



Professor Ankit Gupta

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Profile Summary:

Dr. Ankit Gupta received his doctoral degree from Indian Institute of Technology Mandi and M.Tech degree in CAD/CAM and Robotics from Indian Institute of Technology Roorkee. His research interest involves deformation theory, composite structures, structural response and Imperfection sensitivity. In particular, he has made contributions to the development of nonpolynomial higher-order shear and normal deformation theory for the structural response of FGM structures. He has published more than 22 papers in referred journals and conference proceedings. One of his papers has been acknowledged by Elsevier as top 25 downloaded and top cited paper. He has also presented several papers in International conferences. He is also an invited reviewer of several international journals such as Archives of Civil and Mechanical Engineering (Elsevier), International Journal of Mechanical Engineering, etc. He has also served as a Conference advisor/ Technical Committee member/Reviewer in several International conferences held in India and Abroad. He is also a member of American Society of Mechanical Engineers (ASME).

Education:

2018 Ph.D. Indian Institute of Technology Mandi

2012, M.Tech, Indian Institute of Technology Roorkee

2006 B.Tech, U.P.T.U Lucknow

Selected Publications:

A Gupta, M Talha, Influence of Porosity on the Flexural and Free Vibration Responses of Functionally Graded Plates in Thermal Environment, International Journal of Structural Stability and Dynamics, 1850013, 2018

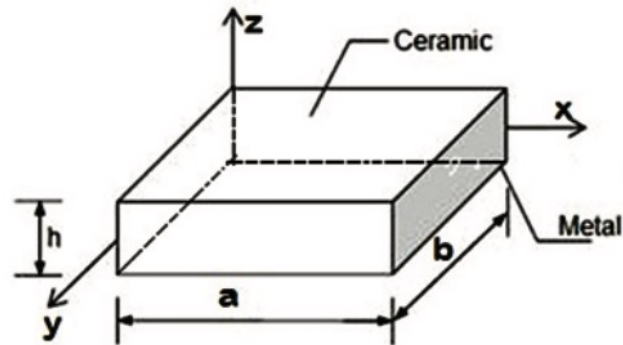


Figure 1 Geometric configuration of FGM Plate

From: Virendra Kumar Chaudhari, Ankit Gupta and Mohammad Talha, Nonlinear Vibration Response of Shear Deformable Functionally Graded Plate Using Finite Element Method, Procedia Technology 23, 201-208 (2016)

A Gupta, M Talha, Influence of initial geometric imperfections and porosity on the stability of functionally graded material plates, *Mechanics Based Design of Structures and Machines*, 26(6), 693–711, 2018

A Gupta, M Talha, W Seemann, Free vibration and flexural response of functionally graded plates resting on Winkler–Pasternak elastic foundations using nonpolynomial higher-order shear and normal deformation theory, *Mechanics of Advanced Materials and Structures* 25 (6), 523-538, 2018

A Gupta, M Talha, Imperfection sensitivity of the post-buckling characteristics of functionally gradient plates using higher-order shear and normal deformation theory, *IOP Conference Series: Materials Science and Engineering* 330 (1), 012091, 2018

A Gupta, M Talha, Stability characteristics of porous functionally graded plate in thermal environment, *IOP Conference Series: Materials Science and Engineering* 330 (1), 012011, 2018

A Gupta, M Talha, Influence of micro-structural defects on post-buckling and large-amplitude vibration of geometrically imperfect gradient plate, *Nonlinear Dynamics*, 94(1) (2018) 39–56

A Gupta, M Talha, Static and Stability Characteristics of Geometrically Imperfect FGM Plates Resting on Pasternak Elastic Foundation with Microstructural Defect, *Arabian Journal for Science and Engineering*, 43(9), 4931–4947, 2018

A Gupta, M Talha, W Seemann, Free vibration and flexural response of functionally graded plates resting on Winkler–Pasternak elastic foundations using nonpolynomial higher-order shear and normal deformation theory *Mechanics of Advanced Materials and Structures*, 1-16 (2017)

A Gupta, M Talha, Large amplitude free flexural vibration analysis of finite element modeled FGM plates using new hyperbolic shear and normal deformation theory, *Aerospace Science and Technology*, 67, 287-308 (2017)

A Gupta, M Talha, Nonlinear flexural and vibration response of geometrically imperfect gradient plates using hyperbolic higher-order shear and normal deformation theory, *Composites Part B: Engineering*, 123, 241-261 (2017)

A Gupta, M Talha, Influence of porosity on the flexural and vibration response of the gradient plate using nonpolynomial higher-order shear and normal deformation theory, *International Journal of Mechanics and Materials in Design*, Vo. 14, No. 2, pp 277-296, (2017), DOI: <https://doi.org/10.1007/s10999-017-9369-2>

A Gupta, M Talha, An assessment of a non-polynomial based higher order shear and normal deformation theory for vibration response of gradient plates with initial geometric imperfections, *Composites Part B: Engineering* 107, 141-161 (2016)

A Gupta, M Talha, Assessment of Second Order Normal Deformation Plate Theory For Free Vibration Analysis of Functionally Graded Plates With Mixed Boundary Constraints, *International Journal of Acoustics and Vibration* (Accepted)

A. Gupta, A. M. Talha, M and BN Singh, Vibration characteristics of functionally graded material plate with various boundary constraints using higher order shear deformation theory, *Composites Part B: Engineering*, 94, 64-74 (2016)

A Gupta, M Talha, VK Chaudhari, Natural frequency of functionally graded plates resting on elastic foundation using finite element method, *Procedia Technology*, 23, 163-170 (2016)

Virendra Kumar Chaudhari, Ankit Gupta and Mohammad Talha, Nonlinear Vibration Response of Shear Deformable Functionally Graded Plate Using Finite Element Method, *Procedia Technology* 23, 201-208 (2016)

Gupta, A. and Talha, M., Recent development in modeling and analysis of functionally graded materials and structures, *Progress in Aerospace Sciences* 79, 1-14 (2015)

Ankit Gupta, A.Y. Joshi, S.C. Sharma, S.P. Harsha: Dynamic analysis of fixed-free single-walled carbon nanotube-based bio-sensors because of various viruses. *IET Nanobiotechnology* 6(3): (2012), DOI:10.1049/iet-nbt.2011.0057