

بسمه تعالی

رزومه علمی - پژوهشی



1- مشخصات فردی

نام: حسین

نام خانوادگی: شاهوردی

2- سوابق تحصیلی

• کارشناسی

مدرک تحصیلی: مهندسی هوافضا

محل اخذ: دانشکده مهندسی هوافضا - دانشگاه صنعتی امیرکبیر

• کارشناسی ارشد

مدرک تحصیلی: مهندسی هوافضا (گرایش سازه)

محل اخذ: دانشکده مهندسی هوافضا - دانشگاه صنعتی امیرکبیر

• دکتری

مدرک تحصیلی: مهندسی هوافضا

محل تحصیل: دانشکده مهندسی هوافضا - دانشگاه صنعتی امیرکبیر

عنوان رساله: تحلیل پایداری آیروالاستیک پره هلی کوپتر توسط الگوی آیرودینامیکی رتبه کاسته

3- مقالات علمی و پژوهشی

1. Modares-Aval A. H., Bakhtiari-Nejad F., Dowell E. H., Shahverdi H., H., Peters D. A., Aeroelastic analysis of cantilever plates using Peters aerodynamic model, and the influence of choosing beam or plate theories as the structural model, *Journal of Fluids and Structures*, doi.org/10.1016/j.jfluidstructs.2020.103010.
2. Barati M. R. and Shahverdi H., Finite element forced vibration analysis of refined shear deformable nanocomposite graphene platelet reinforced beams, *Journal of the Brazilian Society OF Mechanical Sciences and Engineering*, [doi.org/ 10.1007/s40430-019-2118-8](https://doi.org/10.1007/s40430-019-2118-8).

3. Barati M. R., Shahverdi H., and Hakimelahi B., Post-buckling analysis of honeycomb core sandwich panels with geometrical imperfection and graphene reinforced nano-composite face sheets, *Material Research express*, doi.org/10.1088/2053-1591/ab2b74, 2019.
4. Amoozgar, M. R., and Shahverdi, H., Aeroelastic Response of a Hingeless Rotor Blade in Hover, *J. Aerosp. Eng.*, Vol. 32, No.5, 06019004, 2019.
5. Amoozgar, M. R., and Shahverdi, H., Aeroelastic Stability Analysis of Curved Composite Blades in Hover Using Fully Intrinsic Equations, *International Journal of Aeronautical and Space Sciences*, Vol. 20, No. 3, pp. 653-663, 2019.
6. Amoozgar, M. R., and Shahverdi, H., Aeroelastic stability analysis of hingeless rotor blades in hover using fully intrinsic equations and dynamic wake model, *Aircraft Engineering and Aerospace Technology*, doi.org/10.1108/AEAT-07-2018-0212, 2019.
7. Modaress-Aval A. H., Bakhtiari-Nejad F., Dowel E. H., Peters D. A., and Shahverdi H., A comparative study of nonlinear aeroelastic models for high aspect ratio wings, *Journal of Fluids and Structures*, Vol. 85, pp. 249-2774, 2019.
8. Qasemi Parizi M. J., Shahverdi H., and Mondali M., FEM Study on Mechanical Properties of Nanocomposites Reinforced by Defective Graphene Sheets, *POLYMER COMPOSITES*, Vol. 40, No. 52, pp. 1048-1093, 2019.
9. Fazilati J., Khalafi V., and Shahverdi H., Three-dimensional aero-thermo-elasticity analysis of functionally graded cylindrical shell panels, *Proc IMechE Part G:J Aerospace Engineering*, Vol. 233, No. 5, pp. 1715–1727, 2019.
10. Khalafi V., Shahverdi H., and Noori S., Nonlinear Aerothermoelastic Analysis of Functionally Graded Rectangular Plates Subjected to Hypersonic Airflow Loadings, *AUT Journal of Mechanical engineering*, Vol. 2, No. 2, pp. 217-232, 2018.
11. Soleimani H., Nobari A. S., Shahverdi H., and Qasemi Parizi M. J., Damage detection and localization in a composite cylinder using FRF curvature method, *Journal of Aeronautical Engineering*, Vol, 19. No. 2, pp. 66-76, 2018. (In Persian)
12. Moravej Barzani H., Amoozgar M., and Shahverdi H., Flutter Instability of Aircraft Swept Wings by Using Fully Intrinsic Equations, *Amirkabir J. Mech. Eng.*, Vol. 49, No. 4, pp. 785-794, 2018.
13. Barati M. R., and Shahverdi H., Nonlinear thermal vibration analysis of refined shear deformable FG nanoplates: two semi-analytical solutions, *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, Vol.64, pp. 1-15, 2018.

