CURRICULUM VITAE

PERSONAL DATA

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UNIVERSITY EDUCATION

Ph.D. Engineering Mechanics, 1986 , Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 3.98/4.0.

M.Sc. Engineering Mechanics, 1982 , Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 3.98/4.0.

B.Sc. Civil Engineering 1981, University of Jordan, Amman, Jordan.

ACADEMIC EXPERIENCE

- May 2002 - Present, Professor,
  Department of Mechanical Engineering,
  King Saud University, Kingdom of Saudi Arabia.

- February 1998 – May 2002, Associate Professor,
  Department of Mechanical Engineering,
  King Saud University, Kingdom of Saudi Arabia.

- February 1997 - February 1998, Associate Professor,
  Department of Civil Engineering,
  Birzeit University, Palestine.

- October 1995 - February 1997, Associate Professor,
  July 1992 - October 1995, Assistant Professor,
  Department of Civil Engineering,
  Middle East Technical University, Ankara-Turkey.

- September 1989 - August 1990. Assistant Professor,
  Department of Mechanical Engineering,
  Kuwait University, Kuwait.

- January 1987 - May 1989. Assistant Professor,
  Department of Engineering Science and Mechanics,
  Virginia Polytechnic Institute and State University, USA.

UNDERGRADUATE COURSES TAUGHT:

- Engineering Mechanics - Statics.
- Engineering Mechanics - Dynamics.
- Mechanics of Materials.
- Materials Testing Laboratory.
- Probability and Statistics for Engineers.
- Structural Analysis.
- Mechanical Vibrations.

GRADUATE COURSES TAUGHT:

- Laminated Composite Structures.
- Advanced Mechanical Vibrations.
- Advanced Mechanics of Materials.
- Continuum Mechanics.
- Advanced Engineering Analysis.
- Mechanics of Composite Materials.

REVIEWER : Name of the Journals where I acted as a referee

- International Journal of Solids and Structures.
- International Journal of Nonlinear Mechanics.
- Journal of Sound and Vibration.
- Journal of Applied Mechanics, Transactions of the ASME.
- Mechanics of Advanced Materials and Structures.
- Journal of Engineering Mechanics, Transactions of the ASCE.
- The Journal of the Acoustical Society of America.
- Journal of Vibration and Control.
- Smart Materials and Structures.
- Composite Structures.
- Journal of Mechanics of Materials and Structures.
- Meccanica.
- International Journal of Mechanical Sciences.
- Composites Part B: engineering.
- European Journal of Mechanics A/Solids.

PROFESSIONAL AFFILIATIONS

- Winner of ABDEL HAMID SHUMAN prize for Engineering Sciences for the year 1996.
- Phi Kappa Phi Honor Society.
- Virginia Tech Center for Composite Materials and Structures.

RESEARCH AREAS

- Theories of Plates, Shells, Beams and Arches Including Laminated Composites and Higher-Order Theories.
- Thermoelastic Behavior of Composite Structures.
- Stochastic and Dynamic Responses of Laminated Composite Structural Systems.
- Vibrations and Nonlinear Oscillations of Continuous and Discrete Physical Systems Using Analytical and Numerical Techniques.
- Elastic Stability of Composite Structures.
- Piezoelectric Smart Intelligent Materials and Structures.

PUBLICATIONS LIST

A. JOURNAL PAPERS

1. "Analytical Investigation of Laminated Arches with Extension and Shear Piezoelectric Actuators", A. A. Khdeir and O. J. Aldraihem, *European Journal of Mechanics – A/Solids*, Vol. 37, January-February 2013, pp. 185-192.

2. "Thermoelastic Response of Cross-Ply Laminated Shells based on a Rigorous Shell Theory", A. A. Khdeir, *Journal of Thermal Stresses*, Vol. 35, No. 11, November 2012, pp. 1000-1017.

3. "Modal Characteristics of Cross-Ply Laminated Smart Beams Using Various Beam Theories", Ahmed Adel Khdeir, Easa Darraj and Osama J. Aldraihem, *International Journal of Vehicle Noise and Vibration*, Vol. 8, No. 3, July 2012, pp. 200-220.

4. "Free Vibration of Cross-Ply Laminated Beams with Multiple Distributed Piezoelectric Actuators", A. A. Khdeir, E. Darraj and O. J. Aldraihem, *Journal of Mechanics*, Vol. 28, No. 1, March 2012, pp. 217-227.

