

# ICAR-CIFT Training Calendar

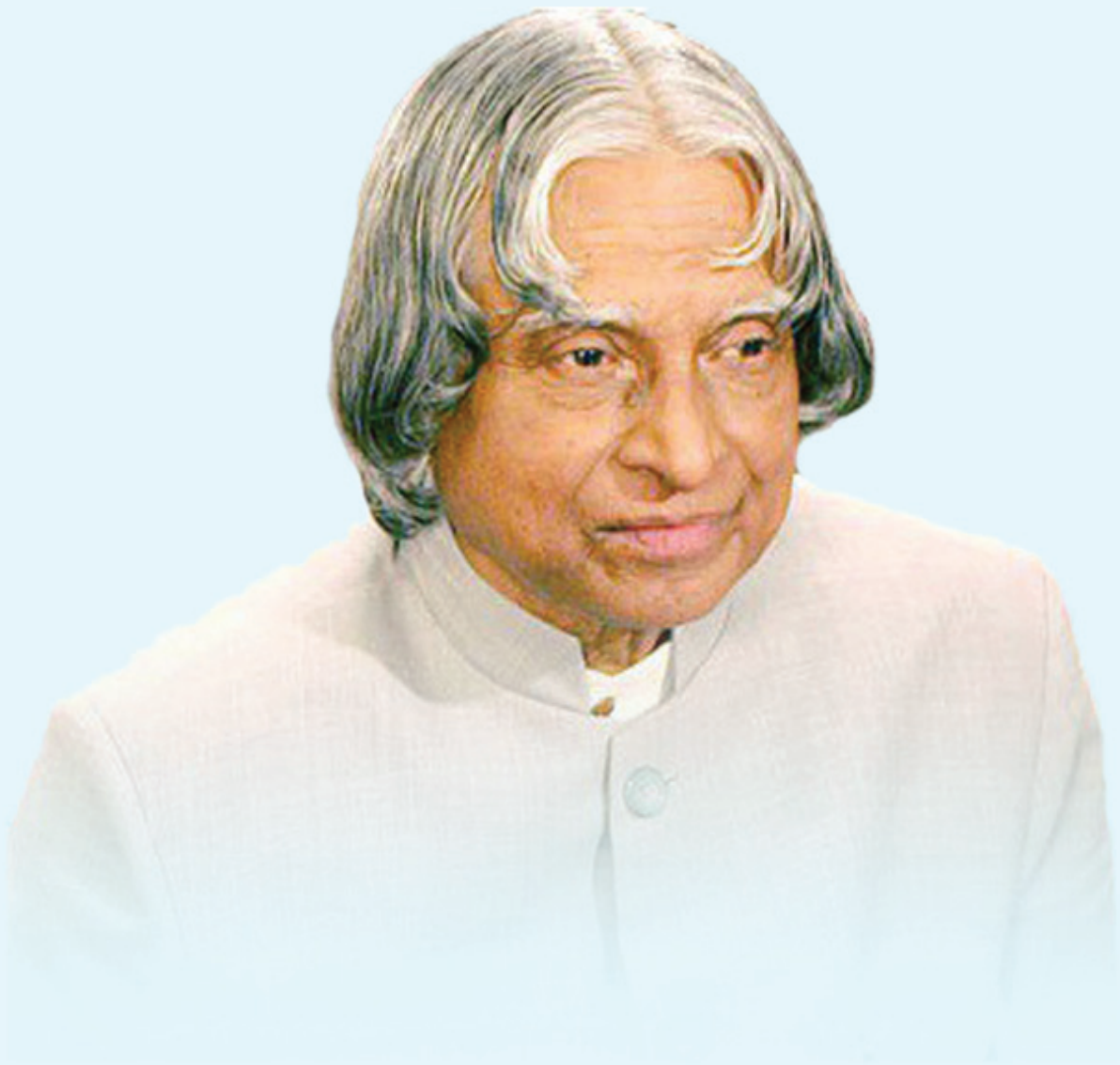


**भाकृअनुप - केन्द्रीय मात्स्यिकी प्रौद्योगिकी संस्थान**  
**ICAR - CENTRAL INSTITUTE OF FISHERIES TECHNOLOGY**

**(भारतीय कृषि अनुसंधान परिषद, कृषि मंत्रालय, भारत सरकार)**  
**(Indian Council of Agricultural Research, Ministry of Agriculture, Govt. of India)**



सिफ्ट जंक्शन, विल्लिंगडन आईलैंड, मत्स्यपुरी पी.ओ., कोच्चिन -682 029  
CIFT Junction, Willingdon Island, Matsyapuri P O, Cochin-682 029  
(ISO/IEC 17025: 2005 Accredited & ISO 9001: 2015 Certified)



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Fishermen China  
7/21 & 22/3  
6/6/2010

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Correct citation

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## Foreword

Greetings from ICAR - Central Institute of Fisheries Technology (CIFT)!

ICAR - Central Institute of Fisheries Technology (ICAR - CIFT) Cochin, Kerala is the premier technology Institute in India that caters to the entire spectrum of fisheries from harvest to post-harvest operations. ICAR-CIFT has been in the service of the nation since 1957 under the aegis of Indian Council of Agricultural Research (ICAR), New Delhi. On the human resource development front, the Institute continues to offer its technical expertise and advice in the areas of fishing, fish processing, quality management, food safety, nutraceutical development etc. on a continuously evolving basis. The Institute provides regular, comprehensive, specialized and certificate training programmes on responsible fishing, fish processing, value addition, packaging, food safety issues and quality management for the benefit of researchers, prospective entrepreneurs, industry personnel, extension professional, students alike and also conducts International training programmes like FTF-ITT programme under USAID, ITEC training programmes under MEA, GOI, Afro-Asean training programmes and SAARC regional training programmes. The infrastructural facilities for the training include craft and gear laboratory, research vessels, NABL accredited laboratories, FSSAI accredited national level referral/reference laboratory for fish and fishery products, pre and post-processing pilot plant for value added fish products development and AV-aided well equipped class rooms. The Institute also has an Agri-Business Incubation Centre to promote business incubation activities and startup ventures in post-harvest fishery technologies.

In this training calendar; course content, duration, eligibility and other details of regular, comprehensive, specialized and certificate training programmes of ICAR-CIFT has been depicted in a comprehensive manner, which will be useful for upscaling knowledge and skill of stakeholders in relevant areas. I urge the active participation and support of different categories of clientele in various programmes by utilizing the facilities available at this institute.

**(Ravishankar C.N.)**  
Director





## Introduction

ICAR-Central Institute of Fisheries Technology (CIFT), a pioneer research institute under the aegis of Indian Council of Agricultural Research (ICAR) has been playing a pivotal role in pursuing its research and extension activities in harvesting and post harvesting sectors in fisheries during its fruitful existence since last six decades. The institute has been instrumental in modernizing the fishing and fish processing sectors in the country from the time of its inception on 29<sup>th</sup> April, 1957 and continues to impart technological support to a broad spectrum of stakeholders comprising of fisher folk, students, extension professionals, seafood industries, fish entrepreneurs, faculties and scientists through well designed skill-oriented training programmes.

