



SENGAMALA THAYAAR EDUCATIONAL TRUSTWOMEN'S COLLEGE (AUTONOMOUS)

(Accredited by NAAC)/ (An ISO 9001:2015 Certified Institution)

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PG AND RESEARCH DEPARTMENT OF MICROBIOLOGY

REPORT OF FIVE DAY FREE SUMMER TRAINING PROGRAMME ON BIOINSTRUMENTATION

PG and Research Department of Microbiology and Biominin laboratories jointly organized five day Free Summer Training Programme on Bioinstrumentation from 20.05.2024 to 24.05.2024. Skills in scientific methods are needed to update adequately in learning process. Skills in scientific methods are the important requisite to do innovative research. By the words of Albert Einstein, “ The more you learn the more you realise how much you don't know” and any one who has never made a mistake has never tried anything new” thus this training programme gives a learning platform, Our college has a Centralized Instrumentation Facility providing us with well equipped laboratory facilities not only for the benefit of our students only. He extended his thought process of empowering women to outside of our campus also.

In this five day programme, students from various colleges such as Bharathidasan University, Tiruchirappalli, ES College of Paramedical Science, Vizhupuram, Meenatchi Chandrasekaran College, Pattukkottai, Govt Arts and Science College, Orathanadu, MRG College, Mannargudi were participated enthusiastically even with this poor climatic conditions. Totally 59 students were benefitted. In the first day, Molecular and immunological techniques were demonstrated to understand the antigen , antibody reactions, DNA isolation, visualization of DNA by agarose gel electrophoresis. In the second day hands on training was conducted to evaluate the blood parameters, analysis of biomolecules using special instruments. In third day, pharmacognostic and analytical studies were conducted to demonstrate the plant anatomical characteristics, nutraceutical value of food. Students were prepared the herbal extracts and carried out Paper and Thin layer chromatography for the separation of phytochemical compounds.

In the fourth day, polymerase Chain Reactions was performed using Thermal Cycler. Principle and instrumentation of Atomic Absorption Spectrophotometer were clearly explained and Micro nutrients concentrations were determined using AAS. Staining and Microscopic techniques were demonstrated using BX 51 and Camera lucida. Principle and working operations of gas chromatography and HPLC also demonstrated. In Fifth day, Start Up ideas were given for various Microbial Products development and formulation to promote the entrepreneurship among the students. All the students were actively participated and interacted in each technical session. Certificate were provided to the candidates on successful completion of the training at the end of the programme.