14. Barati M. R., and Shahverdi H., Frequency analysis of nanoporous mass sensors based on a vibrating heterogeneous nanoplate and nonlocal strain gradient theory, *Microsyst Technol*, Vol. 24, pp.1479–14, 2018.
15. Barati M. R., and Shahverdi H., Nonlinear vibration of nonlocal four-variable graded plates with porosities implementing homotopy perturbation and Hamiltonian methods, *Acta Mech*, Vol. 229, No. 1, pp. 342-362, 2018.
16. Barati M. R., and Shahverdi H., Forced vibration of porous functionally graded nanoplates under uniform dynamic load using general nonlocal stress–strain gradient theory, *Journal of Vibration and Control*, Vol. 24, No. 20, pp. 4700-4715, 2017.
17. Barati M. R., and Shahverdi H., Frequency analysis of porous nano-mechanical mass sensors made of multi-phase nanocrystalline silicon materials, *Mater. Res. Express*, Vol. 4, No. 7, pp. 1 – 16, 2017.
18. Barati M. R., and Shahverdi H., Dynamic modeling and vibration analysis of double-layered multi-phase porous nanocrystalline silicon nanoplate systems, *European Journal of Mechanics A/Solids*, Vol. 66, pp. 256-268, 2017.
19. Barati M. R., and Shahverdi H., Vibration analysis of porous functionally graded nanoplates, *International Journal of Engineering Science* , Vol. 120, pp. 82–99, 2017.
20. Barati M. R., and Shahverdi H., Aero-hygro-thermal stability analysis of higher-order refined supersonic FGM panels with even and uneven porosity distributions, *Journal of Fluids and Structures*, Vol. 73, pp. 125–136, 2017.
21. Shahverdi H., Nobari A. S., and Bahrami Torabi H., Loading Estimation of Flapping Wing under Aeroelastic Effect using Finite Element Method, *JAST*, Vol. 11, No. 1, pp. 9-20, 2017.
22. Amoozgar, M. R., Shahverdi, H., and Ovesy H. R., Nonlinear Response of Functionally Graded Panels with stiffeners in Supersonic Flow, *ASD Journal*, Vol. 4, No. 1, pp. 21-36, 2017.
23. Barati M. R., and Shahverdi H., Vibration analysis of multi-phase nanocrystalline silicon nanoplates considering the size and surface energies of nanograins/nanovoids, *International Journal of Engineering Science*, Vol. 119 pp 128–141, 2017.
24. Barati M. R., and Shahverdi H., Hygro-thermal vibration analysis of graded double-refined-nanoplate systems using hybrid nonlocal stress-strain gradient theory, *Composite Structures*, Vol. 176, pp. 982–995, 2017.
25. Amoozgar, M. R., Shahverdi H., and Nobari A. S., Aeroelastic Stability of Hingeless Rotor Blades in Hover Using Fully Intrinsic Equations, *AIAA JOURNAL*, Vol. 55, No.7, pp. 1-11, 2017.

