



Webinar

on

Technical Interventions on Sustainable Aquaculture

Date: 29th June 2022

Number of Participants: 95

Coordinators: Dr.Sambid Swain, Dr.S.Hari, Dr.Ng Sushila, Mr.Pritam Tripathy

About the Session:

The School of Fisheries, Centurion University of Technology and Management (CUTM), Paralakhemundi, Odisha organized a webinar on “**Technical Interventions on Sustainable Aquaculture**” on **29th June 2022**. The eminent guest speakers of the webinar were Dr. Akshya Panigrahi (Principal Scientist, ICAR-CIBA), Dr. A.K. Verma (Principal Scientist, ICAR-CIFE), Dr. Ritesh Ranjan (Senior Scientist, ICAR-CMFRI) and Dr. S. Firosekhan (Scientist, ICAR-CIFA). 95 participants from various research organizations, central Institutes, state universities have registered for the webinar. The session was conducted in Hybrid mode

Objective:

1. To provide the current scenario of Aquaculture development in Freshwater, Brackish water and Mariculture
2. To Promote Entrepreneur Skills in the students

Outcome:

1. Provided knowledge about the management of fisheries and aquaculture culture in a scientific manner.
2. Developed professional skill to guide the entrepreneurs and stakeholders
3. Scientific knowledge to be a concerned human resources and entrepreneur.

Details of the Resource Persons:

Dr. Akshaya Panigrahi has a brilliant academic career with a doctoral degree from Tokyo University of Marine Science and Technology, Tokyo (Japan) and working as Principal Scientist in Crustacean culture Division of ICAR-CIBA. He has contributed immensely to the development of technologies related to Crustacean breeding, seed production, and farming of native species (*Penaeus indicus*, *P. monodon* & *F. merguensis*), Eco-based sustainable Aquaculture like Organic farming and aquaculture and Biofloc/periphyton-based farming, RAS for sustainable intensification. His accomplishment towards the development of immunostimulants (CIBASTIM), biofloc consortium (CIBAFLOC), gut microbiome associated immunomodulation, aquaculture database system.

Dr. Ferosekhan completed his PhD from University of Las Palmas de Gran Canaria. In 2013, He joined ICAR-Central institute of Freshwater Aquaculture as Scientist. His area of expertise is captive breeding and seed rearing techniques of Catfishes. As of now he has standardized technologies for *Rita chrysea*, *Pangasius pangasius*, *Horabagrus brachysoma*, *Mystus cavasius* etc.

Dr. Ritesh Ranjan is a senior scientist, from ICAR-Central Marine Fisheries Research Institute, Cochin. He is expertise in Breeding and seed production of marine finfish and Live-feed culture. He also worked on Immunostimulants and probiotics for mariculture candidate species. His interests in breeding and seed production of economically important marine fishes have led him to work on broodstock development and sex reversal of grouper. Dr. Ritesh Ranjan is a recipient of the Hiralala Chaudhury Gold medal for his MFSc and hold a doctoral degree from ICAR-Central Central Institute of Fisheries Education, Mumbai

Dr. A. K. Verma joined the ICAR-Central Institute of Fisheries Education, Mumbai as a scientist in 2001 is currently serving as Principal Scientist, Aquaculture Division, ICAR-CIFE. He has been associated with several research projects aimed at enhancing water productivity through aquaculture technologies *such as* Aquaponics, Biofloc, Recirculating Aquaculture System, Zero Water Exchange system, Use of Saline Water and the list goes on. By virtue of his active association in various National and International funded projects, Dr. Verma has taken up several studies on water conservation in Agriculture and Aquaculture. He has also developed a new eco-friendly carp hatchery model and many other innovative technologies, including CIFE Eco Hatchery, Automatic Feeder, Floating hatchery, solid removal device and Sensor-Based Aeration system. Dr. Verma, is keen to develop

aquaculture in degraded areas of India & Australia in association with International organizations, notably Australian Centre for International Agricultural Research. He has also received many awards from various organisations, including Best Young Scientist and Best Scientist awards.

The webinar was started with the welcome address by Dr. Anita Patra, Registrar, CUTM. She enlightened about the School of Fisheries, CUTM and introduced all the invited speakers.