5. "Analytical Solution of Reddy's Third-Order Laminates with Shear Piezoelectric Layers", Osama J. Aldraihem and Ahmed A. Khdeir, *Mechanics of Advanced Materials and Structures*, Vol. 19, Nos. 1-3, March 2012, pp. 18-28.

6. "Comparative Dynamic and Static Studies for Cross-Ply Shells Based on a Deep Thick Shell Theory", Ahmed Adel Khdeir, *International Journal of Vehicle Noise and Vibration*, Vol. 7, No. 4, Dec. 2011, pp.306-327.

7. "An Exact Solution for the Thermoelastic Deformations of Cross-Ply Laminated Arches with Arbitrary Boundary Conditions", Ahmed A. Khdeir, *Journal of Thermal Stresses*, Vol. 34, No. 12, Dec. 2011, pp.1227-1240.

8. "Exact Analysis for Static Response of Cross Ply Laminated Smart Shells", A. A. Khdeir and O. J. Aldraihem, *Composite Structures*, Vol. 94, No. 1, Dec. 2011, pp. 92-101.

9. "Analysis of Smart Cross-Ply Laminated Shells with Shear Piezoelectric Actuators", A. A. Khdeir and O. J. Aldraihem, *Smart Materials and Structures*, Vol. 20, No. 10, Oct. 2011, 105030.

10. "Vibration Suppression of Symmetric Cross-Ply Laminated Composite Beam", M.

A. Foda and A. A. Khdeir, *Mechanics of Advanced Materials and Structures*, Vol. 18, No. 5, July 2011, pp.301-318.

11. "Analytical Models and Solutions of Laminated Composite Piezoelectric Plates", Ahmed A. Khdeir and Osama J. Aldraihem, *Mechanics of Advanced Materials and Structures*, Vol. 14, 2007, pp.67-80.

12. "Analytical Solutions of Antisymmetric Angle-Ply Laminated Plates with Thickness-Shear Piezoelectric Actuators", O. J. Aldraihem and A. A. Khdeir, *Smart Materials and Structures*, Vol. 15, 2006, pp.232-242.

13. "Precise Deflection Analysis of Beams with Piezoelectric Patches", O. J. Aldraihem and A. A. Khdeir, *Composite Structures*, Vol. 60, 2003, pp. 135-143.

14. "Exact Deflection Solutions of Beams with Shear Piezoelectric Actuators", O. J. Aldraihem and A. A. Khdeir, *International Journal of Solids and Structures*, Vol. 40, 2003, pp. 1-12.

15. "Thermal Deformation of Antisymmetric Angle-Ply Laminated Plate Strips in Cylindrical Bending", A. A. Khdeir, *Journal of King Saud University (Engineering Sciences)*, Vol. 14, 2002, pp. 79-93.

16. "Thermally Induced Vibration of Cross-Ply Laminated Shallow Arches", A. A. Khdeir, *Journal of Thermal Stresses*, Vol. 24, 2001, pp. 1085-1096.

17. "Free and Forced Vibration of Antisymmetric Angle-Ply Laminated Plate Strips in Cylindrical Bending", A. A. Khdeir, *Journal of Vibration and Control*, Vol. 7, 2001, pp. 781-801.

18. "Thermally Induced Vibrations of Cross-Ply Laminated Shallow Shells", A. A. Khdeir, *Acta Mechanica*, Vol. 151, 2001, pp. 135-147.

19. "Thermal Buckling of Cross-Ply Laminated Composite Beams", A. A. Khdeir, *Acta Mechanica*, Vol. 149, 2001, pp. 201-213.

20. "Deflection Analysis of Beams with Extension and Shear Piezoelectric Patches Using Discontinuity Functions", A. A. Khdeir and O. J. Aldraihem, *Smart Materials and Structures*, Vol. 10, 2001, pp. 212-220.

21. "Smart Beams with Extension and Thickness-Shear Piezoelectric Actuators", O. J. Aldraihem and A. A. Khdeir, *Smart Materials and Structures*, Vol. 9, 2000, pp. 1-9.

22. "Analysis of the Dynamic Response of Cross-Ply Laminated Shallow Shells with Various Boundary Conditions", A. A. Khdeir, *Journal of King Saud University (Engineering Sciences)*, Vol. 12, 2000, pp. 85-115.

23. "Free Vibrations of Laminated Composite Plates Using Second-Order Shear Deformation Theory ", A. A. Khdeir and J. N. Reddy, *Computers and Structures*, Vol. 71, 1999, pp. 617-626.

