



**Professor K. Bhaskar**

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<http://www.ae.iitm.ac.in/people/faculty/bhaskar.html>

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Dept. of Aerospace Engineering  
 Indian Institute of Technology Madras Chennai

**Education:**

1983 B.Tech REC Warangal  
 1985 M.Tech Indian Institute of Technology Madras  
 1991 PhD Indian Institute of Technology Madras

**Professional Experience:**

· Professor, IIT Madras (2006 - till date)

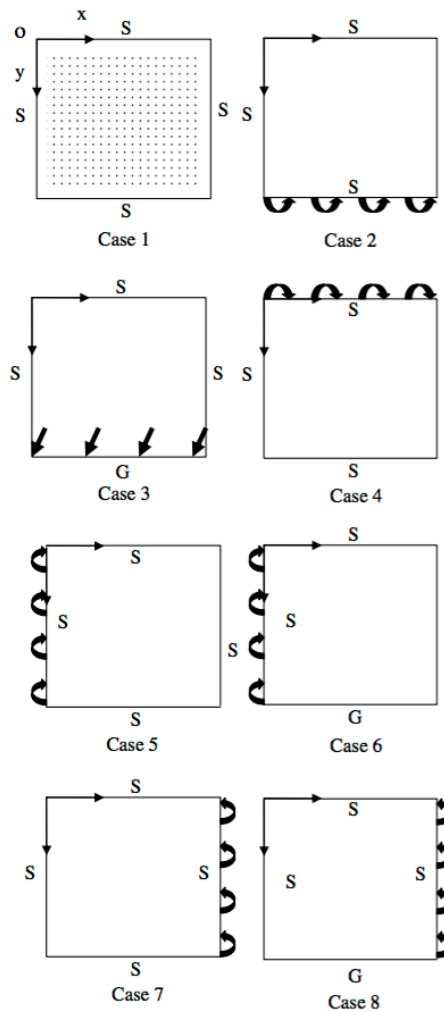


Fig. 1. Building blocks for Category I.

From: K. Bhaskar and A. Sivaram, "Untruncated infinite series superposition method for accurate flexural analysis of isotropic/orthotropic rectangular plates with arbitrary edge conditions", Composite Structures, Vol. 83, pp 83-92, 2008

- Associate Professor, IIT Madras (2000 - 2006)
- Assistant Professor, IIT Madras (1993 - 2000)
- Senior Project Officer, IIT Madras (1988 - 1992)
- Lecturer, REC Surathkal (1987 - 1988)

### **Areas of Expertise and Research Interests:**

Structural Mechanics; Composite Structures; Elasticity; Solid Mechanics

### **Selected Publications:**

- Anup Pydah and K. Bhaskar, “Accurate analytical solutions for shear-deformable web-core sandwich plates”, *Journal of Sandwich Structures and Materials*, February 2016
- Anup Pydah and K. Bhaskar, “Accurate discrete modeling of stiffened isotropic and orthotropic rectangular plates”, *Thin-Walled Structures*, Vol. 97, pp 266-278, December 2015
- Anup Pydah and K. Bhaskar, “An accurate discrete model for web-core sandwich plates”, *Journal of Sandwich Structures and Materials*, Vol. 18, No. 4, September 2015
- Bhaskar K, Varadan TK. Refinement of higher-order laminated plate theories. *AIAA Journal* 1989; 27:1830-1831.
- Bhaskar K, Varadan TK. A Higher-Order Theory for Bending Analysis of Laminated Shells of Revolution. *Computers and Structures* 1991;40:815-819.
- T.K. Varadan and K. Bhaskar, Bending of laminated orthotropic cylindrical shells—an elasticity approach, *Compos. Struct* 17 (1991), pp. 141–156.
- K. Bhaskar and T.K. Varadan, Exact elasticity solution for laminated anisotropic cylindrical shells, *ASME J. Appl. Mech* 60 (1993), pp. 41–47.
- Bhaskar K, Varadan TK. Benchmark Elasticity Solution for Locally Loaded Laminated Orthotropic Cylindrical Shells. *AIAA Journal* 1994;32(3):627-632.
- Bhaskar, K., Librescu, L., (1995). A geometrically non-linear theory for laminated anisotropic thin-walled beams. *International Journal of Engineering Science* 33: 1331-1344
- K. Bhaskar and G. Balasubramanyam, “Accurate Analysis of End-Loaded Laminated Orthotropic Cylindrical Shells,” *Composite Structures*, Vol. 58, No. 2, 2002, pp. 209-216
- K. Bhaskar & B. Kaushik, Simple and exact series solutions for flexure of orthotropic rectangular plates with any combination of clamped and simply supported edges, *Composite Structures*, 63(1), 2004, 63-68.
- K. Bhaskar & B. Kaushik, Analysis of clamped unsymmetric cross-ply rectangular plates by superposition of simple exact double Fourier series solutions, *Composite Structures*, 68(3), 2005, 303-307.
- P. Umasree & K. Bhaskar , Accurate flexural analysis of clamped moderately thick cross-ply rectangular plates by superposition of exact untruncated infinite series solutions, *Jl. of Reinforced Plastics and Composites*, 24(16), 2005, 1723-1736.
- P. Umasree & K. Bhaskar , Analytical solutions for flexure of clamped rectangular cross-ply plates using an accurate zig-zag type higher-order theory, *Composite Structures* (to appear; already available online).
- P. Jana and K. Bhaskar, “Stability analysis of simply-supported rectangular plates under non-uniform uniaxial compression using rigorous and approximate plane stress solutions”, *Thin-Walled Structures*, Vol. 44, pp 507-516, 2006
- Jana P, Bhaskar K (2007) Analytical solutions for buckling of rectangular plates under non-uniform biaxial compression or uniaxial compression with in-plane lateral restraint. *Int J Mech Sci* 49:1104–1112
- V. Pradeep, N. Ganesan and K. Bhaskar, Vibration and thermal buckling of composite sandwich beams with viscoelastic core, *Composite Structures*, 81 (1) (2007) 60–69.

K. Bhaskar and A. Sivaram, "Untruncated infinite series superposition method for accurate flexural analysis of isotropic/orthotropic rectangular plates with arbitrary edge conditions", *Composite Structures*, Vol. 83, pp 83-92, 2008