26. Navardi M. M., and Shahverdi H., Free vibration analysis of cracked thin plates using generalized differential quadrature element method, *Structural Engineering and Mechanics*, Vol. 62, No. 3, pp. 345-355, 2017.
27. Barati M. R., and Shahverdi H., Small-scale effects on the dynamic response of inhomogeneous nanobeams on elastic substrate under uniform dynamic load, *The European Physical Journal Plus*, pp. 132-167, 2017.
28. Amoozgar M. R., and Shahverdi, H., Dynamic Instability of Beams under Tip Follower Forces using Geometrically Exact, Fully Intrinsic Equations, *Latin American Journal of Solids and Structures*, DOI:10.1590/1679-78253010.
29. Barati M. R., Zenkour A. M., and Shahverdi H., Electro-Mechanical Vibration of Smart Piezoelectric FG Plates with Porosities According to a Refined Four-Variable Theory, *Mechanics of Advanced Materials and Structures*, DOI: 0.1080/15376494.2016.1196799, 2016.
30. Barati M. R., and Shahverdi H., An Analytical Solution for Thermal Vibration of Compositionally Graded Nanoplates with Arbitrary Boundary Conditions Based on Physical Neutral Surface Position, *Mechanics of Advanced Materials and Structures*, DOI: 10.1080/15376494.2016.1196788, 2016.
31. Moravej Barezani H., Amoozgar M. R., and Shahverdi H., Flutter Analysis of a Swept Wing Based on Geometrically Exact Fully Intrinsic Beam Equations, *Amirkabir Journal of Science & Research: Mechanical journal*, Accepted for Publication (In Persian).
32. Shirazizadeh M. R., Shahverdi H., and Imam A., Buckling analysis of cracked columns by XFEM, *International Journal of Advanced Design and Manufacturing Technology*, Vol. 9, No. 1, pp. 45-54, 2016.
33. Sattarzadeh S. Jahangirian A., and Shahverdi H., Aeroelastic Analysis of a Typical Section using Euler and Navier-Stokes Mesh-less Method, *Scintia Iranica Transaction B-Mechanical Engineering*, Vol. 23, No. 1, pp. 194-205, 2016.
34. Attar M. M., Haghpanahi M., Shahverdi H., and Imam, A., Thermo-Mechanical Analysis of Soft Tissue in Local Hyperthermia Treatment, *Journal of Mechanical Science and Technology*, Vol. 30, No. 3, pp.1459-1469, 2016.
35. Shirazizadeh M. R., Shahverdi H., and Imam, A., A Simple Finite Element Procedure for Free Vibration and Buckling Analysis of Cracked Beam-Like Structures, *Journal of solid Mechanics*, Vol. 8, No.1, pp. 93-103, 2016.

36. Shahverdi H., and Khalfi V., Bifurcation Analysis of FG Curved Panels under Simultaneous Aerodynamic and Thermal Loads in Hypersonic Flow, *Composite Structures*, Vol. 146, pp. 84-94, 2016.
37. Shahverdi H., Khalfi V. and Noori S., Aerothermoelastic Analysis of Functionally Graded Plates Using Generalized Differential Quadrature Method, *Latin American Journal of Solids and Structures*, Vol. 13, No. 4, pp. 797-819, 2016.
38. Barati M. R., Zenkour A. M., and Shahverdi H., Thermo-Mechanical Buckling Analysis of Embedded Nanosize FG Plates in Thermal Environments via an Inverse Cotangential Theory, *Composite Structures*, Vol. 141, pp. 203-212, 2016.
39. Amoozgar M. R., and Shahverdi H., Analysis of Nonlinear Fully Intrinsic Equations of Geometrically Exact Beams Using Generalized Differential Quadrature Method, *Acta Mechanica*, Vol. 227, No. 5, pp. 1265-1277, 2016.
40. Amoozgar M. R., and Shahverdi H., Investigation of Adding Fins to External Stores for Improving the Flutter Characteristics of a Wing/Store Configuration, *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, Vol. 30, No. 8, pp. 1507-1517, 2016.
41. Roknizadeh S. A., Nobari S. A., and Shahverdi H., Nonlinear aeroelastic stability analysis of hingeless helicopter rotor blades using FRF coupling and condition number, *Nonlinear Dynamics*, Vol. 82, pp. 289-297, 2015.
42. Shirazizadeh M. R., and Shahverdi H., An Extended Finite Element Model for Structural Analysis of Cracked Beam-Columns with Arbitrary Cross-Section, *International Journal of Mechanical Sciences*, Vol. 99, No. 1, pp. 1-9, 2015.
43. Koohi R., Shahverdi H., and Haddadpour H., Modal and Aeroelastic Analysis of A High-Aspect-Ratio Wing with Large Deflection Capability, *International Journal of Advanced Design and Manufacturing Technology*, Vol. 8, No. 1, pp. 45-54, 2015.
44. Koohi R., Shahverdi H., and Haddadpour H., Nonlinear aeroelastic analysis of a composite wing by finite element method, *Composite Structures*, Vol. 13, No. 7, pp. 118-126, 2014.
45. Baghae M., Shahverdi H., and Hashemi-Nejad S. M., Aero-Hydro-Elastic Simulation of Barge Wind Turbine, *Journal of Marine Engineering*, Vol. 10, No. 19, pp. 33-46, 2013.