24. "Jordan Canonical Form Solution for Thermally Induced Deformations of Cross-Ply Laminated Composite Beams", A. A. Khdeir and J. N. Reddy, *Journal of Thermal Stresses*, Vol. 22, 1999, pp. 331-346.

25. "An Exact Solution for the Bending of Thin and Thick Cross-Ply Laminated Beams", A. A. Khdeir and J. N. Reddy, *Composite Structures*, Vol. 37, 1997, pp. 195-203.

26. "Buckling of Cross-Ply Laminated Beams with Arbitrary Boundary Conditions", A. A. Khdeir and J. N. Reddy, *Composite Structures*, Vol. 37, 1997, pp. 1-3.

27. "Free and Forced Vibration of Cross-Ply Laminated Composite Shallow Arches", A. A. Khdeir and J. N. Reddy, *International Journal of Solids and Structures*, Vol. 34, 1997, pp. 1217-1234.

28. "On the Thermal Response of Antisymmetric Angle-Ply Laminated Plates", A. A. Khdeir, *Journal of Applied Mechanics, Transactions of ASME*, Vol. 64, 1997, pp. 229-233.

29. "Thermoelastic Analysis of Cross-Ply Laminated Circular Cylindrical Shells", A. A. Khdeir, *International Journal of Solids and Structures*, Vol. 33, 1996, pp. 4007-4017.

30. "A Remark on the State-Space Concept Applied to Bending, Buckling and Free Vibration of Composite Laminates", A. A. Khdeir, *Computers and Structures*, Vol. 59, 1996, pp. 813-817.

31. "Dynamic Response of Antisymmetric Cross-Ply Laminated Composite Beams with Arbitrary Boundary Conditions", A. A. Khdeir, *International Journal of Engineering Science*, Vol. 34, 1996, pp. 9-19.

32. "Forced Vibration of Antisymmetric Angle-Ply Laminated Plates with Various Boundary Conditions", A. A. Khdeir, *Journal of Sound and Vibration*, Vol. 188, 1995, pp. 257-267.

33. "Dynamic Response of Cross-Ply Laminated Circular Cylindrical Shells with Various Boundary Conditions", A. A. Khdeir, *Acta Mechanica*, Vol. 112, 1995, pp. 117-134.

34. "Transient Response of Refined Cross-Ply Laminated Plates for Various Boundary Conditions", A. A. Khdeir, *The Journal of the Acoustical Society of America*, Vol. 97, 1995, pp. 1664-1669.

35. "Free Vibration of Cross-Ply Laminated Beams with Arbitrary Boundary Conditions", A. A. Khdeir and J. N. Reddy, *International Journal of Engineering Science*, Vol. 32, 1994, pp. 1971-1980.

36. "Dynamic Response of Cross-Ply Shallow shells with Levy-Type Boundary Conditions", A. A. Khdeir, *American Institute of Aeronautics and Astronautics Journal*, Vol. 32, 1994, pp. 2484-2486.

37. "Thermal Effects on the Response of Cross-Ply Laminated Shallow Shells", A. A. Khdeir, M. D. Rajab and J. N. Reddy, *International Journal of Solids and Structures*, Vol. 29, 1992, pp. 653-667.

38. "Analytical Solutions of Refined Plate Theories of Cross-Ply Composite Laminates", A. A. Khdeir and J. N. Reddy, *Journal of Pressure Vessel Technology, Transactions of the ASME*, Vol. 113, 1991, pp. 570-578.

39. "Thermal Stresses and Deflections of Cross-Ply Laminated Plates Using Refined Plate Theories", A. A. Khdeir and J. N. Reddy, *Journal of Thermal Stresses*, Vol. 14, 1991, pp. 419-438.

40. "Further Results Concerning the Dynamic Response of Shear Deformable Elastic Orthotropic Plates", L. Librescu, A. A. Khdeir and J. N. Reddy, *Applied Mathematics and Mechanics (ZAMM)*, Vol. 70, 1990, pp. 23-33.

41. "Influence of Edge Conditions on the Modal Characteristics of Cross-Ply Laminated Shells", A. A. Khdeir and J. N. Reddy, *Computers and Structures*, Vol. 34, 1990, pp. 817-826.

42. "On the Transient Response of Cross-Ply Laminated Circular Cylindrical Shells", A. A. Khdeir, J. N. Reddy and D. Frederick, *International Journal of Impact Engineering*, Vol. 9, 1990, pp. 475-484.

