

Curriculum Vitae

Name : Mazen Ibrahim QAISI

Rank : Prof.

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Qualification

1. B.Sc. in Mechanical engineering with first class honors , Bristol University, U.K.
2. Ph.D. in Mechanical engineering (structures) , Imperial college , London University, U.K. Ph.D. thesis: Finite element displacement analysis of Acoustic and acoustic-structural systems.
3. D.I.C , (Diploma of the Imperial College in Aeronautics).

Published Research

1. Solution of the Duffing-harmonic Oscillator by the power series Method. M.I.QAISI, Journal of Mechanics Engineering and Automation, Vol. 11, No. 6, 2021.
2. Power series solution for strongly non-linear conservative oscillators. M.I.QAISI , Journal of Mechanics Engineering and Automation 9 (2019) 64-68.
3. Linear Matrix Inequality (LMI) based control of Vehicle suspension system. M. ABDALLAH, N. SHABATAT, M. QAISI (2009) Vehicle System

Dynamics 47(1), 121-134.

4. Transverse Vibration of Beams under axial load. M. QAISI . First International conference on modeling, simulation and applied optimization, American University of Sharjah, Sharjah, 1-3 Feb 2005.
5. Normal modes of a continuous system with quadratic and cubic non-linearities. M.QAISI (2003) Journal of sound and vibration 265, 329-335.
6. Large amplitude free vibration of a conservative system with inertia and static Non-linearity. M.QAISI , N.HUNITI (2001) Journal of sound and vibration 242(1),1-7.
7. Analysis of a forced strongly non-linear two-degree-of-freedom system by means of the power series method . M.QAISI , M.ABU-HILAL (2001) Journal of sound and vibration 241(4), 635-642.
8. A power series solution of a strongly non-linear two-degree-of-freedom-system. M.QAISI , A.KILANI (2000) Journal of sound and vibration 233(3),489-494.
9. Periodic motion of a strongly non-linear system . M.QAISI (1999) Proceedings of the first international conference on the integration of dynamics , monitoring and control. U.K. (57-60).
10. Non-linear normal modes of a continuous system. M.QAISI (1998) Journal of sound and vibration 209(4),561-569.
11. Non-linear normal modes of a lumped parameter system. M.QAISI (1997) Journal of sound and vibration 205(2),205-211.
12. A power series solution for the non-linear vibrations of beams M.QAISI (1997) Journal of sound and vibration 199(4),587-594.

13. Analytical solution of the forced Duffing oscillator. M.QAISI (1996)
Journal of sound and vibration 194(4),513-520.
14. A power series approach for the study of periodic motion . M.QAISI (1996)
Journal of sound and vibration 196(4),401-406.
15. Large amplitude response of rectangular plates subjected to transient loads.
M.QAISI (1994) Journal of applied acoustics . 42,(267-276).
16. Linearization of transient heat conduction .M.QAISI. (1993) Journal of heat
and technology .vol.(11) no.(1.2)
17. Application of the harmonic balance principle to the non-linear free
vibration of beams. M.QAISI . (1993) Journal of applied acoustics.
(40)(141-151).
18. Axisymmetrical acoustic vibrations of simply supported cylindrical shells.
M.QAISI. (1989) Journal of applied acoustics . (26)(33-43).
19. Free vibration of a rectangular plate-cavity system. M.QAISI. (1988)
Journal of applied acoustics . (24)(49-61).
20. Non-linear normal modes of beams on elastic foundation. M.QAISI (2010)
5-th International conference on inverse problems, modeling and simulation,
Antalya,Turkey.

Conferences & seminar

1. Presented the paper, Periodic motion of a strongly non-linear system, at the
First International Conference on the Integration of Dynamics, monitoring and
control . U.K. Proceedings of the First International Conference on the
Integration of Dynamics, monitoring and control. Sep 1999,(57-60).

2. Presented the paper , Non-linear normal modes of a continuous system, at the Noise and Vibration Conference in Leuven , Belgium, 16-18 sep. 1998.
Proceedings ISMA23 Noise and Vibration Engineering ,(343-345).
3. Participated in the vibration analysis and testing seminar held in Cairo on June 1987 and organized by B&K company.
4. Presented the paper , Transverse vibration of beams under axial force distribution, at the first International conference on modeling, simulation and applied optimization in Sharjah, United Arab Emirates,1-3 Feb. 2005.

Supervision of graduate research

1. Non-linear response of beams subjected to a moving load. M.Sc thesis (1994)
2. Vibration of rotating beams with non-uniform cross-section. M.Sc thesis (1995)
3. Numerical study of the non-linear response of the forced Duffing's oscillator. M.Sc thesis (1996)
4. Non-linear buckling analysis of columns on elastic foundation. MSc thesis (1997)
5. Power series solution of the large deflection of rectangular plates. MSc thesis (1997)
6. Comparison between the perturbation and power series methods in the study of non-linear vibration. MSc thesis (1998)
7. Free vibrations of beams immersed in water. MSc thesis (1999)

Industrial Experience

During the period from 1976-1986, I was appointed in the Royal Jordanian Air-force as an mechanical engineer in charge of managing various aircraft field maintenance activities.

Teaching Experience

1. **B.Sc. courses :** Mechanical vibrations, Dynamics , Mechanics of materials, Statics, Engineering mathematics, Numerical methods.
2. **Graduate courses :** Plates and shells, Advanced vibration, Continuum mechanics, Finite element method, Advanced engineering mathematics.

Community Service

1. Delivered a course in vibration analysis and control in coordination with the out-reach with industry project to engineers working in the mining industries (September 1997).
2. A committee member in Jordans standards and specification establishment to prepare standard specifications for certain items.
3. Appointed by the Higher education council in a committee to study the accreditation request by the university of Philadelphia for its mechanical engineering department.
4. Appointed by Jordan engineers association in the degree accreditation committee.
5. Named , by the ministry of higher education and scientific research , a member of the refereeing committee of the distinguished research award in engineering for the year 2004.

University Committees

1. Represented the faculty of engineering in the university council during the year 1997/1998.
2. A member of the graduate study committee since 1999.
3. A member of the student affairs committee for three years.

4. Nominated by the university to the Higher education council to present a plan for mechanical students in community colleges.
5. A member in several discussion committees for M.Sc. thesis.
6. A member of the Strategic Plan Committee for the Faculty of Engineering / JU.

Leaves

- 1) Sabbatical leave during the academic year 1999-2000 at the applied science university.
- 2) Sabbatical leave during the academic year 2008-2009 at the German-Jordan university.
- 3) Sabbatical leave during the academic year 2013-2014 at the German-Jordan university.