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(AUTONOMOUS)
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Recognized under section 2(f) and 12(B) of the UGC Act 1956
Accredited By NAAC with 'A' GRADE (CGPA of 3.24/4 - IInd Cycle)
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PG & Research Department of Microbiology

Association Activities (Academic Year 2025–2026

About the Association:

The Department of Microbiology aims to create a centre of academic excellence in education and research. In addition to academic pursuits, the department is committed to fostering social responsibility among students. To promote this commitment, various awareness programmes were conducted during the academic year.

Objectives

- To produce graduates who are scientifically equipped and capable of translating scientific knowledge into technologies that address societal needs in diverse fields such as healthcare, environment, biotechnology, food industry, and agriculture.
- To help students develop essential skills, enabling them to teach in schools, lecture at universities, or engage in research at academic and industrial research institutes.
- To provide skilled manpower that can contribute positively to various sectors where microbiologists are in demand.

Members of Association:

Dr. D.Manikandan	**Coordinator**
Dr. A.M. Rajalakshmi	Member
Prof. M. Sakthivel	Member
Dr. N. Sundaramoorthy	Member
Dr. S. Dinesh kumar	Member
Dr. D. Sudha	Member
Dr. P. Jeevitha	Member

Fresher’s Day Celebration:

The PG and Research Department of Microbiology proudly hosted the Fresher’s Day celebration on 1st August 2025 (Friday) from 2:00 p.m. to 4:00 p.m., extending a warm welcome to the first-year Microbiology students.

The event commenced with the welcome address delivered by Ms. S. Malathi, a II M.Sc. Microbiology student. This was followed by the presidential address by our respected Principal, Dr. C. Dhandapani, who shared inspiring words with the gathering. The inaugural address was delivered by Dr. D. Manikandan, marking the official opening of the celebration.

The afternoon was filled with enthusiasm and joy, as around 177 students actively participated in the event. The celebration concluded with the vote of thanks proposed by the juniors to the seniors, expressing gratitude for their warm reception and guidance.


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3/48, Periyar Nagar, Ammanankuppam, Gudiyatham, Tamil Nadu 635803, India
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Freshers day DEPARTMENT OF MICROBIOLOGY
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K.M.G
Freshers Day celebration, PG AND RESEARCH DEPARTMENT OF MICROBIOLOGY (AUTONOMOUS),
01 Aug, 25, 3.45pm, Friday
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Freshers Day celebration, PG AND RESEARCH DEPARTMENT OF MICROBIOLOGY (AUTONOMOUS),
01 Aug, 25, 3.45pm, Friday
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Industrial Visit

Department of Microbiology – PG & UG Students

ICAR – Central Institute of Fisheries Technology (CIFT), Cochin

Date of Visit: 08-09-2025

As part of the postgraduate curriculum and practical training in microbiology, the Department of Microbiology organized an **industrial visit** to the **ICAR – Central Institute of Fisheries Technology (CIFT), Cochin** on **08-09-2025**. The primary goal of the visit was to provide students with hands-on exposure to microbial practices in the fisheries and seafood industry. This visit aimed to strengthen the theoretical knowledge gained in classrooms by observing applied microbiology in seafood processing, hygiene control, preservation methods, and product development.

CIFT is a premier institute under the Indian Council of Agricultural Research (ICAR) dedicated to research, technology development, and extension in the field of fisheries, including microbiological quality control and safety measures in seafood products.

