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Areas of Interest:

Finite element method, Boundary element method, Stochastic & non-linear mechanics, Random vibrations, Composite materials and structures, Fracture mechanics and fatigue, Vibrations and machine dynamics

Selected Publications:

1. P. Khosravi, R. Ganesan, and R. Sedaghati, "An Efficient Facet Shell Element For Corotational Nonlinear Analysis Of Thin And Moderately Thick Laminated Composite Structures", *Computers and Structures, An International Journal*, 2007. Accepted for publication and is in press. Accepted on February 10, 2007.
2. P. Khosravi, R. Sedaghati, and R. Ganesan, "Optimization of Stiffened Panels Considering Geometric Nonlinearity", *Journal of Mechanics of Materials and Structures*, Vol. 2, 2007, pp. 1247 – 1263.
3. R. Ganesan and D. Y. Liu, "Progressive Failure and Post-Buckling Response of Tapered Composite Plates under Uni-Axial Compression", *Journal of Composite Structures*, 2006. Accepted for publication and is in press. Accepted on December 17, 2006.

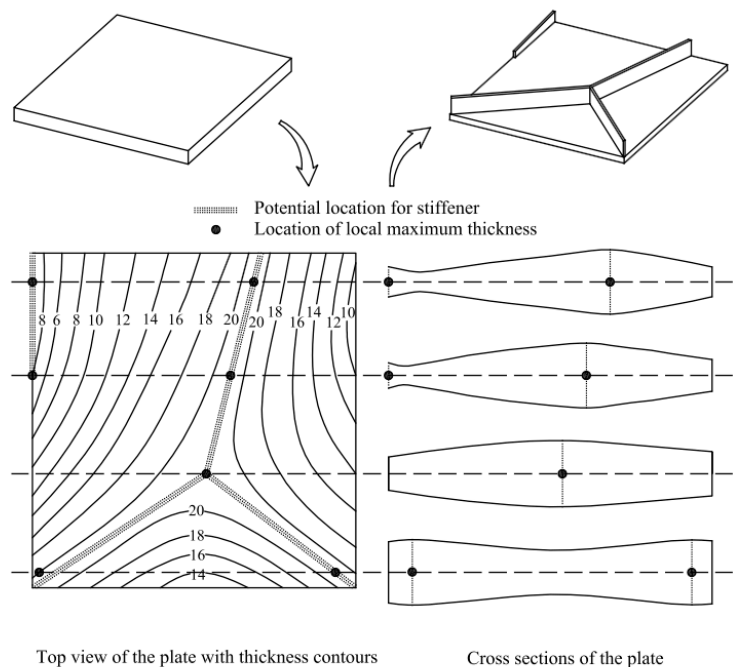


Figure 2. Identifying potential locations for stiffeners using thickness optimization.

From: P. Khosravi, R. Sedaghati, and R. Ganesan, "Optimization of Stiffened Panels Considering Geometric Nonlinearity", *Journal of Mechanics of Materials and Structures*, Vol. 2, 2007, pp. 1247 – 1263.

