Resume of Dr. L. S. Ramachandra

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Research Interests

- Stability of metal and composite structures.
- Damage Mechanics.
- Failure theories for brittle materials under high velocity impact.

Education

Degree/Program	Specialization	University
Ph.D.	Applied Mechanics	I.I.T., Madras
M.Tech.	Engineering Mechanics	I.I.T. Madras
B.E.	Civil	Karnataka University

Papers in International Journals

1. Rajesh Kumar, Biswanath Banerjee and L.S. Ramachandra, 2016, “Nonlinear Stability and dynamics of composite skew plates under nonuniform loadings using differential quadrature method”.,Mechanics Research Communications, 73, 76-90.
2. Rajesh Kumar, L.S. Ramachandra and Biswanath Banerjee, 2016, “Nonlinear Stability Characteristics of Composite Cylindrical Panel Subjected to Non-uniform In-plane Mechanical and Localized Thermal Loadings”, Proc. Indian National Science Academy, 82(2), 271-288.
3. Tanish Dey and L.S. Ramachandra 2015, “Linear and Non-linear Parametric Instability Behavior of Cylindrical Sandwich Panels Subjected to Various Mechanical Edge Loadings”., Journal of Mechanics of Advanced Materials and Structures, http://dx.doi.org/10.1080/15376494.2014.918222
4. S. K. Panda, Rajesh Kumar and L.S. Ramachandra, 2015, “Post-Buckled Vibration Characteristic of Composite Cylindrical Shell Panels Under Parabolic In-Plane Edge Compression” ,International journal of Applied Mechanics, 7(3), doi: 10.1142/S1758825115500350.
5. Tanish Dey and L.S. Ramachandra, “Dynamic Stability of Simply Supported Composite Cylindrical Shells under Partial Axial Loading”, Jornal of Sound and Vibration, 2015, 353, 272-291
6. Swati Roy Maitra, K.S. Reddy and L.S. Ramachandra, 2015, “Estimation of joint and interface parametrs for the finite element analaysis of jointed concrete pavement using structural evaluation results”, *International Journal on Pavement Engineering and Asphalt Technology,*16(2), 21-38.

7. Rajesh Kumar, L.S. Ramachandra and Biswanath Banerjee, 2015, “Dynamic Instability of Damped Composite Skew Plates under Non-uniform In-plane Periodic Loading” , International Journal of Mechanical Sciences, 103, 74-88
8. Swati Roy Maitra, K.S. Reddy and L.S. Ramachandra, 2015, “A comprehensive threee-dimensional finite element model for the analysis of jointed concrete pavement”,. *Journal of Indian Roads Congress*, **75(4), 73-81**
9. Tanish Dey and L.S. Ramachandra 2014, “Non-linear stability analysis of laminated composite simply supported circular cylindrical shells subjected to partial axial loading”, ASCE, Journal of Engineering Mechanics, **140(8) 04014058**
10. Swati Roy Maitra, K.S. Reddy and L.S. Ramachandra, 2014, “Numerical Investigation of fatigue characteristics of concrete pavement”, International Journal of Fracture, **189, 181-193**.
11. Tanish Dey and L.S. Ramachandra, “Static and Dynamic Instability analysis of composite cylindrical shell panels subjected to partial edge loading”, Journal of Non-Linear Mechanics, **64, 46-56**
12. Tanish Dey and L.S. Ramachandra 2014, “Buckling and postbuckling response of sandwich panels under non-uniform mechanical edge loadings”, Composites: Part B, **60, 537-545** (2014)
13. L.S. Ramachandra and Sarat Kumar Panda 2012, “Dynamic Instability of Composite Plates Subjected to Non-uniform In-plane Loads”, Journal of Sound and Vibration, 331,53-65.
14. Sarat Kumar Panda and L.S. Ramachandra, 2011,”Parametric Instability of Laminated Composite Cylindrical Panels Subjected to Periodic Non-uniform in-plane Loads”, International journal of Applied Mechanics, Vol 3, 845-865
15. Sarat Kumar Panda and L.S. Ramachandra, 2011, “Buckling and postbuckling behaviour of cross-ply composite plate subjected to non-uniform in-plane loads”, ASCE, Journal of Engineering Mechanics, 137(9),589-597.
16. Sarat Kumar Panda and L.S. Ramachandra, 2010, “Postbuckling analysis of cross-ply laminated cylindrical shell panels under parabolic edge loading”, Thin-Walled structures, 48, 660-667.
17. Sarat Kumar Panda and L.S. Ramachandra, 2010, “Buckling of rectangular plates with various boundary conditions loaded by non-uniform inplane loads”, Int. Journal of Mechanical Sciences, 52, 819-828.
18. Swati Roy Maitra, Reddy, K.S., and Ramachandra, L.S., 2010, “Load Transfer Characteristics of Aggregate Interlocking in Concrete Pavement”, ASCE, Journal of Transportation Engineering, Vol. 136, No.3, pp. 190-195.
19. Swati Roy Maitra, Reddy, K.S., and Ramachandra, L.S., 2009, “Load Transfer Characteristics of Dowel Bar System in Jointed Concrete Pavement”, ASCE, Journal of Transportation Engineering, Vol. 135, No.11, pp. 813-821.
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21. Rajendrakumar Harsoor and L.S. Ramachandra, 2009, “Influence of notch on the elastic-plastic response of clamped beams subjected to low velocity impact”,36(8), 1058-1069.
22. Girish, J. and Ramachandra, L.S., 2008, “Stability and Vibration Behavior of Composite Cylindrical Shell Panels under Axial Compression and Secondary Loads”, ASME, Journal of Applied Mechanics, Vol.75, pp. 041001-1 to 041007-11.