The major activities of the institute centers around evolving innovative and cost-effective technologies for fish harvesting, development and standardization of different post-harvest practices, techniques for extraction of biomedical, pharmaceutical and industrial products from aquatic organisms, biotechnological approaches for developing disease diagnostic tools; quality management and maintaining food safety standards; design and development of engineering equipments/tools for harvesting and storage and at the end transfer of technologies to end users through training, education and extension programmes with the involvement of highly qualified and experienced scientists from seven different divisions viz., Fishing Technology, Fish Processing, Biochemistry and Nutrition, Microbiology Fermentation and Biotechnology, Quality Assurance and Management, Engineering and Extension, Information and Statistics Divisions.

ICAR-CIFT organizes regular and *adhoc* training courses for various categories of stakeholders in different aspects of harvest and post-harvest fisheries. Besides, customized training programmes are also organized on the basis of request from different organizations depending upon the needs and problems of the client. In addition, ICAR-CIFT also conducts some tailor-made courses like comprehensive training programmes, specialized training programmes and certified courses for different type of stakeholders. Details of the training programmes have been depicted under different heads including titles, duration, eligibility for participation, number of participants required, course content along with the name of the course directors/coordinators.

## Regular training programmes

Title of the Programme	Duration	No. of participants	Eligibility	Course Director/ Course Coordinator
<b>(1) FISHING TECHNOLOGY</b>				
<b>1.1. Advances in fishing technologies</b>	10 days	15-25 per batch	Department officials, Faculties of Fisheries Colleges, Scientists of Research Institutes, SMSs of KVKs	Dr. Leela Edwin, Dr. Saly N. Thomas Dr. K.M. Sandhya
<b>Course content:</b> <i>Advancements in craft and gear materials and their protection measures, major commercial fishing systems, fishing vessel design, resource conservation and energy optimization measures in fishing systems, remote sensing and GIS application, modern acoustic and electronic equipment for fish detection and fishing gear operation</i>				
<b>1.2. Design of fishing vessels and registration procedures</b>	6 days	5 per batch	Students with Post Graduation in Fisheries/ Graduate in Naval Architecture/ Faculties of Fisheries College/Scientists of Research Institutes/ Government department Officials	Shri. M.V. Baiju Shri. Paras Nath Jha
<b>Course content:</b> <i>Type of fishing vessels, Deck arrangement onboard, Cooling/refrigeration onboard fishing vessels, Hydraulic winch for trawling, long lining and gill netting, Construction method based on different materials and Measurement of length of vessels</i>				
<b>1.3. Basics of Fishing Technology</b>	5 days	20-25 per batch	Officials with Bachelor Degree in Science with experience in marine capture fisheries	Dr. Saly N. Thomas Dr. M.P. Ramesan
<b>Course content:</b> <i>Craft and gear materials, Major fishing systems: Design and operation, Practical sessions to familiarize with fishing materials/fishing gears/fishing vessel, Fishing gear classification, Materials used in the modern fishing gears, Classification of fishing craft, Materials used for fishing craft and Selectivity of Fishing Gears-overview, Eco-friendly fishing practices, Bycatch Reduction Technologies and Fuel use in fisheries</i>				
<b>1.4. By catch and juvenile reduction technology for responsible fishing</b>	7 days	15-25 per batch	Officials with Bachelor's Degree in Science with experience in marine capture fisheries	Dr. V.R. Madhu Shri. R.K. Renjith
<b>Course content:</b> <i>Fishing gear selectivity in general, Selectivity in trawls with reference to conservation, Selectivity of Fishing Gears-overview, Eco-friendly fishing practices and fuel saving, Design aspect of different selective devices, Design and fabrication aspect of By catch reduction devices (BRD), Turtle excluder devices (TED), JFE – SSD, Square mesh, Square mesh codends and Fishing trials on board the departmental research vessels</i>				
<b>1.5. Fishing craft and gear materials</b>	5 days	10-15 per batch	Officials with Bachelor's Degree in Science having minimum work experience of one year	Dr. Saly N. Thomas Dr. P.M. Ashraf
<b>Course content:</b> <i>Fishing craft materials: Types, properties, advantages and disadvantages, protection measures, testing and evaluation, Fishing gear materials: Classification, numbering system, properties, testing and evaluation, Identification, Designation, Linear Density, Thickness, Twist per Meter, Breaking Load and Elongation, Abrasion Resistance and Weathering Resistance</i>				





Title of the Programme	Duration	No. of participants	Eligibility	Course Director/ Course Coordinator
<b>1.6. Application of nano technology for developing improved fishing boat materials</b>	3 days	15-20 per batch	Matriculation with experience in relevant field	Dr. P.M. Ashraf Shri. S. Chinnadurai
<b>Course content:</b> Wood used for boat building, Types of wood preservatives and commonly used preservatives, Steel used for boat building, Types of corrosion and prevention and Aluminum used for boat building				
<b>1.7. Responsible fishing</b>	10 days	20-25 per batch	Department officials, Faculties of Fisheries Colleges, Scientists of Research Institutes, SMSs of KVKs	Dr. Leela Edwin Dr. N. Manju Lakshmi
<b>Course content:</b> Marine fishery resources, Inland fishing resources and Capture fisheries of India. Fishery management and Policies, FAD code of conduct for Responsible Fishing, basic principles of fishing gear, design and classification. Fishing gear materials, trawls, design and operations. Purse seine/ring seine, gill nets, lines and traps, design and operation. Deep sea fishing, inland fishing and recreational fishing. Fishing gear selectivity. IUU fishing, BRDS, Remote sensing and GIS, fishery certification/eco labeling, FADs. Traditional and mechanized fishing, conflict management, minimum legal size				
<b>(2) FISH PROCESSING</b>				
<b>2.1. Advanced fish processing technology</b>	14 days	15-20 per batch	Graduation in Science /Higher Secondary with two years' experience	Dr. K. Ashok Kumar Dr. C. Mohan
<b>Course content:</b> Intrinsic and extrinsic factors affecting quality of fish, post-harvest handling of fish, canning and preservation of fish and shellfish, salting and drying of fish, value added fishery products, Packaging, HACCP concept in seafood industry, sensory evaluation of fresh fish, Techniques of fish handling and processing				
<b>2.2. Importance of fishery by-products and its utilization for better income</b>	3 days	10-15 per batch	Scientists, Faculty of SAUs, KVKs, NGOs, Government Organizations and fishery extension officers	Dr. A.A. Zynudheen Dr. P.K. Binsi
<b>Course content:</b> Overview of waste generation in seafood industry, Handling and storage of fishery waste, high value products from fishery waste, Preparation of fish protein hydrolysate, Encapsulation and spray drying technology, Collagen/gelatin/collagen peptide, Marine nutraceuticals				
<b>2.3. Preparation of chitin, chitosan and glucosamine</b>	2 Days	10-15 per batch	Scientists, Faculties of SAUs, KVKs, NGOs, Industry representatives and fishery extension officers.	Dr. A.A. Zynudheen Dr. P.K. Binsi
<b>Course content:</b> Preparation of chitin/chitosan/glucosamine, quality evaluation of the products, Business project development, economics of chitin/chitosan/glucosamine preparation				
<b>2.4. Preparation of fish silage and foliar spray</b>	2 Days	10-15 per batch	Scientists, Faculty of SAUs, KVKs, NGOs, Industry representatives, Government Organizations and fishery extension officers.	Dr. A.A. Zynudheen Dr. P.K. Binsi
<b>Course content:</b> Preparation of fish silage, formulation of foliar spray, quality evaluation of the products, Business project development, economics of operation				