4. H. Sattari, R. Sedaghati and R. Ganesan, "Analysis And Design Optimization Of Deep Drawing Process. Part II: Optimization", *Journal of Materials Processing Technology*, 2006. Accepted for publication and is in press. Accepted on November 9, 2006.
5. P. Khosravi, R. Sedaghati, and R. Ganesan, "Optimization of Geometrically Nonlinear Thin Shells Subject to Displacement and Stability Constraints", *American Institute of Aeronautics and Astronautics (AIAA) Journal*, Vol. 45, 2007, pp. 684 - 692.
6. A. Zabihollah, R. Ganesan, and R. Sedaghati, "Sensitivity Analysis and Design Optimization of Smart Laminated Beams Using Layerwise Theory", *Journal of Smart Materials and Structures*, 2006. Accepted for publication and is in press. Accepted on September 16, 2006.
7. A. Zabihollah and R. Ganesan, "Buckling Analysis of Tapered Composite Beams using a Higher-order Finite Element Formulation", *Journal of Reinforced Plastics and Composites*. 2006. Accepted for publication and is in press. Accepted on June 12, 2006.
8. P. Khosravi, R. Ganesan and R. Sedaghati, "Corotational Nonlinear Analysis of Thin Plates and Shells Using a New Shell Element", *International Journal For Numerical Methods In Engineering*, Vol. 69(4), 2007, pp. 859-885.
9. R. Ganesan and A. Zabihollah, "Vibration Analysis of Tapered Composite Beams using a Higher-order Finite Element; Part I: Formulation", *Journal of Composite Structures*, Vol. 77, 2007, pp. 306 – 318.
10. R. Ganesan and A. Zabihollah, "Vibration Analysis of Tapered Composite Beams using a Higher-order Finite Element; Part II: Parametric Study", *Journal of Composite Structures*, Vol. 77, 2007, pp. 319 - 330.
11. D. Xu, R. Ganesan and S. V. Hoa, "Buckling Analysis of Tri-axial Woven Fabric Composite Structures Subjected to Biaxial Loading," *Journal of Composite Structures*, Accepted for publication and is in press. 2005. Accepted on July 14, 2005.
12. D. Xu, S. V. Hoa and R. Ganesan, "Buckling Analysis of Tri-axial Woven Fabric Composite Structures. Part II: Parametric Study - Uni Directional Loading," *Journal of Composite Structures*, Vol. 72, 2006, pp. 236 – 253.
13. R. Ganesan and V. K. Kowda, "Free-Vibration Of Composite Beam-Columns With Stochastic Material And Geometric Properties Subjected To Random Axial Loads," *Journal of Reinforced Plastics and Composites*, Vol. 24, 2005, pp. 69 - 91.
14. R. Ganesan and V. K. Kowda, "Buckling Of Composite Beam-Columns With Stochastic Properties," *Journal of Reinforced Plastics and Composites*, Vol. 24, 2005, pp. 513 - 543.
15. D. Xu, R. Ganesan and S. V. Hoa, "Buckling Analysis of Tri-axial Woven Fabric Composite Structures. Part I: Nonlinear Finite Element Formulation," *Journal of Composite Structures*, Vol. 67, 2005, pp. 37 – 55.
16. X. Zhang, S. Rakheja and R. Ganesan. "Modal Analysis of a Truck Tyre Using FE Tyre Model." *Int. J. of Heavy Vehicle Systems, A Special Series, Int. J. of Vehicle Design*. Vol. 11(2), 2004, pp. 133-154.
16. R. Ganesan and D. Zhang, "Progressive failure analysis of composite laminates subjected to in-plane compressive and shear loadings," *Science and Engineering of Composite Materials*, Vol. 11, 2004, pp. 79 – 102.
17. K. He, R. Ganesan and S. V. Hoa, "Interlaminar Stress and Delamination Analysis of Internally-Tapered Composite Laminates," *Journal of Reinforced Plastics and Composites*, Vol. 23, 2004, pp. 707 - 727.
18. K. He, S. V. Hoa, and R. Ganesan, "Stress Analysis Of Tapered Composite Laminates Using Partial Hybrid Finite Elements," *Journal of Reinforced Plastics and Composites*, Vol. 23, 2004, pp. 589 - 599.
19. K. He, R. Ganesan, and S. V. Hoa, "Modified Shear-lag Model for Analysis of a Composite Laminate with Drop-off Plies," *Composites Science and Technology*, Vol. 63, 2003, pp. 1453-1462.
20. X. Zhang, S. Rakheja and R. Ganesan. "Stress Analysis of the Multi-layered System of a Truck Tire Structure." *Tire Science and Technology (TS&T) Journal*, Vol. 30(4), 2002, pp. 240–264.

21. C. Zhang, S. V. Hoa. and R. Ganesan. "Experimental Characterization of Interlaminar Shear Strengths of Graphite/Epoxy Laminated Composites." *Journal of Composite Materials*. Vol. 36, 2002, pp. 1615-1652.
22. X. Zhang, R. Ganesan and S. Rakheja. "Influence of Structural and Geometric Parameters on the Inter-Ply Shear Stresses in a Radial Truck Tire." *International Journal of Heavy Vehicle Systems, A Special Series, International Journal of Vehicle Design*. Vol. 9, 2002, pp. 150 – 171.
23. X. Zhang, R. Ganesan and S. Rakheja. "Nonlinear Finite Element Modeling and Incremental Analysis of a Truck Tire." *International Journal of Heavy Vehicle Systems, A Special Series, International Journal of Vehicle Design*. Vol. 9(3), 2002, pp. 253 – 279.
24. X. Zhang, S. Rakheja and R. Ganesan. "Estimation of Tire-Road Contact Pressure Distribution Based on Non-Linear Finite Element Analysis." *Int. J. of Heavy Vehicle Systems, A Special Series, Int. J. for Vehicle Design*. Vol. 8, 2001, pp. 197 – 217.