The morning session began with the lecture of Dr. Akshya Panigrahi on the topic “Diversification in Brackishwater Aquaculture”. He explained about the overall production status and the major producers of aquaculture. He emphasized mainly on the diversification of brackishwater aquaculture to promote research and culture of potential native shrimp species to overcome the over-reliance on the single species. Moreover, he emphasized about the various research efforts like whole genome sequencing, transcriptomics and metagenomics analysis undertaken by ICAR-CIBA for the diversification of aquaculture. He also gave comprehensive information on the hatchery, biofloc technology, organic shrimp farming technology and advances in shrimp production technologies etc. Dr. Panigrahi further discussed on the entrepreneurial status in this area and the production challenges faced like disease incidences. He suggested a focusing on the development of potential native species such as *P. indicus* and *P. monodon*.

Dr. S. Ferosekhan lectured on the topic “Entrepreneurship Opportunities in Catfish Farming Technologies”. He described about the induced breeding technique of different commercially important catfishes such as Magur, Singhi, *Mystus* and *Pangasius*. He elaborated on the captive breeding, seed production and grow-out culture of these catfishes. Dr. Ferosekhan talked about the research focus on the voluntary spawning of magur and the financial benefits of catfish farming. He also mentioned about the MATSYA SETU app developed to facilitate farmer-expert interaction.

The second session post lunch was started with lecture of Dr. Ritesh Ranjan on “Broodstock Development and Seed Production of Indian Pompano and Grouper”. He discussed the induced breeding technique of Indian pompano and orange-spotted grouper. He informed that the successful breeding of these species was conducted at ICAR-CMFRI. He further discussed about feeding, disease prevention strategies, maturity determination, sex reversal of grouper and the PIT tagging method employed in the culture of these fishes. He mentioned

that the average survival rate of these fishes is comparatively lower therefore, he explained about various measures to enhance the survivability of these species in captive conditions.

Dr. A. K. Verma talked on “Enhancement of water productivity through Integration of Aquaculture and Agriculture”. He discussed about the effective ways towards sustainable aquaculture in the present times of water scarcity. He talked about the conjunctive use of water to manage the increasing groundwater levels of poor water and utilized such water for the culture of salt-tolerant fish varieties. He further explained about water use efficiency and water productivity to directly benefit the farmers by adding to their income. He further emphasized about aquaponics and its different types such as Nutrient-Filled Technique, Deep Water Culture and Vertical Tower Aquaponics Systems to grow plants and fish in limited water and land resources. He mentioned tilapia and pangasius as the candidate species for aquaponics with further research going on to determine other fish species suitable for this culture technique. He mentioned a few commercial aquaponics setups present in India and their success stories.

All the lectures were followed by discussion between the respective expert and the participants. The webinar was concluded with vote of thanks by Dr. S.P. Nanda, Dean, MSSoA (Admin), CUTM where, he thanked all the speakers, participants, organizers, faculty members and other officials for their active support for making the programme successful.

**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. Akshya Panigrahi
Principal Scientist, ICAR-CIBA
Diversification in Brackishwater Aquaculture

Dr. A. K. Verma
Principal Scientist, ICAR-CFE
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. Ferozekhan
Scientist, ICAR-CIFA
Entrepreneurship opportunities in catfish farming technologies

ORGANISERS



**Centurion
UNIVERSITY**

Patron
Dr. Supriya Pattanayak
Vice Chancellor, CUTM

Organising Secretary
Dr. S. P. Nanda
Dean (Admission) MSS&A, CUTM

Coordinators
Dr. Sambid Swain
Dr. Sri Hari M
Dr. Ngairangbam Sushila
Mr. Pritam Tripathy
(S&F, CUTM)

**14
LIFE
BELOW
WATER**



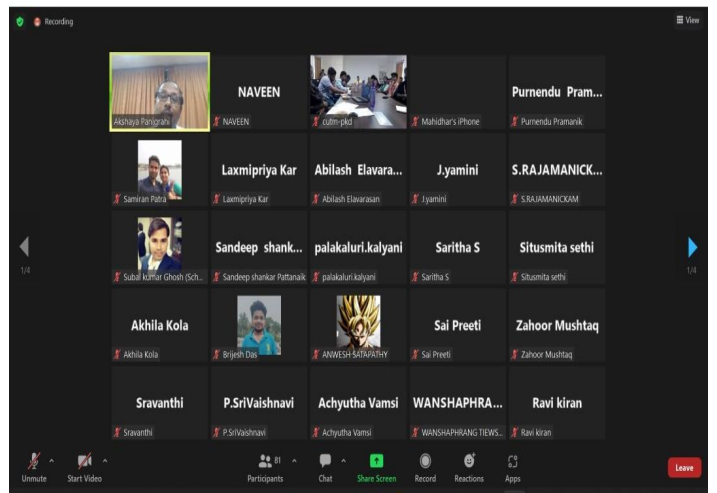
**Registration
Fee: Rs. 200**
(Hard copy of the certificate will be provided)