Title of the Programme	Duration	No. of participants	Eligibility	Course Director/ Course Coordinator
<b>2.5. Improved techniques of production of value added fish products</b>	3 days	10-15 per batch	Graduation in Science/Fishery Science/Higher Secondary with two years' experience	Dr. K. Ashok Kumar, Dr. George Ninan
<b>Course content:</b> Pre-process handling, Chilling and freezing, Battering and breading, Fish pickles, Curing and drying, Packaging of value added products				
<b>2.6. Techniques of developing battered and breaded products</b>	3 days	10 per batch	Graduation in Science/Fishery Science	Dr. George Ninan
<b>Course content:</b> Development of battered and breaded fish products, Packing of battered and breaded products, Quality evaluation of battered products, Packaging of shrimp based products				
<b>2.7. Development of shrimp-based value added products</b>	3 days	10 per batch	Graduation in Science/Fishery Science/Higher Secondary with two years' experience	Dr. K. Ashok Kumar Dr. J. Bindu
<b>Course content:</b> Handling and quality evaluation of fresh shrimp, Preparation of value added products from shrimp, dried prawn, coated products, prawn pickle, Packaging of shrimp based products and specialty products from shrimp				
<b>2.8. Quality evaluation of fish products - Tools and techniques</b>	6 days	6 per batch	Graduation in Science or Fishery Science	Dr. K. Ashok Kumar Dr. S.K. Panda
<b>Course content:</b> Determination of protein content, fat content, ash content, moisture content, carbohydrate, TVBN and TMA content, PV, FFA and TBA content				
<b>2.9. Thermal processing of fish products</b>	4 days	6 per batch	Graduation in Science or Fishery Science/ Faculties of SAUs/SMS of KVKs/ NGO personnel	Dr. C.O. Mohan
<b>Course content:</b> Pre-process handling and pre-cooking, Thermal processing of the products, Preparation of canned tuna, Preparation of retort pouch products, Quality evaluation, Sterility testing of the products				
<b>2.10. Development of extruded products</b>	2 days	10 per batch	Graduation in Science or Fishery Science/ Faculties of SAUs/SMS of KVKs/NGO personnel	Shri. S. Sreejith
<b>Course content:</b> Extrusion of fish based products, Application of coatings, Packaging of the extruded products, Quality analysis of extruded products				
<b>2.11. Technologies for packaging of fish products and its testing</b>	4 days	10 per batch (Minimum)	Graduation in Science/ Fishery Science/ Faculties of SAUs/SMSs of KVKs/, NGOs personnel	Dr. C.O. Mohan
<b>Course content:</b> Different types of packaging, Vacuum packaging, Handling and processing fish, modified atmospheric packaging, Pouch packing and tray packing, Testing of gas combination, Quality assessment of packaged products. Testing of master cartons and packaging films				



Title of the Programme	Duration	No. of participants	Eligibility	Course Director/ Course Coordinator
<b>2.12. Modified atmosphere and vacuum packaging techniques</b>	3 days	10 per batch (Minimum)	Graduation in Science/ Fishery Science/ Faculties of SAUs/SMSs of KVKs/, NGOs personnel	Dr. J. Bindu
<b>Course content:</b> Basic principle of packaging of fish products, Different types of packaging technologies, Principle of MAP and VP technologies, Practical orientation of MAP and VP technologies, Analysis of gas composition in MAP products				
<b>2.13. Smoking and drying of fish products</b>	4 days	10 per batch (Minimum)	Experience in drying of food products	Dr. J. Bindu
<b>Course content:</b> Introduction to smoking and drying techniques, Principles of drying and smoking techniques, Introduction to different types of drying (Sun / solar / fluidized bed drying etc), Hands on training on smoking and drying techniques				
<b>2.14. Hands on training on fish sausage</b>	3 days	10 per batch (Minimum)	Basic knowledge /working experience in food science	Dr. C.O. Mohan
<b>Course content:</b> Introduction to fish on human health, Importance of fish product diversification, Introduction to mince-based products, Hands on training on fish sausage preparation, Quality evaluation of fish sausage				
<b>2.15. Fisheries business opportunities and project preparation</b>	3 days	10 per batch (Minimum)	Basic working knowledge/ background in food science	Dr. George Ninan
<b>Course content:</b> Importance of fish in human health, Market trends / consumer preference on variety of food products, Introduction to different fish products, Introduction to Business incubation center, Visit to fish processing units by successful entrepreneurs				
<b>2.16. Industrial training programme on fish processing</b>	2 – 4 weeks	10 per batch (Minimum)	Graduate or Post-graduate in Fisheries / Food Science and related subjects	Dr. George Ninan
<b>Course content:</b> Introduction to food preservation techniques, Importance of fish in human health, Orientation to basics of different preservation techniques viz. refrigeration, freezing, curing and drying, smoking, Thermal processing, High pressure processing, mince-based products, value added fish products and utilization of fishery waste. Practical orientation on different fish preservation techniques				
<b>(3) BIOCHEMISTRY AND NUTRITION</b>				
<b>3.1. Analysis of heavy metals contaminants, trace elements profiling in fish and fishery products</b>	7 days	10 per batch (Minimum)	Graduates/Post-graduates in Biochemistry or Chemistry/ Officials from government departments/ institutes	Dr. R. Anandan
<b>Course content:</b> Working principle and determination of heavy metals by Flame Atomic Absorption Spectrophotometer (FAAS) and Graphite Furnace Atomic Absorption Spectrophotometer (GFAAS). Working principle and determination of trace elements by Flame Photometric method. Sample preparation for heavy metal and trace element analysis. Determination of heavy metals and trace elements using FAAS, GFAAS and Flame Photometric method				

