

## Faculty Profile



**Name:** Dr. SARIT CHANDA

**Designation:** Senior Assistant Professor

**Teaching Areas:** Data Science and Artificial Intelligence, Strength of Materials, Structural Analysis, Design of Steel and Concrete Structure

**Research Interests:** Structural Dynamics, Earthquake Engineering, Machine Learning

### Education:

- PhD., Indian Institute of Technology, Hyderabad, 2021
- M.Tech in Seismic Science and Engineering, NIT Agartala, 2015
- B.Tech in Civil Engineering, NIT Agartala, 2012

### Research / Selected Publications:

1. Erteleva, O. O., Aptikaev, F. F., Reddy, K. K., **Chanda, S.**, & Somala, S. N. (2022) Monte Cristo Range earthquake May 15, 2020: calculated intensity and macroseismic field, *Geologiya i Geofizika Yuga Rossii*, 12 (1), pp. 62-74
2. Somala, S. N., S. Mangalathu, **S. Chanda**, K. S. K. Karthik Reddy, and R. Parla (2022) Focal Mechanism Influence with Azimuth using Near-Field Simulated Ground Motion: Application to Multi-Span Continuous Concrete Single Frame Box Girder Bridge, *ASCE Journal of Bridge Engineering* (accepted BEENG-5165 DOI: 10.1061/(ASCE)BE.1943-5592.0001875)
3. Somala, S. N., **S. Chanda**, K. Karthikeyan, and S. Mangalathu (2021) Explainable Machine Learning on New Zealand Strong Motion for PGV and PGA, *Structures*, 34, 4977-4985 (doi: 10.1016/j.istruc.2021.10.085)
4. Somala, S.N. , **S. Chanda**, M.C. Raghucharan, and E. Rogozhin (2021) Spectral Acceleration Prediction for Strike, Dip, Rake: A Multi-layered Perceptron Approach, *Journal of Seismology*, 25(5), 1339-1346 (doi: 10.1007/s10950-021-10031-2)
5. **Chanda, S.**, Somala, S.N., 2021. Single-Component/Single-Station-Based Machine Learning for Estimating Magnitude and Location of an Earthquake: A Support Vector Machine Approach. *Pure Appl. Geophys.* <https://doi.org/10.1007/s00024-021-02745-8>
6. **Chanda, S.**, Raghucharan, M.C., Karthik Reddy, K.S.K., Chaudhari, V., Somala, S.N., 2021. Duration prediction of Chilean strong motion data using machine learning. *Journal of South American Earth Sciences* 109, 103253. <https://doi.org/10.1016/j.jsames.2021.103253>
7. Rogozhin, E.A., Somala, S.N., Erteleva, O.O., Aptikaev, F.F., **Chanda, S.**, 2020. Seismic Hazard of Garhwal Region, Himalaya. *Izvestiya Atmospheric and Oceanic Physics* 56, 1315–1325. <https://doi.org/10.1134/S0001433820110079>
8. **Chanda, Sarit**, and Surendra Nadh Somala. 2021. “Uncertainty Quantification of Structural Response Due to Earthquake Loading.” In *Proceedings of SECON’21. Lecture Notes in Civil Engineering* 171. [https://doi.org/10.1007/978-3-030-80312-4\\_82](https://doi.org/10.1007/978-3-030-80312-4_82).