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. Vadhana Sharon V
Assistant Professor
Department of Physical Sciences
School of Computational & Physical Sciences

Areas of Specialisation:
Nanomaterials, Smart Materials ,
Bio-functional Materials, Solar Cells

Dr. Vadhana Sharon V is an Assistant Professor of Physics at Kristu Jayanti (Deemed-to-be) University, Bengaluru. Her research expertise spans solar cells, nanomaterials, nonlinear optical studies, crystallography, smart materials, magnetic and dielectric materials. Her recent work underscores contributions to advanced optical research, while her broader work integrates physics with materials science, nanotechnology, and bio-functional studies. She is a reviewer for reputed international journals, mentors students in strong physics-based projects on magnetism, dielectrics, and optics, while also encouraging cross-disciplinary explorations in nanomaterials, energy harvesting, and functional materials for biomedical and technological applications. Her guidance equips scholars to pursue innovative projects bridging fundamental physics with emerging frontiers in science and technology. She also convened the International Conference on Recent Trends in Materials Science (ICRTMS, 2023-2025), creating a platform for interdisciplinary dialogue.

Selected Publications:

1. **Vadhana Sharon, V.**, Maidur, S. R., Barthwal, S., Anandalli, M. H., Kalarikkal, N., Sayed, M. A., and Shkir, M. (2025). Structural, magnetic and nanosecond third-order nonlinear optical studies of C.papaya mediated Mn & Sn doped ZnO nanoparticles. Journal of Alloys and Compounds, 1038, 182882. https://doi.org/10.1016/j.jallcom.2025.182882

2. Mariadass, A. R., MK, A. H. K., Upadhya, M. S., **Sharon, V. V**, Maidur, S., Anandalli, M. H., … Devarajan, P. A. (2025). Investigation on third-order nonlinear optical properties, XRD, FTIR, energygap, photoluminescence and scanning electron microscope of metal oxide/V2O5/SrTio3. Journal of Materials Science: Materials in Electronics, 36(18). https://doi.org/10.1007/s10854-025-15165-4

3. Maidur, S. R., Ekbote, A. N., **Sharon, V. V.**, Rajkumar, M. A., Patil, P. S., Soma, V. R., … Shankar, M. K. (2025). An extensive investigation of structural, linear, and ultrafast third-order nonlinear optical properties of a novel trimethoxy anthracene chalcone: Experimental and DFT studies. Optical Materials, 159, 116531. https://doi.org/10.1016/j.optmat.2024.116531