

2020-2023



Centurion
UNIVERSITY

Shaping Lives...
Empowering Communities...

**CENTRE
FOR
AQUACULTURE
AND FISH PROCESSING TECHNOLOGY**

Centre for Aquaculture and Fish Processing Technology



Centurion
UNIVERSITY

Shaping Lives...
Empowering Communities...

**Centurion University of Technology and
Management, Odisha, India**

CEO: Dr. Sambid Swain

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Message from CEO



I am delighted to bring out the booklet of the Research Centre for Aquaculture and Fish Processing Technology. The centre aims to provide training and research facilities in the field of aquaculture and fish processing technology. The booklet highlights the activities under the research centre. With the research in Aquaculture and Fish Processing Technology we are covering all the aspects keeping sustainability in mind. The domain courses coming under the research centre enables students to get hands on training on important skills which they could not acquire in the classroom and make them ready for the higher studies and career. The booklet will enable you to understand the various activities carried out and the achievements from the research centre. The centre will continue to strive for better of the students and trainees with continuous research and training activities and bring out the best of all.

A handwritten signature in blue ink that reads "Swain".

Dr. Sambid Swain

CEO

Centre for Aquaculture and Fish Processing Technology

Team Members: Aquaculture and Fish Processing Technology



Dr. Sambid Swain
CEO



Ms. Hauzou Kim
Assistant Professor



Mr. Pritam Tripathy
Assistant Professor



Dr. Saritha S
Assistant Professor



Dr. N. Sushila
Assitant Professor



Mr. Zahoor M
Assistant Professor



Dr. Mangesh M Bhosle
Assistant Professor



Dr. Naveen K Vate
Assistant Professor



Dr. Nirmal T
Assistant Professor



Dr. Iffat Jahan
Assistant Professor



Mr. Makamguang Kamei
Assistant Professor



Mr. Chinmaya Nanda
Assistant Professor



Mr. Shirsak Mondal
Assistant Professor



Ms. Prachi S. Bagde
Assistant Professor



Dr. R. Srinu
Associate Professor



Dr. Yashaswi Nayak
Associate Professor

ABOUT US

The research centre for Aquaculture and Fish Processing Technology focuses on development of infrastructure required for different aspects of aquaculture production and scientific research. It also includes the research, value addition and by-product development of fish and fishery products.



RC
ACFPT



OUR GOAL



- To develop the facilities for research in aquaculture and fish processing technology
- To develop improved techniques for culture and breeding of commercially important fishes
- To develop the nutrition rich feed with locally available trash fish and fish wastes
- To give ample training to local farmers in different aspects of aquaculture
- To develop new value-added products from locally available fishes
- To convert fish wastes into high value by-products

Introduction

The Centre for Aquaculture and Fish Processing Technology was established in the year 2020 with an aim to develop infrastructure and research in the field of Aquaculture and Fish Processing Technology.

Focus areas

The focus areas of the research centre mainly include:

- Ornamental Aquaculture
- Biofloc Aquaculture
- Water Budgeting study
- Developing species specific feeds and health products for improved wellbeing of fishes
- Aquaponics
- Development of Value-added fish products
- Sustainable valorization of fish by-products and processing wastes

Ongoing Projects

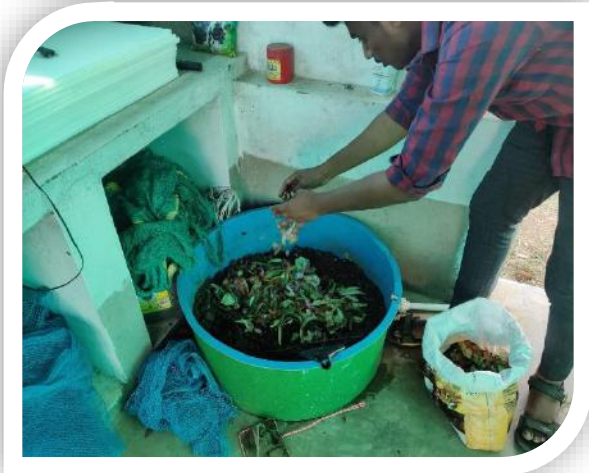
- Culture of Ornamental fishes
- Culture of Tilapia, Carps
- Formulating feeds for different species of Fishes using improved fish by-products
- Standardization of Culture Practices for different species of Fishes at ARF, Totagumuda
- Standardization of Zero salinity *P. vannamei* Culture
- Development of value-added products from locally available fish and shellfish
- Fish by-product development and waste utilization

