

3rd Students Convention on Next Generation Aquaculture: Panacea to Employment Changes

The third student convention on ‘**Next Generation Aquaculture: Panacea to Employment Challenges**’ was successfully organized by ICAR-Central Institute of Fisheries Education, Mumbai sponsored by National Agricultural Higher Education Project (NAHEP) during 25-26 March, 2019 at ICAR-CIFE, Mumbai. The theme and objective of the convention was to come out with innovative technology and ideas for next generation aquaculture with special reference to solve the problems in employment for fisheries professionals. Around 350 students from 26 fisheries colleges of India including CIFE participated in the program. The inaugural program was conducted on 25th March 2019 at ICAR-CIFE, Mumbai. **Dr. C.N. Ravishankar**, Director, ICAR-CIFT, Kochi was the chief guest of this function and **Dr. Gopal Krishna**, Director & Vice-chancellor, ICAR-CIFE presided over the function by releasing abstract books of the convention containing the brilliant and innovative ideas of the students. Welcoming all especially the young mass of all the fisheries colleges, the main stakeholder of this convention, **Dr. N. P. Sahu**, Dean (Academics) and Pedagogy component leader of NAHEP, briefed about the two days programme and explained about the technical sessions. **Dr. Gopal Krishna**, Director & Vice-chancellor, ICAR-CIFE, Mumbai emphasized on the existing professional skills of the fisheries professionals and urged them to become innovative, problem solvers, job givers rather than to be job seekers. **Dr. C. N. Ravishankar**, Director, ICAR-CIFT, Kochi gave the key note address on the Development of an entrepreneurial support system, sharing the experiences of ICAR-CIFT and briefed on the current start-up scenario of the country and the existing policy support system. He also mentioned about the importance of agri-business incubation centre and how it has succeeded in inculcating the entrepreneurial spirit among the aspiring entrepreneurs. **Dr. N. K. Chadha**, HoD, Division of Aquaculture, ICAR-CIFE, Mumbai presented the formal vote of thanks. He extended his heartfelt thanks towards the council, ICAR for funding the NAHEP project.

The convention was principally conducted under four thematic technical sessions viz.

- Start-up in fisheries for promoting entrepreneurship among the students
- Smart interactive session on job opportunities for post-graduate students
- Innovative concepts for energy efficient and environment friendly technology for sustainable aquaculture
- Mind mapping on next-generation aquaculture

All the abstract ideas received from the students were pre-screened and the selected ideas were presented by the students. In all the sessions, the audience were invited to poll their opinion through Instagram and WhatsApp.

The first technical session was on “Start-up in fisheries for promoting entrepreneurship among the students”. With the judging panel this session was also digitally polled by the students and was very interactive. The session contained the five best start-up ideas selected among almost 50 start-up ideas submitted for consideration. The important concepts were;

- Artificial Intelligence based Fish Activity Tracking Module and Automation System (FATMAS) – emphasized on use of various sensors for capturing the activities behaviour of fishes under water as well as the water quality parameters in big fish ponds, cultivation at a large scale
- Multi-storey Aquaculture System – focussed on using less space for cultivation and use of water efficiently for multi-species culture

- Turbine Aerators: Facility to Enhance Productivity – emphasized on reducing the burden of electricity charges and operating aerators with the help of wind power instead of electricity or diesel
- Scrap to Art: Approach to Fish scale utilisation Towards Women Empowerment– promoting fish scale as a raw material for producing ornaments, show pieces, and other accessories
- Integrated Floating Cage in a Aquageoponics System (IFCAS)- emphasizing on developing a symbiotic relationship between plant and fish, provide ammonia free water and providing technology towards doubling the income of fish farmers

ICAR-CIFE also took the initiative to invite the staunching entrepreneurs who have well established themselves in the field of fisheries. Mr. Saqib Ahmad Dar, owner of Crystal Aquatics and an ornamental fish entrepreneur; Mr. Nakul Sadaphule, an alumni of CIFE and consultant in Aqua one centre and a entrepreneur in the field of cage installation; Dr. Sharad Jaykumar Tombri, founder of “KO” Foodko Products & CEO of Indian Home Gourmet; Mrs. Rowena Pinto, the proprietor of Judes Food Products, Mumbai; Mr. Karthik Ramesh, Program Manager (Fisheries), TATA Trusts, Mumbai; Dr. Azad Dubey, Director, BlueVision Aquaculture, Gujarat; and Mr. Arun Kumar R., GM (Technical), RNK Agro & Chemical Pvt. Ltd., Andhra Pradesh. They shared the nuts and bolts of entrepreneurship and their experiences in their respective business ventures.

The second technical session was planned and conducted by making a WhatsApp group containing one representative from each college as members of the group. Some of the crucial issues for the benefit of the students were also discussed like “Ph.D. a basic qualification for AR and AP posts, Entrepreneurship apart from Aquaculture Sector, Fish Doctors in line with Veterinary Doctors, Gender issues in Higher Education and Job opportunity etc.

The day concluded with cultural program hosted by CIFE which provided an opportunity to all the participating students to display their state dances and culture.

The second day began with third technical session on “**Innovative concepts for energy efficient and eco-friendly technology for sustainable aquaculture**”. The session comprised of 10 best oral presentations. The students came up with very nice ideas that justified the title of the session and were keen to implement in the fisheries sector as to bring changes in next generation aquaculture. Some of the ideas includes;

- Biofloc technology for fish seed rearing incorporated with Aquaponics
- Aqua mimicry for shrimp culture
- Robotic fish
- Organic aquaculture
- Aqua voltaic in cage culture
- Probiotic enzymes nutritional pack culture – pen-pack culture

This was followed by the fourth technical session “**Mind mapping on Next Generation Aquaculture**”. The session was themed posters. The posters made were self-explanatory and also depicted brilliant ideas for Next generation aquaculture technologies.

This day concluded with a valedictory program by releasing the newsletter of the convention. **Dr. S. D. Tripathi**, Former Director, ICAR-CIFE, Mumbai and **Dr. Ambekar E. Eknath**, Former Director, ICAR-CIFA, Bhubaneswar graced the occasion. The convention was concluded with the remarks by the guests and **Dr. Gopal Krishna**, Director & Vice-

chancellor, ICAR-CIFE appreciated and encouraged the student's for their innovative concepts and participation in various technical session. He also urged to improve the skills, innovative ideas and creativity and ready for the problem of today and future. **Dr. N. P. Sahu**, Dean (Academics) and Pedagogy component leader of NAHEP, presented the recommendations and reports generated during the two days programme. All winners and participants were given prizes and certificates.

Glimpses of the program



