



MADURAI KAMARAJ UNIVERSITY
SCHOOL OF BIOLOGICAL SCIENCES
DEPARTMENT OF MICROBIAL TECHNOLOGY



Hands-on Workshop on Training Microbial Polymers into Next Generational Therapeutic Materials

Sponsored by
STATE PROJECT DIRECTORATE
RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA)

Join us for an insightful workshop exploring the cutting-edge field of Microbial Metabolomics, with a special focus on Exopolysaccharides (EPS), Lipopolysaccharides (LPS), Extracellular Polymeric Matrix (EPM), and Biogenic Nanoparticle Synthesis. This session will delve into the molecular intricacies of microbial secretions and their role in health, biofilm formation, immune modulation, and nanotechnology.

Registration via google forms:
<https://forms.gle/CGV8jdRwLcLuDGgy7>

Date: 18 -22 August , 2025

Time : 10: 00 – 5:00 PM

Venue: C.V.R. Hall, SBS, MKU

Course Hours – 35 hrs (5 days)

Course Coordinator

Dr. V. Shanmugaiah

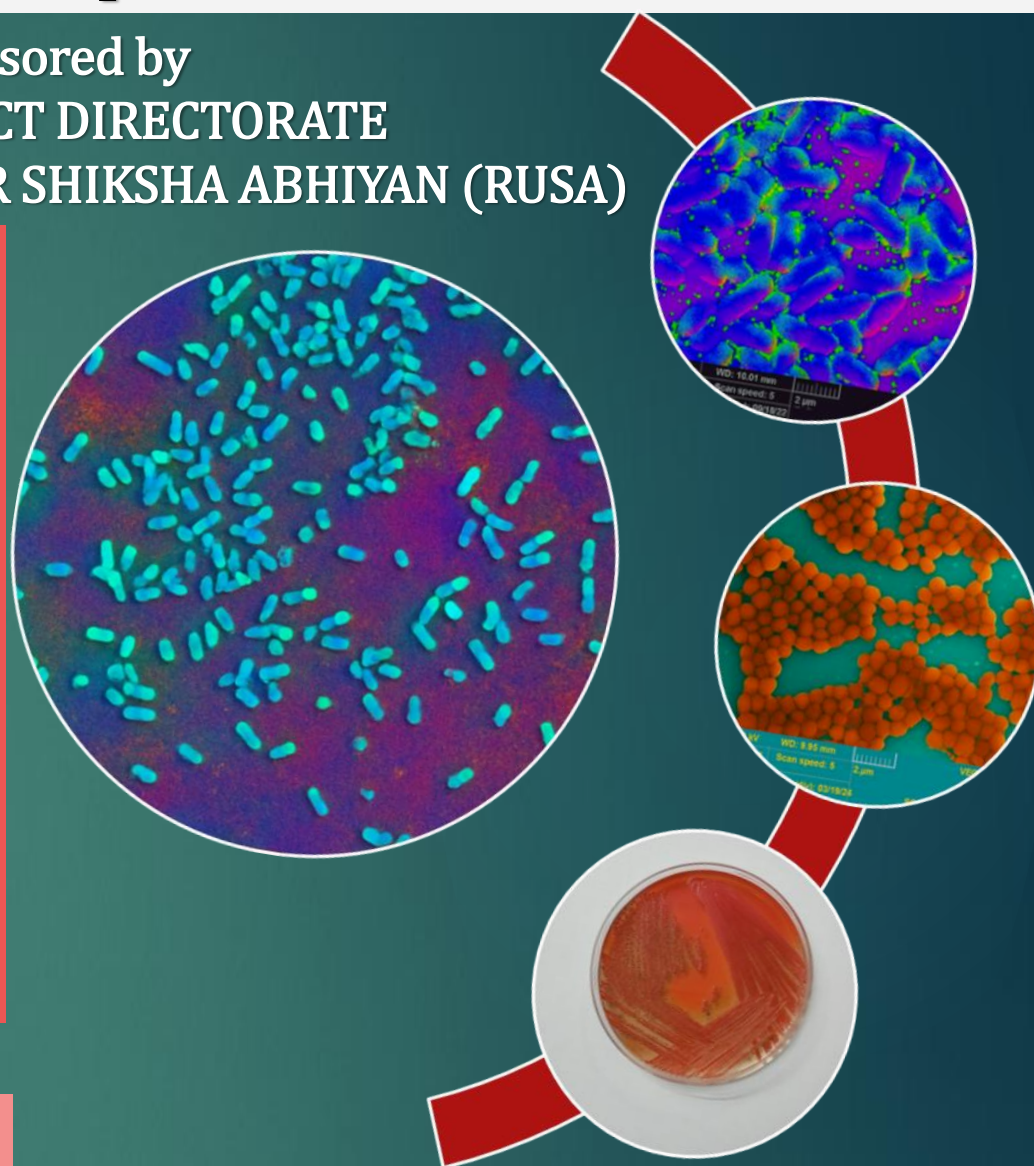
Assistant Professor

Department of Microbial Technology

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Insights

Participants will gain foundational knowledge and hands-on exposure to:

- ✓ Metabolomic techniques (NMR, LC-MS, GC-MS)
- ✓ Microbial polymer biosynthesis pathways
- ✓ Functional roles of EPS and LPS in microbial ecology and host interactions
- ✓ Biofilm matrix composition and its metabolomic profile
- ✓ Microbial-mediated synthesis of metal nanoparticles and associated metabolic shifts
- ✓ Drug-Microbe Interaction under Simulated GI Conditions