



## Centre for Research & Development

### Research Supervisor (Guide) Profiles

#### Discipline of Supervision: **Biotechnology**



#### **Dr. Esther Shobha R**

Associate Professor  
Department of Life Sciences  
School of Biological and Forensic Sciences

#### **Areas of Specialisation:**

Microbial Fermentation, Protein Expression,  
Secondary metabolites, Bioremediation, Green energy

Dr. Esther Shoba R is presently working as an Associate Professor in the Department of Life Sciences at Kristu Jayanti (Deemed-to-be University), Bengaluru. She holds a Ph.D. in Biotechnology (Bangalore University, 2017) on the cloning and expression of the chitinase gene from *Helicoverpa armigera* in yeast. With over 20 years of teaching and research experience, she has guided more than 25 student projects, organized national conferences and workshops, and coordinated academic and research initiatives fostering academic excellence and collaborative research for societal benefit. She also holds a patent (2021) on IoT-based methods for improving plant traits and has co-authored a book (2025) titled *Foundations of Environmental Science: Concepts and Principles*. She has published over 15 research papers in reputed journals such as *Land Degradation & Development*, *Journal of Biopesticides*, *Current Trends in Biotechnology and Pharmacy*, and *Medicinal Plants*. She has presented research papers at more than 10 national and international conferences, contributing significantly to the advancement of Biotechnology and Environmental Science. She is an associate editor of the *Kristu Jayanti Journal of Core and Applied Biology* and a life member of the *Ethological Society of India*. Her research thrust lies in the fields of cloning, protein expression, bioremediation, and the evaluation of phytochemicals for medicinal and insecticidal properties.

#### **Selected Publications:**

1. **Esther Shoba R.** (2022). A Comparative Study on Toxicity of Recombinant Chitinase on A Polyphagous Pest, *Helicoverpa Armigera*. *International Journal of Life Science and Pharma Research*. <https://doi.org/10.22376/ijpbs/lpr.2020.10.4.150-59>
2. Saraswathi, S., **Shoba, E.**, ... Dhayalan, A. (2023). Overview of pest status, control strategies for *Spodoptera litura* (Fab.): A review. *Journal of Biopesticides*, 16(2), 159–178. <https://doi.org/10.57182/jbiopestic.16.2.159-178>
3. Thiyagarajulu, N., Yuvaraj, D., Gopinathan, P., Paramasivam, D., Rajkumar, M., **Shoba, E.**, ... Huang, Z. (2025). Assessment on Sustainable Biomining: Integrating Environmental Responsibility and Economic Viability. *Land Degradation & Development*. <https://doi.org/10.1002/ldr.70107>