



SOUTH KONKAN EDUCATION SOCIETY'S

GOVINDRAM SEKSARIA SCIENCE COLLEGE

TILAKWADI, BELAGAVI – 590006

DEPARTMENT OF BIOCHEMISTRY

TWO-DAY EDUCATIONAL TOUR TO CSIR- NATIONAL INSTITUTE OF OCEANOGRAPHY, DONA PAULA, GOA AND GOA UNIVERSITY, GOA ON 21st and 22nd March, 2024

This report is a summary of two-day educational tour to CSIR- National Institute of Oceanography, Dona Paula, Goa and Goa University, Goa that was arranged by the Department of Biochemistry, GSS College, Belagavi. The visit took place on 21st and 22nd March 2024. The purpose of the visit was to acquire foundational understanding and basic knowledge about the research and gaining exposure of various instrumentations and setup of Analytical, Microbiological, Cell Culture, Molecular Biology and Bioinformatics laboratories of National Institute and Goa University so as to become more integrated into scientific world. The tour team was headed by Dr. Varsha Jayakar, Coordinator and Assistant Professor, Department of Biochemistry and Dr. Vinayak Lokapur, Assistant Professor, Department of Biochemistry and comprised of Twenty-four students of 1st and 2nd year MSc Biochemistry program and an attender of the department.

The initial phase of the visit to CSIR- National Institute of Oceanography, Dona Paula, Goa started with the museum, where old marine sail instruments and ancient artifacts excavated from the deep ocean floors of the Goan coast were displayed to explain. The Scientist team from the institute explained the theme, mandate, targets, specialized instruments, and their specific focus on research on coral reefs and other diversified research areas. The students were taken to the specialized laboratories of various departments such as Bioorganic Chemistry department, Molecular Biology department, and Chemistry department where Scientists team and Research scholars explained analytical and molecular biology techniques like Polymerase Chain Reaction (PCR) and Reverse Transcriptase Polymerase Chain Reaction (RT-PCR), column chromatography, High Performance Liquid Chromatography (HPLC), Rotary Vapor, Gas Chromatography (GC), Fourier Transform Infra-Red Spectroscopy (FTIR), Nuclear

Magnetic Resonance (NMR), Ultra Violet (UV) cabinet, Ultra Violet spectrophotometer etc. We would like to thank Ms. Komal for guiding us throughout the visit to CSIR-NIO. The day-1 visit ended at Calangute beach watching sunset and relaxing after a successful visit to CSIR-NIO, Goa.

The second part of the visit started with Botany department of Goa University. Dr. Aditi Naik welcomed the 1st and 2nd year MSc Biochemistry students and faculty team and the students were taken to the various laboratories where faculty and research scholars briefed us about the ongoing research in the department. Apart from Botany department, students also got the opportunity to visit other departments like Biotechnology, Microbiology and Optical departments where students were exposed to simple microscope, compound microscope, scanning electron microscope (SEM), transmission electron microscope (TEM), fluorescence microscope etc. Faculty of Optical Department demonstrated the spinal cord of frog under the scanning electron microscope. Research scholars of Microbiology and biotechnology briefed students about the research facilities like animal cell culture lab, Plant tissue culture lab, and demonstrated various types of culture media, media preparation, pouring media, streaking techniques and various analytical instruments like Ultra Violet Spectrophotometer, Fluorescence Spectrophotometer, Infra-Red Spectrophotometer, Colorimeter, Gas Chromatography, High Performance Thin Layer Chromatography (HPTLC), High Performance Liquid Chromatography (HPLC), Fourier Transform Infrared Spectroscopy (FTIR), Centrifuge, Ultra Violet Cabinet, Electrophoresis, Enzyme Linked Immuno-Sorbent Assay (ELISA), Nuclear Magnetic Resonance (NMR), Mass spectrophotometer and Blotting Techniques. The day ended by visiting old Goa Church and Archaeological Museum of Goa.

This institutional visit organized by the department has allowed the students not only broadened the academic horizons but also inspired them to explore new avenues in scientific research and innovation and encouraged them to use the opportunity for their future career.



Students and Faculty team at Goa



1st and 2nd year MSc Biochemistry students and faculty team at CSIR-NIO, Dona Paula, Goa



1st and 2nd year MSc Biochemistry students and faculty team at CSIR-NIO, Dona Paula, Goa



Students observing old marine sail instruments and ancient artifacts excavated from the deep ocean floors of the Goan coast at CSIR-NIO museum, Dona Paula, Goa



Faculty and students were welcomed by scientists and research scholars of Bioorganic chemistry, Molecular Biology and Chemistry chemistry department, CSIR-NIO, Dona Paula, Goa



Students interacting with scientist of Analytical chemistry department, CSIR-NIO, Dona Paula, Goa



Students interacting with Research scholar, Ms. Komala from Bioorganic chemistry department, CSIR-NIO, Dona Paula, Goa



1st and 2nd year MSc Biochemistry students and Faculty team at Science Block, Goa University



Students interacting with the faculty of Botany Department, Goa University



Students discussing with research scholars and faculties of Microbiology Department, Goa University



Students discussing with research scholars and faculties of Biotechnology Department, Goa University



Students and Faculty team at Archaeological Museum, Goa



Students and Faculty team at Old Goa Church, Goa



Students and Faculty team at Calangute beach, Goa



Students enjoying sunset at Calangute beach, Goa