

SCI PUBLICATIONS

1. Singh, S.K., **Shanker, R.** and Ranjan, A., “Health Monitoring of Steel Structures Using Surface Mountable and Detachable PZT Sensor”, Journal of Intelligent Material Systems and Structures. (**Impact Factor 2.7**): **Accepted for Publication.**
2. Maurya, K.K., Rawat, A. and **Shanker, R.**, “Performance evaluation concept for crack healing in bacterial concrete structure using electro mechanical impedance technique with PZT patch”, Developments in the Built Environment (2023) Vol 15 (**Impact Factor 5.563**)
3. Singh, S.K., Maurya, K.K., **Shanker, R.** and Ranjan, A., “Prediction of Remaining Life of RCC Sewer Manhole using Smart Material based EMI Technique for Sustainable Environment”, Environmental Science and Pollution Research (2023) 30:61526–61540 (**Impact Factor 5.8**)
4. Maurya, K.K., Rawat, A. and **Shanker, R.**, “A Health monitoring of bacterial concrete structure under dynamic loading using electromechanical impedance technique: a numerical approach”, Environmental Science and Pollution Research (2023) 30: 25382–25401 (2023) (**Impact Factor 5.8**)
5. Singh, S.K. and **Shanker, R.**, “Determining the Sensing Region of Surface Bonded PZT Sensor and Surface Mounted PZT Sensor in Electro-Mechanical Impedance Technique for Non-Destructive Testing”, Russian Journal of Nondestructive Testing, 2022, Vol. 58, No. 10, pp. 934–949. (**Impact Factor 0.9**)
6. Mishra, M., Singh, S.K., **Shanker, R.** and Sundaram, S., “Design and simulation of diatom-based micro cantilever immune biosensor for the early detection of Karnal bunt”, 3 Biotech, Vol 10, Issue 4 pp 1-13 (**Impact Factor 2.8**)
7. Maurya, K.K., Rawat, A. and **Shanker, R.**, “Monitoring of biochemical based sustainable bacterial concrete system using electromechanical impedance technique with PZT sensor”, Biomass Conversion and Biorefinery (2022), 12, (**Impact Factor 4.0**)
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1. Singh, S., and **Shanker, R.**, “Development of a robust structural health monitoring system: a wireless sensor network approach”, Asian Journal of Civil Engineering (2023) 24: 1129-1137.
2. Singh, S., and **Shanker, R.**, “Wireless sensor networks for bridge structural health monitoring: a novel approach”, Asian Journal of Civil Engineering (2023) 24, pages1425–1439.
3. Maurya, K.K., Rawat, A. and **Shanker, R.**, “Review Article on Condition Assessment of Structures Using Electro-Mechanical Impedance Technique”, Structural Durability & Health Monitoring 2022, 16(2), 97-128.

4. Maurya, K.K., Rawat, A. and **Shanker, R.**, “Damage Prediction of Environmental Friendly Bacteria based Concrete Structure using Smart Sensor based EMI Technology”, International Journal of Mechanical Engineering, Vol. 7 No. 5, 2022, 1396-1409.
5. Bhalla, S., Gupta, A., **Shanker, R.**, Sethi, A., Jain, S., Medury, A., “Performance and Conditional Monitoring of Civil Structures from Discrete Strain Measurements”, International Journal of COMADEM, Vol. 12 No. 1 (Jan), pp. 2-14.

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3. Maurya, K. K., Rawat, A. and **Shanker, R.**, "Health monitoring of cracked concrete structure by impedance approach", International Conference on Advances in Construction Materials and Structures, Dec. 15-17, 2021.
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7. Singh V., **Shanker, R.**, Kumar A., Kumar A., " Assessment of Pavement Condition using Sensor Based Approach", International Conference on Futuristic Technologies, 22-24 Jan, IIT Delhi, India.
8. Kumar S., **Shanker, R.**, Ranjan A., " Effects of Dimension and Material on the Signature of a coupled System in EMI Technique", International Conference on Futuristic Technologies, 22-24 Jan, IIT Delhi, India.
9. Pundhir T.S., **Shanker, R.**, Singh V., Investigation of Shear Lag Effect for EMI Technique using Numerical Approach", International Conference on Futuristic Technologies, 22-24 Jan, IIT Delhi, India.
10. Maurya, K. K., Rawat, A. and **Shanker, R.**, " Crack Health Monitoring of Microbial Concrete Beam by electromechanical Impedance Technique Using PZT Patches", Second ASCE India Conference on Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE2020), March 02—04,2020

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BOOK CHAPTERS

1. Maurya, K. K., Rawat, A. and **Shanker, R.**, "Review on bacteria based cementitious matrix for sustainable building construction”, in book Environmental Restoration, Jan. 2022. DOI: 10.1007/978-3-030-96202-9_1
2. Bhalla, S., **Shanker, R.** and Gupta, A. “Integration of EMI Technique with Global Vibration Technique” Chapter 6, Smart Materials in Structural Health Monitoring, Control and Bio-Mechanics and Practices, Soh, C.K., Yang, Y.K., and Bhalla, S., editors, Springer-Verlag, Hangzhou.