

2020-2021

- H. Gaur, L. Dakssa, M. Dawood, and N. K. Samaiya, “A novel stress-based formulation of finite element analysis,” *Journal of Zhejiang University. Science A*, vol. 22, no. 6, pp. 481–491, Jun. 2021, doi: 10.1631/jzus.a2000397.
- N. Soni and D. K. Shukla, “Analytical study on mechanical properties of concrete containing crushed recycled coarse aggregate as an alternative of natural sand”, *Construction and Building Materials*, Vol. 266, Part A, October 2020.
- Verma, V. S. Babu, and S. Arunachalam, “Influence of mixing approaches on strength and durability properties of treated recycled aggregate concrete,” *Structural Concrete*, vol. 22, no. S1, Sep. 2020, doi: 10.1002/suco.202000221.
- Verma, V. S. Babu, and A. Srinivasan, “Strength and durability properties of treated recycled aggregate concrete by soaking and mechanical grinding method: influence of processing technique,” *Journal of Materials in Civil Engineering*, vol. 33, no. 10, Jul. 2021, doi: 10.1061/(asce)mt.1943-5533.0003908.

2021-2022

- G. Rawat, S. Gandhi, and Y. I. Murthy, “Strength and rheological aspects of concrete containing nano-titanium dioxide,” *Asian Journal of Civil Engineering*, vol. 23, no. 8, pp. 1197–1208, Jul. 2022, doi: 10.1007/s42107-022-00476-2.
- Verma, B. S. Velaga, and S. Arunachalam, “Performance evaluation of concrete using treated recycled aggregates modified with mineral admixtures: Influence of processing,” *European Journal of Environmental and Civil Engineering*, vol. 27, no. 3, pp. 1010–1039, Jul. 2022, doi: 10.1080/19648189.2022.2070285.
- Verma, V. S. Babu, and S. Arunachalam, “Influence of acetic acid soaking and mechanical grinding treatment on the properties of treated recycled aggregate concrete,” *Journal of Material Cycles and Waste Management*, vol. 24, no. 3, pp. 877–899, Feb. 2022, doi: 10.1007/s10163-022-01360-6.
- Verma, V. S. Babu, and A. S., “Influence of modified two-stage mixing approaches on recycled aggregate treated with a hybrid method of treatment,” *Australian Journal of Structural Engineering*, vol. 23, no. 3, pp. 230–253, Mar. 2022, doi: 10.1080/13287982.2022.2048479.

2022-2023

- R. K. Goliya and V. S. Babu, “Performance evaluation of concrete made with double-processed recycled aggregate (DPRA): mechanical grinding and silica fume impregnation technique,” *Journal of Material Cycles and Waste Management*, vol. 25, no. 2, pp. 1050–1068, Jan. 2023, doi: 10.1007/s10163-023-01592-0.