43. "Random Response of Antisymmetric Angle-Ply Laminated Plates", M. P. Singh, A.

A. Khdeir, G. O. Maldonado and J. N.Reddy, *Structural Safety*, Vol. 6, 1989, pp. 115-127.

44. "Buckling and Vibration of Laminated Composite Plates Using Various Plate Theories", J. N. Reddy and A. A. Khdeir, *American Institute of Aeronautics and Astronautics Journal*, Vol. 27, 1989, pp. 1808-1817.

45. "On the forced Motions of Antisymmetric Cross-Ply Laminated Plates ", A. A. Khdeir and J. N. Reddy, *International Journal of Mechanical Sciences*, Vol. 31, 1989, pp. 499-510.

46. "A Study of Bending, Vibration and Buckling of Cross-Ply Circular Cylindrical Shells with Various Shell Theories", A. A. Khdeir, J. N. Reddy and D. Frederick, *International Journal of Engineering Science*, Vol. 27, 1989, pp. 1337-1351.

47. "Comparison Between Shear Deformable and Kirchhoff Theories for Bending, Buckling and Vibration of Antisymmetric Angle-Ply Laminated Plates," A. A. Khdeir, *Composite Structures*, Vol. 13, 1989, pp. 159-172.

48. "Dynamic Response of Cross-Ply Laminated Shallow Shells According to a Refined Shear Deformation Theory", J. N. Reddy and A. A. Khdeir, *The Journal of the Acoustical Society of America*, Vol. 85, 1989, pp. 2423-2431.

49. "An Exact Approach to the Elastic State of Stress of Shear Deformable Antisymmetric Angle-ply Laminated Plates", A. A. Khdeir, *Composite Structures*, Vol. 11, 1989, pp. 245-258.

50. "Stability of Antisymmetric Angle-Ply Laminated Plates", A. A. Khdeir, *ASCE, Journal of Engineering Mechanics Division*, Vol. 115, 1989, pp. 952-962.

51. "Free Vibration and Buckling of Unsymmetric Cross-Ply Laminated Plates Using a Refined Theory", A. A. Khdeir, *Journal of Sound and Vibration*, Vol. 128, 1989, pp. 377-395.

52. "Exact Solutions for the Transient Response of Symmetric Cross-Ply Laminates Using a Higher-Order Plate Theory", A. A. Khdeir and J. N. Reddy, *Composites Science and Technology*, Vol. 34, 1989, pp. 205-224.

53. "A Shear Deformable Theory of Laminated Composite Shallow Shell-Type Panels and Their Response Analysis-Part I. Free Vibration and Buckling", L. Librescu, A. A. Khdeir and D. Frederick, *Acta Mechanica*, Vol. 76, 1989, pp. 1-33.

54. "A Shear Deformable Theory of Laminated Composite Shallow Shell-Type Panels and Their Response Analysis-Part II. Static Response", A. A. Khdeir, L. Librescu and D. Frederick, *Acta Mechanica*, Vol. 77, 1989, pp. 1-12.

55. "Free Vibration and Buckling of Symmetric Cross-Ply Laminated Plates by an Exact Method", A. A. Khdeir, *Journal of Sound and Vibration*, Vol. 126, 1988, pp. 447-461.

56. "Aeroelastic Divergence of Swept Forward Composite Wings Including Warping Restraint Effect", L. Librescu and A. A. Khdeir, *American Institute of Aeronautics and Astronautics Journal*, Vol. 26, 1988, pp. 1373-1377.

57. "Dynamic Response of Antisymmetric Angle-Ply Laminated Plates Subjected to Arbitrary Loadings", A. A. Khdeir and J. N. Reddy, *Journal of Sound and Vibration*, Vol. 126, 1988, pp. 437-445.

58. "Free Vibration of Antisymmetric Angle-Ply Laminated Plates Including Various Boundary Conditions", A. A. Khdeir, *Journal of Sound and Vibration*, Vol. 122, 1988, pp. 377-388.

59. "Analysis of Symmetric Cross-Ply Laminated Elastic Plates Using a Higher-Order Theory- Part I. Stress and Displacement", L. Librescu and A. A. Khdeir, *Composite Structures*, Vol. 9, 1988, pp. 189-213.

60. "Analysis of Symmetric Cross-Ply Laminated Elastic Plates Using a Higher-Order Theory- Part II. Buckling and Free Vibration", A. A. Khdeir and L. Librescu, *Composite Structures*, Vol. 9, 1988, pp. 259-277.