Title of the Programme	Duration	No. of participants	Eligibility	Course Director/ Course Coordinator
<b>3.2. Nutrient profiling and nutritional labeling of Indian sea foods</b>	7 days	10 per batch (Minimum)	Graduates/Post-graduates in Biochemistry or Chemistry/ Officials from government departments/ institutes	Dr. K.K. Asha
<b>Course content:</b> Biochemical composition of fish, post-mortem changes in fish, nutritional labeling of Indian seafood products, determination of proximate Composition of fish (Moisture, crude protein, crude fat, carbohydrates and ash), determination of fatty acids, amino acids, tryptophan content, minerals, vitamins, cholesterol, sample preparation and determination of proximate composition of fish, determination of fatty acids, amino acids, tryptophan content, minerals, vitamins, cholesterol				
<b>3.3. Analysis of antibiotics in fish and fishery products</b>	7 days	10 per batch (Minimum)	Graduates/Post-graduates in Biochemistry or Chemistry/ Officials from government departments/ institutes	Dr. Suseela Mathew
<b>Course content:</b> Introduction to antibiotics residues fish and fishery products, LC MSMS – Principal and applications, Preparation of samples, Detailed extraction protocols, Detection and Quantitation of antibiotics by LC-MSMS, Method validation in antibiotics analysis				
<b>3.4. Analysis of pesticide residues in fish and fishery products - Extraction protocol and method validation with special emphasis to NABL accreditation</b>	7 days	10 per batch (Minimum)	Graduates/Post-graduates in Biochemistry or Chemistry/ Officials from government departments/ institutes	Dr. Niladri S. Chatterjee
<b>Course content:</b> Introduction to pesticide residues in fish and fishery products, Gas chromatography – Principal and application, Preparation of shrimp and water samples for organochlorine pesticides by conventional and QuEChERS methods, Detection and quantitation of pesticides by Gas Chromatography, Method validation in pesticides analysis				
<b>3.5. Enzyme analysis as a tool in determining the bioactivity of nutraceuticals</b>	7 days	10 per batch ( Minimum)	Graduates/Post-graduates in Biochemistry or Chemistry/ Officials from government departments/ institutes	Shri. C.S. Tejpal
<b>Course content:</b> Introduction to Enzymes, Central role of enzymes as Biological catalysts, Principles of spectroscopy, Bioactive compounds/nutraceuticals from marine origin, experimental design, animal study, sample preparation for enzyme assay, enzyme analysis. Introduction on Enzyme, Central Role of Enzymes as Biological Catalysts, Principles of spectroscopy, Bioactive compounds/nutraceuticals from marine origin, experimental design, animal study, sample preparation for enzyme assay, enzyme analysis				
<b>3.6. Modern analytical techniques in fish biochemistry</b>	10 days	10 per batch (Minimum)	Graduates/Post-graduates in Biochemistry or Chemistry/ Officials from government departments/ institutes	Smt. Lekshmi R.G. Kumar Shri. K.K. Anas
<b>Course content:</b> Principles of spectroscopy, proximate analysis of fish, principles of liquid chromatography, Amino acid analysis, Principles of liquid chromatography tandem mass spectrometry, analysis of antibiotic residues, principles of gas chromatography, fatty acid analysis, pesticide analysis using GC, principles of atomic absorption spectroscopy, Analysis of minerals in fish, Principles of electrophoresis and western blotting, care of laboratory animal (rats and mice), Animal experimentation, Nutritional significance of fish protein and lipids				



Title of the Programme	Duration	No. of participants	Eligibility	Course Director/ Course Coordinator
<b>(4) QUALITY ASSURANCE MANAGEMENT</b>				
<b>4.1. Hazard Analysis Critical Control Point (HACCP) for food safety</b>	5 days	15 per batch (Minimum)	Government officials/Students with qualification not less than Bachelor degree in science	Dr. Pankaj Kishore Smt. E.R. Priya
<b>Course content:</b> Introduction to HACCP programme and HACCP evaluation, Biological hazards, Food-borne diseases, Physical hazards, wholesomeness and economic fraud, Chemical hazards, handling and processing, seven principles of HACCP, Development of HACCP plan, pre-requisite programmes (GMP and SSOP). Case studies, Group task and mock audit				
<b>4.2. Fish and shellfish quality assurance</b>	12 days	15 per batch	Government officials/Students with qualification not less than Bachelor degree in science	Dr. K. Nagalakshmi Dr. Pankaj Kishore Shri. Devananda Uchoi
<b>Course content:</b> Quality problems in seafood industry, Hygiene and sanitation in fish handling, Spoilage and postmortem changes, quality of water and ice, Indices of fish spoilage, chemical residue monitoring in fish and fishery product, marine biotoxins, Identification and isolation of food-borne pathogens, Legislation on export inspection in India, quality requirements of importing countries, Minimum facilities in processing units for approval, Quality Assurance Systems (TQM, HACCP, ISO 22000, etc).				
<b>4.3. Food safety regulations with special reference to fishery products</b>	8 days	15 per batch	Government officials/Students with qualification not less than Bachelor degree in science	Dr. S.K. Panda
<b>Course content:</b> Biological hazards in sea foods, Food borne diseases, Physical hazards, wholesomeness and economic fraud, Chemical hazards in seafood, handling and processing. Introduction to HACCP, Preparation of worksheets, Hazard analysis and CCP, HACCP Audit, Food safety standards-International regulations, Key elements of FSMS, Management responsibilities of FSSAI, ERP and Hazard analysis, Control of non-conformity, FSMS auditing				
<b>(5) MICROBIOLOGY, FERMENTATION AND BIOTECHNOLOGY</b>				
<b>5.1. Techniques in qualitative and quantitative determination of antibiotic resistance</b>	7 days	10 per batch (Minimum)	Bachelor's Degree in any Life Science	Dr. M.M. Prasad Dr. S. Visnuvinaygam Dr. G.K. Sivaraman Dr. V. Murugadas Shri. V. Radhakrishnan Nair
<b>Course content:</b> Basic techniques in microbiology, Sampling for isolation of bacteria, Sampling for enumeration of E. coli, Isolation of Bacteria from the samples and Identification of bacteria by biochemical and 16s rDNA method				
<b>5.2. Laboratory techniques for microbiological examination of seafood</b>	12 days	10 per batch	Candidates with not less than Bachelor's Degree in any Life Sciences	Dr. M.M. Prasad Shri. Ranjit Kumar Nadella, Smt. T. Muthulakshmi, Smt. S.S. Greeshma Shri. S. Ezhil Nilavan



**Course content:** Basic techniques in microbiology, Sampling of seafood of enumeration and isolation of pathogenic *E. coli*, *Enterobacteriaceae*, *Fecal Streptococci*, *Staphylococcus aureus*, *Salmonella*, *Vibrio parahaemolyticus*, *V. cholerae* and spoilage and commensal flora, Identification of bacteria by biochemical and 16s rDNA method, Identification of organisms such as *Salmonella*, *Listeria monocytogenes*, *Vibrio cholerae*, *Vibrio parahaemolyticus*, *Clostridium botulinum*, *Staphylococcus*

<b>5.3. Molecular detection and characterization of pathogens</b>	12 days	15 per batch (Maximum)	Candidates with not less than Bachelor's Degree in any Life Science	Dr. M.M. Prasad Dr. S. Visnuvinaygam Dr. G.K. Sivaraman Dr. V. Murugadas
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**Course content:** Isolation of Genomic DNA extraction, Isolation of Plasmid DNA, DNA quantitation by spectrophotometer, Gel electrophoresis of DNA and purification of DNA, Cloning of DNA in plasmid vector, PCR amplification, transformation, and confirmation of DNA by Sequencing and bioinformatic analysis.

<b>5.4. Molecular fingerprinting techniques for seafood-borne pathogens</b>	12 days	10 per batch	Masters in Microbiology or Biotechnology	Dr. M.M. Prasad Dr. S. Visnuvinaygam Dr. G.K. Sivaraman Dr. V. Murugadas
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**Course content:** Molecular fingerprinting techniques, PCR based typing techniques, Sequence based typing techniques, Pulse field gel electrophoresis, Introduction to analysis of fingerprint data

<b>5.5. Polymerase chain reaction, its types and application</b>	3 days	10 per batch	Masters in life science of any discipline	Dr. M.M. Prasad Dr. V. Murugadas
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**Course content:** Polymerase chain reaction principle, theory, kinetics of taq polymerase, types of PCR-nested, touchdown, multiplex, hot-start, real-time PCR etc. and PCR products and its downstream applications

