

## AI & IoT for Smart Aquaculture: *India is Innovating*

A two days webinar on '**Artificial Intelligence and IoT for Smart Aquaculture**' was organized during **11-12 November 2020** by ICAR-CIFE, Mumbai under the aegis of **NAHEP-CAAST** project. The idea was to introduce AI and IoT and their potential to revolutionise the Indian aquaculture as well as acknowledge the Indian initiatives. It was attended by nearly 250 participants including students, faculty including Deans from fisheries Colleges across the country. Many aqua farmers and entrepreneurs also attended. **Dr. K.V. Rajendran**, HoD, AEHM Division welcomed all the guests. **Dr. Ananthan, P.S.** Senior Scientist introduced the webinar theme and contextualised the arrival of the fourth generation aquaculture or connected/smart aquaculture.

**Mr. Rajamanohar Somusundaram**, the young Co-founder & CEO of the AI based start-up Aqua Connect gave a talk on '**Artificial Intelligence for Aquaculture: Data driven farm advisory solutions and marketplace**'. Giving an overview of the present AI landscape in Indian aquaculture, he shared his and Aqua Connect's exciting journey with shrimp farming/farmers in the states of Andhra Pradesh, Tamil Nadu and Gujarat. While underscoring challenges and lessons learnt in reducing technology cost for the farmer, he remained quite optimistic about the promising future of smart aquaculture driven by AI & IoT.

**Mr. Sreeram Raavi**, Founder & MD of another start-up Eruvaka Technologies took us through the IoT powered **Sensors and sensing for smart aquaculture**. They have looped more than 20,000 farmers across India and have developed on-farm diagnostic equipment to reduce the risk and increase productivity. They have integrated sensors, mobile connectivity and decision tools for monitoring aquaculture. The concept of leasing and pay as they use instead of buying is reducing the cost for the individual farmer and driving faster adoption of automatic feeders & water probes, he opined. Animated question & answer session followed the talk with fruitful and insightful discussions.