Registration Link : <https://forms.gle/3h25GfMA7B5FDvZ>

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



Bronchear of the Webinar



Commercially important catfish in India



ICAR-CIFA
Grow Fish... Grow with Fish...

Broodstock Management- Egg Disinfection

- ✓ Collected eggs - 20 ppm active iodine for 10 minutes
- ✓ Treated eggs - washed and stocked in glass aquarium with water salinity of 30-32 ppt




- ✓ Fertilized eggs will float on the water surface whereas unfertilized or dead eggs settle in the bottom
- ✓ Only floating eggs are used for incubation and hatching

List Of Participants

SI.Number	Full Name of the Participant
1	Dr Prakriti Dwivedi
2	SANDEEP SHANKAR PATTANAİK
3	Rohit Das
4	Hritu Marko
5	KURAPATI NAGENDRASAI
6	RINCHEN NOPU BHUTIA
7	PURNENDU PRAMANİK
8	PARVAIZ AHMAD GANIE
9	Anirudh Kumar
10	Dr. Devanand T N
11	Abilash Elavarasan
12	Archana Santhosh
13	Dr. Milind B Katare
14	WANSHAPHRANG TIEWSOH
15	Priya Maria Vinesh
16	Saikat Kumar Maji
17	Aiswarya K P
18	Ligi Jose
19	Tincy Varghese
20	Mr. ASHISH YADAV
21	Amit Yadav
22	Ameersha muhammed O P
23	Tripta Singh
24	Dr.Shashikala Laxman Bhalkare
25	Kumari lakshmaiah
26	Dr. Shashank Singh
27	Sundaram m
28	Samiran Patra
29	Ashish Singh
30	ADITYA KUMAR
31	Saurav s kumar
32	ASISH KUMAR SAHOO
33	Soubhagya Ranjan Barik
34	Smaraki priyadarshini
35	Chinmayee Behera
36	RAHUL R.
37	Debasmita Pattnaik
38	J.Yamini Jyothirmayi
39	Lekkala venkata Ramana Reddy
40	Pallabi Mohapatra
41	Anagani.Revanth
42	S Sai Preeti

43	Sonamika Satapathy
44	Mr.S.RAJAMANICKAM
45	GARI VENKATA SIVA SURYA
46	Ravi Kalyan
47	Asima Mishra
48	Saritha. S
49	Kammonlal Lhouvum
50	Senthilraja Chinnaiyan
51	Mrutyunjay rout
52	Nirupama chinara
53	Dr.M.A.Badhul Haq
54	Jagadish panda
55	Anshika pathak
56	Shubham kanaujiya
57	Iffat Jahan
58	V Ramabhai
59	Arul Delpun Sudha
60	Devupalli Dinewsri
61	Golla Supriya
62	Smrutiranjana Dalei
63	Jogeswar Mishra
64	Kola Akhila
65	Ravi Sagiraju
66	Achyuta Vamsi
67	M.RANGANATHAN
68	Mr. Mahidhar Bole
69	Anwesh Satapathy
70	Brijesh das
71	Ch. Anil
72	Situsmita sethi
73	Hruday Pradeep Jena
74	Nitish Kumar Sahoo
75	PAIDI SRIVAISHNAVI
76	Ch lekhanu hanu
77	Valurouthu Lavanya
78	Gunti.Charitha
79	Laxmipriya kar
80	Thondamallu Siri
81	Palakaluri.kalyani
82	Avinash pilli
83	Avinash Barru
84	Kurmapu upendra
85	Penubothu Prem sai
86	Chitrasena Padhy
87	Chandan suragala
88	Geni Bhargava
89	Dhruba Mandal
90	Suvam Kanungo
91	Mayank Bhushan Singh
92	Karubaki Bhanjadeo

93	Nirmal T
94	Dr.Sunita Satapathy
95	Yashaswi Nayak



Prof. KVD Prakash
Dean - IIE & HRD