KRISTU JAYANTI
(DEEMED TO BE UNIVERSITY)
Under Section 3 of UGC Act 1956
A CMI INSTITUTION | BENGALURU | INDIA

Centre for Research & Development

Research Supervisor (Guide) Profiles
Discipline of Supervision: Physics

Dr. Mayank Pandey

Assistant Professor
Department of Physical Sciences
School of Computational & Physical Sciences

Areas of Specialisation:

Graphene Quantum Dots (GQD) Based Polymeric composites, 2D nanomaterial, Polymer nanocomposite,

Dr. Mayank is a material physicist and electronic researcher with an experimental background in synthesizing graphene quantum dot (GQD)–based polymeric composites, polymer nanocomposites, polymer composite/blend electrolytes, organic semiconductors, and organic solar cells, along with expertise in impedance spectroscopy analysis. His research focuses on the structural, optical, and electronic properties of materials, with a strong emphasis on developing new approaches in the field of nanocarbon derivatives. Active in research since 2013, He has published nearly 35 articles in reputed and high-impact journals, including ACS, IOP, Elsevier, Springer, Taylor & Francis, and Wiley. He completed his postdoctoral research in 2019 and has received several awards for his publications. During his career, he has achieved a citation score of 1,650 with an h-index of 17, reflecting the significant impact of his work in materials science and nanotechnology.

Selected Publications:

1. **Pandey, M**., Anju, C., Praveen, B. V. S., Dashan, A., Verma, R. K., and Ramezanzadeh, B. (2025). Fabrication, progress and future perspective of MXene/polymeric nano composites for electromagnetic shielding application – A review. Composites Part A: Applied Science and Manufacturing, 190, 108682. https://doi.org/10.1016/j.compositesa.2024.108682

2. **Pandey, M**., Nazar, R., Elella, M. H. A., Praharaj, S., Makhado, E., Rout, D., and Gilani, E. H. (2024). A Comprehensive Review of Recent Developments in Biomedical Materials Based on Graphene-Modified Bio-Nanocomposites. BioNanoScience, 15(1). https://doi.org/10.1007/s12668-024-01757-7

3. López-Maldonado, E. A., Abdellaoui, Y., Abu Elella, M. H., Abdallah, H. M., **Pandey, M**., Anthony, E. T., … Oladoja, N. A. (2024). Innovative biopolyelectrolytes-based technologies for wastewater treatment. International Journal of Biological Macromolecules, 273, 132895. https://doi.org/10.1016/j.ijbiomac.2024.132895