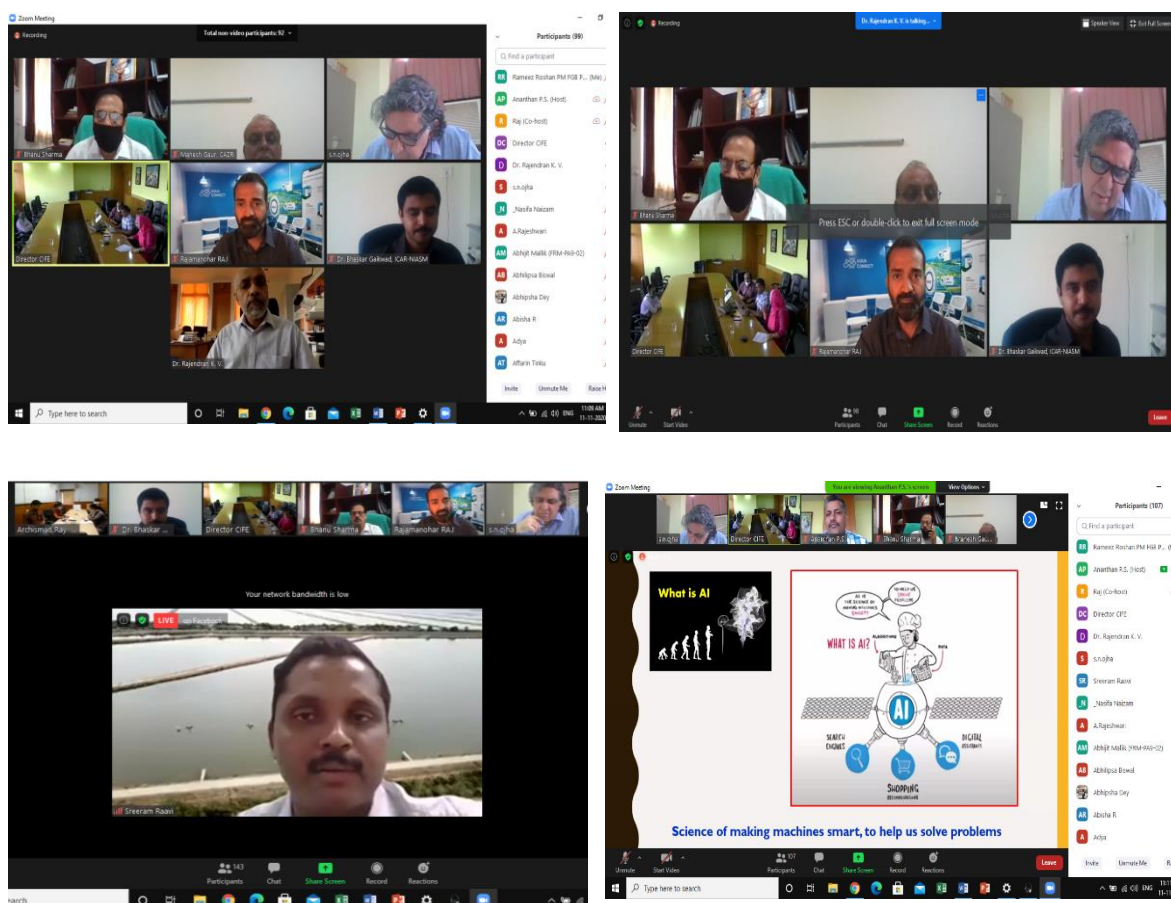
On the occasion, **IDEathon Poster Contest** inviting innovative ideas on use of AI & IoT in aquaculture from fisheries students and research scholars across the country was held. A total of 42 posters were received from 12 colleges with nearly 2/3<sup>rd</sup> from girls. Seven short-listed posters were presented by student authors and judged by a panel of experts. It covered interesting themes like voice assisted farm advisories, farm from home using drone based automation, remote disease diagnostics, robotic fish shepherd, etc. The session was chaired by **Dr. B.B Nayak**, HoD, FRHPHM Division and coordinated by **Dr. Shivaji Argade**, Scientist and **Mr. D. Bhoomaiah**, Asst. CTO.

