

‘Matsya’, India’s first manned submersible vehicle for deep ocean mission, is set for launch by 2026-end

Our Bureau
Kochi

‘Matsya’, India’s first manned submersible vehicle designed for 6,000 m deep ocean mission (Samudrayaan) carrying three scientists on board, is expected to be launched by the end of 2026, said Balaji Ramakrishnan, Director of the National Institute of Ocean Technology, the nodal agency.

Developed with indigenous technology, this advanced 25-tonne 4th generation vehicle is specifically engineered to withstand the extreme pressure and temperature in the deeper ocean, with a hull made of titanium.

“This mission is expected to be a game changer for India’s deep sea research, opening up avenues for the assessment of both living and non-living resources in

the deep ocean, comprehensive ocean observation, and the potential for deep sea tourism. The launch is planned in a step-by-step process, as a crucial phase of 500 m depth trial is anticipated by the end of this year,” Ramakrishnan said.

He was inaugurating a five-day national training programme, titled ‘Advancing India’s Blue Economy: Role of Fisheries Sector’ at the ICAR-Central Marine Fisheries Research Institute (CMFRI) on Tuesday.

CRITICAL MISSION

The journey to dive deep will take four hours, and will take the same time to come out. The mission will be instrumental in collecting critical samples from the deeper oceanic zone, offering opportunities to scientists to understand the unique characteristics of the organisms



SCIENTIFIC SYNERGY. CMFRI Director Grinson George (right) felicitating Balaji Ramakrishnan, Director of NIOT

and the water in the region, he said.

Another innovative technology ‘Samudrajivah’ has been developed with a focus on improved largescale open

sea cage farming. The technology is currently in the demonstration phase. These electronically monitored submerged fish cages are designed for offshore regions,

capitalising on the nutritionally rich deep-sea environment to optimise fish growth.

‘Samudrajivah’ is capable of remote monitoring of individual fish biomass, growth and movement and water quality parameters. The technology is expected to be one of the major developments in India’s food security.

The training programme is jointly organised by the CMFRI and Vijnana Bharati (VIBHA). CMFRI Director Grinson George said integrating NIOT’s technology with CMFRI’s marine research achievements would be instrumental in the advancement of a healthy blue economy. Technological enhancement is an urgent need to fully exploit the potential of mariculture activity in India, especially seaweed cultivation, he said.