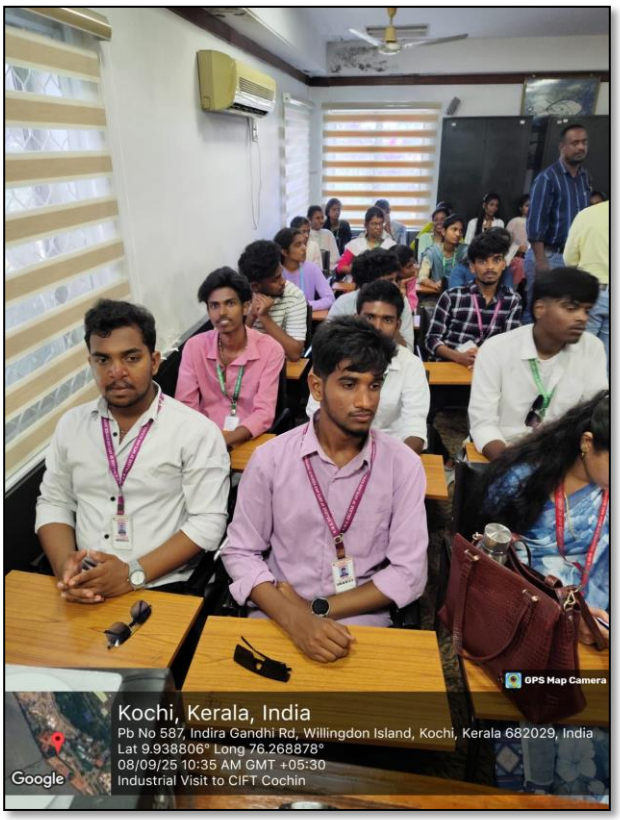
Objectives of the Visit

The visit was planned with the following objectives:

1. To gain practical knowledge of microbial contamination in fisheries and seafood products.
2. To understand various microbiological techniques used for testing, monitoring, and ensuring product safety.
3. To study preservation methods such as freezing, drying, fermentation, and chemical treatments that prevents microbial spoilage.
4. To observe laboratory protocols for microbial isolation, enumeration, and pathogen detection.
5. To learn about Good Manufacturing Practices (GMP), hygiene management, and safety standards followed in the industry.
6. To provide students with exposure to industrial workflows, processes, and challenges related to microbiology in fisheries.

Participants

The visit was attended by **54 UG and PG Microbiology students**, along with **4 faculty members** from the Department of Microbiology. The students were divided into smaller groups to facilitate interaction and practical demonstrations in the laboratories and processing units.



Laboratory Visit

During the laboratory visit, students observed several microbiological processes that are critical for seafood safety:

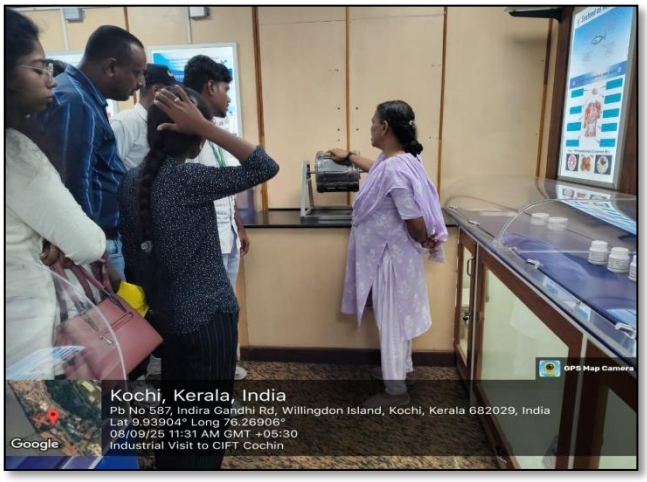
- **Microbial Load Testing** – Standard plate count methods were demonstrated to assess the total microbial population in seafood samples.
- **Pathogen Detection** – Identification techniques such as selective media preparation and staining methods for pathogens like *Vibrio* spp., *Salmonella*, and *Listeria* were explained.

- **Water Quality Analysis** – Parameters such as pH, dissolved oxygen, and microbial contamination in water used for processing were analyzed.
- **Antimicrobial Sensitivity Tests** – Methods for determining the effectiveness of preservatives and chemicals were discussed.
- **Spoilage Microorganisms** – The role of microbes such as *Pseudomonas* and *Shewanella* in fish spoilage was explained.

Students were encouraged to handle instruments like autoclaves, laminar flow units, and microbial culture chambers under supervision.

