



**Professor Ajaya Kumar Nayak**

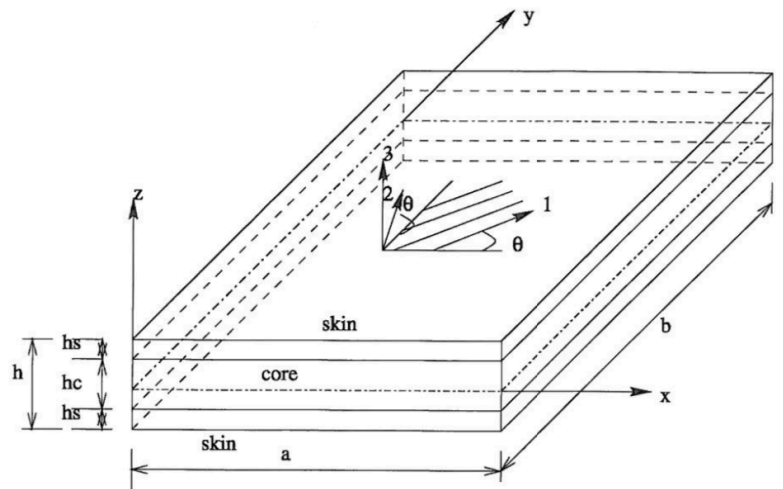


Fig. 1 Sandwich plate geometry with laminate reference axes and fibre orientation

From: A.K. Nayak, R.A. Sheno and S.S.J. Moy, "Analysis of Damped Composite Sandwich Plates Using Plate Bending Elements with Substitute Shear Strain Fields Based on Reddy's Higher-Order Theory", Proceedings of The Institute of Mechanical Engineers, Journal of Mechanical Engineering Sciences, Vol. 216, 2002, pp.591-606.

See:

<http://www.vssut.ac.in/faculty-profile.php?furl=ajaya-kumar-nayak>

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### Selected Publications:

A.K. Satapathy and A.K. Nayak, "Stochastic Free Vibration of Composite Sandwich Plates", National Conference on Innovations in Design & Construction of Industrial Structures, National Institute of Technology, Durgapur, April 2014.

A.K. Nayak, R.A. Sheno, J.I.R. Blake, R. Gupta, S. Subramanian, J. Zhu, X. Fang, R. Mills, W. Lin and S. Finn, "Stress Analysis of Thermoplastic Composite Sandwich Plates", International Conference on Emerging Materials and Processes, CSIR-IMMT, Bhubaneswar, Odisha, 26th -28th February 2014.

A.K. Nayak, R.A. Sheno and J.I.R. Blake, "A Study of Transient Response of Initially Stressed Composite Sandwich Folded Plates", Composites Part B: Engineering, Vol 44, 2013, pp.67-75.

A.K. Nayak, "Finite Element Modelling for Composite Wind Turbine Blades", in Recent Advances in Composite Materials for Wind Turbine Blades, Dr Brahim Attaf (Ed.), 2013, pp. 1-24.

A.K. Nayak, R.A. Sheno and J.I.R. Blake, "A computer aided FEM Based numerical solution for transient response of laminated composite plates with cutouts", International Conference on Structural Engineering and Mechanics, National Institute of Technology, Rourkela, December 2013.

A.K, Nayak, R.A.Sheno, J.I.R. Blake, J.W. Gillespie Jr, D. Heider and E. Madenci, "Thermo-transient response of composite sandwich shells", International Conference on Strength of Materials (ICSMA16), Indian Institute of Science, Bangalore, August 2012.

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A.K. Nayak, "Elasto-Plastic Analysis of Initially-Stressed Plates Using a 3D Degenerated Mindlin-Kirchhoff Shell Element", AIAA-2007- 48th AIAA/ASME/ASCE/AHS Structures, Structural Dynamics and Materials Conference, Texas, USA, April 2007.

A.K. Nayak, "Damping Analysis of Composite Folded Plate Structures Using a Vortex Shell Element", AIAA-2007- 48th AIAA/ASME/ASCE/AHS Structures, Structural Dynamics and Materials Conference, Texas, USA, April 2007.

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R.A. Sheno, P. Das, A.K. Nayak, J.I.R. Blake, Safe design of a composite structure, A stochastic approach, University of Southampton, 2006.

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A.K. Nayak, S.S.J. Moy and R.A. Sheno, "A Higher Order Finite Element Theory For Buckling and Vibration Analysis of Initially Stressed Composite Sandwich Plates", Journal of Sound and Vibration, Vol. 286, 2005, pp.763-780.

A.K. Nayak and R.A. Sheno, "Assumed Strain Finite Elements For Buckling and Vibration Analysis of Initially Stressed Damped Composite Sandwich Plates", Journal of Sandwich Structures and Materials, Vol. 7, 2005, pp.307-334.

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