ACTIVITIES UNDER THE CENTRE

FORMULATION OF FISH FEED USING
LOCALLY AVAILABLE FEED



STANDARDIZATION OF CULTURE
OF EARTHWORM AS FISH FOOD



BATCH CULTURE OF CLADOCERAN
AS FISH FOOD



REARING OF AMUR CARP IN BIOFLOC
AQUACULTURE



FISH BASED HIGH VALUE BYPRODUCTS
DEVELOPED



DIVERSIFIED VALUE-ADDED FISH
PRODUCTS DEVELOPED



DEVELOPMENT OF CARP HATCHERY



BREEDING AND HATCHING POOL



EGG COLLECTION TANK



BREEDING POOL



OVERVIEW OF THE POOLS



DEVELOPMENT OF THE WHOLE HATCHERY
SETUP

LINING OF BROODSTOCK POND



PREPARATION OF POND FOR LINING



UNWRAPPING OF POND LINE



LINED POND

AQUACULTURE RESEARCH FARM



AQUACULTURE RESEARCH FARM



INAUGURATION OF AQUACULTURE RESEARCH FARM AND STUDENT LEARNING CENTRE

FEED FORMULATION IN FEED MILL

Different feed formulations were analyzed to get the best nutritious fish feed and the selected formulation was used to prepare the fish feed for the fishes in Aquaculture Research Farm and for the sale. Students were trained in preparation of fish feed in the feed mill belonging to the research centre.



LOADING OF DIFFERENT FEED INGREDIENTS IN THE MIXER



MIXED FEED INGREDIENTS IN THE MIXER



LOADING MIXED FEED INGREDIENTS INTO THE EXTRUDER



EXTRUDED FISH FEED

TRAINING ON PEARL CULTURE

Students were trained in fresh water pearl culture under the research centre and the mass culture was started in the aquaculture research farm.

PREPARATION OF GRAFT TISSUE



SELECTION OF MUSSELS FOR IMPLANTATION



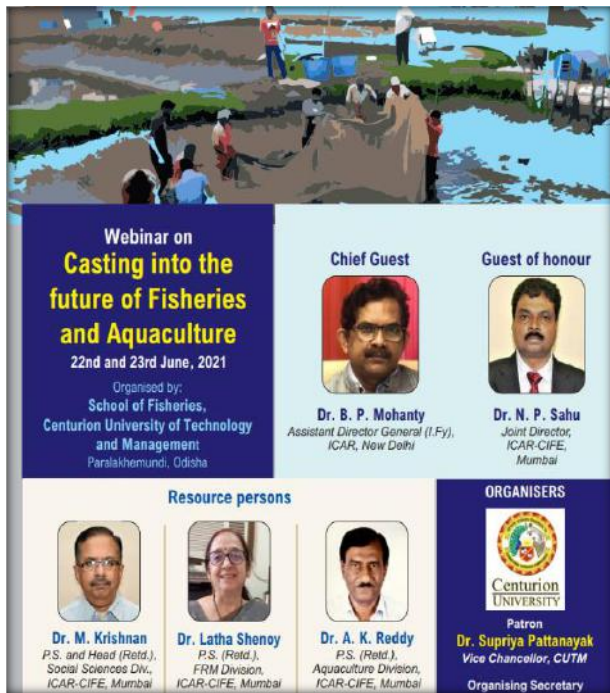
IMPLANTATION OF GRAFT TISSUE IN SELECTED MUSSELS

POST-OPERATION CARE OF IMPLANTED MUSSELS




FACULTY DEVELOPMENT PROGRAMS:


Two webinars were conducted by Centre as a part of FDP.




Webinar on Casting into the future of Fisheries and Aquaculture
22nd and 23rd June, 2021


Organised by:
School of Fisheries,
Centurion University of Technology
and Management
Paralakhemundi, Odisha


Chief Guest

Dr. B. P. Mohanty
Assistant Director General (I.Fy),
ICAR, New Delhi


Guest of honour

Dr. N. P. Sahu
Joint Director,
ICAR-CIFE,
Mumbai

Resource persons


Dr. M. Krishnan
P.S. and Head (Retd.),
Social Sciences Div.,
ICAR-CIFE, Mumbai


Dr. Latha Shenoy
P.S. (Retd.),
FRM Division,
ICAR-CIFE, Mumbai


Dr. A. K. Reddy
P.S. (Retd.),
Aquaculture Division,
ICAR-CIFE, Mumbai

ORGANISERS

Patron
Dr. Supriya Pattanayak
Vice Chancellor, CUTM
Organising Secretary

Casting into the future of Fisheries and Aquaculture, on 22nd and 23rd June, 2021, organized by the Centre.

Webinar on “Technical Interventions on Sustainable Aquaculture” conducted by Centre on 29th June 2022.