<b>(6) ENGINEERING</b>				
<b>6.1 Fish drying technology</b>	3 days	15-20 per batch	Entrepreneurs, start-ups, MSME, experience in drying of food products	Dr. Manoj P. Samuel Dr. S. Murali Dr. D.S. Aniesrani Delfiya Smt. P.V. Alfiya
<b>Course content:</b> Pre-processing of fish and shrimp, solar drying of fish and shrimp, quality evaluation of dried products, packaging of dried products, overview about Government schemes and supports for startups in fish value addition				
<b>6.2 Refrigeration and chilling of fish</b>	2 days	10-15 per batch	ITI/Diploma/Degree holders, College dropouts, Small-scale Entrepreneurs and serving officers/technicians of ICAR institutions/SAU and other Govt. and Non-Govt. institutions/Agencies	Dr. Manoj P. Samuel Shri. V. K. Siddique
<b>Course content:</b> Principles of refrigeration and air-conditioning, design of chillers and freezers, Repair and maintenance of AC and refrigeration systems, installation and commissioning of chilled storage systems				
<b>6.3 Engineering technologies for fish value addition</b>	2 days	10-15 per batch	Entrepreneurs, start ups, MSME and serving officers/technicians of ICAR institutions/SAU and other Govt. and Non-Govt. institutions/Agencies	Dr. Manoj P. Samuel Dr. S. Murali Dr. D.S. Aniesrani Delfiya Smt. P.V. Alfiya





**Course content:** Familiarization with fish processing equipments, principles and operation of fish descaling machines, refrigeration enabled hygienic fish vending kiosk and dryers for hygienic dry fish production.

<b>6.4 Energy and water use optimization in sea-food processing industries</b>	1 day	10 per batch (Minimum)	Officials from seafood industries	Dr. Manoj P. Samuel Dr. S. Murali Dr. D.S. Aniesrani Delfiya Smt. P.V. Alfiya
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**Course content:** Assessment of energy and water use pattern of sea food processing industries, equipments/ gadgets for measurement of energy losses, evaluation of control limits and rectification measures for energy and water wastage

#### (7) EXTENSION INFORMATION AND STATISTICS

<b>7.1. Extension management strategy for fish-preneurship development</b>	10 days	15 per batch (Minimum)	Graduate/ Post graduate degree in extension/ economics/ social science or any branch of science	Dr. A.K. Mohanty Dr. S. Ashaletha Dr. A. Suresh Dr. M.V. Sajeev Dr. K. Rejula
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**Course content:** Social mobilization in fishery sector, Role of group dynamics for effective technology transfer, Farmer-to farmer extension, Market led extension approach in fishery, Recent advances in harvest and post-harvest technologies in fisheries, Technology standardization, constraints analysis, Fisher Man Resource Centre (FMRC) for inclusive fish-preneurship, Supply chain management in fishery, Public-Private Partnership (PPP) in fishery: Scopes and opportunities, Participatory planning, evaluation and monitoring of extension programmes, study on consumers' preference, market feasibility, custom hiring approach, e-extension, agri-business plan preparation for a start-up fish enterprise, product certification, Case study with successful entrepreneurs.

<b>7.2. Value chain management in fisheries</b>	7 days	15 per batch	Graduate or Post-graduate in fisheries economics/ Government extension officers/ SMSs of KVKs/Faculties of Universities/Scientists of ICAR institutes with relevant experience in fisheries sector	Dr. Nikita Gopal Dr. Pe. Jeyya Jeyanthi Shri. V. Chandrasekar
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**Course content:** Marketing research – Introduction, concepts, process and practice, Trends in world seafood trade, Domestic market for fish and fishery products, Quantitative methods for analysis of marketing related data, Supply chain management and analysis, Market Information Systems (MIS)/ Decision Support Systems, Consumer Behavior Analysis, Branding and Brand Development, ICTs in agri- business

<b>7.3. Applied statistical methods for fisheries</b>	10 days	15 per batch	Assistant Professor/Scientist/	Dr. V. Geethalakshmi Dr. C.G. Joshy Dr. V.K. Sajesh
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**Course content:** Basic statistical tools and techniques, Statistical tests for inference, Multivariate statistical methods, Sample surveys, Designing and analysis of experiments in fisheries research, Statistics for marketing research, Working with MS-Excel, Statistical software : SPSS and : SAS

<b>7.4. Impact assessment of fishery technologies : Tools and techniques</b>	10 days	10-15 per batch (Minimum)	Officials of State Fisheries Deptt., NGOs or any relevant development agencies, staff of Fisheries colleges etc.	Dr. S. Ashaletha Dr. A.K Mohanty Dr. A. Suresh Dr. M.V. Sajeev Dr. V.K. Sajesh Dr. K. Rejula
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**Course content:** **Course content** - Need for impact assessment - Basics of impact assessment- ex-ante/ ex-post analysis of impact – Classification of Fisheries technologies in stakeholders' perspective, Different modes of impact assessment in fisheries - Selection of Indicators for impact assessment in fisheries. Issues and challenges in impact assessment in fisheries. Tools and methods in impact assessment - Social impact assessment- Economic impact assessment – Environmental impact assessment - Policy Implications of Impact Assessment

<b>7.5. Research methods in social sciences</b>	5 days	20 per batch (Minimum)	Officials of State Fisheries Deptt., NGOs or any relevant Development agencies, staff of Fisheries colleges etc.	Dr. A. Suresh Dr. M.V. Sajeev Shri. V. Chandrasekar Dr. V.K. Sajesh
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**Course content:** Sampling techniques, Basic statistical concepts and techniques, usage of statistical software, data management, multivariate statistical analysis

#### **(8) ICAR-CIFT Vizag Research Centre, Visakhapatnam, AP**

<b>8.1. Laboratory techniques for microbiological examination of seafood</b>	12 days	12 per batch	Bachelor's Degree in any Life Science	Dr. B. Madhusudana Rao Shri. K. Ahamed Basha Dr P. Viji Dr. Jesmi Debbarma
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**Course content:** Basic techniques in microbiology, Aerobic Plate Count of fish, water and surfaces, detection of faecal indicator bacteria in fish and water (Total Coliforms, faecal Coliforms, E. coli, total Enterobacteriaceae count, Enterococci, Sulphite reducing Clostridia), MPN methods and membrane filtration method, detection of pathogenic bacteria (Staphylococcus aureus, Salmonella, Vibrio parahaemolyticus, V. cholerae, Listeria), Identification of bacteria by biochemical method, food safety regulatory requirements for domestic and export markets, palm impression technique, Introduction to HACCP

<b>8.2. Value added fish products</b>	3 days	10 per batch	Degree/Diploma holders, College dropouts, Small-scale Entrepreneurs and Non-Govt. institutions/Agencies, fishers, any person with basic knowledge /working experience in food science	Dr. P. Viji Dr. Jesmi Debbarma Dr. B. Madhusudana Rao
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**Course content:** Pre-process handling, preparation of fish mince, fish fillet, fish cutlets, fish burgers, fish samosa, fish momos, Fish pickles, Curing and drying, fish fingers, stretched shrimp, importance of hygienic handling, Packaging of fish products

<b>8.3. Proximate composition and quality evaluation of fish</b>	5 days	6 per batch	Bachelor's Degree in any Life Science	Dr. Jesmi Debbarma Dr. P. Viji Dr. B. Madhusudana Rao
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**Course content:** Determination of moisture, protein, fat, ash, Na, K, Ca, Fe, TVBN, TMA, TBARS, PV, FFA, aerobic plate count, H<sub>2</sub>S producing bacteria count, sensory analysis, food texture analysis and colour analysis

<b>8.4. By catch and Juvenile Reduction Technology for responsible fishing</b>	7 days	15-25 per batch	Officers with Bachelor's Degree in Science with experience in marine capture fisheries, Students and experienced fishers	Dr. R. Raghu Prakash Dr. U. Sreedhar Shri. G. Kamei
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**Course content:** Fishing gear selectivity in general, Selectivity in trawls with reference to conservation, Selectivity of fishing gears - Overview, Eco-friendly fishing practices and fuel saving, Design aspect of different selective devices, Design and fabrication aspect of By catch reduction devices (BRD), Turtle excluder devices (TED), JFE – SSD, Square mesh, Square mesh codends and Fishing trials onboard the departmental research vessels.



