List of Publications

International Journal articles:

1) Parida, L., & Moharana, S. (2023). Comparative Assessment of a Multitudinal Piezo Arrangement for Nondestructive Evaluation of Construction Steel: An Experimental Study. Measurement, 113592. IF:5.6, DOI: https://doi.org/10.1016/j.measurement 2023.113592

2) Parida, L., & Moharana, S. (2025). Monitoring the bond zone mechanism between reinforced steel & concrete for electromechanical impedance technique through a multi-attached piezo sensor-based diagnostic approach. Mechanical Systems and Signal Processing, 223, 111897. IF:8.9, DOI: https://doi.org/10.1016/j.ymssp.2024.111897

3) Parida, L., & Moharana, S. (2023). A comprehensive review on piezo impedance based multi sensing technique. Results in Engineering, 101093. IF:7.9, DOI: https://doi.org/10.1016/j.rineng.2023.101093

4) Parida, L., Banerjee, S. & Moharana, S. (2025). "Current Status and Future Challenges on Performance Evaluation of Reinforcement-Concrete Bond and The Interfacial Deterioration Using Piezo Impedance-Based SHM (PISHM)", In Structural Concrete IF:3.0, DOI: https://doi.org/10.1002/suco. 70208.

5) Parida, L., Moharana, S., & Mishra, A. (2026). A comprehensive reliability framework for non-bonded and reusable configurations based electro-mechanical impedance (EMI) measurements in construction steel rebar: a proof of concept. Measurement, 121021. IF:5.6 DOI: https://doi.org/10.1016/j.measurement.2026.121021

6) Parida, L., Conditions in Construction Steel Using Multi Piezo Configurations for Electro- Journal of Structural Integrity and Maintenance. IF:3.0, DOI: https://doi.org/10.1080/24705314.2025.2485011

7) Parida, L., Moharana, S., Vicente, R., & Ascensão, G. (2024). A proof of concept study on reliability assessment of different metal foil length based piezoelectric sensor for electromechanical impedance techniques. Scientific Reports, 14(1), 699. IF:4.6, DOI: https://doi.org/10.1038/s41598-023-49762-2

8) Parida, L., Moharana, S., Ferreira, V. M., Giri, S. K., & Ascensão, G. (2022). A Novel CNN-LSTM Hybrid Model for Prediction of Electro-Mechanical Impedance Signal Based Bond Strength Monitoring. Sensors, 22(24), 9920. IF: 3.9, DOI: https://doi.org/10.3390/s22249920

9) Parida, L., & Moharana, S. (2024). Structural health monitoring for 3D-printed civil infrastructures: A review of challenges, applications and future directions. Smart Materials and Structures. IF: 3.7, DOI: 10.1088/1361-665X/ad754f

10) Parida, L., & Moharana, S. (2024). Mechanical and Corrosion Investigations of Bond Behavior in Reinforced Concrete with Varying Parameters. Journal of Failure Analysis and Prevention. 1-12. IF:1.2, DOI: https://doi.org/10.1007/s11668 023-01850-1

11) Parida, L., & Moharana, S. (2024). Current status and future challenges of digital twins for structural health monitoring in civil infrastructures. Engineering Research Express, 6(2), 022102. IF: 1.5, DOI: 10.1088/2631-8695/ad4aea

12) Parida, L., & Moharana, S. (2024). An efficient deep learning approach for ultimate bond strength estimations of corroded bar and concrete. Engineering Research Express. IF: 1.5, DOI: 10.1088/2631-8695/ad885b

13) Parida, L., & Moharana, S. (2025). The Effect of Corrosion on Reinforced Cement Concrete (RCC) Structure for Long Exposure to Acidic Environment: A Deep Learning-Based Approach. Journal of Failure Analysis and Prevention, 1-14. IF:1.2, DOI: https://doi.org/10.1007/s11668-025-02214-7

14) Subash, S., Parida, L., & Moharana, S. (2025). Study on the Impact of Aggregate Size Gradation on Concrete: Mechanical, Durability and Microstructure Study. International Journal of Concrete Structures and Materials, 19(1), 114. IF: 3.6, DOI: https://doi.org/10.1186/s40069-025-00863-4

15) Kamal, M., Parida, L., & Banerjee, S. (2025). Optimization assisted probabilistic damage localization of cracks in weld connections of a steel portal frame using electromechanical impedance technique. Smart Materials and Structures. IF: 3.7, DOI: 10.1088/1361-665X/adb6e3

16) Subash, S., Parida, L., Singh, U., & Moharana, S. (2023). Corrosion inhibitors for enhanced strength, durability, and microstructure of coastal concrete structures. Materials Research Express, 10(7), 075101. IF:2.3, DOI: 10.1088/2053 1591/ace75c

17) Banerjee, T., Moharana, S., & Parida, L. (2023). Early detection of thermal instability in railway tracks using piezo coupled structural signatures. Journal of Infrastructure Intelligence and Resilience, 2(4), 100063. DOI: https://doi.org/10.1016/j.iintel.2023.100063

18) Karan, S. S., Das, M., Pothal, G. K., & Parida, L. (2024). Enhancing shear behavior of class F fly ash using non-woven carry bags: a sustainable geotechnical solution. Journal of Building Pathology and Rehabilitation, 9(2), 125. DOI: https://doi.org/10.1007/s41024-024-00480-w