Professor Abdul Hamid Sheikh

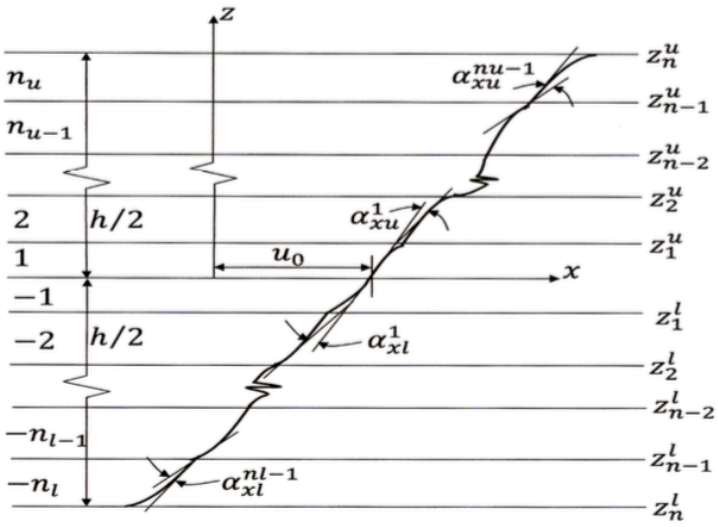

Figure 1 General lamination scheme and displacement configuration.

From: H.D. Chalak, Anupam Chakrabarti, Abdul Hamid Sheikh, Mohd. Ashraf Iqbal, "Buckling analysis of laminated sandwich beam with soft core", Latin American Journal of Solids and Structures, 9(3), 367-382, 2012

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School of Civil, Environmental and Mining Engineering
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Biography/Background:
January 2008 – present: Associate Professor, School of Civil, Environmental and Mining Engineering, University of Adelaide, Australia
February 2006 – October 2007: Associate zrofessor, Dept. of Mechanical Engineering, Aalborg University, Denmark
June 1998 – December 2007: Assistant Professor, Dept. of Ocean Engineering and Naval Architecture, Indian Institute of Technology, Kharagpur, India
May 2003 – July 2003: Visiting Researcher, School of Engineering Sciences, University of Southampton, UK
October 1993 – June 1998: Lecturer, Department of Applied Mechanics, Indian Institute of Engineering Science and Technology, Shibpur, India

Education:
1995 PhD Structural Engineering, Indian Institute of Technology, Kharagpur
1987 M.Eng. Structural Engineering, Calcutta University
1985 B.Eng. Civil Engineering, Calcutta University

Research Interests:

1. Innovative finite element modeling of stiffened plates and shells and their static, dynamic and buckling response in linear and nonlinear ranges.
2. Development of new finite element techniques for efficient modeling of laminated composite sandwich and smart structures based on higher order refined theories.
3. Numerical simulation of high velocity ballistic impact response of laminated composite and sandwich panels.
4. Development of a fully coupled efficient beam model for thin-walled open and closed section laminated composite beams.
5. Numerical modeling of concrete and ultra-high performance concrete members and determination of their load distributions.
6. Micromechanics-based coupled damage plasticity model for progressive failure analysis of laminated composite structures.
7. Analytical and finite element model of steel concrete composite beams based on higher order theories in linear and nonlinear ranges.

Selected publications:

A.H. Sheikh and M. Mukhopadhyay, "Analysis of stiffened plate with arbitrary planform by the general spline finite strip method", Computers & Structures, Vol. 42, No. 1, January 1992, pp. 53-67

A. H. Sheikh and M. Mukhopadhyay, "Free Vibration Analysis Of Stiffened Plates With Arbitrary Planform By The General Spline Finite Strip Method", Journal of Sound and Vibration, Vol. 162, No. 1, March 1993, pp. 147-164

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Sheikh A.H., Haldar S. and Sengupta (2002): A high precision shear deformable element for the analysis of laminated composite plates of different shapes. - Compos. Struct., vol.55, pp.329-336.

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A. Chakrabarti and A.H. Sheikh. Buckling of laminated composite plates by a new element based on higher order shear deformation theory. Mechanics of Advanced Materials and Structures, 10:303–317, 2003.

A.H. Sheikh and A. Chakrabarti. A new plate bending element based on higher order shear deformation theory for the analysis of composite plates. Finite Element in Analysis and Design, 39:883–903, 2003.

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A. Chakrabarti and A.H. Sheikh. A new triangular element to model inter-laminar shear stress continuous plate theory. Int. J. Numer. Meth. Engg, 60:1237–1257, 2004.

A. Chakrabarti and A.H. Sheikh. Buckling of laminated sandwich plates subjected to partial edge compression. Int. J. of Mechanical Sciences, 47(418-436), 2005.
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A. Iqbal A. Chakrabarti, H.D. Chalak and A.H. Sheikh. A new fe model based on higher order zigzag theory for the analysis of laminated sandwich beam with soft core. Composite Structures, 93:271–279, 2011
Chalak HD, Chakrabarti A, Iqbal MA, Sheikh AH. An improved C_0 FE model for the analysis of laminated sandwich plate with soft core. Finite Elem Anal Des 2012;56:20–31.
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Gulshan Taj MNA, Chakrabarti A, Sheikh AH. Analysis of functionally graded plates using higher order shear deformation theory. Appl Math Model 2013;37(18-19):8484–94