<b>8.5. Fabrication and usage of TED</b>	5 days	10-15 per batch	Experienced fishers, boat owners, NGOs, officials of state fisheries departments and Govt. organisations	Dr. R. Raghu Prakash Dr. U. Sreedhar Shri. G. Kamei
<b>Course content:</b> Basic trawling method, Design aspect of TED, Design and fabrication aspect of Turtle excluder devices (TED), Square mesh, Square mesh codends and Fishing trials onboard the Departmental research vessels				
<b>8.6. Basics of Fishing Technology</b>	5 days	20-25 per batch	Officers with Bachelor Degree in Science with experience in marine capture fisheries, Students and experienced fishers	Dr. U. Sreedhar Dr. R. Raghu Prakash Shri. G. Kamei
<b>Course content:</b> Craft and gear materials, Major fishing systems: Design and operation, Practical sessions to familiarize with fishing materials/fishing gears/fishing vessel, Fishing gear classification, Materials used in the modern fishing gears, Classification of fishing craft, Materials used for fishing craft and Selectivity of Fishing Gears-overview, Eco-friendly fishing practices, By-catch Reduction Technologies and Fuel use in fisheries				
<b>(9) ICAR-CIFT Veraval Research Centre, Veraval, Gujarat</b>				
<b>9.1. Microbiological quality analysis of seafood</b>	6 days	10 per batch	Bachelor's Degree in any discipline of science Technologist/ Processors with minimum 2 yrs of experience	Dr. Toms C. Joseph Dr. Ashish Kumar Jha Smt. V. Renuka Dr. S. Remya
<b>Course content:</b> Basics of microbiology, microbial sampling techniques, isolation and identification of fish spoilage and pathogenic bacteria. ( <i>E. coli</i> , <i>Enterobacteriaceae</i> , <i>Fecal Streptococci</i> , <i>Staphylococcus aureus</i> , <i>Salmonella</i> , <i>Vibrio parahemolyticus</i> , <i>V. cholerae</i> and <i>Listeria</i> ). Biochemical confirmatory tests				
<b>9.2 Laboratory techniques on biochemical quality analysis of seafood</b>	6 days	10 per batch	Bachelor's degree in any discipline of science	Dr. Toms C. Joseph Dr. Ashish Kumar Jha Smt. V. Renuka Dr. S. Remya
<b>Course content:</b> Proximate analysis, biochemical quality indices viz TMA, TVBN, TBA, PV, indole, histamine, formaldehyde, sulphite test etc., heavy metal analysis in seafood				
<b>9.3 Hygienic handling and improved drying methods for fish</b>	3 days	10 per batch	Fish farmers/ Fish vendors/ Fisher men/ Fisher women/ Processors/Members of SHG.	Dr. Toms C. Joseph Dr. Ashish Kumar Jha Smt. V. Renuka Dr. S. Remya
<b>Course content:</b> Pre-processing protocols, onboard handling practices, icing, fish drying using solar dryer etc.				
<b>9.4 Value addition in seafood</b>	3 days	20 per batch	Fish farmers/ Fish vendors/ Fisher men/ Fisher women/ Processors/Members of SHG	Dr. Toms C. Joseph Dr. Ashish Kumar Jha Smt. V. Renuka Dr. S. Remya
<b>Course content:</b> Pre-process handling, preparation of fish mince, fish fillet, fish cutlets, fish burgers, fish samosa, fish momos, Fish pickles, Curing and drying, fish fingers, stretched shrimp, Importance of hygienic handling, Packaging of fish products				

<b>9.5. Hands on training on square mesh codend fabrication and field demonstration</b>	3 days	10-15 per batch	Experienced fishers, boat owners, NGO,s , officials of state fisheries departments and Govt. organizations	Dr. K. K. Prajith
<b>Course content:</b> <i>Selectivity in trawl nets, type of trawling and trawl nets, Square mesh, Square mesh cod ends, fabrication and onboard demonstration in institute fishing vessel MFV Sagarkripa</i>				
<b>9.6. Fabrication and demonstration of CIFT-TED</b>	5 days	10-15 per batch	Experienced fishers, boat owners, NGO,s , officials of state fisheries departments and Govt. organizations	Dr. K. K. Prajith
<b>Course content:</b> <i>Design aspect of TED, Designing and fabrication aspect of Turtle excluder devices (TED), &amp; Fishing trials onboard the departmental research vessels.</i>				
<b>9.7. Basics of Fishing Technology</b>	5 days	20-25 per batch	Officers with Bachelor Degree in Science with experience in marine capture fisheries, Students and experienced fishers	Dr. K. K. Prajith
<b>Course content:</b> <i>Introduction to fishing technology, craft and gear, Major fishing systems: Design and operation, fishing vessel, Fishing gear classification, Materials used in the modern fishing gears, Classification of fishing craft, Materials used for fishing craft &amp; Selectivity of Fishing Gears-overview, responsible fishing, By-catch Reduction Technologies, Field demonstration of trawls</i>				
<b>(10) ICAR-CIFT Mumbai Research Centre, Mumbai, Maharashtra</b>				
<b>10.1. Preparation of value added fish products</b>	3 days	10-15 per batch	Graduation in Science/Fishery Science/Higher Secondary with two years' experience	Dr. L.N. Murthy Dr. A. Jeyakumari
<b>Course content :</b> <i>Pre-process handling, Chilling and freezing, Battering and breading, Fish pickles, Curing and drying, Packaging of value added products</i>				
<b>10.2. Preparation of chitin and chitosan</b>	2 days	10 per batch	Scientists, Faculty of SAUs, KVKs, NGOs, Industry representatives, Govt. Organizations, Students with Bachelor degree in science and fishery extension officers	Dr. L.N. Murthy Dr. A. Jeyakumari
<b>Course content:</b> <i>Seafood waste management, Preparation of Prawn shell powder Chitin and Chitosan,</i>				
<b>10.3. Total quality assurance in seafoods</b>	6 days	10 per batch	Bachelor's Degree in any Life Science	Dr. L.N. Murthy Dr. Abhay Kumar Dr. A. Jeyakumari Smt. S.J. Laly
<b>Course content:</b> <i>Basic techniques in microbiology, Enumeration and isolation of pathogenic E. coli, Enterobacteriaceae, Fecal Streptococci, Staphylococcus aureus, Salmonella, Vibrio parahaemolyticus, V. cholerae and spoilage and commensal flora from seafoods Identification of bacteria by biochemical method</i>				



<b>10.4. Chloramphenicol and AOZ residue analysis in shrimp by ELISA</b>	3days	10 per batch	Bachelor's Degree in any Life Science, Industry representatives and Govt. organizations	Dr. L.N. Murthy Smt. S.J. Laly Dr. Abhay Kumar
<b>Course content:</b> Antibiotic residue in seafoods, ELISA principle, theory and application, Sample preparation for ELISA and analysis				