23. Singha, M.K., Ramachandra, L.S., and Bandyopadhyay, J.N., 2006,“Nonlinear Response of Laminated Cylindrical Shell Panels Subjected to Thermo-Mechanical Loads”, ASCE, Journal of Engineering Mechanics Vol. 132, pp. 1088-1095.
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25. Girish, J. and Ramachandra, L.S., 2007, “Nonlinear Static Response and Free Vibration Analysis of Doubly Curved Cross-ply Panels”, ASCE, Journal of Aerospace Engineering, Vol.20, pp. 45-52.
26. Rajesh Kumar, Ramachandra, L.S.,Roy, D., “A Multi-Step Linearization Technique for A Class of Boundary Value Problems in Non-linear Mechanics” Computational Mechanics, November 2005, Pages 1 - 9, DOI 10.1007/s00466-005-0009-6.
27. Singha, M.K., Ramachandra, L.S., and Bandyopadhyay, J.N.,“Vibration behavior of thermally stressed composite skew plate”, Journal of Sound and Vibration, 296, 1093-1102.
28. Girish, J. and Ramachandra, L.S., **“**Thermo-Mechanical Postbuckling Analysis of Cross-Ply Laminated Cylindrical Shell Panels”, **ASCE**, Journal of Engineering Mechanics, Vol.132,pp. 133-140,2006.
29. Girish, J. and Ramachandra, L.S., **“**Thermal Postbuckling and Vibration Analysis of Antisymmetric Angle-ply Composite Plates”, Journal of Thermal Stresses(in Press).
30. Girish J, and Ramachandra L.S., “Thermomechanical postbuckling analysis of symmetric and antisymmetric composite plates with imperfection”, Composite Structures, Vol.67, No4, pp.453-460, 2005.
31. Girish J., and Ramachandra L.S., “Thermal postbuckled vibrations of symmetrically laminated composite plates with initial geometric imperfections’, Journal of Sound and Vibration, Vol.282, No.3-5, pp.1137-1153, 2005.
32. Rajesh Kumar, Ramachandra L.S., and Roy D, “Techniques based on Genetic Algorithms for large deflection analysis of beams”, Sadhana., Vol.29, pp.589-604 (December 2004).
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