61. "Le'vy Type Solutions for Symmetrically Laminated Rectangular Plates Using First-Order Shear Deformation Theory", J. N. Reddy, A. A. Khdeir and L. Librescu, *ASME, Journal of Applied Mechanics*, Vol. 54, 1987, pp. 740-742.

62. "Analytical Solution of a Refined Shear Deformation Theory for Rectangular Composite Plates", A. A. Khdeir, J. N. Reddy and L. Librescu, *International Journal of Solids and Structures*, Vol. 23, 1987, pp. 1447-1463.

63. "A Comprehensive Analysis of the State of Stress of Elastic Anisotropic Flat Plates Using Refined Theories", L. Librescu, A. A. Khdeir and J. N. Reddy, *Acta Mechanica*, Vol. 70, 1987, pp. 57-81.

64. "Nonlinear Rolling of Ships in Regular Beam Seas", Ali H. Nayfeh and A. A. Khdeir, *International Ship Building Progress*, Vol. 33, 1986, pp. 40-49.

65. "Nonlinear Rolling of Biased Ships in Regular Beam Waves", Ali H. Nayfeh and A. A. Khdeir, *International Ship Building Progress*, Vol. 33, 1986, pp. 84-93.

B. PAPERS IN CONFERENCE PROCEEDINGS

1. "Free Vibration and Buckling of Cross-Ply Laminated Shear Deformable Shallow Shell-Type Panels", L. Librescu, A. A. Khdeir and D. Frederick, *Third International Conference on Recent Advances in Structural Dynamics*, 1988, pp. 229-239.

2. "Rolling of Ships in Large-Amplitude Waves", Ali H. Nayfeh and A. A. Khdeir, *Dynamical Systems Approaches to Nonlinear Problems in Systems and Circuits, Siam*, 1988, pp. 290-303.

3. "An Exact Solution of the Aeroelastic Instability of Swept-Forward Composite Wings Taking into Account Their Warping Restraint Effect", L. Librescu and A. A. Khdeir, *Composite Materials and Structures Fourth Annual Review*, 1987, pp. HH1-HH20.

4. "Buckling Analysis of Anisotropic Composite Laminated Plates Using a Higher-Order Theory", A. A. Khdeir and L. Librescu, *20th Midwestern Mechanics Conference*, 1987, pp. 1048-1053.

5. "An Exact Analysis of the Aeroelastic Divergence of Swept-Forward Wings Tailored of Advanced Composite Materials and Accounting for Their Warping Restraint Effects", L. Librescu and A. A. Khdeir, *Second International Conference on Inverse Design Concepts and Optimization in Engineering Science*, 1987, pp. 351-367.

6. "Extension and Thickness-Shear Piezoelectric Actuators for Bending Control of Beams", Osama J. Aldraihem and A. A. Khdeir, *Sixth Annual International Conference on Composites Engineering*, Orlando, Florida, June 27-July 3, 1999, pp. 21-22.

C. CONFERENCE PRESENTATIONS

1. "Analytical Solutions for Bending, Stability and Vibration of Laminated Composite Plates", A. A. Khdeir and J. N. Reddy, *Twenty-First Midwestern Mechanics Conference*, August 13-16, 1989, Michigan Technological University, Houghton, Michigan.

2. "Free Vibration of Antisymmetric Angle-Ply Laminated Plates Including Various Boundary Conditions", A. A. Khdeir, *presented at the 7th ASCE, Engineering Mechanics Division Specialty Conference*, Virginia, May 22-25, 1988.

3. "Random Response of Antisymmetric Angle-Ply Laminated Plates", M. P. Singh, A. A. Khdeir, G. O. Maldonado and J. N. Reddy, *Symposium on Methods of Stochastic Mechanics and Applications*, Urbana, IL, USA, October 31 - Nov. 1, 1988.

4. "A Comprehensive Analysis of the State of Stress of Elastic Anisotropic Composite Laminated Plates", L. Librescu and A. A. Khdeir, *presented at the 24th Annual Meeting of the Society of Engineering Science*, Utah, September 21 - 23, 1987.

5. "On the Solutions of Shear Deformation Theories of Plates", A. A. Khdeir, J. N. Reddy and L. Librescu, *presented at the 23rd Annual Meeting of the Society of Engineering Science*, Buffalo, New York, August, 1986.

D. MASTER'S THESES SUPERVISED

1. Easa Yahya Darraj," Modal Characteristics of Beams with Extensional Piezoelectric Actuators," 2006.