

**TRAINING WORKSHOP ON**  
**“MOLECULAR TAXONOMY AND DNA**  
**BARCODING OF MARINE**  
**ICHTHYOFAUNA”**

**21-25, October 2024**



**Cochin University of Science and Technology**

**IN ASSOCIATION WITH**



**MARIGENOME**  
GROWING SCIENTIFIC CULTURE

**MARIGENOME MATSYASEVANAKENDRA**



## DEPARTMENT OF MARINE BIOLOGY, MICROBIOLOGY AND BIOCHEMISTRY, COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

ESTABLISHED IN 1938 AS AN OCEANOGRAPHIC LABORATORY OF TRAVANCORE UNIVERSITY, THE DEPARTMENT OF MARINE BIOLOGY, MICROBIOLOGY AND BIOCHEMISTRY IS THE OLDEST IN COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY, KERALA, UNDER THE SCHOOL OF MARINE SCIENCE. THE DEPARTMENT FOCUSES ON MARINE BIODIVERSITY, ECOLOGY, COMMUNITY DYNAMICS, MICROBIOLOGY, BIOCHEMISTRY, AQUACULTURE AND FISHERY BIOLOGY. KEY AREAS INCLUDE PLANKTONOLOGY, FISH TAXONOMY, MICROBIAL QUALITY OF FISH PRODUCTS, MARINE YEAST AS PROTEIN IN AQUACULTURE, PROBIOTICS, FISH VACCINE, MARINE NATURAL PRODUCTS, PROTEASES FOR INDUSTRIAL USE, GENOMICS, ALGAL CULTURE etc.

### ABOUT THE PROGRAM

INDIA HOSTS ONE OF THE WORLD'S MOST DIVERSE AQUATIC ECOSYSTEMS, WITH OVER 7500 KM OF COASTLINE, RIVERS, LAKES AND WETLANDS THAT SUPPORT A RICH VARIETY OF SPECIES, INCLUDING FISH, CTUSTACEANS, MOLLUSCS AND AQUATIC PLANTS. ACCURATE SPECIES IDENTIFICATION THROUGH MODERN TAXONOMIC TOOLS INCLUDING MOLECULAR METHODS IS CRUCIAL FOR CONSERVATION, AQUACULTURE AND FISHERIES MANAGEMENT. THE INETGRATION OF DNA BARCODING WITH TRADITIONAL FISH TAXONOMY OFFERS A COMPREHENSIVE UNDERSTANDING OF FISH DIVERSITY, BENEFITING CONSERVATION STRATEGIES AND SUSTAINABLE FISHERIES, THIS TRAINING PROGRAM AIMS TO ENHANCE PARTICIPANTS SKILLS IN CLASSICAL FISH TAXONOMY AND DNA BARCODING FOR BETTER IDENTIFICATION OF FISH SPECIES. IT EMPHASIZES THE PRACTICAL APPLICATIONS OF MOLECULAR TOOLS IN MONITORING FISH POPULATIONS AND UNDERSCORES THE IMPORTANCE OF BIODIVERSITY CONSERVATION FOR SUSTAINABLE MANAGEMENT.



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## TRAINING SCHEDULE

### DAY 1 (21/10/2024)

INTRODUCTION TO FISH TAXONOMY-TALK

FIELD VISIT FOR SAMPLING

LAB: PRESERVATION AND MEASUREMENTS OF SPECIMENS

### DAY 2 (22/10/2024)

INTRODUCTION TO IDENTIFICATION KEYS-TALK

LAB: IDENTIFICATION OF SPECIES USING KEYS

FIELD VISIT - FISH MARKET/ FISH LANDING CENTRE

FIELD IDENTIFICATION OF FISHERY RESOURCES

- DISCUSSION

### DAY 3 (23/10/2024)

INTRODUCTION TO BARCODING OF FISHES-TALK

LAB: INTRODUCTION TO LAB SAFETY PROTOCOLS

LAB: DNA ISOLATION AND PCR

### DAY 4 (24/10/2024)

MOLECULAR TAXONOMY-TALK

BIOINFORMATICS IN FISH TAXONOMY-TALK

LAB: DNA ISOLATION AND PCR

### DAY 5 (25/10/2024)

INTRODUCTION TO SEQUENCE ANALYSIS-TALK

SEQUENCE ANALYSIS

PHYLOGENETIC ANALYSIS



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## **COURSE COORDINATOR**

DR. S. VENU

ASSOCIATE PROFESSOR, DMMB, CUSAT

EMAIL: s.venu1974@cusat.ac.in

Mob: +91-9933256866, 7063953206

## **JOINT COORDINATOR**

PROF. (Dr.) T. P. SAJEEVAN

PROFESSOR & HEAD, DMMB, CUSAT

## **CO-COORDINATORS**

MS. AMRITHA T. (JRF, DMMB)

MR. VISHNU PRASAD (JRF, DMMB)

MR. ARJUN B. CHANDRAN (JRF, DMMB)

## **MEMBERS**

PROF. (DR.) A. A. MOHAMED HATHA  
(SENIOR PROF. & DIRECTOR, SMS, CUSAT)

DR. PREETHAM ELUMALAI  
(ASSOC. PROF. DMMB, CUSAT)

DR. SWAPNA P. ANTONY  
(ASST. PROF., DMMB, CUSAT)

DR. PRIYAJA P.  
(ASST. PROF., DMMB, CUSAT)

DR. K. B. PADMAKUMAR  
(ASST. PROF., DMMB, CUSAT)

DR. LATHA CICILY THOMAS  
(ASST. PROF., DMMB, CUSAT)

DR. CHAITHANYA E. R.  
(ASST. PROF., DMMB, CUSAT)



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## REGISTRATION DETAILS



**REGISTRATION FEES: 5000/-**

**SCAN QR CODE**

**BANK ACCOUNT DETAILS**

**BANK A/C NO: 57030108257**

**IFSC CODE: SBIN0008614**

**BANK & BRANCH: SBI, BROADWAY**

**A/C NAME: THE HEAD, DEPARTMENT OF  
MARINE BIOLOGY, MICROBIOLOGY AND  
BIOCHEMISTRY**

**Contact (+91)9933256866 or  
7063953206 for queries**

**ACCOMODATION WILL NOT BE PROVIDED  
TO THE PARTICIPANTS**



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