46. Roknizadeh S. A., Nobari S. A., and Shahverdi H., A New Frequency Domain Based Approach for a Nonlinear Aeroelasticity Analysis, *Journal of Fluids and Structures*, Vol. 43 , No. 15, pp. 220-230, 2013.
47. Daneshmand S., Aghanajafi C., and Shahverdi H, Investigation of Rapid Manufacturing Technology Effect on Aerodynamics Properties, *Technical Gazette*, Vol. 20, No. 3, pp. 425-433, 2013.
48. Ovesy H., Nikou A., and Shahverdi H., Flutter analysis of high-aspect-ratio wings based on a third-order nonlinear beam model, *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, Vol. 227, No. 7, pp. 1090-1100, 2012.
49. Roohi Dehkordi I., Shahverdi H., Nobari A. S., and Khalili A., Aeroelastic numerical approach of a wing based on the finite element and boundary element methods, *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, Vol. 227, No. 5, pp. 882-894, 2012.
50. Roknizadeh S. A., Nobari S. A. , Mohagheghi M. and Shahverdi H., Stability analysis of aeroelastic systems based on aeroelastic FRF and condition number, *Aircraft Engineering and Aerospace Technology*, Vol. 84, No. 5, pp. 299-310., 2012,
51. Shahverdi H. Hadi-Doolabi M., and Behbahni-Nejad M., Prediction of Aerodynamic Coefficients of a Supersonic Wing using Boundary Element Method, *Sharif Journal: Mechanical Engineering*, Vol. 29, No. 3, pp. 82- 87, 2013 (In Persian).
52. Shahverdi H., Zohoor M., and Mousavi, S. M., Numerical Simulation of Abrasive Water jet Cutting Process using the SPH and ALE Methods, *International Journal of Advanced Design and Manufacturing Technology*, Vol. 5, No. 1, pp. 43-50, 2011.
53. Baghae M., Shahverdi H., and Hashemi-Nejad S. M., Aerohydroelastic Simulation of Wind Turbine with Tension Leg Platform, *Journal of Modeling in Engineering*, Vol. 10, No. 30, pp. 1-17, 2011 (In Persian).
54. Roohi Dehkordi I., Shahverdi H., Nobari A. S., and Khalili A., Numerical Investigation of the Aeroelastic Instability of an Aircraft Wing Using Finite Element and Unsteady Panel Methods, *Aerospace Mechanics Journal*, Vol. 7, No. 4, pp. 13-23, 2011 (In Persian).
55. Shahverdi H. , Nobari A.S., Haddadpour H., and Behbahani-Nejad M., Application of the modified reduced-order aerodynamics modelling approach to

aeroelastic analysis, *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, Volume 223, Issue 3, 1, pp. 257-270, 2009.

56. Shahverdi H. , Nobari A.S., Behbahani-Nejad M., and Haddadpour H., Aeroelastic analysis of helicopter rotor blade in hover using an efficient reduced-order aerodynamic model, *Journal of Fluids and Structures*, Vol. 25 , No. 8, pp. 1243-1257, 2009.

57. Shahverdi H. , Nobari A.S., Behbahani-Nejad M., and Haddadpour H., An efficient reduced-order modelling approach based on fluid eigenmodes and boundary element method, *Journal of Fluids and Structures*, Vol. 23 , No. 1, pp. 143-157, 2007.

5- زمینه‌های تخصصی مورد علاقه

- آیروالاستیسیته
- نانو سازه ها
- کاربرد روش اجزای مرزی در محاسبه جریان‌های غیردائم
- الگوهای رتبه‌کاسته در حل جریان‌های غیردائم
- دینامیک سازه

آدرس پست الکترونیک : h_shahverdi@aut.ac.ir