

PATENTS

P1. Kumar, K., Sah, B., **Sajal**, Choudhary, N., & Roy, P., “A method to measure peridynamics length scale parameter of materials”, Application No. 202531119989. Filed on 01/12/2025.

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J11. Sah, B., **Sajal**, Choudhary, N., Kumar, K., & Roy, P. (2025), “Peridynamics model of viscoelasticity for beams and lattice structures”, *International Journal of Mechanical Sciences*, 301, 110545. <https://doi.org/10.1016/j.ijmecsci.2025.110545>. [Q1, IF: 9.4]

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- J2. **Sajal** & Roy, P. (2023), "Peridynamics modeling of cellular elastomeric metamaterials: Application to wave isolation", *International Journal of Mechanical Sciences*, 254, 108456. <https://doi.org/10.1016/j.ijmecsci.2023.108456>. [Q1, IF: 9.4]
- J1. Dutta, S. C., Kumar, S., Bhoyar, P. S., Hussain, M. A., & **Sajal** (2022), "Behavior of vertically irregular structures near mines: Comparison of responses under seismic and mine blast-induced ground motion", *The Structural Design of Tall and Special Buildings*, 31(1), e1897. <https://doi.org/10.1002/tal.1897>. [Q2, IF: 1.3]

CONFERENCE PROCEEDINGS AND PRESENTATIONS

- C3. **Sajal** & Roy, P. (2024), "A finite deformation micropolar peridynamic theory and its application to metamaterials", 16th World Congress on Computational Mechanics and 4th Pan American Congress on Computational Mechanics (**WCCM/PANACM**), July 21-26, 2024, Vancouver, Canada (ID: W241289). [Published Proceeding, DOI: <https://doi.org/10.23967/c.wccm.2024.067>]
- C2. **Sajal** & Roy, P. (2024), "Peridynamics Simulation of Wave Isolation in Metamaterials", 9th European Congress on Computational Methods in Applied Sciences and Engineering (**ECCOMAS**), June 3-7, 2024, Lisbon, Portugal (ID: 356). [Presentation]
- C1. **Sajal** & Roy, P. (2022), "Study of wave propagation in polymers in the presence of local elastic instability and rupture using peridynamics", 8th International Congress on Computational Mechanics & Simulation (**ICCMS**), December 9-11, 2022, IIT Indore, India (Reference Id: ICCMS21_1657817514). [Presentation]