## Comprehensive training programmes

Title of the Programme	Duration	No. of participants	Eligibility	Course Director/ Course Coordinator
<b>Advances in harvest and post-harvest technologies in fisheries</b>	15 days	12	Graduate in Fishery Science/any branch of science, Faculty of SAUs/SMSs of KVKs/, NGOs personnel	Dr. K. Ashok Kumar Dr. Leela Edwin
<b>Course content:</b> Various technologies of fishing and fish processing. Comparative advantages of technologies and hands on experience in selected technologies				
<b>Entrepreneurship development in fisheries for livelihood security</b> (3 phases @ 5 days (Stimulating phase) + 10 days (Supportive phase) + 5 days (Sustenance phase) for 1 <sup>st</sup> + 2 <sup>nd</sup> + 3 <sup>rd</sup> phase with 1 week time in between each phase exclusively for field level exercises)	15 days	Min. one or Max.five	Minimum plus two (+2) or abovequalifications/ NGOs personnel/ sponsored candidates from any organizations	Dr. A.K. Mohanty Dr. M.V. Sajeve Dr. V.K. Sajesh Dr. George Ninan Dr. C.O. Mohan
<b>Course content:</b> Entrepreneurship - the concept and types, Entrepreneurial characteristics, Achievement planning, Estimation of potential and scope of Entrepreneurship development in a village, Techniques for assessing the entrepreneurial potential of stakeholders, Customizing business models on fisheries for stakeholders, especially women groups, Extension management for successful development of agri-preneurship, Steps in building fishery based business enterprises, Registration, licensing and certification				

## Specialized training programmes

Title of the Programme	Duration	No. of participants	Eligibility	Course Director/ Course Coordinator
<b>ISO 22000-HACCP for Seafood Industry</b>	15 days	6 per batch (Minimum)	Government officials/ Students with qualification not less than Bachelor degree in science	Dr. S.K. Panda Shri. Devananda Uchoi
<b>Course content:</b> Physical, Chemical and biological hazards in Seafood; Introduction to HACCP, Preparation of worksheets, Hazard analysis and CCP determination, HACCP Audit, Introduction to 22000 series of standards; Food safety standards-International regulations, Key elements of FSMS, Management responsibilities of FSSAI, Pre-requisite programmes, Control of non-conformity, verification and validation; FSMS Auditing				



<b>Determination of heavy metals in fish and fishery products</b>	5 days	10 per batch (Maximum)	Postgraduate in Fisheries Science, Chemistry, biochemistry, food science and technology, post-harvest technology	Dr. S.K. Panda E.R. Smt. Priya
<b>Course content:</b> Introduction to heavy metals; distribution and bioaccumulation; bio-concentration in food chain; human health risks; Speciation; determination methodologies using AAS, ICP-OES, ICP-MS, DMA; method validation				
<b>Isolation and identification of bacteria of public health significance</b>	10 days	8 per batch (Minimum)	Students with qualification not less than Bachelor degree in Fisheries Science/ Microbiology/Zoology	Dr. T.K. Anupama Dr. Pankaj Kishore
<b>Course content:</b> Introduction to microbial analysis, Aerobic Plate Count; Identification and isolation of foodborne pathogens such as <i>E. coli</i> , <i>Staphylococcus aureus</i> , <i>Salmonella</i> , <i>Listeria monocytogenes</i> , <i>Vibrio cholerae</i> , <i>Vibrio parahaemolyticus</i> , <i>Yersinia enterocolitica</i> , <i>Shigella</i> , etc. Detection of bacterial toxins; molecular methods				

## Certificate Courses

Title of the Programme	Duration	No. of participants	Eligibility	Course Director/ Course Coordinator
<b>Evaluation of technologies / programmes and their impact assessment</b>	3 months	5 per batch (Minimum)	Graduate or above in any discipline/NGOs personnel/ officials from any organizations	Dr. A.K. Mohanty Dr. A. Suresh Dr. M.V. Sajeev Dr. V.K. Sajesh
<b>Course content:</b> Tools and methodologies for need assessment, Problem prioritization, Project planning, Appraisal, Implementation, PERT technique, Monitoring and evaluations, stages of evaluation, impact assessment of different fishery technologies/ extension programmes				
<b>Value added product development in Fisheries</b>	3 months	5 per batch (Minimum)	Graduation in Science/ Fishery Science/Higher Secondary with two years' working experience	Dr. K. Ashok Kumar
<b>Course content:</b> Pre-process handling, Chilling and freezing, Development of value added products, Packaging of value added products, Marketing and Entrepreneurship development				
<b>Design and Operation of Responsible Fishing Gears (National/ International training programme)</b>	1 month	5 per batch (Minimum)	Graduation in Science/ Fishery Science/Higher Secondary with two years' working experience	Dr. M.P. Remesan Dr. V. R. Madhu Dr. S. Monalisha Devi Shri. Nenavath Rajendra Naik
<b>Course content:</b> Marine fishery resources, Inland fishing resources and Capture fisheries of India. Fishery management and Policies, FAD code of conduct for Responsible Fishing, basic principles of fishing gear, design and classification. Fishing gear materials, trawls, design and operations. Purse seine/ring seine, gill nets, lines & traps, design and operation. Deep sea fishing, inland fishing and recreational fishing. Fishing gear selectivity. IUU fishing, BRDS, Remote sensing and GIS, fishery certification/eco labeling, FADs. Traditional & mechanized fishing, conflict management, minimum legal size				





<b>Development of cost effective dryers for hygienic fish drying</b>	1 month	10-15 per batch	ITI/Diploma/Degree holders, College dropouts, Small-scale Entrepreneurs and serving officers/ technicians of ICAR institutions/SAU and other Govt. and Non-Govt. institutions/Agencies	Dr. Manoj P. Samuel Dr. S. Murali Dr. D.S.Aniesrani Delfiya Smt. P.V. Alfiya
<b>Course content:</b> Design of general purpose dryer, experience on lathe, plumbing, welding and drilling works, assessment of factors affecting fish drying, study of air flow pattern and moisture migration during fish drying, fabrication of dryer, performance evaluation of dryer				
<b>Fish drying and chilling technology</b>	10 days	10-15 per batch	ITI/Diploma/Degree holders, College dropouts, Small-scale Entrepreneurs and serving officers/ technicians of ICAR institutions/SAU and other Govt. and Non-Govt. institutions/Agencies	Dr. Manoj P. Samuel Dr. S. Murali Dr. D.S.Aniesrani Delfiya Smt. P.V. Alfiya
<b>Course content:</b> Principles of drying, dehydration, refrigeration and air conditioning; design of a general purpose dryer, chiller; Fabrication of a dryer prototype/working model; Study of different types of CIFT dryers (Biomass dryer, LPG dryer, Solar tunnel dryer, Electric dryer, Solar- electrical hybrid dryers), Operations of CIFT dryers, Suitability of dryers for different regions/climatic conditions, Performance evaluation studies and developing standard drying curves, Dryers for different types and sizes of fishes, Interrelationships among drying temperature, RH, air velocity, air flow rate, chamber size and insulation materials, Other dryers for agricultural products, Dryers using renewable energy sources, Refrigeration, Heat and Mass transfer- Concepts and practices, Design and Development of fish				

## How to apply

The interested candidates may send their filled-in applications (**as per the format attached**) for various training programmes to Director, ICAR-CIFT through e-mail (**aris.cift@gmail.com; cift@ciftmail.org**). Participants for the training will be selected after an initial screening based on the information given in their application form and selected candidates will be informed individually.

