



**Professor Seref D. Akbas**

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**Education:**

B.Sc., Civil Engineering, Yıldız Technical University, Faculty of Civil Engineering, 2008.  
 M.Sc., Yıldız Technical University, Department of Civil Engineering, Structural Mechanics Division 2009.  
 Ph.D., Yıldız Technical University, Department of Civil Engineering, Structural Mechanics Division 2012.

**Research Interests:**

Non-Linear Analysis of Structural Elements; Static, Vibration, Buckling Analysis of Composite Structures; Finite Element Analysis.

**Selected Publications:**

- Kocatürk, T. and Akbas, S.D., (2010). "Geometrically non-linear static analysis of a simply supported beam made of hyperelastic material", *Structural Engineering and Mechanics*, 35(6):677-697.
- Kocatürk, T., Simsek, M. and Akbas, S.D., (2011). "Large displacement static analysis of a cantilever Timoshenko beam composed of functionally graded material", *Science and Engineering of Composite Materials*, 18:21-34.
- Kocatürk, T. and Akbas, S.D., (2011). "Post-buckling analysis of Timoshenko beams with various boundary conditions under non-uniform thermal loading", *Structural Engineering and Mechanics*, 40(3):347-371.
- Kocatürk, T. and Akbas, S.D., (2012). "Post-buckling analysis of Timoshenko beams made of functionally graded material under thermal loading", *Structural Engineering and Mechanics*, 41(6): 775-789.
- Simsek, M., Kocatürk, T. and Akbas, S.D., (2012), "Dynamic behavior of an axially functionally graded beam under action of a moving harmonic load", *Composite Structures*, 94(8):2258-2264.
- Akbas, S.D. and Kocatürk, T., (2012). "Post-Buckling Analysis of Timoshenko Beams with Temperature-Dependent Physical Properties under Uniform Thermal Loading", *Structural Engineering and Mechanics*, 44(1):109-125.
- Simsek, M., Kocatürk, T. and Akbas, S.D., (2013), "Static bending of a functionally graded microscale Timoshenko beam based on the modified couple stress theory", *Composite Structures*, (95):740-747.

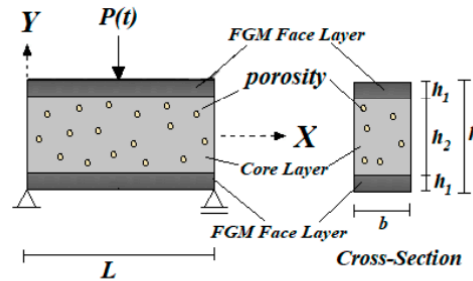


Fig. 1 A simply supported sandwich deep beam with FGM face layer and porous core layer under dynamic point load

From: Seref D. Akbas, "Forced vibration analysis of functionally graded sandwich deep beams", *Coupled Systems Mechanics*, Vol. 8, No. 3, pp 259-271, 2019

Kocatürk, T. and Akbas, S.D., (2013). "Wave propagation in a microbeam based on the modified couple stress theory", *Structural Engineering and Mechanics*, 46(3),417-431.

Akbas, S.D., (2013). "Geometrically nonlinear static analysis of edge cracked Timoshenko beams composed of functionally graded material", *Mathematical Problems in Engineering*, vol 14, 2013.

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Akbas, S.D., (2014), "Wave Propagation Analysis of Edge Cracked Circular Beams under Impact Force", *Plos One*, 9(6), 1-8, e100496.

Akbas, S.D., (2014), "Large Post-Buckling Behavior of Timoshenko Beams Under Axial Compression Loads", *Structural Engineering and Mechanics*, 51(6), 955-971.

Akbas, S.D., (2014), "Wave Propagation in Edge Cracked Functionally Graded Beams Under Impact Force", *Journal of Vibration and Control*, Doi: 10.1177/1077546314547531.

Akbas, S.D., (2015), "On Post-Buckling Behavior of Edge Cracked Functionally Graded Beams Under Axial Loads", *International Journal of Structural Stability and Dynamics*, 15(4), 1450065, Doi: 10.1142/S0219455414500655.

Akbas, S.D. (2015), "Large Deflection Analysis of Edge Cracked Simple Supported Beams", *Structural Engineering and Mechanics*, 54(3), 433-451

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S.D. Akbas, "Free vibration and bending of functionally graded beams resting on elastic foundation," *Res. Eng. Struct. Mat.*, vol. 1, no. 1, pp. 25–37, 2015. DOI:10.17515/resm2015.03st0107.

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Seref D. Akbas, "Post-buckling responses of functionally graded beams with porosities", *Steel and Composite Structures*, Vol. 24, No. 5, pp 579-589, 2017

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Seref D. Akbas, "Geometrically nonlinear analysis of functionally graded porous beams", *Wind and Structures*, Vol. 27, No. 1, pp 59-70, 2018

Seref D. Akbas, "Post-buckling responses of a laminated composite beam", *Steel and Composite Structures*, Vol. 26, No. 6, pp 733-743, 2018

Akbaş, Ş. D. [2018] "Geometrically nonlinear analysis of a laminated composite beam," *Structural Engineering and Mechanics* 66(1), 27–36.

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Seref D. Akbas and Yusuf Z. Yueksel, "Free vibration analysis of a cross-ply laminated plate in thermal environment", *International Journal of Engineering and Applied Sciences (IJEAS)*, Vol. 10, No. 3, pp 176-189, 2018

Y.Z. Yueksel and S.D. Akbas, "Bending behavior of a composite laminated plate under temperature rising", 13th International Congress on Advances in Civil Engineering, Ismir, Turkey, 12-14 September 2018

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Yusuf Z. Yueksel and Seref D. Akbas, "Vibration analysis of a porous laminated composite plate", *International Symposium on Innovations in Civil Engineering and Technology (ICIVILTECH 2019)* 23-25 October 2019, Afyonkarahisar, Turkey