



## **Professor Shishir Kumar Sahu**

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### **Current and Recently Completed Research:**

Parametric instability of woven fiber composite panels

Nonlinear dynamic analysis of smart composite structures with discrete delamination

Vibration of cracked beams

Parametric resonance characteristics of laminated composite twisted cantilever panels

### **Areas of Interest:**

Structural Dynamics, Composite Structures, Finite Element Method, Vibration and Stability of Plates and Shells, Modal analysis of structures, Fracture Mechanics.

### **Selected Publications:**

1. **Sahu, S. K.** and **Asha, A.V.**, Parametric resonance characteristics of angle-ply twisted curved panels,

*International Journal of Structural Stability and Dynamics*, 2008, **8**, 61-76.

2. **Sahu, S. K. and Datta, P. K** , Research Advances in the Dynamic Stability Behaviour of Plates and Shells: 1987-2005, *Applied Mechanics Reviews*, ASME, 2007, **60**, 65-75..
3. **Sahu, S.K, Das B. and Ray, B.C.**, Effects of loading speed on the failure Behaviour of FRP composites, *International Journal of Aircraft Engineering and Aerospace Technology*, 2007, **79** (1), 45-62.
4. **Sahu, S. K , Behera R. K. and Parhi , D.R.K.** Vibration analysis of a cracked rotor surrounded by viscous liquid, *Journal of Vibration and Control*, **12**, 2006, 465-494.
5. **Sahu, S.K , Behera R. K. and Parhi , D.R.K.** Dynamic Characteristics of Cantilever Beam with transverse Cracks, *International Journal of Acoustics and Vibration*, 2006, **11** (1), 3-18.
6. **Sahu, S. K., Asha A.V. and Mishra, R.N.** Stability of laminated composite pre-twisted cantilever panels, *Journal of Reinforced Plastics and Composites*, 2005, **24**, (12), 27-34.
7. **Sahu, S. K , Behera R. K. and Parhi , D.R.K.** Vibration analysis of Cracked Beam subjected to moving mass, *International Journal of Acoustics and Vibration*, 2005, **10**, (4), 197-201.
8. **Sahu, S. K. and Datta, P.K.** Dynamic stability of laminated composite curved panels with cutouts, *Journal of Engineering Mechanics*, ASCE, 2003, **129**, 1245-1253.
9. **Sahu, S. K. and Datta, P.K.** Parametric instability characteristics of laminated composite curved panel subjected to concentrated in-plane edge loading, *Journal of Advances in Vibration Engineering*, 2003, **2** , 142-150.
10. **Sahu, S. K. and Datta, P.K.** Dynamic stability of curved panels with cutouts, *Journal of Sound and Vibration*, 2002, **251**, 683-696.
11. **Sahu, S. K. and Datta, P.K.** Parametric resonance characteristics of laminated composite curved shells subjected to non-uniform loading, *Journal of Reinforced Plastics and Composites*, 2001, **20**, 1556-1576.
12. **Sahu, S. K. and Datta, P.K.** Parametric instability of doubly curved panels subjected to non-uniform harmonic loading, *Journal of Sound and Vibration*, 2001, **240**, 117-129.
13. **Sahu, S. K. and Datta, P.K.** Dynamic instability of laminated composite rectangular plates subjected to non- uniform harmonic in-plane edge loading, *Journal of Aerospace Engineering, Proceedings of Institution of Mechanical Engineers*, UK, Part G, 2000, **214**, 295-312.
14. **Sahu, S. K. and Datta, P.K.** Vibration of doubly curved panels with cutouts, *Journal of Institution of Engineers*, Aerospace Division, 2002, **83**, 25-28.
15. **Sahu, S. K., Datta, P.K and Pravakara, D. L.** Vibration and buckling of laminated composite rectangular plates subjected to partial edge loading, *Journal of Structural Engineering*, 2001, **28**, 75-80.
16. **Sahu, S. K. and Datta, P.K.** Parametric instability characteristics of laminated composite curved panels, *Journal of Institution of Engineers*, Aerospace Division, 2000, **81**, 20- 24.