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Selected Publications:

Books:

J.N. Reddy, C.S. Krishnamoorthy and K.N. Seetharamu (Editors), Finite Element Analysis for Engineering Design, Lecture Notes in Engineering, Vol. 37, Springer, 1988, 884 pages

C.S. Krishnamoorthy, Finite Element Analysis: Theory and Programming, 2nd Edition, McGraw Hill India, 2017, 710 pages (1st edition, Tata McGraw-Hill, 1994)

Journal Articles, etc.:

G. Narayanan and C. Krishnamoorthy, An investigation of geometric non-linear formulations for 3D beam elements, Int. J. Nonlin. Mech. 25 (1990) 643–662.

S. Rajeev and C. S. Krishnamoorthy, “Discrete optimization of structures using genetic algorithms,” Journal of Structural Engineering, vol. 118, no. 5, pp. 1233–1250, 1992.

G. Ramesh and C.S. Krishnamoorthy. Post-buckling analysis of structures by dynamic relaxation. Internat. J. Numer. Methods Engrg., 36:1339–1364, 1993.

G. Ramesh and C.S. Krishnamoorthy. Inelastic postbuckling analysis of truss structures by dynamic relaxation method. International Journal for Numerical Methods in Engineering, 37(21):3633–3657, 1994

G. Ramesh and C. S. Krishnamoorthy, Geometrically non-linear analysis of plates and shallow shells by dynamic relaxation, *Computer Methods in Applied Mechanics and Engineering* 123 (1995), 15-32.

C. S. Krishnamoorthy, G. Ramesh, "Post-buckling analysis of structures by three-parameter constrained solution techniques", *Finite Elements in Analysis and Design*, Vol. 22, No. 2, June 1996, pp. 109-142

Siddhartha Mukherjee and C.S. Krishnamoorthy, "Adaptive FE analysis of plates by shear-flexible quadrilateral Reissner-Mindlin elements", *Finite Elements in Analysis and Design*, Vol. 22, pp 329-366, July 1996

C. Krishnamoorthy and Siddhartha Mukherjee, "Adaptive finite element analysis with quadrilateral elements using a new h-refinement strategy", *Proceedings of the Indian Academy of Sciences, Engineering Sciences, Special Issue on Computational Structural Mechanics*, Vol. 21, pp 623-652, October 1996

S. Rajeev and C. Krishnamoorthy, "Genetic algorithms-based methodology for design optimization of trusses", *ASCE Journal of Structural Engineering*, Vol. 123, March 1997

C.K. Thampan, A. Prasad and C.S. Krishnamoorthy, "Genetic algorithms-based methodology for reliability-based structural optimization", *Journal of Structural Engineering (Madras)*, Vol. 25, pp 49-55, April 1998

V. Annamalai, C.S. Krishnamoorthy and V. Kamakoti, "Adaptive finite element analysis on a parallel and distributed environment", *Parallel Computing*, Vol. 25, pp 1413-1434, November 1999

C.S. Krishnamoorthy, "Structural optimization in practice: Potential applications of genetic algorithms", *Structural Engineering and Mechanics*, Vol. 11, February 2001

Siddhartha Mukherjee, J.N. Reddy and C.S. Krishnamoorthy, "Convergence properties and derivative extraction of the superconvergent Timoshenko beam finite element", *Computer Methods in Applied Mechanics and Engineering*, Vol. 190, pp 3475-3500, March 2001

C.S. Krishnamoorthy, A. Prasad and U. Unnithan, "Adaptive finite element analysis of kinematically non-linear elasto-plastic problems in two dimensions", Chapter in book, December 2001, DOI: 10.1016/B978-0-08-043981-5.50017-1

S. Rajeev and C. Krishnamoorthy, "Genetic algorithm-based methodology for design optimization of reinforced concrete frames", *Computer-Aided Civil and Infrastructure Engineering*, Vol. 13, pp 63-74, December 2002