- G. Rawat, S. Gandhi, and Y. I. Murthy, “Durability aspects of concrete containing nano-titanium dioxide,” *ACI Materials Journal*, vol. 120, no. 2, Feb. 2023, doi: 10.14359/51738490.
- G. Rawat, S. Gandhi, and Y. I. Murthy, “Influence of nano-TiO₂ on the chloride diffusivity of concrete,” *Emerging Materials Research*, vol. 11, no. 4, pp. 495–505, Oct. 2022, doi: 10.1680/jemmr.22.00056.
- G. Rawat, S. Gandhi, Y. Murthy, A. S. Gandhi, A. Yogesh, and I. Murthy, “A critical assessment on the effect of nano-titanium dioxide on the properties of concrete,” *Journal of the Croatian Association of Civil Engineers*, vol. 74, no. 07, pp. 553–560, Aug. 2022, doi: 10.14256/jce.3291.2021.
- Y. I. Murthy, “Neural Network Models for the Half-Cell Potential of Reinforced Slabs with Magnesium Sacrificial Anodes Subjected to Chloride Ingress”, *Journal of Soft Computing in Civil Engineering*, vol. 8, no. 1 [https://doi: 10.22115/scce.2023.347658.1470](https://doi:10.22115/scce.2023.347658.1470), June 2023.
- S. Yadav and D. K. Shukla, “Strength behavior of jointed rock mass at the crown of the slope,” *International Journal of Civil Engineering*, vol. 21, no. 11, pp. 1769–1782, Jun. 2023, doi: 10.1007/s40999-023-00848-y.
- K. N. Katare, N. K. Samaiya, and Y. I. Murthy, “Strength and durability properties of concrete using incinerated biomedical waste ash,” *Environmental Engineering Research*, vol. 28, no. 2, pp. 220024–0, Apr. 2022, doi: 10.4491/eer.2022.024.
- S. Pandey, S. Gandhi, and Y. I. Murthy, “Effect of addition of sugarcane baggasse ash on half-cell potential of cathodically protected RCC structures subjected to chloride ingress,” *Materials Today Proceedings*, Apr. 2023, doi: 10.1016/j.matpr.2023.04.076.
- S. Goswami, D. K. Shukla, and P. K. Singh, “Production of low carbon dioxide cement containing sewage sludge ash as mineral admixture,” *Green Materials*, vol. 11, no. 4, pp. 162–173, Feb. 2023, doi: 10.1680/jgrma.21.00004.
- K. N. Katare, N. K. Samaiya, and Y. I. Murthy, “Experimental Investigations of Binary Blended Concrete Containing Incinerated Biomedical Waste Ash”, *SSRG-International Journal of Civil Engineering (SSRG-IJCE)*, Vol. 10, No. 12, pp. 9-22. December 2023.
- S. Goliya, S. Gandhi and Y.I. Murthy, “Strength Characteristics of Concrete Containing Glycerine as Phase Change Material”, *Journal of Advanced Engineering Research*, Vol. 10, No. 1, pp.42-47, September 2023.
- P. Dharmadhikari and S. Gandhi, “Effect of Slope Geometry on Energy Dissipation for Stepped Spillway”, *Journal of Advanced Engineering Research*, Vol. 10, No. 1, pp.35-41. September 2023.
- Rawat, G., and Y.I. Murthy, “Monitoring Chloride Diffusivity in Mortar Containing Nano Titanium Dioxide using Electrical Resistivity Method”, *International Journal of All Research Education and Scientific Methods*, Vol.11, No. 8, pp 418-429. August 2023.
- Y.I. Murthy and S. Gandhi, “Investigations on AZ91D Anodes for Chloride-Induced Corrosion in Reinforced Cement Concrete Slabs”, *European Chemical Bulletin*, Vol. 12, Special Issue-3, pp.5211–5217. July 2023.

- S. Gandhi, “Analysis of Hydraulic Jump Characteristics In U-Shaped Channel”, *Civil Engineering Infrastructures Journal*, <https://doi.org/10.22059/cej.2024.374899.2046>, December 2024
- Y.I. Murthy and S. Kumar, “Levenberg-Marquardt Based Prediction Models for Slabs with Magnesium Sacrificial Anodes Subjected to Chloride Ingress”, Portugalia Electrochemica Acta <https://doi.org/10.4152/pea.2026440101>, November 2024
- Y. I. Murthy, K. B. Meena, and N. Patel, “Machine learning for predicting the half cell potential of cathodically protected reinforced cement concrete slabs subjected to chloride ingress,” *Engineering Applications of Artificial Intelligence*, vol. 137, p. 109090, Aug. 2024, doi: 10.1016/j.engappai.2024.109090.
- S. Pandey, Y. I. Murthy, and S. Gandhi, “Prognostication of half-cell potential for slabs cathodically protected with AZ91D using explainable and interpretable machine learning,” *Anti-Corrosion Methods and Materials*, Nov. 2024, doi: 10.1108/acmm-09-2024-3094.
- S. Pandey, Y. I. Murthy, and S. Gandhi, “Exploring optimization strategies for support vector machine-based half-cell potential prediction,” *Anti-Corrosion Methods and Materials*, vol. 71, no. 6, pp. 719–732, Jul. 2024, doi: 10.1108/acmm-04-2024-3007.
- Verma, Y. I. Murthy, and H. Singh, “Steady state chloride diffusivity in mortar containing nano titanium dioxide using response surface methodology,” *Journal of Building Pathology and Rehabilitation*, vol. 9, no. 2, Jul. 2024, doi: 10.1007/s41024-024-00471-x.