## Programme fee

The fee includes both Course Fee and Training Fee and will be training specific. Course Fee includes expenses like rent of Conference Hall, Work shop, Laboratory and Training Fee include expenses for boarding, lodging, training material etc. Accommodation in Guest House/Training Hostel can be arranged based on the availability. The cost of boarding and lodging has been estimated as per ICAR norms and may change from time to time.

Programme	Duration	Programme fee per participant + GST (@ 18 %)** (₹)
<b>Regular trainings</b>	3 days	3900.00
	5 days	5900.00
	7 days	8500.00
	10 days	11800.00
	15 days	17400.00
	21 days	25100.00
	30 days	39300.00
<b>Comprehensive trainings</b>		
Advances in harvest and post-harvest technologies in fisheries	15 days	17400.00
Entrepreneurship development in fisheries for livelihood security	15 days	17400.00
<b>Specialized trainings*</b>		
ISO 22000-HACCP for Seafood Industry	15 days	15000.00 (Course fee only)*
Determination of heavy metals in fish and fishery products	5 days	7500.00 (Course fee only)*
Isolation and identification of bacteria of public health significance	10 days	10000.00 (Course fee only)*
<b>Certificate Courses</b>		
Evaluation of technologies/programmes and their impact assessment	3 months	20000.00 (Course fee only)*
Value added product development in fisheries	3 months	40000.00 (Course fee only)*
Design and operation of responsible fishing gears	1 month	15000.00 (Course fee only)*

**\*The course fee is excluding the boarding and lodging charges and field visit**

**\*\*The programme fee is valid only for Indian participants**

### Medium of instruction

The medium of instruction will be in English, in general. Hindi and Malayalam may be considered on request basis.

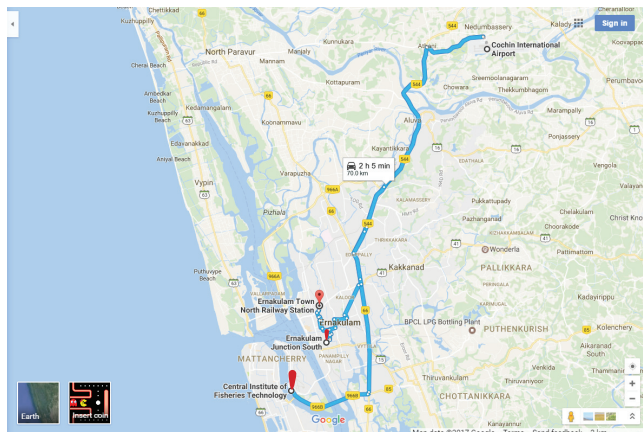
**(Note:** The *Training Fee* has been estimated only for the purpose of sponsored training programme by different agencies, which is *exclusive of students' training programme/projects*. Special fee concession may be considered on request with the approval of the Director, ICAR-CIFT on case to case basis).



## General information

### Facilities available at ICAR-CIFT

- ❖ NABL accredited laboratories
- ❖ FSSAI recognised National level referral and reference laboratory for fish and fish-based food products
- ❖ Pilot processing Plant
- ❖ Engineering Workshop
- ❖ Net Mending Workshop
- ❖ Research vessels
- ❖ Agri-Business Incubation (ABI) Centre
- ❖ Agricultural Technology Information Centre (ATIC)
- ❖ Agricultural Knowledge Management Unit (AKMU)
- ❖ AV aided hi-tech Class rooms (3 nos.)
- ❖ Guest House/ Training Hostel



**RouteMap to ICAR-Central Institute of Fisheries Technology**

### Analytical testing facilities for

1. Water/ice
2. Engine
3. Fish and fish products
4. Fishing gear and craft material accessories
5. Microbiological parameters

## How to Reach

The ICAR-CIFT is located at Willingdon Island located at 7.7 km away from Ernakulam Junction (South) Railway Station and KSRTC Bus station and 8.9 km away from Ernakulam Town (North) Railway Station. Cochin International Airport is at 32 km distance from ICAR-CIFT. The institute Guest House/ Training Hostel is about 2-3 km distance From Ernakulam Junction (South) Railway Station and KSRTC Bus station and about 5 km from Ernakulam Town (North) Railway Station.

## About Cochin

Cochin, popularly known as 'Queen of Arabian Sea' was the centre of the world spice trade for many centuries. Located on the southwest coast of India. The city encompasses the backwaters, several islands and a portion of the mainland. Fort Cochin, Marine drive, Hill palace, Bolgatti palace etc are the major touristic places and some of the touristic attractions include giant Chinese fishing nets, a 450-year-old synagogue, ancient mosques, Portuguese- and Dutch-era houses and the crumbling remains of the British Raj. The Fort Kochi area is an unlikely blend of medieval Portugal and Holland and an English village grafted onto the tropical Malabar Coast. Off the Cochin, hill stations of Munnar and backwater of Alappuzha offers scenic environment for the travellers.

## Contact us



### ICAR-CIFT (Headquarters)

Central Institute of Fisheries Technology  
CIFT Junction, Willingdon Island  
Matsyapuri P.O., Cochin - 682 029, Kerala  
Ph: 0484-2412300; Fax: 091-484-2668212  
E-mail: aris.cift@gmail.com; cift@ciftmail.org  
Website: www.cift.res.in

### Visakhapatnam Research Centre of ICAR-CIFT

Ocean View Layout  
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Ph. 0891 2567856, Fax: 0891 2567040  
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### Veraval Research Centre of ICAR-CIFT

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Email: veravalcift@gmail.com

### Mumbai Research Centre of ICAR-CIFT

CIDCO Administrative Building  
Ground Floor, Sector 1, Vashi,  
Navi Mumbai - 400 703, Maharashtra  
Ph. 022 27826017, Fax: 022 27827413  
Email: ciftmum@gmail.com





## ICAR-CIFT Training Registration Form

<b>Title of the training</b>	
<b>Applicants details:</b>	
Name of the candidate :	
Date of Birth (DD-MM-YYYY) ;	
Gender (Male/Female)	
Educational qualification (highest) :	
Designation :	
Discipline :	
OfficeAddress: (With state and PIN code)	
Correspondence Address: (With state and PIN code)	
Mobile No.	
Phone/ FAX Number	
Email id	
Professional Experience(yrs)	
Title of the Training course	
<b>Fee Details (Rs.)</b>	
Paid by : (Cheque/DD/Online Transfer) (in favour of Director, ICAR UNIT-CIFT, Cochin) <b>A/C No.10589078336</b> , (Current) <b>IFSC – SBIN0006367</b> <b>MICR No. 682002021</b> <b>ICAR-CIFT GST No. 32AAAGC0032R2ZP</b> State Bank of India, Cochin Port Trust Branch, Willingdon Island, Ernakulam, Kerala	ChequeNo. : DD No. : Online transaction details :



Payee's Bank Name, Branch	
Cheque/DD/E-transaction details with date:	

I hereby declare that the particulars given above are correct to the best of my knowledge.

Date :

(Signature of the candidate)

Signature of the forwarding authority–

Signature of the recommending authority -





## NOTES

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## NOTES

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*"Tell me and I forget, teach me and I may remember, involve me and I learn."*  
– Benjamin Franklin