Students visited different industrial setups where the following preservation and processing methods were observed:

- **Freezing and Cold Storage** – Use of controlled temperatures to reduce microbial activity.
- **Fish Drying Techniques** – Microbial hazards in dried fish and the importance of proper moisture content were discussed.
- **Fermentation Processes** – Preparation of fermented seafood products like fish pickles and the role of lactic acid bacteria were explained.
- **Packaging** – Techniques such as vacuum packing and modified atmosphere packaging (MAP) to extend shelf life were showcased.
- **Hygiene Control** – The use of sanitizers, cleaning schedules, and GMP protocols in the production environment.



Interactive Session with Scientists

The scientists addressed several important topics:

- Challenges in controlling microbial growth during handling, storage, and transportation.
- Advances in detection methods such as molecular diagnostics.
- Use of natural preservatives and probiotics in enhancing seafood safety.
- Regulatory compliance required for exports.
- Research areas for students, including marine microbiology and food biotechnology.

Students were encouraged to ask questions and engage in discussions about current trends in seafood microbiology.

Student Reflections

Students expressed that the visit was highly informative and broadened their understanding of how microbiology is applied in real-world industries. They appreciated the opportunity to interact with experienced scientists and learn about innovative technologies used in food safety. Many students highlighted the importance of microbial control in seafood, which they had previously studied only in theory.

A few students mentioned that the visit inspired them to pursue careers in food microbiology and marine biotechnology. The exposure to laboratory protocols and industrial challenges also helped them gain clarity on how research and industry work hand in hand.

Conclusion

The industrial visit to ICAR – CIFT, Cochin provided PG Microbiology students with valuable insights into the practical applications of microbiology in the fisheries sector. The combination of laboratory demonstrations, industry walkthroughs, and interactive sessions contributed to a deeper understanding of microbial safety, preservation techniques, and hygiene management in seafood processing.

The visit successfully met its objectives and strengthened students' interest in applied microbiology, research, and industrial career paths. It also fostered a spirit of inquiry and practical learning that will benefit them in their academic and professional endeavors.

Acknowledgements

We extend our heartfelt gratitude to the Director, scientists, and technical staff of **ICAR – CIFT, Cochin** for their warm hospitality and for sharing their expertise. We also thank the faculty of the Department of Microbiology for organizing the visit and supporting students throughout the event.

ONE DAY NATIONAL SEMINAR:

The PG and Research Department of Microbiology organized a One Day National seminar on Recent Trends in Microbiology-RTM 2025 “Microbial Innovations in Pharma Bridging Academia and Industry” on 16.09.2024. Dr. D. Manikandan Head, PG & Research Department of Microbiology has given welcome address. Our Principal Dr. C. Dhandapani inaugurated the Conference. The session I Dr. Ranjith Kumavath, Associate Professor, Department of Biotechnology, School of Life Sciences, Pondicherry University was the resource person and he gave a lecture on “Anthropogenic Footprints of the Resistome: Insights from Indian Mangrove Microbiomes”. In session II Dr. Pragasam Viswanathan, Professor Higher Academic Grade , Principal Investigator, Renal Research Lab, School of Bioscience and Technology, Vellore Institute of Technology was the resource person and he gave a lecture on “Microbiome Disruption and Non-Communicable Diseases: From Bench to Bedside”. About 400 students, 02 Scholar and 13 faculty members were participated from various colleges to the seminar. From various college students were presented the poster and won the prizes.

STUDENTS PRIZE WINNERS DETAIL:

S.No	Name of the student	Class	Name of the College	Winner
1. 2.	M.Monika B.Kaviya	III B.Sc., Microbiology	K.M.G College of Arts and Science, Gudiyattam	3rd Prize

COMPOSTING PROCESS

The PG & Research Department of Microbiology for the purpose of compost processing collection. Our department collecting the kitchen wastes materials from canteen and making the compost process during the academic year 2025-2026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