

Dr. Narendra S. Khot

Selected Publications (this list obtained from www.en.scientificcommons.org/n_s_khot I think most of the dates of the publications are incorrect.):

Khot, N.S., On The Influence Of Initial Geometric Imperfections On The Buckling And Postbuckling Behavior Of Fiber-Reinforced Cylindrical Shells Under Uniform Axial Compression (2006)

The effect of initial geometric imperfections on the buckling and postbuckling behavior of composite cylindrical shells subjected to uniform axial compression is studied in this report. The solution...

Venkayya, V. B., Khot, N. S., Reddy, V. S., Energy Distribution In An Optimum Structural Design, (2005)

An automated procedure is presented for minimum weight design of structures. It is an iterative procedure in which the design for the next cycle is determined by the study of the strain energy...

Khot, N. S., Venkayya, V. B., Effect of Fiber Orientation on Initial Postbuckling Behavior and Imperfection Sensitivity of Composite Cylindrical Shells. (2005)

Koiter's approach is used to formulate the influence of fiber orientation on the behavior of the cylindrical shell in the initial postbuckling region. Results are presented for three-layer composite...

Beran, P. S., Khot, N. S., Eastep, F. E., Snyder, R. D., Zweber, J. V., The Dependence of Store-Induced Limit-Cycle Oscillation Predictions on Modelling Fidelity (2003)

Store-induced limit-cycle oscillation of a rectangular wing with tip store in transonic flow is simulated using a variety of mathematical models for the flow field: transonic small-disturbance theory...

Khot, N. S., Venkayya, V. B., Berke, L., Schrader, K., Optimum Design of Composite Wing Structures with Twist Constraint for Aeroelastic Tailoring. (2002)

The objective of this effort was to develop a method to design a minimum weight, fiber reinforced, composite wing structure with a specific twist constraint. Designing a wing for the desired twist is...

Appa, K., Ausman, J., Khot, N.S., Brenner, M.J., Buffet Load Alleviation Using a Smart Actuation System. Meeting Paper AIAA-2001-1665, Research Engineering, NASA Dryden Flight Research Center (2001)

This paper describes a method of alleviating buffet loads using a smart actuation system. The smart actuation system entails a flexible rudder fitted with plurality of pairs of piezoelectric...

Appa, K., Ausman, J., Khot, N. S., Brenner, M. J., Aircraft Dynamic Load Alleviation Using Smart Actuation System (2001)

This report was developed under SBIR contract for topic AF99-280 describes an analytical development of buffet and gust load alleviation methodology. An active control surface modal device is...

Tennyson, R. C., Muggeridge, D. B., Chan, K. H., Khot, N. S., Buckling of Fiber-Reinforced Circular Cylinders under Axial Compression. (1998)

Tennyson, R.C. and Khot, N.S., Buckling Strength Of Laminated Composite Cylindrical Shells. (1998)
An analytical solution for the buckling load was obtained by using cylindrical shells. An analytical solution for the buckling load was...

Khot, N. S., Venkayya, V. B., Johnson, C. D., Tischler, V. A., Application of Optimality Criterion to Fiber-Reinforced Composites. (1998), AFFDL-TR-73-6 (*composite materials, optimization), (*airframes, composite materials), aluminum, boron, epoxy resins, fibers, alignment, wings, panels,...

Khot, N. S., On The Effects Of Fiber Orientation And Nonhomogeneity On Buckling And Postbuckling Equilibrium Behavior Of Fiber-Reinforced Cylindrical Shells Under Uniform Axial Compression. (1998)
A theoretical analysis of the buckling and postbuckling equilibrium behavior of a fiber reinforced cylindrical shell under uniform axial compression is presented. The von Karman-Donnell...

Appa, K., Ausman, J., Khot, N. S., Smart Actuation Systems for Enhanced Aircraft Maneuver Performance. (1998)

The final report describes an analytical development of a simulation algorithm based on the optimal control theory to compute flight maneuver loads using solid state actuators. A state space...

Venkayya, V. B., Khot, N. S., Reddy, V. S., Optimization of Structures Based on the Study of Energy Distribution (1998)

An automated procedure is presented for minimum weight design of structures. It is an iterative procedure in which the design for the next cycle is determined by the study of the strain energy...

Citerley, R. L., Khot, N. S., Numerical Methods For Imperfection Sensitivity Analysis Of Stiffened Cylindrical Shells, Vol I - Development And Applications. (1998)

This report contains documentation for four computer programs used in the imperfection sensitivity analysis of cylindrical shells. The four programs are based upon Donnell's equation for cylindrical...