National webinar on Technical Interventions for Sustainable Aquaculture
29/6/2022
10 am -12 pm
& 2 pm - 4 pm


Centurion University of Technology and Management
SCHOOL OF FISHERIES

Speakers


Dr. Akshaya Panigrahi
Principal Scientist, ICAR-CIBA
Diversification in Brackishwater Aquaculture


Dr. A.K. Verma
Principal Scientist, ICAR-CIFE
Enhancement of Water Productivity through integration of Aquaculture and Agriculture


Dr. Ritesh Ranjan
Senior Scientist, ICAR-CMFRI
Broodstock development and seed production of Indian pompano and grouper


Dr. S. Ferosekhan
Scientist, ICAR-CIFA
Entrepreneurship opportunities in catfish farming technologies

ORGANISERS

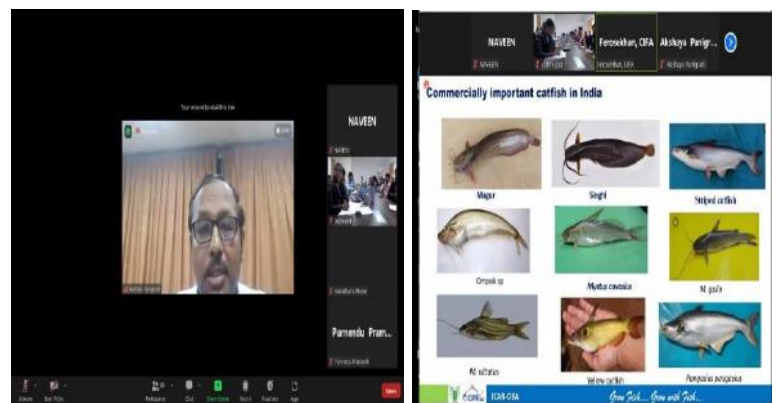
Patron
Dr. Supriya Pattanayak
Vice Chancellor, CUTM
Organising Secretary
Dr. S. P. Nanda
Dean (Admin), MSSSoA, CUTM
Coordinators
Dr. Sambid Swain
Dr. Sri Hari M
Dr. Ngairangbam Sushila
Mr. Pritam Tripathy
(SoF, CUTM)

Registration Fee: Rs. 200
(Hard copy of the certificate will be provided)
Registration Link :
<https://forms.gle/3h25aGFMATB5FDvZ>










14 LIFE BELOW WATER

8763096446

Meeting Platform : Google Meet ☎ 8807774760 ✉ sambid.swain@cutm.ac.in



Commercially important catfish in India



STUDENTS' EXPERIENCE UNDER DOMAIN:

Skill development component includes use of Aquaculture and Processing Systems and devices for enhancing functional skills. It is expected that basic infrastructure and Experiential Learning Units in the university will help in boosting livelihood ensuring opportunities among the Fisheries graduates. The Experiential Learning programme is offered under two domain namely, Intensive Aquaculture and Fish Processing Technology the benefits of which are gained by both undergraduate and postgraduate students.



Intensive Aquaculture

Fish Processing Technology



KEY RESEARCH PUBLICATIONS:

Total Number of Papers: 46 (WoS 10, NAAS: 24, UGC: 11)

Book Chapters : 30

Books : 03

Sl. No	Faculty Name	Title	Journal Name
1.	Sri Hari M.	Morphology, Length–Weight relationship, Biology and Conservation Strategies for Least Studied Endemic Catfish, <i>Rita chrysea</i> (Bagridae) from Mahanadi River System, India	Journal of Ichthyology
2.	Hauzou kim	Utilization of Fish and Shellfish Waste as Ingredients for Aquaculture Feed	Indian Journal of Natural sciences
3.	Hauzou kim	Shelf-Life Study of Fish Silage Prepared from Freshwater Fish Waste	Indian Journal of Natural sciences
4.	Sri Hari M.	Accumulation potential of heavy metals at different growth stages of Pacific white leg shrimp, <i>Penaeus vannamei</i> farmed along the Southeast coast of India: A report on ecotoxicology and human health risk assessment	Environmental Research
5.	Sri Hari M.	New Distributional Record of Blacklash scorpionfish, <i>Pontinus nigerimum</i> Eschmeyer, 1983 from Andaman Waters, Eastern Indian Ocean	Thalassas: An International Journal of Marine Sciences
6.	Hauzou kim	Shelf-Life Study of Fish Silage Prepared from Freshwater Fish Waste.	Indian Journal of Natural Sciences
7.	Sagarika Swain	Utilization of Fish and Shellfish Waste as Ingredients for Aquaculture Feed	Indian Journal of Natural Sciences

Way Forward...

1. Breeding and hatchery management of carps and other species
2. Improvement of culture practices of indigenously bred species
3. Standardizing the culture practices in Recirculatory Aquaculture System
4. Improvement of nutritional quality of fish feed for aquaculture
5. Improvement of methods for the fish by-product and waste utilization
6. Fish Product development involving extracted proteins from fish waste
7. Focus on Research Aspects

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