



MADRAS CHRISTIAN COLLEGE

(AUTONOMOUS)

CHENNAI - 600 059, INDIA

DEPARTMENT OF MICROBIOLOGY

MICROALGAL BIOTECHNOLOGY

INTERNSHIP IN

MICROALGAL CULTIVATION, PHYCOREMEDIATION AND BIOPROCESSING

26 MAY - 9 JUNE, 2025

OBJECTIVES

To impart hands-on training in

- Microalgal cultivation.
- Phycoremediation of sewage.
- Microalgal biomass processing.

Eligibility: I MSc and II MSc students from any Life Sciences stream

Intake: 20 students

Fee details: **Rs 5900** inclusive of GST
(Payment link provided in the registration form)

MODULES

MICROALGAL CULTURING

- Microalgae sampling (Environmental sampling) and culture conditions.
- Microalgal nutrient medium preparation.
- Microscopic examination, identification, cell counting and cell size measurement.
- Isolation, storage techniques and laboratory culturing of freshwater and marine microalgae

MICROALGAL REACTORS - CONSTRUCTION AND CULTIVATION

- Introduction to indoor and outdoor cultivation techniques in microalgal reactors.
- Construction of suspended microalgal cultivation and immobilized microalgal cultivation systems.
- Inoculum development, operation and maintenance of microalgal culture in photobioreactors (PBR), High-rate algal pond (HRAP), Immobilized algal biofilm reactor (IAB).

PHYCOREMEDIATION

- Collection of sample
- Phycoremediation of sewage
- Analysis of treatment efficiency and kinetics.
- Biomass generation from waste.

BIO-REFINERY

- Biomass harvesting techniques (centrifugation, filtration, scraping).
- Biomass estimation, yield and productivity calculations.
- Downstream processing - quantitative analysis and extraction of lipids and pigments.

Dr. P. Wilson

Principal & Secretary

Dr. V. Mahalakshmi

Head of the Department

Dr. P. Hanumantha Rao

Coordinator



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Register Now



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