

**Professor Alfred G. Striz** 



A journal of which Prof. Striz is an Associate Editor

See: http://www.ou.edu/coe/ame/people/striz.html

Aerospace and Mechanical Engineering University of Oklahoma

Dr. Striz is the Associate Director of Research at OU with the Oklahoma NASA Space Grant Consortium and is the Associate Director of the Center for Engineering Optimization in the College of Engineering at the University of Oklahoma.

# **Education:**

Ph.D., Aeronautics and Astronautics, Purdue University, 1981M.S., Aeronautics and Astronautics, Purdue University, Dec. 1976B.S., Aeronautics and Astronautics, Purdue University, May 1976

# **Research Interests:**

Aeroelasticity, Numerical structural analysis, Design and optimization, Multidisciplinary design optimization (MDO), Composites, Biomechanics, Acoustics

**Undergraduate Courses Taught:** 

Aerospace Vehicle Design I and II, Aeromechanics Laboratory, Introduction to Aerospace Engineering, Aerospace Structural Analysis, Rigid Body Mechanics, Solid Mechanics I - Strength of Materials, Solid Mechanics II - Adv. Strength of Materials, Mechanical and Aerospace Structural Analysis, Design and Manufacturing Processes, Reliability Concepts in Engineering, PC-Based Finite Element Analysis, Numerical Methods in Engineering Computation

# **Graduate Courses Taught:**

Aeroelasticity, Advanced Aerospace Structures, Matrix Methods in Structural Analysis, Intro to the Finite element Method, Advanced Finite Element Analysis, Computational Solid Mechanics, Structural Optimization, Advanced Structural Analysis, Engineering Acoustics, Fundamental Vehicle Dynamics

#### **Professional Organizations:**

American Institute of Aeronautics and Astronautics International Society for Structural and Multidisciplinary Optimization American Society for Engineering Education American Association of University Professors

# **Reviews papers for:**

Journal of Aircraft, AIAA Journal, Journal of Sound and Vibration, International Journal of Solids and Structures, Mechanics Research Communication, International Journal for Numerical Methods in Engineering, Structural and Multidisciplinary Optimization

# **Selected Publications:**

C. W. Bert, S. K. Jang, A.G. Striz, "Two new Approximate Methods for Analysing Free Vibration of Structural Components", Journal of AIAA, vol. 26, pp. 612-618, 1988.

A.G. Striz, S.K. Jang and C.W. Bert, "Nonlinear bending analysis of thin circular plates by differential quadrature", Thin-Walled Struct., Vol. 6, 1988, pp. 51-62

C.W. Bert, S.K. Jang and A.G. Striz, "Nonlinear bending analysis of orthotropic rectangular plaates by the method of differential quadrature", Compu. Mech., Vol. 5, 1989, pp. 217-226

S.K. Jang, C.W. Bert and A.G. Striz, "Application of differential quadrature to static analysis of structure components", Int. J. Numer. Method. Eng., Vol. 28, 1989, pp. 561-577

Striz AG, Cho KN, Bert CW. Free vibration of laminated rectangular plates analyzed by higher-order individual-layer theory. Journal of Sound and Vibration 1991; 145:429–442.

X. Wang, C.W. Bert and A.G. Striz (School of Aerospace and Mechanical Engineering, The University of Oklahoma, 865 Asp Avenue, Room 212, Norman, OK 73019-0601, U.S.A.), "Differential quadrature analysis of deflection, buckling, and free vibration of beams and rectangular plates", Computers & Structures, Vol. 48, No. 3, August 1993, pp. 473-479, doi:10.1016/0045-7949(93)90324-7

A. G. Striz, W. L. Chen and C. W. Bert, "Static analysis of structures by the quadrature element method", Int. J. Non-linear Mech., Vol. 29, 1994, pp. 51-62

W.L. Chen, A.G. Striz and C.W. Bert, "A new approach to the differential quadrature method for fourth-order equations", Int. J. for Numer. Meth. in Eng., Vol. 40, 1997, pp. 1941-1956