100, pp 566-574 (Elsevier, SCIE, IF=3.12).
- Nguyen Dinh Duc, Tran Quoc Quan (2012). Nonlinear stability analysis of double curved shallow FGM panel on elastic foundation in thermal environments. *J. Mechanics of Composite Materials* (Springer, SCIE, IF=0.45), Vol.48, N4, pp.435-448.
- Nguyen Dinh Duc, Nghiem Thi Thu Ha (2012). Determining the deflection of thin composite plates under unsteady temperature field. *J. Mechanics of Composite Materials* (Springer, SCIE, IF=0.45), Vol 48, N3, pp.297-304.
- Nguyen Dinh Duc, Hoang Van Tung (2011), Mechanical and thermal postbuckling of higher order shear deformable functionally graded plates on elastic foundations. *J. Composite Structures* (Elsevier, SCIE, IF=3.12), Vol. 93, N3, pp.2874-2881.
- Nguyen Dinh Duc, Hoang Van Tung (2010), Nonlinear response of pressure-loaded functionally graded cylindrical panels with temperature effects. *J. Composite Structures* (Elsevier, SCIE, IF=3.12), Vol. 92, Issue 7, pp.1664-1672.
- Hoang Van Tung, Nguyen Dinh Duc (2010). Nonlinear analysis of stability for functionally graded plates under mechanical and thermal loads. *J. Composite Structures* (Elsevier, SCIE, IF=3.12), Vol.92, Issue 5, pp. 1184-1191.
- Nguyen Dinh Duc, Hoang Van Tung (2010). Nonlinear analysis of stability for functionally graded cylindrical shells under axial compression. *J. Computational Materials Sciences* (Elsevier, SCI, IF=1.879), Vol. 49, No.4, Supplement, pp. S313-S316
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- Hoang Van Tung, Nguyen Dinh Duc (2010). Thermoelastic stability of thick imperfect functionally graded plates. *Vietnam Journal of Mechanics*, Vol.32, N1, pp.47-58.
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- Nguyen Dinh Duc, Nguyen Thi Thuy (2010). The composite cylinder under pressures and temperature field. *Proceedings of Xth National Conference on Mechanics of Deformed Solid*, Thai Nguyen, Nov.2010, pp.204-213.
- Nguyen Dinh Duc, Do Nam, Hoang Van Tung (2010). Effects of elastic foundation on nonlinear stability of FGM plates under compressive and thermal loads. *Proceedings of Xth National Conference on Mechanics of Deformed Solid*, Thai Nguyen, Nov. 2010, pp.191-197.
- Hoang Van Tung, Nguyen Dinh Duc (2008). Thermal buckling of imperfect functionally graded cylindrical shells according to Wan-Donnell model. *Vietnam Journal of Mechanics*, Vol. 30, N3, pp.185-194.
- Nguyen Dinh Duc, Hoang Van Tung (2008). Thermal buckling of functionally graded cylindrical panels. *The International Conference on Computational Solid Mechanics (CSM2008)*, Hochiminh City, Vietnam, pp.77-87.

- Nguyen Dinh Duc, Hoang Van Tung (2008). Thermal buckling of imperfect functionally graded cylindrical shells according to Koiter model. The International Conference on Computational Solid Mechanics (CSM2008), Hochiminh City, Vietnam, pp.88-99.
- Nguyen Dinh Duc, Hoang Van Tung (2009). Thermal buckling of laminated plates comprising functionally graded materials. Proceedings of the National Conference on Mechanics, Hanoi, 3-2009, pp.30-39.
- Nguyen Dinh Duc, Hoang Van Tung (2006). The stability of the thin round cylindrical composite shells subjected to torsional moment at two extremities. Proceedings of the eighth national congress on Mechanics, Thai Nguyen, pp.310-317.