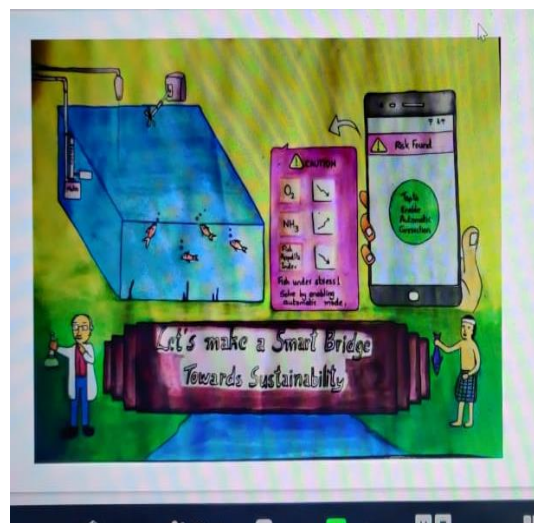
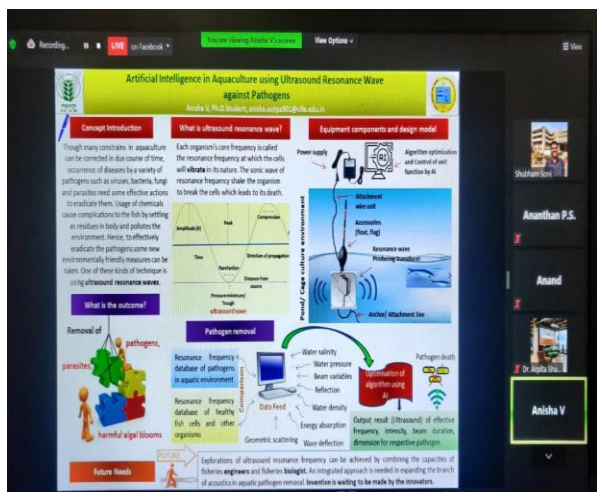
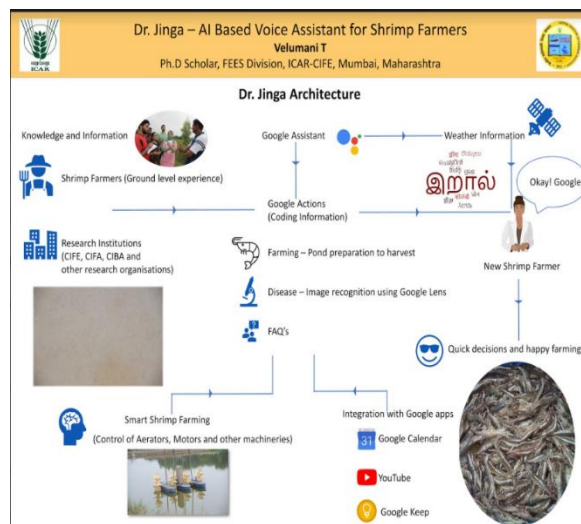
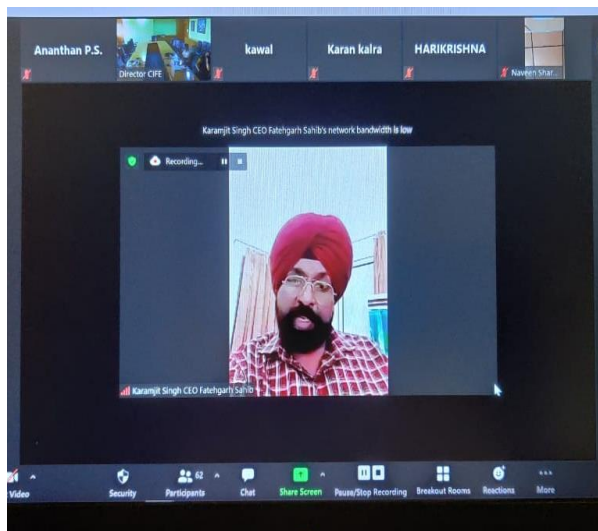
On the second day, **Dr. Neha Qureshi**, Scientist gave a demo of **m-Jhinga** app developed by ICT4D team of NAHEP. Main features of the modules in app namely *Disease Diagnostics* and *Ask the Expert* were discussed and framers were advised to give feedback to constantly improve the app. **Mr. Santosh Godse**, SMS, KVK Baramati shared the experiences of **Sharda Community Radio** being run by the KVK and how the reach of farmers extended with the

addition of internet radio since 2018. His insight that farmers are more receptive to the programs involving progressive farmers than the ones involving subject matter experts indicates the element of empathy in science communication.

A panel discussion on **Social Media for ISA: Farmers Experiences and Expectations** was held. The session was chaired by **Dr. S.N Ojha**, Head, FEES Division and Co-chaired by **Mr. Hari Krishna**, SIC, CIFE Rohtak Centre. Farmers from Punjab, Haryana and Uttar Pradesh discussed their issues in shrimp farming and gave feedback on the usage of *m-jhinga* app. The major inputs/demands were: training of the trainers in Uttar Pradesh and Punjab on inland saline aquaculture, establishment of water & soil quality testing labs in Punjab near farming clusters, providing updated info regularly on market price, input dealer & price, making available BMP manual in Punjabi, including farmer success stories in mobile app, conducting online training program for farmers. Webinar was concluded with a formal vote of thanks.

### Glimpses from the Webinar





ICAR-CIFE's **mJinga** app for shrimp farmers.

Download from Google Play store: <http://bit.ly/icarcifeapp>

