

## Research & Development 2023-24

1. Prof. Priyabrat Pradhan, Dr. Abhilash Purohit published a research paper on “Dielectric properties, thermal analysis and conductivity studies of biodegradable and biocompatible polymer nano composites” in Biodegradable and Biocompatible Polymer Nanocomposites Elsevier 2023, Pages 113-140
2. Prof. Abhilash Purohit, Prof. Priyabrat Pradhan published a paper on “Development and erosion wear analysis of polypropylene/Linz-Donawitz sludge composites”. Wiley polymer composites journal First published: 03 August 2023.
3. Prof. Abhilash Purohit, Prof. Priyabrat Pradhan, Prof. Jayashree Singh published a paper on “Sliding Wear characterization of epoxy composites filled with wood apple dust using Taguchi analysis and finite element method”. Journal of vinyl and additive technology (IF 2.7) **Pub Date: 2023-12-20**
4. Prof. Debasish Rout, Assistant Professor, Department of Mechanical Engineering, Synergy Institute of Engineering and Technology Dhenkanal published a book chapter titled “Employee Training and Development” in the book “Emerging trends in human resource management”.
5. Prof. Abhilash Purohit, Prof. Priyabrat Pradhan, Prof. Jayashree Singh published a paper on “Effects of spherical fillers reinforcement on the efficacy of thermal conductivity in epoxy and polyester matrices : Experimental validation and prediction using finite element method. Journal of vinyl and additive technology (IF 2.7) **Pub Date: 2024-08-16**
6. Subhakanta Dash and Biswabandita Kar “Fabrication of pervious concrete from Fly ash” (Date of Filing-04/06/2019) (Patent No-507479) (Granted Year-2024).
7. Subhakanta Dash, Piyush Gupta published a paper” Comprehensive Review of Fly Ash: Environmental Impact and Application” in journal Environmental Quality Management (Wiley) in the year 2024.
8. Subhakanta Dash, Piyush Gupta, Itishree Mohanty, Syed Mohammed Mustakim published a paper” Influence of binders, mix proportion and fabrication method on the characteristics of fly ash aggregate” in journal Advances in Civil and Architectural Engineering in the year 2023.
9. Subhakanta Dash, Itishree Mohanty, Rudra Prasanna Nayak Piyush Gupta, Saroj Barik Laxmidhar Panda published a paper” Cost-effective utilization of industrial fly ash waste in treatment of domestic wastewater” in Asian Journal of Water Environment and Pollution in the year 2023.