

ALGAE BIOMASS RESEARCH LABORATORY

Algae Biomass research Laboratory is a sponsored research lab established in 2012 under the Department of Biotechnology, School of Agriculture and Bioscience with a vision to “Research on micro and macro algae”. Ongoing Research addresses the issues on water, energy, environment and health using algae. Algae (Micro or Macro) are capable of performing photosynthesis and produce half of the atmospheric oxygen and use simultaneously the green house gas carbon dioxide to grow photo autotrophically thereby reducing the carbon foot print. Microalgae are unicellular species, produce unique products like carotenoids, antioxidants, fatty acids, enzymes, polymers, peptides and toxins whereas macroalgae popularly known as sea weeds are multicellular, fast growing plants mainly utilised for the production of food and hydrocolloids. The lab is fully funded by external (both national and international) agencies and engages fully in research activities. The lab was initiated as an objective of collaborative research project by the Karunya Institute of Technology and Sciences of with W2E/BESI Inc., USA and the project focuses on “Factors affecting the Biomass Productivity in Microalgae”. Later the lab received the grants from DST – SERB, Govt. of India to research on Phycoremediation and production of high calorific biomass.

The research lab particularly focuses on biotechnology based production of value added products by means of cost effective and energy efficient process. Projects by DST, DBT, NTRF and UGC enhanced the capacity of the lab by equipping with sophisticated equipments that cater to the Research and Development initiatives and training to research scholars, undergraduate and post graduate students and IAESTE interns. The lab is equipped with major instruments like Algae growth Chamber, thermalcycler (PCR), Microscope with documentation systems, deep freezer and the facilities are available to carry out research work in the interdisciplinary areas of algal biotechnology.

The ultimate aim of Algae Biomass Research team is to bring in a centre of excellence to carry out innovative product/process based R&D in Algae research.