

## Report

### **Winter School on “Analytical Tools in Seafood Quality Management and Risk Assessment”**

**08-28 January 2025, ICAR-CIFE, Mumbai**

The Fish Processing Technology Department of ICAR-CIFE, Mumbai conducted the ICAR-sponsored 21 days' Winter School training programme on “**Analytical Tools in Seafood Quality Management and Risk Assessment**” during 08 to 28 January, 2025. This winter school program was designed to acquaint the participants with the advanced techniques used in microbiological and biochemical seafood quality analyses.. In total,13 trainees participated in this hands-on training programme, comprising of assistant professors and scientists from various state agricultural universities and research institutes in Jammu and Kashmir, Assam, Tamil Nadu, and Maharashtra.

The Winter school programme aimed to enhance the research and analytical abilities of the researchers involved in food quality analysis. The topics covered in the training included theory and practical classes on microbiological risk assessment, traceability, microbiological and biochemical spoilage indicators of seafood, pathogen isolation techniques, HPLC, molecular techniques such as PCR and RT-PCR, bacteriophage-based control of seafood pathogens, AMR, emerging seafood-associated pathogens, DNA barcoding and species authenticity, microbiome and metagenomic studies, safety of packaging materials, whole genome sequencing etc.

The invited speakers included Prof. Iddya Karunasagar, Senior International Food Safety Consultant (FAO); Prof. Indrani Karunasagar, Director (Projects & DST-TEC), Nitte University, Mangalore; Dr. L. Narasimha Murthy, Principal Scientist, ICAR-CIFT, Mumbai; Dr. Rabi Narayan Sahoo, Principal Scientist, ICAR-IARI, New Delhi, Dr. A. K. Balange, Principal Scientist & Head, ICAR-IARI, Assam, Dr. K.V. Rajendran, Former Principal Scientist & HoD, ICAR-CIFE, Mumbai and Dr. Parvathi A, Professor & Head, Department of Marine Biology, CUSAT, Kochi. The lectures on each topic were followed by the practical sessions.

Field visits were arranged to fish landing centre, FSSAI-National Food Laboratory, Uran; Bhabha Atomic Research Center (BARC), Chembur and the seafood processing facilities at Naik Frozen Foods, Taloja, Navi Mumbai where the participants were exposed to state-of-the-art food testing infrastructure, food irradiation facilities, nuclear reactors, and quality control procedures, low temperature preservation and packaging of seafood and various types of seafood products meant for export market.

The training program received very high positive feedback from the participants, highlighting the relevance and effectiveness of the program. The programme was organized by Dr. B. B. Nayak, HoD as the Course Director and Dr. Sanath Kumar, Principal Scientist and Dr. Manjusha L, Senior Scientist as Course Coordinators.

