



Dr. Subrat Kumar Jena

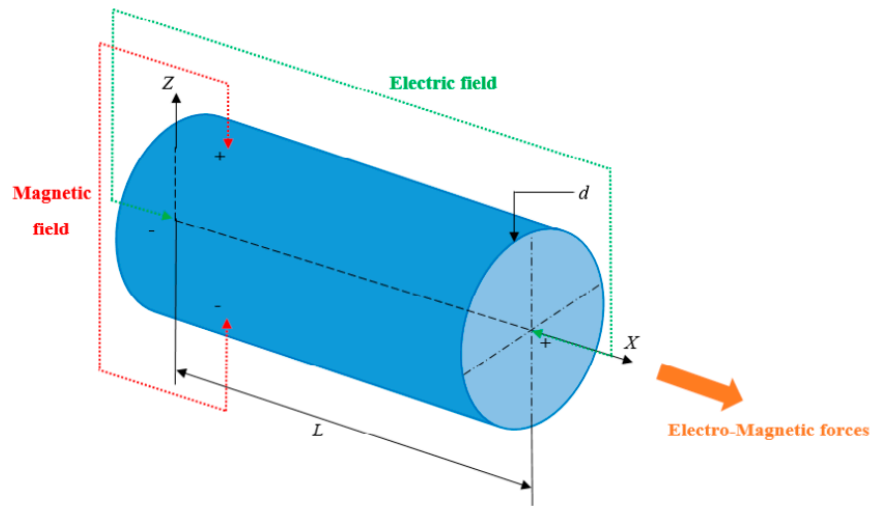


Figure 1. Schematic continuum model of the nanobeam placed in electromagnetic field.

From: Jena, S. K., Chakraverty, S. and Tornabene, F. [2019] “ Buckling behavior of nanobeams placed in electromagnetic field using shifted Chebyshev polynomials-based Rayleigh-Ritz method,” *Nanomaterials* **9**(9), 1326.

See:

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Selected Publications:

- Jena, S. K. and Chakraverty, S. [2018] “ Free vibration analysis of Euler–Bernoulli nanobeam using differential transform method,” *International Journal of Computational Materials Science and Engineering* **7**(3), 1850020.
- S.K. Jena, S. Chakraverty (2018) Free Vibration Analysis of Variable Cross-Section Single Layered Graphene Nano-Ribbons (SLGNRs) Using Differential Quadrature Method, *Frontiers in Built Environment*, Vol-4, p.63
- S.K. Jena, S. Chakraverty (2018) Free Vibration Analysis of Single Walled Carbon Nanotube with Exponentially Varying Stiffness, *Curved and Layered Structures*, Vol-5(1), p.201-212.
- Snehashish Chakraverty and Subrat Kumar Jena, “Free vibration of single walled carbon nanotube resting on exponentially varying elastic foundation”, *Curved and Layered Structures*, Vol. 5, No. 1, pp 260-272, 2018
- S.K. Jena, S. Chakraverty, R.M. Jena, F. Tornabene (2019) A novel fractional nonlocal model and its application in buckling analysis of Euler-Bernoulli nanobeam, *Materials Research Express*, Vol- 6(5), p.055016
- Jena, S. K. and Chakraverty, S. [2019] “ Dynamic behavior of an electromagnetic nanobeam using the Haar wavelet method and the higher-order Haar wavelet method,” *The European Physical Journal Plus* **134**(10), 538.
- Jena, S. K., Chakraverty, S., Malikan, M. and Tornabene, F. [2019] “ Stability analysis of single-walled carbon nanotubes embedded in winkler foundation placed in a thermal environment considering the surface effect using a new refined beam theory,” *Mechanics Based Design of Structures and Machines*, 1–15, <https://doi.org/10.1080/15397734.2019.1698437>.
- Jena, S. K., Chakraverty, S. and Malikan, M. [2019] “ Implementation of Haar wavelet, higher order Haar wavelet, and differential quadrature methods on buckling response of strain gradient nonlocal beam embedded in an elastic medium,” *Engineering with Computers* 1–14, <https://doi.org/10.1007/s00366-019-00883-1>.
- Subrat Kumar Jena and S. Chakraverty, “Differential quadrature and differential transformation methods in buckling analysis of nanobeams”, *Curved and Layered Structures*, Vol. 6, pp 68-76, 2019
- Subrat Kumar Jena and S. Chakraverty, “Dynamic Analysis of Single-Layered Graphene Nano-Ribbons (SLGNRs) with Variable Cross-Section Resting on Elastic Foundation”, *Curved and Layered Structures*, Vol. 6, pp 132-145, 2019

Rajarama Mohan Jena; S. Chakraverty; Subrat Kumar Jena, "Dynamic Response Analysis of Fractionally Damped Beams Subjected to External Loads using Homotopy Analysis Method", *Journal of Applied and Computational Mechanics*, Vol. 5, No. 2, pp 355-366, Spring 2019

Jena, S. K., Chakraverty, S. and Jena, R. M. [2019] "Propagation of uncertainty in free vibration of Euler–Bernoulli nanobeam," *Journal of the Brazilian Society of Mechanical Sciences and Engineering* 41(10), 436.

Jena, S. K., Chakraverty, S. and Tornabene, F. [2019] "Buckling behavior of nanobeams placed in electromagnetic field using shifted Chebyshev polynomials-based Rayleigh-Ritz method," *Nanomaterials* 9(9), 1326.

Subrat Kumar Jena, S. Chakraverty, Mohammad Malikan and Hamid Mohammad-Sedighi, "Hygro-Magnetic Vibration of the Single-Walled Carbon Nanotube with Nonlinear Temperature Distribution Based on a Modified Beam Theory and Nonlocal Strain Gradient Model", *International Journal of Applied Mechanics*, Vol. 12, No. 5, 2050054, June 2020

Jena, S. K., Chakraverty, S. and Malikan, M. [2020] "Implementation of non-probabilistic methods for stability analysis of nonlocal beam with structural uncertainties," *Engineering with Computers*, <https://doi.org/10.1007/s00366-020-00987-z>.

Jena, S. K., Chakraverty, S. and Malikan, M. [2020] "Vibration and buckling characteristics of nonlocal beam placed in a magnetic field embedded in Winkler–Pasternak elastic foundation using a new refined beam theory: An analytical," *The European Physical Journal Plus* 135, 164.